

# Tallahassee-Leon County Local Mitigation Strategy 2025 Update – Draft



CITY OF  
TALLAHASSEE



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# **Executive Summary**



## Plan Structure

The Tallahassee-Leon County Local Mitigation Strategy (LMS) is a plan intended to identify and reduce the community's long-term vulnerability to natural and technological hazards through various forms of mitigation. The Plan is organized into four chapters:

- **Chapter 1 (Introduction)** describes the purpose of mitigation planning and the role of the LMS Committee in developing the overall mitigation strategy.
- **Chapter 2 (Risk Assessment and Vulnerability Analysis)** identifies the hazards that could potentially impact Tallahassee-Leon County and assesses the community's vulnerability to these hazards. This section provides an overview of the types of natural hazards that have impacted the area and a history of their effects. Technological, or man-made, hazards are not considered.
- **Chapter 3 (Mitigation Strategy)** proposes mitigation initiatives and projects that have been endorsed by the LMS Committee. These include program and policy initiatives such as ordinances or updates to existing codes and capital improvements such as infrastructure upgrades or replacements.
- **Chapter 4 (Planning Process and Plan Maintenance)** outlines the process to monitor, evaluate, and update the plan over the next five years. This section also describes procedures intended to keep the public actively involved in local hazard mitigation planning, and how the LMS will be consistent and incorporated into other local planning mechanisms where appropriate.

The Florida Division of Emergency Management (FDEM) requires local mitigation strategy plans be adopted by resolution by participating local governments. Adoption of the LMS allows Leon County, the City of Tallahassee, and other qualified stakeholders to apply for hazard mitigation and disaster recovery grant funding from state and federal sources. As such, the Steering Committee has developed a series of mitigation initiatives and projects intended to mitigate the impacts of the natural hazards identified in the plan that represent the priorities for funding when these state and federal grants become available. For mitigation projects to be considered eligible for the grant funding, an endorsement letter from the LMS Committee is typically required to be submitted with the application to show alignment with the LMS goals and objectives.

## Significant Plan Revisions

The most apparent revision from the 2020 Tallahassee-Leon County LMS is the format of the document. This included shifting and removing some information that has been included in previous iterations of the LMS. All of the planning process information that was previously included in Chapter 1 has been moved to Chapter 4 to provide a comprehensive overview of all process-related information in one place in the plan. Over the years of updates, some information throughout the LMS has been repetitive and duplicative. In order to improve readability and streamline the document, this information has been consolidated and removed where necessary. Several different modeling efforts have been included in the LMS throughout the years, with the HAZUS model being the latest method. Those models have been removed and replaced with the Community Vulnerability section.

Several natural hazards identified in the Tallahassee-Leon County LMS were renamed to be consistent with the Florida Enhanced State Hazard Mitigation Plan. Hurricanes and Tropical Storms was renamed Tropical Cyclone, Severe Storms was renamed Severe Thunderstorm, and Extreme Temperatures was renamed Extreme Heat. Flood, Wildfire, Sinkholes, and Drought remain as stand-alone hazards. Erosion and Winter Weather were added as natural hazards. Tsunamis and Earthquakes were excluded from the list of natural hazards given their extremely unlikely probability of occurrence in Tallahassee-Leon County. All Human-Caused and Technological Hazards from the previous LMS, with the exception of Dam Failure, were excluded from the current list of hazards. The reason for this is that these hazards are already addressed by other existing plans and funding programs (e.g., Department of Homeland Security, U.S. Department of Transportation, etc.), and because the FEMA Local Mitigation Policy Guide only addresses natural hazards. Dam Failure was added to the list of hazards given FEMA's provision of grant funding to address the rehabilitation of high hazard potential dams.

The LMS Steering Committee incorporated changes in local government and other stakeholder priorities since the last plan update as part of the evaluation of the goals, objectives, initiatives, and projects. The goals and objectives have been streamlined to incorporate most of the historical priorities of the LMS in a more concise package. The initiatives and projects have also been updated to remove those that are no longer being pursued by the implementing agency and those that are related to human-caused and technological hazards. Initiatives tend to be specific programs or policies while projects are intended to address hazard vulnerabilities through physical infrastructure mitigation.



# **Chapter 1**

## **Introduction**



## 1.1 History of the Tallahassee-Leon County Local Mitigation Strategy

In the summer of 1998, the Florida Department of Community Affairs (DCA) provided funding to all Florida counties and municipalities to assist them in preparing a comprehensive Local Mitigation Strategy (LMS). The original goals of the LMS were to help local officials identify and assess the various potential disasters that could impact Tallahassee-Leon County and to identify locally developed strategies to reduce the impact of future disasters. Utilizing this DCA funding, the City of Tallahassee and Leon County at that time entered into an interlocal agreement to jointly develop an LMS that would benefit both of the local governments.

The original LMS stakeholder committee was assembled by the Apalachee Regional Planning Council to create the first edition of the LMS in 1999. All local government departments and divisions with a role in hazard mitigation, disaster response, or public safety were invited to participate. Major employers, including the area hospitals, the universities and schools, were also included, in addition to organizations such as the Tallahassee Builder’s Association, the Chamber of Commerce, the Council of Neighborhood Associations (CONA), and the Florida Division of Emergency Management (FDEM).

Following an advertised public workshop on September 19, 2000, the first edition of the LMS was adopted by the Leon County Board of County Commissioners on September 26, 2000, and by the Tallahassee City Commission on October 11, 2000.

Building upon the 1998 interlocal agreement between the City of Tallahassee and Leon County, a set of bylaws for the Tallahassee-Leon County Local Mitigation Strategy Steering Committee were adopted and ratified by both local governments on November 26, 2002. Steering Committee bylaws were approved at advertised meetings of both commissions. All meetings of the Steering Committee have and continue to be publicly advertised as per State of Florida statutory requirements for local government meetings.

The LMS has been updated every five years consistent with federal requirements and with input provided by the Steering Committee, the Apalachee Regional Planning Council, and the Capital Area Chapter of the American Red Cross, with oversight review by FDEM and the Federal Emergency Management Agency (FEMA). All updates were provided to the public and adopted by resolution by both the Leon County Board of County Commissioners and the Tallahassee City Commission at their regularly advertised public meetings.

## 1.2 Jurisdiction

The Tallahassee-Leon County Local Mitigation Strategy is a joint product of the City of Tallahassee and Leon County Government with input provided by various public and private stakeholders. The LMS represents a comprehensive set of goals, objectives, programs, and other projects intended to reduce risks for the citizens of both the unincorporated areas of Leon County as well as those residing in the City of Tallahassee. This document also serves as the City of Tallahassee’s Floodplain Management Plan and is advisory to the Community Rating System updates. Since the initial adoption of the LMS, the Steering Committee has met on a regular basis and has endorsed projects for funding disaster assistance programs. Since 2017, the LMS Committee has endorsed grant requests for approximately \$20.4 million dollars in federal matching funds for local hazard mitigation projects, and awarded projects have received \$5.9 million.

Although the LMS is a planning document for both jurisdictions, data and analyses developed specifically for the participating local governments are provided separately where necessary. Capital projects are also listed independently for these two governments because their budgets and implementing agencies are independent of each other. Other initiatives or policies unique to either local government are also identified where appropriate. For the purposes of this plan, Tallahassee-Leon County refers to Leon County and its jurisdictions. This includes the City of Tallahassee and Leon County Government. Talquin Electric Cooperative, which operates within unincorporated Leon County providing electric, water, and wastewater services, previously adopted the 2020 LMS.

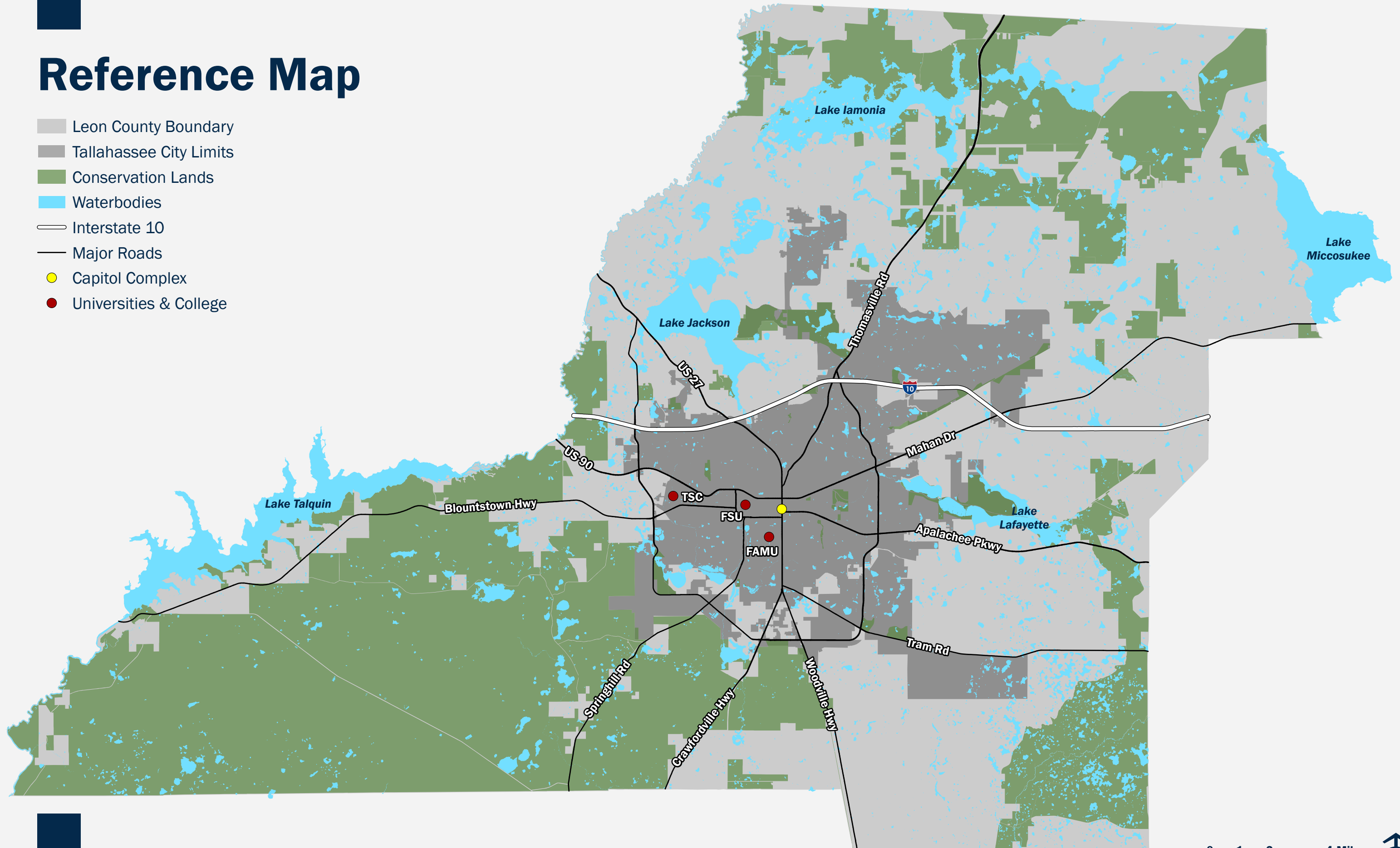
## 1.3 Purpose of Hazard Mitigation

Hazard mitigation is any action taken to permanently reduce or eliminate long-term risk to people and their property from the effects of hazards. Some examples of hazard mitigation include land use planning that limits infrastructure in high hazard areas, retrofitting existing structures to meet new building codes and standards, and acquiring existing structures in a high hazard area. Disruption of the community’s infrastructure can also hamper the local economy, impacting the tax base and making recovery more difficult. In addition, critical facilities such as hospitals, schools, airports, and major government buildings located in high hazard areas are often subject to damaging conditions just when they are needed the most. Communities can minimize the effects of future hazards through a mix of planning, code enforcement, and responsible development.



# Reference Map

- Leon County Boundary
- Tallahassee City Limits
- Conservation Lands
- Waterbodies
- Interstate 10
- Major Roads
- Capitol Complex
- Universities & College



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

- 1) *Identifying natural hazards to which the county is vulnerable, such as hurricanes, severe thunderstorms, tornados, floods, extreme heat, and wildfires*
- 2) *Determining where the community is most vulnerable to these natural hazards*
- 3) *Assessing the facilities and structures that are most vulnerable to natural hazards*
- 4) *Preparing a prioritized list of hazard mitigation initiatives and projects to take advantage of available funding*
- 5) *Identifying potential funding sources for the hazard mitigation initiatives and projects*
- 6) *Making natural hazard awareness and education a community priority*

A strategy to mitigate hazards benefits the community by not only reducing risks, but also by conserving valuable economic, natural, and other resources. Businesses in high hazard areas lose valuable revenue when damaged by storms and are unable to operate for an extended period of time. Because disasters cost local governments money and time, a plan to address hazards can help stretch and save often scarce revenues and the time necessary to rebuild critical facilities and infrastructure. The Tallahassee-Leon County Local Mitigation Strategy is intended to enable county and municipal officials, the business community, and local citizens can help reduce risks and costs by including hazard mitigation as part of everyday planning, rather than limiting it to the measures taken immediately before or after a disaster strikes.

## 1.4 LMS Steering Committee

The Tallahassee-Leon County Local Mitigation Strategy was developed by the LMS Committee, a working group created in late 1998 by an interlocal agreement between the City of Tallahassee and Leon County to undertake long-range mitigation planning and implementation of the LMS. Comprised of selected representatives from various private, public, and non-profit sector interests, the Committee met numerous times to identify and evaluate the hazards facing Tallahassee-Leon County. The LMS Committee has been divided into two groups for efficiency: (1) the Steering Committee, whose function was to direct the course of the local mitigation strategy development; and (2) the Working Group, who provided much of the data that went into the Hazard Identification and Vulnerability Assessment, as well as identifying many of the proposed mitigation initiatives and projects.

The leadership of the Steering Committee includes several department-level directors to help ensure that hazard mitigation issues and priorities can be addressed more directly at the higher levels of administration within both the City and the County. For the 2025 LMS update, there have been 5 members added to the committee as non-voting members: Florida Forest Service, Leon County School District, City of Tallahassee Department of Housing and Community Resilience, Talquin Electric Cooperative, and Big Bend Continuum of Care. Under the LMS Committee bylaws, the LMS coordinator is a designated staff of the Tallahassee-Leon County Planning Department. The Committee Chair, Vice-Chair, and Coordinator are listed below, and the committee membership is shown on the next page. The organizational representatives on the committee are included in Appendix E.

### **Committee Chair:**

Andrew Platt — [Andrew.Platt@talgov.com](mailto:Andrew.Platt@talgov.com)

City of Tallahassee Underground Utilities and Public Infrastructure

### **Committee Vice-Chair:**

Brent Pell — [PellB@leoncountyfl.gov](mailto:PellB@leoncountyfl.gov)

Leon County Public Works

### **Committee Coordinator:**

Tyler Maldonado — [Tyler.Maldonado@talgov.com](mailto:Tyler.Maldonado@talgov.com)

Tallahassee-Leon County Planning Department


<b>LMS Committee Members &amp; Voting Status</b>	<b>Status</b>
Leon County Department of Development Services & Environmental Management	Voting
Leon County Department of Public Works	Voting
Leon County Emergency Management	Voting
Leon County Sheriff's Office	Voting
Leon County Emergency Medical Services	Voting
City of Tallahassee Department of Underground Utilities & Public Infrastructure	Voting
City of Tallahassee Fire Department	Voting
City of Tallahassee Police Department	Voting
Tallahassee-Leon County Planning Department	Voting
Tallahassee-Leon County Geographic Information Systems	Voting
Blueprint Intergovernmental Agency	Voting
American Red Cross—Capital Area Section	Voting
Florida Division of Emergency Management	Non-voting
Florida Department of Health in Leon County	Non-voting
Florida Forest Service	Non-voting
Apalachee Regional Planning Council	Non-voting
Leon County School District	Non-voting
City of Tallahassee Department of Housing & Community Resilience	Non-voting
City of Tallahassee Electric & Gas Utility	Non-voting
Talquin Electric Cooperative (Talquin)	Non-voting
Tallahassee Memorial Hospital	Non-voting
HCA Florida Capital Hospital	Non-voting
Florida State University	Non-voting
Florida Agricultural and Mechanical University	Non-voting
Tallahassee State College	Non-voting
Council of Neighborhood Associations	Non-voting
Tallahassee Area Chamber of Commerce	Non-voting
Big Bend Continuum of Care	Non-voting

## 1.5 Tallahassee-Leon County Demographics

Leon County is in the northwest region of Florida, traditionally known as the Florida Panhandle. Leon County covers approximately 702 square miles and is bordered by Georgia to the north, Jefferson County to the east, and Wakulla County to the south. The Ochlockonee River runs along the entire western edge separating Leon County from Gadsden and Liberty Counties. The City of Tallahassee is the only incorporated municipality in Leon County and is the state capitol of Florida. The Capitol Complex shown on the Reference Map is also the location of City Hall and the County Courthouse. Tallahassee is home to Florida State University (FSU), Florida Agricultural and Mechanical University (FAMU), and Tallahassee State College (TSC).


According to the University of Florida Bureau of Economic and Business Research<sup>1</sup>, the Tallahassee-Leon County population is expected to experience steady population growth rates for the next 25 years. Population growth over the past 10 years has been approximately 8%, and medium population growth over the next 10 years is projected to be another 8%. The estimated (Est.) population for Tallahassee-Leon County in 2035 is projected to be between 326,100 on the middle range and 364,400 on the high range.

Year	City Population	County Population	Total Population
2013	183,727	94,650	278,377
2014	185,784	95,508	281,292
2015	187,996	96,447	284,443
2016	189,675	97,996	287,671
2017	189,625	98,274	287,899
2018	192,381	99,951	292,332
2019	195,713	100,786	296,499
2020	198,627	100,857	299,484
2021	198,371	97,550	295,921
2022	200,289	98,841	299,130
2023	201,833	99,891	301,724
Est. 2025	205,400	101,200	306,600
Est. 2030	212,600	104,600	317,200
Est. 2035	218,500	107,600	326,100



# **Chapter 2**

## **Risk Assessment & Vulnerability Analysis**



## 2.1 Hazards Identification & Risk Probability

FEMA categorizes hazards as natural or human-caused<sup>2</sup>. The hazards assessed in this LMS will only be natural hazards, with the exception of dam failure. According to FEMA, natural hazards are natural events that threaten lives, property, and other assets. In addition to assessing the history of natural hazards in Tallahassee-Leon County, risk and vulnerabilities will also be analyzed. Based on FEMA definitions, vulnerability is a description of how susceptible an asset is to damage, and risk is the possibility of loss or injury. Estimating hazard vulnerability involves variables including but not limited to the type, severity, and geographic spread of hazard events, historical hazard occurrences, value of potentially affected properties, affected individuals, and topography.

Leon County has experienced numerous disasters associated with various natural hazard events since 1985. The majority of these federally declared disasters have resulted from hurricane and severe storm events. The 2020 LMS previously provided a thorough examination of the historic impact, documented damages, vulnerable populations and potential economic impact associated with each hazard. These hazards data have been updated by the LMS Update Committee as part of the 2025 LMS update process.

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

This updated and modified list of hazards reflects the lessons of past natural hazard events, the increases in development in Leon County and the City of Tallahassee, the record of impacts from particular hazards, and the anticipated effects of global climate change on the natural and built environment of the local area. The risk and vulnerability to these hazards in turn have been reflected in the updated list of hazard mitigation initiatives and projects. Where specific data are available, these have been used to update various sections of LMS based on existing development, particularly that which has occurred over the last five years.

The table below lists the federal disaster declarations that have been issued for Leon County dating back to 1985. These federal declarations include Leon County as at least one of the declared counties in the disaster area<sup>3</sup>.

FEMA Declaration	Declaration Date	Incident Type	Declaration Title
DR-756-FL	1985-12-03	Hurricane	Hurricane Kate
DR-982-FL	1993-03-13	Tornado	Tornadoes, Flooding, High Winds & Tides, Freezing
DR-1223-FL	1998-06-18	Fire	Extreme Fire Hazard
FM-2257-FL	1999-04-19	Fire	FL-Fires 04/13/99
DR-1344-FL	2000-10-03	Severe Storm	Tropical Storm Helene
DR-1381-FL	2001-06-17	Severe Storm	Tropical Storm Allison
DR-1539-FL	2004-08-13	Hurricane	Tropical Storm Bonnie & Hurricane Charley
DR-1545-FL	2004-09-04	Hurricane	Hurricane Frances
DR-1551-FL	2004-09-16	Hurricane	Hurricane Ivan
DR-1561-FL	2004-09-26	Hurricane	Hurricane Jeanne
DR-1595-FL	2005-07-10	Hurricane	Hurricane Dennis
EM-3220-FL	2005-09-05	Hurricane	Hurricane Katrina Evacuation
DR-1785-FL	2008-08-24	Severe Storm	Tropical Storm Fay
DR-1831-FL	2009-04-21	Severe Storm	Flooding, Tornadoes, Straight-Line Winds
DR-4280-FL	2016-09-28	Hurricane	Hurricane Hermine
DR-4337-FL	2017-09-10	Hurricane	Hurricane Irma
DR-4399-FL	2018-10-11	Hurricane	Hurricane Michael
EM-3419-FL	2019-08-30	Hurricane	Hurricane Dorian
EM-3562-FL	2021-08-16	Hurricane	Tropical Storm Fred
EM-3584-FL	2022-09-24	Hurricane	Tropical Storm Ian
DR-4673-FL	2022-09-29	Hurricane	Hurricane Ian
DR-4680-FL	2022-12-13	Hurricane	Hurricane Nicole
DR-4734-FL	2023-08-31	Hurricane	Hurricane Idalia
DR-4794-FL	2024-06-17	Severe Storm	Severe Storms, Straight-Line Winds, Tornadoes
DR-4806-FL	2024-08-10	Hurricane	Hurricane Debby
DR-48-28-FL	2024-09-23	Hurricane	Hurricane Helene



The LMS Committee has decided to continue a relative rating of hazard risks based on occurrences and expert knowledge of local hazards and historical events. This is a simple risk classification system for estimating the risk to the residents of Leon County and the City of Tallahassee from potential hazards into the following categories:

- High:** Highly likely probability of occurrence & probable property damage or loss of life
- Medium:** Likely to occasional probability of occurrence & possible property damage or loss of life
- Low:** Unlikely probability of occurrence & low chance of property damage or loss of life

The probability of occurrence is based on records of historical occurrence. The probability of occurrence will be summarized for each hazard. Where specific data is minimal or is not available, professional judgement and institutional knowledge has been utilized to estimate the probability of occurrence. These probabilities are classified as follows:

- Highly Likely:** Annually
- Likely:** Once in less than 10 years
- Occasional:** Once per 11-100 years
- Unlikely:** Once in greater than 100 years

The table below summarizes the natural hazards and associated risks that have been identified for Tallahassee-Leon County. All Technological and Societal Hazards, outside of dam failure, were excluded from the list of hazards addressed by the LMS because these hazards are addressed by other existing plans and funding programs.

High Risk	Medium Risk	Low Risk
Tropical Cyclone	Extreme Heat	Erosion
Severe Thunderstorm	Drought	Sinkhole
Flood	Wildfire	Dam Failure
		Winter Weather

## Physiographic Regions

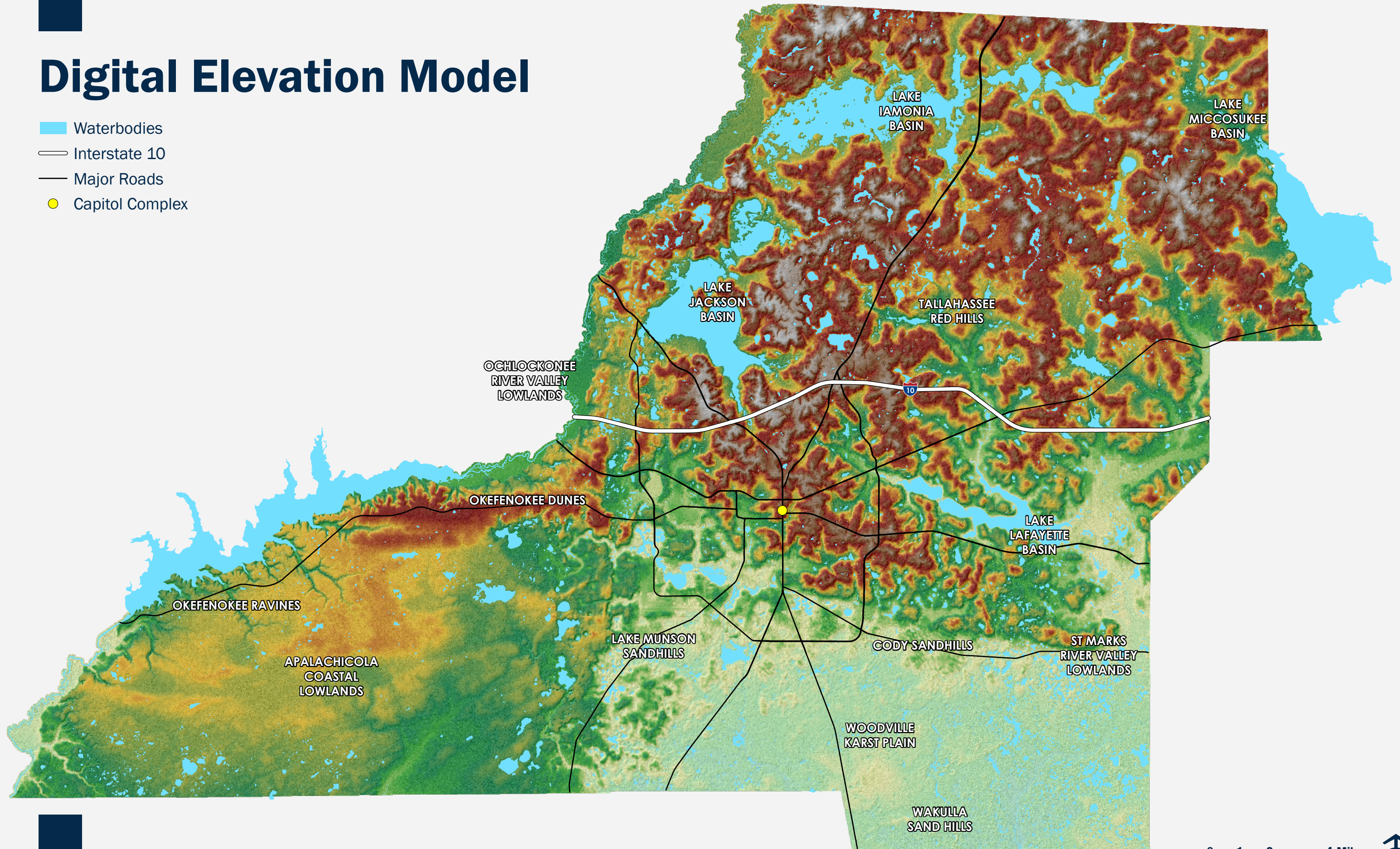
Leon County is comprised of three main physiographic regions that have implications for how natural hazard impact the area. The Northern Highlands include the Tallahassee Hills of the central and northern half of the county. The Tallahassee Hills are the county's largest physiographic region, constituting over 40 percent of total county land area, including the City of Tallahassee. Areas of higher elevation, while less susceptible to flooding, may experience more intense winds, especially from severe storms. Abundant rainfall and loamy soils support an abundance of vegetation, even within urban areas. The resulting forest cover provides an abundant source of potential storm debris and fuel source for wildfires. The sloped terrain and clayey upland soils within this region can increase stormwater flow, including volume and rate. Additionally, karst features are common and may threaten property through sinkhole development, or many provide a conduit between the surface and groundwater. These conditions, combined with the fact that the Tallahassee Hills contain the county's most intense land uses, present serious challenges to managing stormwater and flooding associated with development.

The Gulf Coastal Lowlands encompass the southern half of the county. The western portion of this division is characterized by a water table perched near the surface. The southeastern portion of the county includes a mix of sandhills and karst plain with well-drained soils and numerous sinkhole lakes and springs. Abundant rainfall and sandy soils also support an abundance of vegetation in this area, including approximately 100,000 acres of the Apalachicola National Forest and extensive private forested lands. This forest cover provides an abundant source of potential storm debris and fuel source for wildfires. There are also extensive flood prone areas within this region. The combination of high water tables and karst topography presents specially challenges for managing concentrated volumes of stormwater associated with development.

The River Valley Lowlands comprise the county's two rivers and their associated floodplains. These include the St. Marks River in the southeast portion of the county, and the Ochlockonee River in the west area of the county. Notably, hurricane surge modeling reveals the St. Marks River as one of the few areas with the potential to experience storm surge flooding. These regions are less densely populated than the Tallahassee Hills, although they do contain the Tallahassee Regional Airport and southern portions of urban Tallahassee. The map on the next page illustrates these regions and others on a digital elevation model showing the topography of Leon County.

# Digital Elevation Model

- Waterbodies
- Interstate 10
- Major Roads
- Capitol Complex



## **2.2 Hazard Impacts & Vulnerability**

This next section assesses all natural hazards that could impact Tallahassee-Leon County, which refers to Leon County and its jurisdictions. Each natural hazard is described in order of the risk and probability of occurrence. The assessments will include the general locations that may be more susceptible to a given natural hazard. Given the unlikely probability of occurrence, tsunamis and earthquakes are not included as hazards.

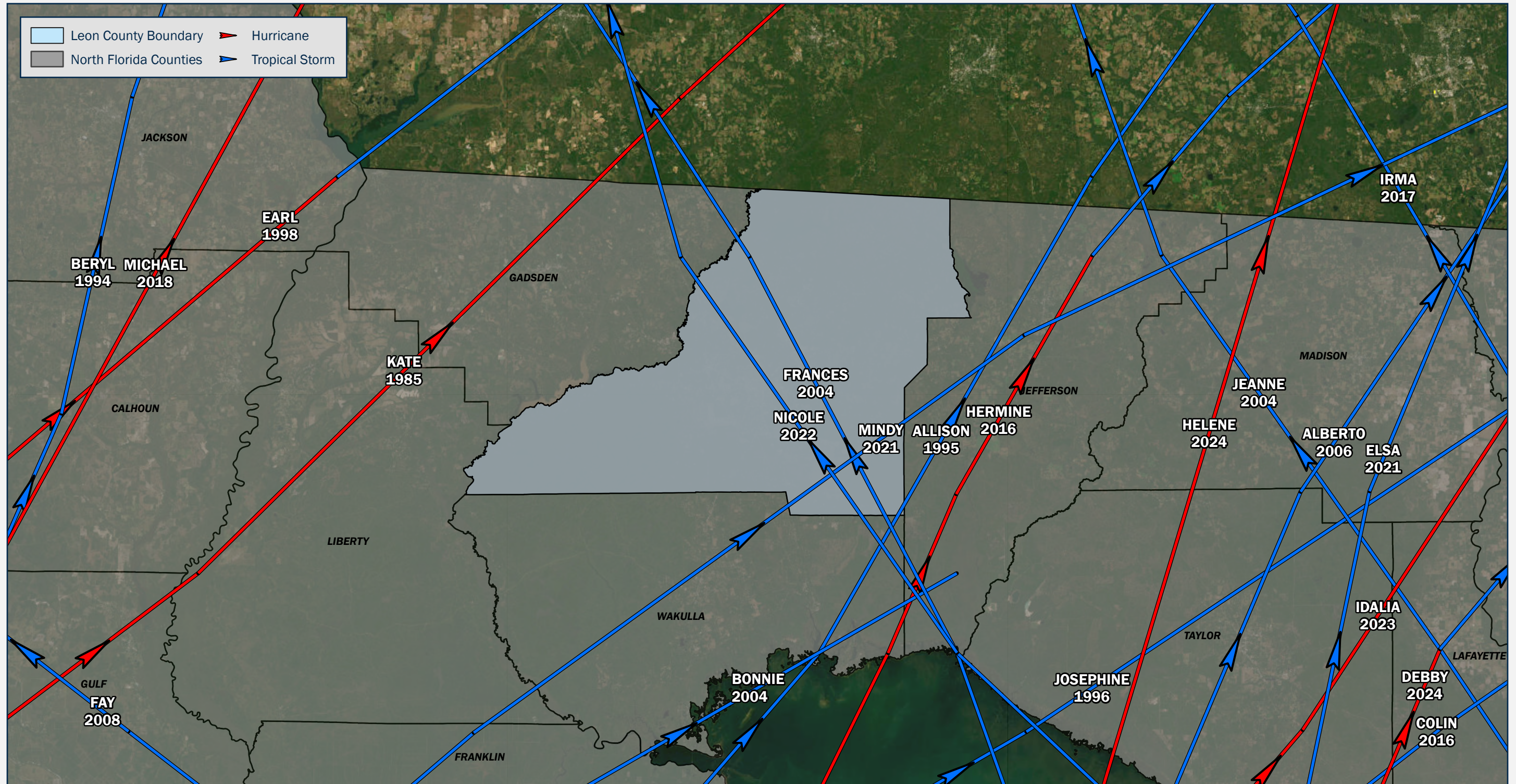
### **Tropical Cyclone: High Risk**

Tropical storms and hurricanes are both types of tropical cyclones, which is the generic term for a non-frontal synoptic scale low-pressure system over tropical or sub-tropical waters with organized convection (i.e. thunderstorm activity) and definite cyclonic surface wind circulation. A tropical storm is defined as a tropical cyclone in which the maximum sustained surface wind speed ranges from 39 mph to 73 mph, and a hurricane is a tropical cyclone with maximum sustained surface wind speeds over 74 mph. Hurricane season lasts from June 1st to November 30th of each year, with August and September being the peak months of tropical storm and hurricane activity. The map below shows the storms that have impacted Leon County and its jurisdictions since 1985.

A wide variety of residential, commercial, and public buildings, as well as critical facilities may be damaged or destroyed by several of the impacts associated with tropical storms and hurricanes. Wind and water are the most common hazards, and both can be tremendously destructive and deadly. These hazards include tornados, heavy rainfall, waves in coastal areas, and flooding. Flooding can occur in mapped flood prone areas as well as upland areas depending on the amount, rate, and duration of rainfall. High winds can topple trees, which can damage structures and infrastructure. Given these factors, storms at relatively low intensities can create significant damage.

Because many areas within Tallahassee-Leon County have a moderate to heavy tree cover and a majority of electric lines are above ground, these is a high likelihood of power outages due to high winds and heavy rain. Blocked roads and limited access from fallen trees and tree limbs also affect response time and debris management. Following a major storm event, there is usually significant public pressure to reinstate electrical power as quickly as possible. Air conditioning, lights, refrigeration, and cell phones charging are increasingly essential infrastructure and services in an emergency situation.

# Tropical Cyclone Map



According to International Best Track Archive for Climate Stewardship (IBTrACS)<sup>4</sup>, there have been 20 tropical cyclones (7 hurricanes and 13 tropical storms) within a 65-mile radius of Leon County since 1985. The list below shows the hurricanes and the year of landfall according to the category of intensity.

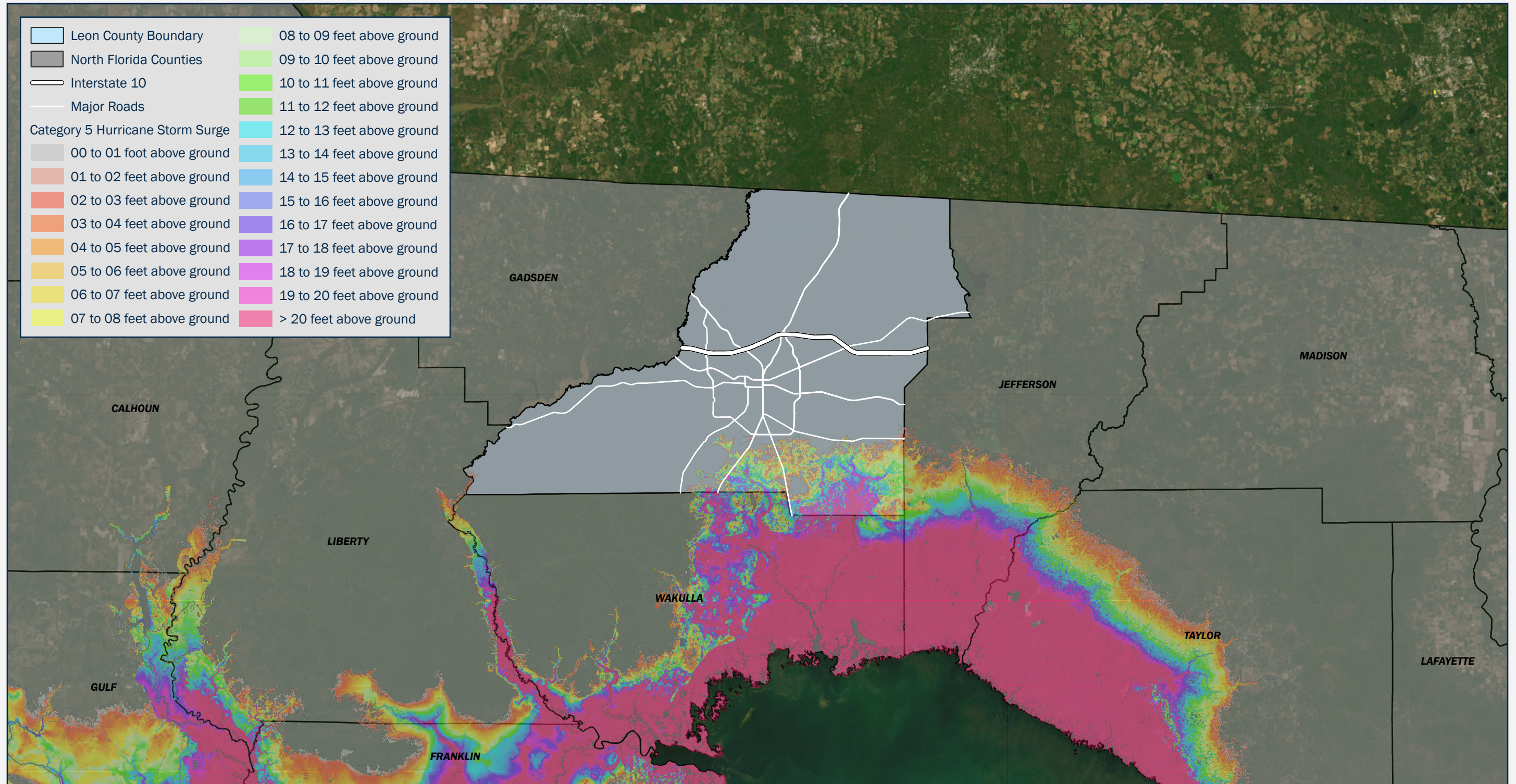
- Michael (2018): Category 4
- Helene (2024): Category 4
- Idalia (2023): Category 3
- Kate (1985): Category 2
- Earl (1998): Category 1
- Hermine (2016): Category 1
- Debby (2024): Category 1

Saffir-Simpson Hurricane Scale	
Category	Wind (mph)
1	74-95
2	96-110
3	111-129
4	130-156
5	>156

A storm surge is defined as an abnormal rise in sea level accompanying a tropical cyclone. The height of the surge is the difference between the observed level of the sea surface and the level that would have occurred in the absence of the cyclone. Storm surge heights are usually estimated by subtracting the normal or astronomic high tide from the observed storm tide. Storm surges are evaluated separately from rain-driven flooding. Storm generated waves on top of the storm surge will create an even greater high-water mark. The map on the next page shows projected storm surge from a Category 5 hurricane.

Storm surges can affect river and stream valleys and adjacent low-lying lands along the southern and southeastern borders of Leon County. High water, particularly moving water commonly associated with tsunamis, can damage structures and other property, and sweep away people, livestock, and other living beings and materials. A storm surge appears in Leon County beginning at a Category 3 storm with affected areas including the southern portion of Leon County just north of Munson Slough and the St. Marks River. This level of storm surge would reach the southernmost areas of Leon County within the 100-year flood prone areas south of Oak Ridge Road and within the lowlands surrounding the St. Marks River in the extreme southeast corner of Leon County. The storm surge from a Category 5 hurricane is projected to reach almost all the way to Tram Road and Capital Circle. The level of expected flooding from a storm surge depends on many factors, but for a Category 5 hurricane, storm surges could reach 24 feet in depth in Leon County, as occurred during Hurricane Camille in 1969 in Mississippi. The impacts of flooding from storm surge would affect residential structures, associated infrastructure such as septic tanks, and key transportation roadways within these areas.

# Storm Surge Map



Given the size of these hazards, Leon County and its jurisdictions are equally vulnerable to infrastructure and property damage from wind, water, and flooding resulting from tropical cyclones. Due to Leon County's inland location, a majority of damage will be caused from high winds. Critical facilities related to electricity generation and transmission are particularly vulnerable to the high winds from hurricanes. Besides the damage these vents can produce, high winds can also create significant quantities of debris from downed trees, branches and damaged buildings. This debris can impede emergency management efforts and present a safety hazard for emergency response and residents.

Actions that can be taken to mitigate the potential impact of debris on local transportation and power distribution systems include the replacement of aboveground lines with buried lines, and the trimming of trees around above-ground electrical infrastructure such as poles and power lines. However, burying power lines in existing developed areas can be time-consuming and expensive, as well as impact existing trees. Additionally, underground lines may cost more to service than above ground lines, although the rate of required service may be less. Trimming trees is regularly conducted throughout Leon County and its jurisdictions. Many homeowners also trim trees on their property for the same reasons. Keeping trees trimmed and healthy is one of the single best actions homeowners and other property owners can take to mitigate the effects of major storms.

According to the Intergovernmental Panel on Climate Change Sixth Assessment Report and the Florida Enhanced State Hazard Mitigation Plan, the effect of climate change on tropical cyclones can be difficult to quantify. However, it can be expected that increase oceanic and atmospheric temperatures could influence the frequency and intensity of major hurricane events. In addition, these potential stronger and more frequent events may also include higher intensity rainfall that will like result in increased flooding. In the Flood section of this chapter, the FEMA Flood Zone Map highlights areas in Leon County and its jurisdictions that are most susceptible to flooding.

### **Severe Thunderstorm: High Risk**

According to the National Oceanic and Atmospheric Administration (NOAA), a thunderstorm is a rain shower during which thunder is heard. Because thunder comes from lightning, all thunderstorms have lightning. A thunderstorm is classified as severe when it produces one or more of the following: hail three-quarters of an inch or greater, winds gusting in excess of 57.5 mph, or a tornado<sup>5</sup>.



Thunderstorms typically produce heavy rain for a brief period, anywhere from 15 minutes to 2 hours. Thunderstorms are most likely to occur in the spring and summer months and during the afternoon and evening hours but can occur at any time in the day or night. Along the Gulf Coast and across the southeastern and western states, most thunderstorms occur during the afternoon. The impacts of thunderstorms vary greatly based on the presence and degree of high winds, rain, hail, and the specific area affected by a storm. Recorded local impacts of thunderstorms include high winds breaking branches and topple trees, which have affected structures, roadways, vehicles, power lines, cable, and other critical infrastructure. High winds have brought down traffic lights, blown out windows in tall buildings, and grounded emergency services aircraft.

A tornado is a violently rotating column of air extending between a cloud and the surface of the earth. The most violent tornadoes are capable of tremendous destruction with wind speeds in excess of 250 miles per hour. Damage paths can be in excess of one mile wide and 50 miles long. The most powerful tornadoes are produced by super cell thunderstorms. These storms are affected by horizontal wind shears (winds moving in different directions at different altitudes) that begin to rotate the storm. This horizontal rotation can be tilted vertically by violent updrafts, and the rotation radius can shrink, forming a vertical column of quickly swirling air. Tornadoes are classified by their wind speed and destructiveness. The Enhanced Fujita Scale is used to rate the intensity of a tornado by examining the damage caused by the tornado after it has passed over a man-made structure. The EF list below shows the scale of intensity with mph in 3-second bursts.

- **EF0: 65-85 mph**      Minor damage  
Peels surfaces off some roofs; damage to gutters
- **EF1: 96-110 mph**      Moderate damage  
Roofs severely stripped; mobile homes overturned
- **EF2: 111-135 mph**      Considerable damage  
Roofs torn off well-constructed homes
- **EF3: 136-165 mph**      Severe damage  
Entire stories of well-constructed homes destroyed
- **EF4: 166-200 mph**      Devastating damage  
Well-constructed homes completely leveled
- **EF5: Over 200 mph**      Incredible damage  
Strong-framed, well-built homes swept off foundation

Extensive damage to critical infrastructure and private property can be expected from tornados. The area affected by tornados is relatively small, depending on their speed, size, and height above ground, but these effects can be significant. According to the National Weather Service Tornado Database for Tallahassee-Leon County<sup>6</sup>, there have been 23 reported touch downs of tornados since 1985, and there have been 13 tornadoes reported in the past 10 years. The most recent event occurred on May 10, 2024 when straight-line winds swept through Tallahassee-Leon County spawning 2 EF2 tornados and another EF1. These 3 tornadoes caused massive destruction to areas near downtown, Lake Talquin, and Lake Lafayette. Estimates of the damage totaled over \$50 million<sup>7</sup>. The list below shows the 13 tornados over the last 10 years:

- April 19, 2015      **EF1:** Southern Lake Jackson to Ox Bottom Road
- March 3, 2019      **EF3:** US-90 & Crump Road to County Line
- April 19, 2019      **EF0:** Apalachicola National Forest
- April 23, 2020      **EF1:** Western Lake Jackson to Bradfordville Road
- January 27, 2021    **EF1:** Tallahassee International Airport
- January 27, 2021    **EF1:** Blountstown Highway & Seabs Road
- April 10, 2021      **EF0:** Apalachicola National Forest
- January 25, 2023    **EF1:** Apalachicola National Forest
- January 9, 2024     **EF0:** Bloxham Cutoff to Blountstown Highway
- March 9, 2024      **EF1:** Moccasin Gap Road & Alberta Lake Road
- May 10, 2024        **EF2:** Lake Talquin State Forest to Capital City Country Club
- May 10, 2024        **EF2:** South Magnolia Drive to WW Kelley Road
- May 10, 2024        **EF1:** Oak Ridge Road to Old Plank Road

In addition to heavy rain and potential tornados, lightning can cause injuries, fatalities, structure fires, and wildfires. Lightning can damage electrical systems and other infrastructure, kill trees, and physically damage structures. Florida continues to be the most lightning prone state in the US. The Vaisala 2023 Annual Lightning Report<sup>8</sup> shows that while Texas has the highest number of lightning counts, Florida has the highest density of lightning events. Southeast Florida tends to have the most cloud-to-ground strikes, but areas in North Florida including Tallahassee-Leon County are also highly susceptible. According to the NOAA National Center for Environmental Information<sup>9</sup>, there have been 6 lightning strike events that caused property damage in Leon County since 2014. Although no fatalities were recorded in these events, these events caused fires resulting in approximately \$423,000 in damages.

Leon County and its jurisdictions have a record of county-wide vulnerability to property damage from severe thunderstorms and their associated flooding, tornados, and lightning. Areas and features specifically vulnerable to flooding from severe thunderstorms include parcels wholly or partially located within the 100-year floodplain, poorly graded lots, properties in low-lying areas, and those within closed basins. Citizens in Leon County and the City of Tallahassee who work outside and transient populations are also particularly vulnerable to severe thunderstorms. The homeless, especially those who are unsheltered, are particularly vulnerable to severe storms and related events such as tornados.

Any structure, infrastructure component, or other facility that is adjacent to large trees may have additional vulnerability to high winds associated with severe thunderstorms and tornadoes. These include many residential subdivisions in Tallahassee-Leon County that have a high density of tree canopy. Similar to the impacts of high winds from tropical cyclones, the electrical grid is particularly vulnerable to severe thunderstorms that produce high winds and tornados. Overhead powerlines can be torn down by falling debris and trees, which can impact other critical facilities that rely on electricity.

Most electric power failures or disruptions are resolved relatively quickly and are considered nuisance events rather than life-threatening. They can affect a few houses, hundreds of houses, or even whole parts of town. The lack of traffic lights can be life-threatening if drivers fail to stop and yield, but local police and sheriff's deputies are assigned to provide traffic control if necessary.

Larger electrical outage events caused by high winds and tornados can present significant impacts to residents if facilities do not have backup generators. The lack of electricity can render buildings uninhabitable if exterior temperatures are high and can create conditions under which mold and mildew can flourish. It can also bring cable and internet systems down, which can restrict the flow of information and impede emergency response.

Because of the extensive tree canopy present throughout the region, Leon County and its jurisdictions are vulnerable to electrical outages caused by hazards that produce high winds such as severe thunderstorms and tropical cyclones. Mitigating the impacts of losing electricity is why many critical facilities such as hospitals, emergency operations centers, and nursing homes install industrial-scale back-up generators. Mitigation measures employed by utility providers in Tallahassee-Leon County have reduced the vulnerability of water, wastewater, and natural gas systems.

## Flood: High Risk

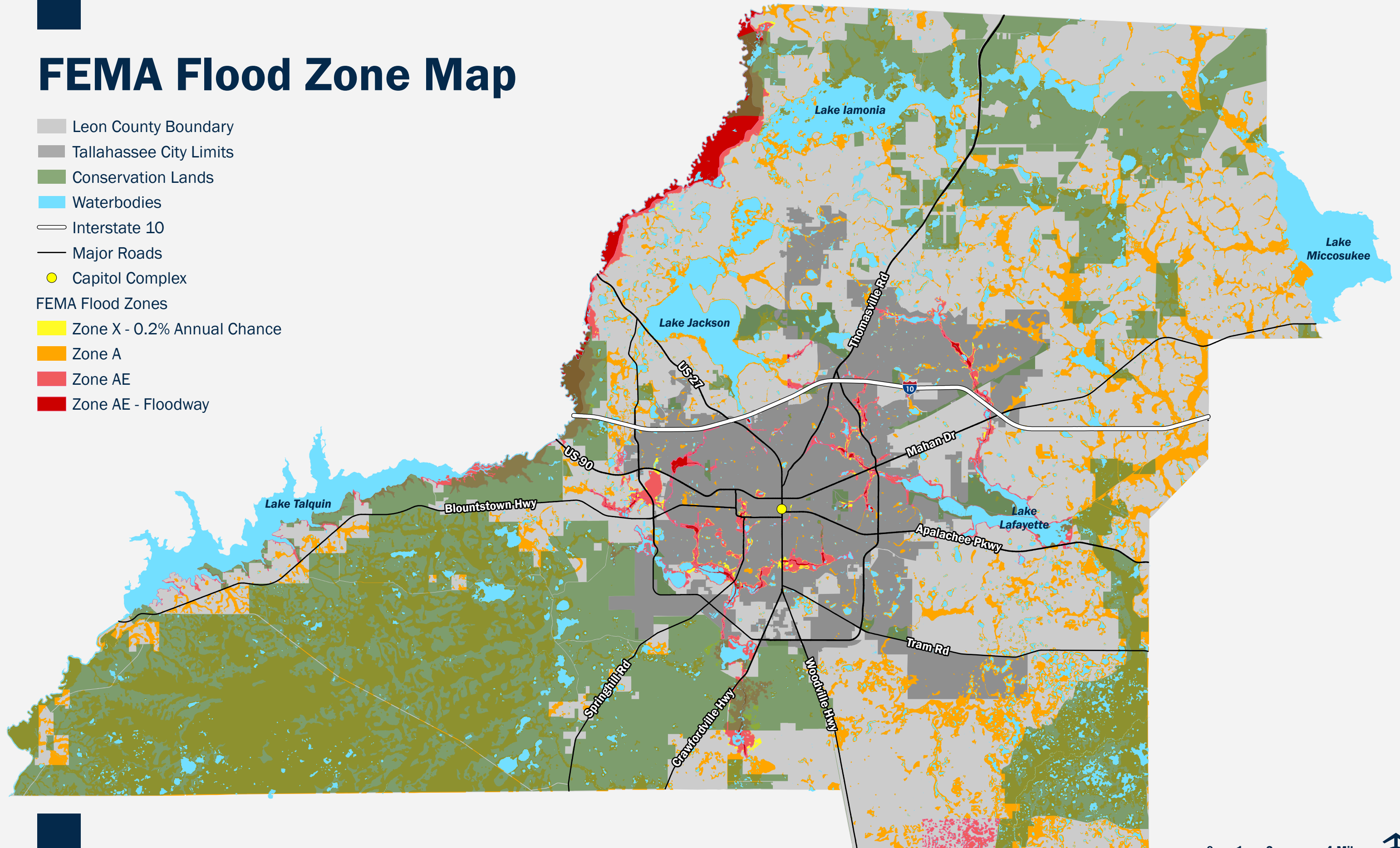
A flood is an overflow of water that submerges land which is usually dry. Flooding can occur in either floodplains (low-lying lands around rivers and streams, lakes, and wetlands), or in other low-lying, poorly drained areas. Flooding in Florida typically is caused by heavy or prolonged rainfall from tropical storms and hurricanes. FEMA estimates<sup>10</sup> about 14.25 million acres (41%) of Florida is prone to flooding, which is the highest percentage of all 50 states. Heavy rainfall can be described locally as one or more inch per hour. Short, intense episodes can induce flooding as well as less-intense, longer-duration events. The annual rainfall in Tallahassee is approximately 59 inches/year<sup>11</sup>, but this rainfall tends to be seasonal. Flooding has been an issue historically within Leon County and its jurisdictions, and because of this, both the City of Tallahassee and Leon County have stormwater management programs funded by stormwater fees levied on property owners.

Local flooding can vary widely based on variables such as soil composition, saturation, and slope; depth to aquifer; land use; location, type, size, and elevation of structures; depth, width, and peak discharge of floodways; presence of vegetation; size and type of watershed; and extent of impervious area within a watershed. Primary variables include the length of a rain event, the amount of rainfall, and the frequency between storms. The extent is dependent upon the location of property or structure within identified flood prone areas, special flood hazard areas, and other areas prone to flood hazards or damage from flooding. In urban areas, stormwater systems can become overwhelmed or blocked with debris, leaving no space for excess water to enter the system. When stormwater is unable to enter the stormwater system, it can cause localized flooding, standing water, block roadways, or cause sheetflow or overland flow. Flood zones are geographic areas that FEMA has defined according to varying levels of flood risk. These zones are depicted on a community's Flood Insurance Rate Map (FIRM) and each zone reflects the severity or type of flooding in the area. The FIRM zones shown below are represented on the next map.

FIRM Zone	Definition
X	An area that is determined to be outside the 100 and 500-year floodplains
A	An area inundated by 100-year flooding, for which no Base Flood Elevations (BFE) have been established. Areas with a 1% annual chance of flooding.
AE	An area inundated by 100-year flooding, for which Base Flood Elevations (BFE) have been determined. Includes Zone AE-Floodway.

# FEMA Flood Zone Map

- Leon County Boundary
  - Tallahassee City Limits
  - Conservation Lands
  - Waterbodies
  - Interstate 10
  - Major Roads
  - Capitol Complex
- FEMA Flood Zones
- Zone X - 0.2% Annual Chance
  - Zone A
  - Zone AE
  - Zone AE - Floodway



The 100-year floodplain is the land that is predicted to flood during a 100-year storm, which has a 1% chance of occurring in any given year. The 100-year floodplain is also sometimes called the 1% annual chance floodplain or base flood. The 100-year floodplain is used by FEMA to administer the National Flood Insurance Program. According to Property Appraiser data, there are 112,334 total parcels in Tallahassee-Leon, and of those total parcels, 15,883 parcels (14%) intersect with a 100-year floodplain. Over the past 10 years, 633 structures have been built on these parcels, and 294 have been built since 2020.

Flooding is one of the most common natural hazards encountered in Leon County and the City of Tallahassee. Leon County and the City of Tallahassee has compiled information on known flood problem areas from field reports and damage assessments. The City has mapped nuisance and hazard flooding areas throughout the incorporated area. Both City and County public works departments responsible for addressing stormwater flooding issues maintain lists of flooded structures and properties.

Because of the risk it presents to local property owners and others, Leon County and the City of Tallahassee both participate in the National Flood Insurance Program (NFIP). In addition, the City and the County also participate in the Community Rating System (CRS). The CRS is a federal incentive program for communities which exceed the minimum NFIP requirements. Depending on a home’s location, flood insurance may be a required purchase as a condition of a mortgage. Because the ability to buy or rent a home is critical to the economic and social stability of most communities, the NFIP was developed by the federal government to assist homeowners and renters with flood insurance if their community participates in the program. The City of Tallahassee has been a member of the NFIP since 1976 and Leon County has been a member since 2015. Both the City and the County are currently Class V CRS communities. The NFIP program is primarily regulated through land development codes and the Florida Building Code. The table below shows the number of NFIP policies currently in-force and the number of losses since 1976.

Jurisdiction	Policies In-Force	Total NFIP Losses	Total Payments
City of Tallahassee	1,873	600	\$6,866,196
Leon County	1,617	528	\$5,920,934
<b>Total</b>	<b>3,490</b>	<b>1,128</b>	<b>\$12,787,130</b>

Leon County and its jurisdictions will continue to participate in the NFIP program by continuing the following programs and actions:

- Restricting new development in floodprone areas through maintaining existing floodplain management ordinances that meet minimum NFIP criteria
- Requiring elevation certificates for all new construction and substantial improvements when a property is located below the flood protection elevation.
- Mitigating existing development in these areas through land and structure purchases and removals
- Protecting, reinforcing, or relocating infrastructure and critical facilities
- Maintaining FIRM maps and data and making these data available to the public
- Continuing participation in CRS program

Floodplain management responsibilities are shared among federal, state, regional, and local governments. Local governments have the most direct control in floodplain management through land use planning and regulation, land acquisition and management, and as sponsors for the flood insurance program administered by FEMA. Water Management Districts (WMDs) and the Florida Department of Environmental Planning also regulate development activities in floodplains and flood prone areas. The Tallahassee-Leon County Comprehensive Plan has several policies that address development within flood prone areas. Both Leon County and the City of Tallahassee have adopted and continue to enforce floodplain management policies and regulations that helps mitigate the effects of flooding on new and improved structures. These include:

*By 2014, land development regulations will include standards for the regulation of future land use categories, subdivision, signage, and areas subject to seasonal or periodic flooding and areas of known hazards. Regulations concerning areas subject to seasonal or periodic flooding shall be consistent with all applicable state and federal regulations.*

*[Policy 1.4.6: [L] (EFF. 7/16/90; Revision EFF. 4/10/09)]*

*Prohibit residential development where physical constraints or hazards exist or require the density and design to be adjusted accordingly. Such constraints or hazards include but are not limited to flood, storm or slope hazards and unstable soil or geologic conditions.*

*[Policy 2.1.2: [L] (EFF. 7/16/90)]*

Local land development codes developed to implement these policies address stormwater runoff rates in open basins, and runoff rates and volume in closed basins. These codes prohibit post-development discharge rates from exceeding predevelopment conditions for storms with recurrence frequencies up to a 25-year event, with variations in selected geographic areas and drainage basins. Providing rate control for the 25-year storm, controlling the 100-year flows, and mitigating through downstream known flooding problems are required in the City and County land development codes. Implementation and enforcement of local floodplain management regulations is through the City of Tallahassee Growth Management Department and the Leon County Department of Development Services and Environmental Management. Substantial damage assessments are carried out by the Building Official and their licensed Building Inspectors in accordance with the Building Code and the Land Development Code.

Both Leon County Government and the City of Tallahassee currently have advanced stormwater management regulations and programs. Both jurisdictions charge a monthly stormwater fee for property owners, the proceeds of which help fund stormwater management capital improvements and maintenance programs. The local extra penny sales tax also funds a significant amount of public stormwater infrastructure.

In addition, Leon County and its jurisdictions maintain a list of properties identified as repetitive loss properties. These identified properties are located in areas subject to periodic flooding. The owners of these properties may approach the local government to try to remedy the flooding or to request the buy-out of these properties. The local government can then apply for flood mitigation funding to purchase these properties. These land acquisitions are always voluntary, and do not utilize eminent domain.

Number of Repetitive Loss Properties			
Building Type	Leon County	City of Tallahassee	Total
Single-Family	62	46	108
Multi-Family	1	12	13
Non-Residential	1	16	17



A Repetitive Loss (RL) property is any insurable building for which the NFIP paid two or more claims of more than \$1,000 within any rolling ten-year period since 1978. At least two of the claims must be more than 10-days apart but within ten years of each other. A RL property may or may not be currently insured by the NFIP. There are no Severe Repetitive Loss (SRL) properties in Leon County and its jurisdictions. The table below shows the number of RL properties in the City of Tallahassee and Leon County by building type.

Heavy rain from hurricanes, tropical storms, and severe thunderstorms has historically caused localized flooding throughout Leon County and its jurisdictions. Over the past 10 years, the National Storm Events Database has recorded 13 flash flooding events in Tallahassee-Leon County. Several of these 13 events had flooding reported in multiple locations as a result of heavy rains that occurred in the same time frame. The list below shows the 13 flash flooding events since 2014:

- **April 15, 2014:** Multiple rounds of moderate to heavy rain
- **October 14, 2014:** Unseasonably heavy rain and tornados
- **December 23, 2014:** Airport measured 7.44 inches of rain
- **June 6, 2016:** Tropical Storm Colin causes 10 inches of rain
- **August 10, 2016:** Isolated flooding with 1-5 inches of rain
- **June 7, 2017:** Periods of heavy rainfall with some flash flooding
- **September 16, 2020:** Heavy rain from Hurricane Sally in Gulf Shores, AL
- **July 18, 2021:** Slow moving thunderstorms producing 2-3 inches of rain
- **September 9, 2021:** Tropical Storm Mindy causes heavy rain and wind
- **September 21, 2021:** Heavy rainfall resulting in flash flooding
- **December 2, 2023:** Band of thunderstorms with 5-8 inches of rain
- **April 11, 2024:** Major flash flood with upward of 6-10 inches of rain
- **September 27, 2024:** Hurricane Helene causes significant rainfall

An entire range of mitigation activities to include regulations, public information, structural control of runoff, nonstructural programs including stormwater regulations, and protection of sensitive areas. Some regulation and nonstructural programs are included in the Hazard Mitigation Initiatives Appendix. Structural controls and acquisitions are implemented through the capital improvements program. Protections of sensitive areas are fulfilled through conservation easements requirements and permit conditions. Nuisance Flooding Maps identify problem areas to be addressed for future projects. Additional stormwater management projects are identified in Appendix C.

The City of Tallahassee and Leon County developed and adopted Minimum Countywide Environmental Regulations in May 2012, establishing minimum standards, procedures, requirements, and regulations, including protection of conservation and preservation features. The County’s Greenspace Reservation Area Credit Exchange (GRACE) program is aimed at keeping new development from high-risk floodplain areas within Leon County. The program allows certain non-residential development to meet a portion of the landscape area requirements off-site by purchasing flood-prone properties, identified by Leon County, and conveying the property to Leon County. The flood-prone properties conveyed to Leon County are then maintained as open space. There are several stormwater facility master plans that cover future conditions for major developments such as Southwood and Canopy. These plans analyze existing conditions and identify potential future needs, including detailed assessments of stormwater. Large-scale planned development such as these maintain and manage individual stormwater master plans.

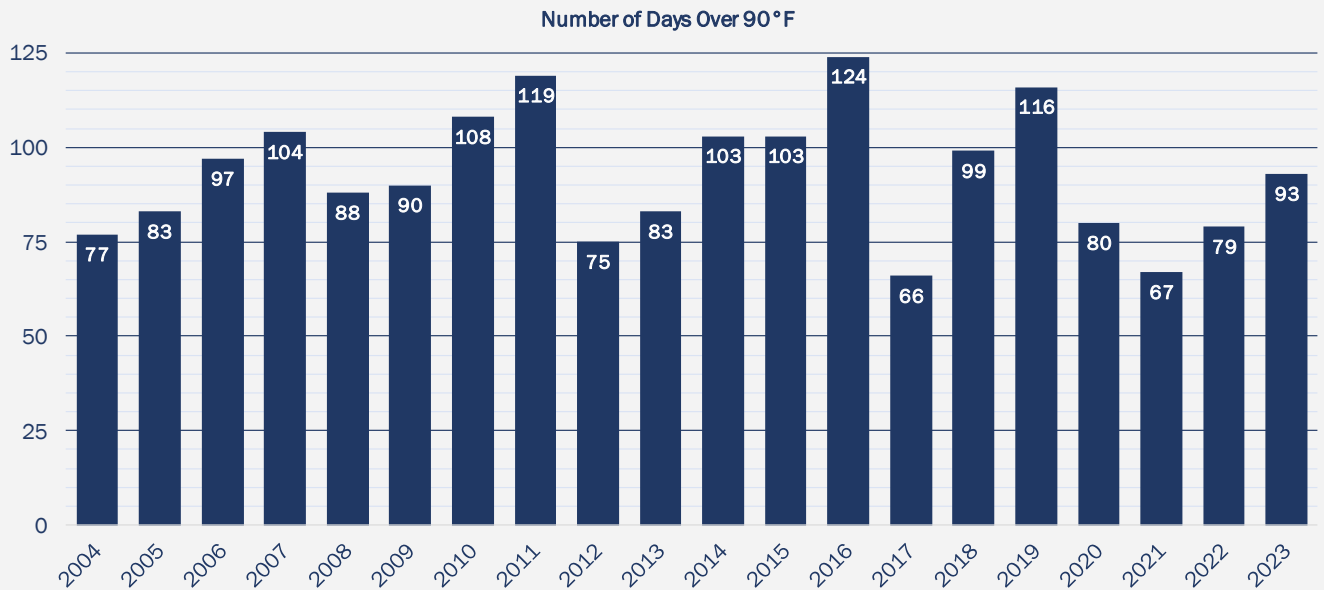
The United States Geological Survey and NOAA provide forecasts for the impact of future conditions, climate change, and long duration storms. Flood scenarios for the 100-year and 500-year storms under current, 2040, and 2070 conditions have been reviewed. Projected future rainfall depths based on a combination of NOAA Atlas 14 rainfall depths and rainfall change factors are shown below. These potential future rainfall depths are used to assess areas most likely to be impacted by increased rain events, which would include wetlands, low-lying areas, flood zones, and drainage channels.

Rainfall Change Factors and Future Conditions Rainfall Depths					
Storm Event	NOAA Atlas 14 Rainfall Depth (in inches)	2040 Change Factor	2040 Rainfall Depth (in inches)	2070 Change Factor	2070 Rainfall Depth (in inches)
100-year/8-hour	10.2	1.1	11.22	1.11	11.32
100-year/24 hour	13.4	1.1	14.74	1.11	14.87
500-year/8-hour	13.9	1.08	15.01	1.12	15.57
500-year/24 hour	18.7	1.08	20.2	1.12	20.94

## Extreme Heat: Medium Risk

Impacting all of Leon County and its jurisdictions, extreme heat is defined as weather that is substantially hotter or more humid than average for a location at that time of year. The Heat Index, which measures the apparent temperature when considering both air temperature and humidity, is used to identify extreme heat days. According to FEMA<sup>12</sup>, extreme heat is a long period (2 to 3 days) of high heat and humidity with temperatures above 90°F. The chart below<sup>13</sup> shows the number of days over 90°F since 2004. Over the past 20 years, the average number of days over 90°F is approximately 93 days per year.

According to the National Weather Service, heat stress is a leading cause of weather-related deaths in the United States each year. Different tools are used to measure heat and the potential for heat stress, usually measuring a combination of temperature and humidity. One of the more common techniques is the heat index. The Heat Index is a measure of how hot the temperature feels when humidity is factored in with the actual temperature. Alerts will be issued when the heat index is expected to exceed 105-110°F for at least two consecutive days. At a heat index of 105°F, even healthy adults are at risk of heat-related illness with prolonged exposure. The greatest threat for infrastructure damage is through the loss of electrical power generating capacity. During times of excessive heat, air conditioning units demand a lot more electricity. Brownouts and blackouts are possible when electricity demand exceeds the generation capacity.



Extreme heat can also create the conditions for drought and can exacerbate the impacts of drought by putting additional stress on available water supplies. It can also contribute to the spread of wildfires. Extreme heat is often influenced by urban development, which can exacerbate high temperatures. An urban heat island effect refers to an urban area or metropolitan area that is significantly warmer than its surrounding rural areas due to impervious surfaces. The temperature difference is usually larger at night than during the day and is most apparent when winds are weak. The urban heat island effect is most noticeable during the summer and winter. The main cause of the urban heat island effect is from the modification of land surfaces. Waste heat generated by energy usage is a secondary contributor. As a population center grows, it tends to expand its area and increase its average temperature. Monthly rainfall is greater downwind of cities, partially due to the urban heat island. Increases in heat within urban centers increases the length of growing seasons and decreases the occurrence of weak tornadoes.

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

Scientists have high confidence that global temperatures will continue to rise for decades to come, largely due to greenhouse gases produced by human activities. The Intergovernmental Panel on Climate Change (IPCC), which includes more than 1,300 scientists from the United States and other countries, forecasts a temperature rise of 2.5 to 10°F over the next century. According to the IPCC, the extent of climate change effects on individual regions will vary over time and with the ability of different societal and environmental systems to mitigate or adapt to change.

As global temperatures continue to rise and as areas of the country stay hotter for longer, Leon County has created an Extreme Heat Action Plan. The County's plan focuses on outdoor activities in the heat, when air conditioning fails in a group living situation, or directing the public to readily available relief at County facilities. In excessive heat situations, the County's plan also includes opening dedicated relief stations at all County libraries. During an extended excessive heat warning, cooling stations would be available every day at all County library locations and staffed by County employees.

## Drought: Medium Risk

Drought is typically defined as a prolonged period when there is a precipitation deficit from normal values. Drought events can impact drinking water wells, surface water bodies and water courses, increase the risk of wildfire, contribute to sinkhole development, and impede agricultural productivity in all of Leon County and its jurisdictions. The Northwest Florida Water Management District (NFWFMD) issued Water Shortage Warnings during two periods of drought conditions in 2000 and 2007. The Water Shortage Warning provides for voluntary water conservation actions, during which all users are encouraged to reduce water use and to conserve water to the maximum extent possible. However, no water shortages were reported since then.

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

The US Drought Monitor<sup>14</sup> was developed to show the location and intensity of drought. This monitoring system uses five categories of dryness shown below. For the past 25 years, Tallahassee-Leon County is typically in a period of no drought or the lowest D0 category. There have only been sporadic occasions when D3 or higher droughts have been registered, which occurred in mid 2000, mid 2007, and late 2012 to early 2013. January 2019 and October 2019 saw instances of D2 drought. While other regions of the US with larger amounts of agricultural productivity tend to use these drought monitors for crop production, droughts tend to impact Florida by increasing the risk of wildfire.

- **D0: Abnormally Dry**                      Increased landscape irrigation is needed
- **D1: Moderate Drought**                      Water supply decreases
- **D2: Severe Drought**                      Air and water quality are poor
- **D3: Extreme Drought**                      Groundwater declines
- **D4: Exceptional Drought**                      Groundwater declines rapidly

Leon County and its jurisdictions have limited vulnerability to the negative effects of drought. Although drought can exacerbate demand for potable water, the City of Tallahassee's water needs account for less than 7% of the water available for local withdrawal in the Floridan Aquifer. It should be noted that Leon County has not experienced extended drought conditions in excess of several months. However, the City believes that extended droughts would still not pose serious problems to critical needs such as potable water supplies and firefighting needs.

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

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

### **Wildfire: Medium Risk**

FEMA defines a wildfire as an unplanned, unwanted fire burning in a natural area, such as a forest, grassland, or prairie. Wildfires can start from natural causes, such as lightning, but most are caused by humans, either accidentally or intentionally. The extent to which wildfires are measured is according to the number of acres burned. Although wildfires in or near forested residential areas provide a tangible threat to citizens and property within Leon County and its jurisdictions, the impacts of wildfire have historically been minimal. However, the potential impact of wildfires in the Wildland Urban Interface (WUI) is significant and increasing along with development.

The WUI is an area where natural or forested areas are adjacent to urban and suburban residential areas. Fire is a threat in these areas if adjacent wildlands are not actively managed with prescribed fire or the physical removal of burnable vegetation known as fuel. The WUI reflects housing density depicting where humans and their structures meet or intermix with wildland fuels.

This is the area most susceptible to property damage from wildfires. Large fires within this interface area can impact residential areas and other structures, as well as critical facilities and systems. Even smoke from wildfires can present a hazard to citizens, particularly the elderly and those with respiratory medical conditions. Many of these areas are residential neighborhoods or subdivisions with heavily forested parcels or open space areas. These parcels and areas are seldom subject to prescribed burning, and so are vulnerable to fire due to crowding of trees and heavy fuel buildup. However, these areas also have fire protection provided by the Tallahassee Fire Department, which also provides services to the County through an interlocal agreement.

Vulnerability to wildfires was estimated from data generated by the Southern Wildfire Risk Assessment (SWRA) Project. The SWRA project reflects the latest wildfire analysis and regional risk assessment efforts that provide a foundation for mitigation planning. The SWRA can also be used to locate areas where interagency planning may be of value to effectively manage wildland fire risk. The map below illustrates the wildfire exposure scores for Tallahassee-Leon County<sup>15</sup>. According to the SWRA, approximately 272,877 acres within Leon County are located in the WUI and are at the highest risk of burning. The WUI Risk Index is a rating of the potential impact of a wildfire on people and their homes. According to this index, approximately 23% of the WUI acreage may experience elevated to major impacts to people and their homes should wildfire occur. The remaining 77% of the WUI acreage is considered to be at moderate to low impact on people and their homes.











According to the National Interagency Fire Center's Wildland Fire Incident data, there have been 128 wildfires in Leon County since 2014. The total number of acres burned in that time period has been 17,234 acres. However, of those 128 wildfires, 104 occurred on Apalachicola National Forest property located in southwestern Leon County. In addition, nearly 80% of the total acres burned were accounted for in 3 wildfires that occurred in the national forest. These 3 fires totaled 13,488 combined. Overall, 72 wildfires were reported to have an incident size of less than 1.5 acres. Since 2020, there have been 62 wildfires.

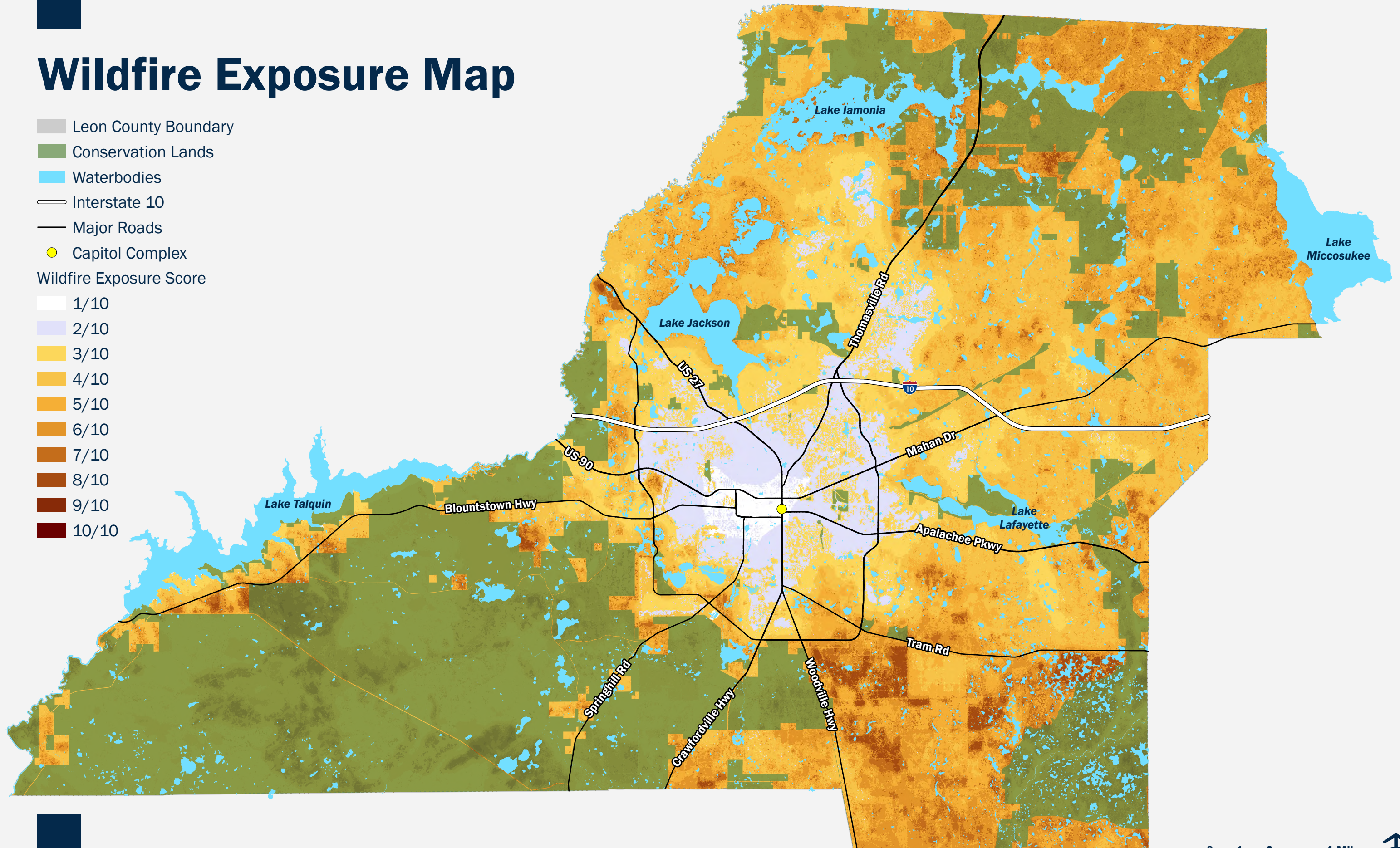
The Florida Forest Service (FFS) responds to wildfire events outside the city limits. Of the five counties in Fire District Four (Leon, Gadsden, Jefferson, Wakulla and Franklin Counties) Leon has produced the least number of fires requiring an FFS response. This may be largely due to a lower concentration of combustible fuel types and the significant amount of controlled burning that takes place on a regular basis. Large areas in the north and northeast frequently utilize fire as a land management tool.

# Wildfire Exposure Map

-  Leon County Boundary
-  Conservation Lands
-  Waterbodies
-  Interstate 10
-  Major Roads
-  Capitol Complex

## Wildfire Exposure Score

-  1/10
-  2/10
-  3/10
-  4/10
-  5/10
-  6/10
-  7/10
-  8/10
-  9/10
-  10/10





A significant portion of the southwestern area of the county is within the Apalachicola National Forest. There is no significant habitation within its borders and the area immediately surrounding the forest contains limited development. While residents may experience a periodic blanketing of smoke, the regular use of prescribed burns by the Florida Forest Service personnel reduces the risk of wildfire.

Wildfires can affect many areas of Leon County and its jurisdictions, but it is particularly a hazard on vacant, undeveloped lands around the urban fringe area where individuals are building homes, particularly in areas with heavy concentrations of trees and vegetation, and where existing fire services or facilities are few or nonexistent. Large amounts of dry underbrush require only an ignition source which can come from various sources such as escape yard debris burn piles, lightning or even the wheels of a passing train. Due to the concentration of residents in rural wooded areas of the county, additional threats to life and property exist, therefore requiring increased mitigation efforts.

Generally, the risk to humans and their property from wildfires increases with population and the development that accompanies population growth. The threat of such fires is low because of extensive prescriptive burning and comprehensive fire protection, yet there is a potential for wildfire in areas of the county adjacent to residential areas and roadways that may increase over time if these areas are not properly managed to reduce the potential for wildfires, particularly if hotter summer temperatures become more common as a result of climate change, which was described in the section addressing extreme heat.

### **Erosion: Low Risk**

The Florida Enhanced State Hazard Mitigation Plan (SHMP)<sup>16</sup> outlines three types of erosion that could potentially impact the state, which include soil erosion, riverine erosion, and coastal erosion. Given that Tallahassee-Leon County is not a coastal county, this potential type of erosion does not apply in the local context. Soil erosion is a naturally occurring process that affects all landforms. Soil erosion may be a slow and relatively unnoticed process, or it occurs at an alarming rate causing a serious loss of topsoil. Soil erosion stages include splash, sheet, rill, and gully. River erosion is present when the land is worn away as the water flows along the riverbed and riverbanks. As the loose sediments is moved along the river, small bedforms can form along the streambed or deposit further down the waterway. Riverine erosion stages include attrition, abrasion, solution, and hydraulic action. Additional information on erosion stages is found in the SHMP.

Measured by cubic feet or tons of missing sand, soil erosion and riverine erosion are potential hazards that could impact Tallahassee-Leon County. Soil erosion impacts can be generally experienced in all jurisdictions, while riverine erosion is limited to the areas in unincorporated Leon County that are adjacent to the Ochlockonee River, Lake Talquin, and the St. Marks River. Significant erosion events have not impacted any critical facilities, and there have been no recorded incidents associated with either of these types of erosion.

Although it can be typically associated with agricultural activities, soil erosion can impact Tallahassee-Leon County given the relative steep slopes that are found throughout the Red Hills physiographic region. Large amounts of rain from seasonal storms or from natural hazard events can exacerbate erosive processes in areas of severe slopes and open conveyance systems. Land development codes regulations mitigate these impacts.

Riverine erosion is another potential erosive hazard that could impact the area to a lesser degree when compared to generalized soil erosion. The Ochlockonee River forms the western boundary of Leon County and has been dammed to form Lake Talquin. The Fort Braden community is located in this area between the lake and the Apalachicola National Forest. The lake forms deep slope ravines where low-density residential properties are located, which are regulated through the land development codes described below. Outside of Fort Braden, the Ochlockonee River is adjacent to conservation lands and large undeveloped tracts of land. The St. Marks River in the eastern portion of the county is also largely protected by conservation lands.

The City of Tallahassee Land Development Code and the Leon County Land Development Code regulate slope grades in order to maintain topography, prevent erosion, protect water quality, and maintain existing vegetation. The land development codes define significant grade as a 10% to 20% slope while severe grade is greater than 20% slope. In addition, the land development codes for both jurisdictions outline instances where these steep grades should be preserved by a conservation easement and where grade change alterations will be restricted near flood zones. According to the codes, a minimum of 50 percent of significant grade areas must be left undisturbed if located adjacent to or within 100 feet of wetlands, waterbodies, watercourses, floodways, floodplains, karst features or special development zones. In addition, severe grade areas shall remain undisturbed if located within 100 feet of the same features delineated in the requirements for significant grade areas. These land development code regulations are intended to mitigate any developmental impacts on erosion as the population of Tallahassee-Leon County grows.

## Sinkhole: Low Risk

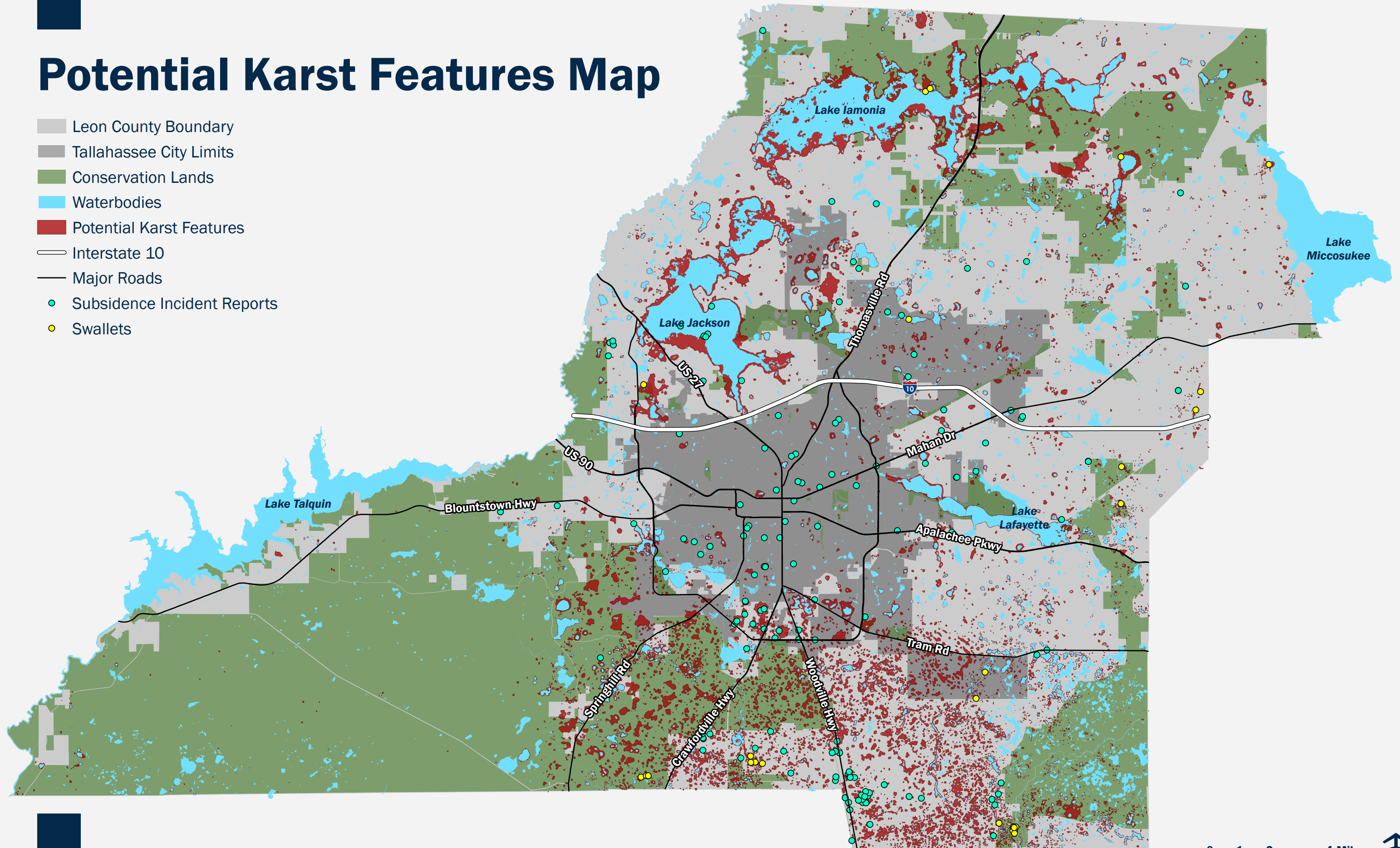
Sinkholes are a common feature of Florida's landscape. They are only one of many kinds of karst landforms, which include caves, disappearing streams, springs, and underground drainage systems, all of which occur in Florida. Karst is a generic term which refers to the characteristic terrain produced by erosional processes associated with the chemical weathering and dissolution of limestone or dolomite, the two most common carbonate rocks in Florida. As defined by the Florida Department of Environmental Protection<sup>17</sup>, a swallet is a stream to sink feature, meaning there is a contribution area that concentrates runoff into identifiable streams that disappear underground at a specific point through a sinkhole. The streams may be either intermittent or continuously flowing.

There is currently no agency with responsibility and authority for sinkhole inspections in Florida. However, the Florida Geological Survey (FGS) receives calls from property owners all over the state who have had sinkholes develop on their property. Although sinkholes can result in property damage, the location, impacts, probability, and extent are difficult to predict. Ground Penetrating Radar (GPR) surveys are increasingly used at the site level to locate karst depressions, which may indicate zones of subsidence. These areas can then be checked with a Cone Penetrometer Test (CPT) sounding. The extent of sinkholes is measured in the depth and the width of the occurrence. The most common types of sinkholes in Florida are dissolution sinkholes, cover-collapse sinkholes, and cover-subsidence sinkholes. These types of sinkholes can be triggered by a decline of water levels, disturbance of soil, point-sources of water, concentration of water flow, water impoundments, or heavy loads on the ground surface.

The Karst Features Map represents previously reported subsidence events, swallets, and potential karst features based on data gathered by the FGS and the Florida Department of Environmental Protection. Although subsidence reports have been filed throughout Leon County and its jurisdictions, the southern portion of unincorporated Leon County is the most vulnerable to sinkholes. Additional areas of the county having shallow soils overlying limestone, including low areas and waterbodies, are more vulnerable than other areas of the county. Development in those areas of the County where sinkholes are prevalent is potentially more vulnerable, because sinkholes can open up into larger caverns or tunnels. Structures and critical facilities built in these areas that do not have ground penetrating radar studies conducted prior to development to establish the presence or lack of sinkholes or karst depressions are also more vulnerable to sinkholes.

# Potential Karst Features Map

- Leon County Boundary
- Tallahassee City Limits
- Conservation Lands
- Waterbodies
- Potential Karst Features
- Interstate 10
- Major Roads
- Subsidence Incident Reports
- Swallets



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

While sinkholes threaten property, a related hazard is the potential impacts on groundwater quality. The local landscape is dotted with sinkholes. Sinkholes are responsible for the periodic dramatic drawdown of several local waterbodies, including Lake Jackson and Lake Lafayette. Because sinkholes have a direct or semi-direct conduit to groundwater reservoirs, the possibility of drinking water degradation is a significant concern. Groundwater vulnerability is most evident within the Woodville Karst and Munson Hills regions, where karst features are prevalent and the aquifer is unconfined by a sedimentary barrier between the surficial and Floridan Aquifers. The maintenance of drinking water quality has been addressed by the implementation of several policies including the Leon County Aquifer and Wellhead Protection Ordinance.

Sinkholes open up every year mostly within the urban and southern areas of Leon County. They are likely to occur in the Red Hills portions of Leon County, including the urban area of Tallahassee, and within the southern parts of the county east of the Apalachicola National Forest. Because the area affected by sinkholes includes the urban area of Tallahassee and developed areas outside of the Apalachicola National Forest, all citizens, structures, and critical facilities and systems within these areas may be potentially affected.

Additional areas of the county having shallow soils overlying limestone, including low areas and waterbodies, are more vulnerable than other areas of the county. Development in areas south of Capital Circle and east of Springhill Road in unincorporated Leon County can be more vulnerable due to the prevalence of potential karst features. Structures and critical facilities built in these areas that do not have ground penetrating radar studies conducted prior to development to establish the presence or lack of sinkholes or karst depressions are also more vulnerable to sinkholes. The degree of vulnerability increases in times of drought as the natural water table decreases in response to the lack of rainfall. An increase in sinkhole activity as a result of climate change has the potential to occur in times of prolonged periods of drought.

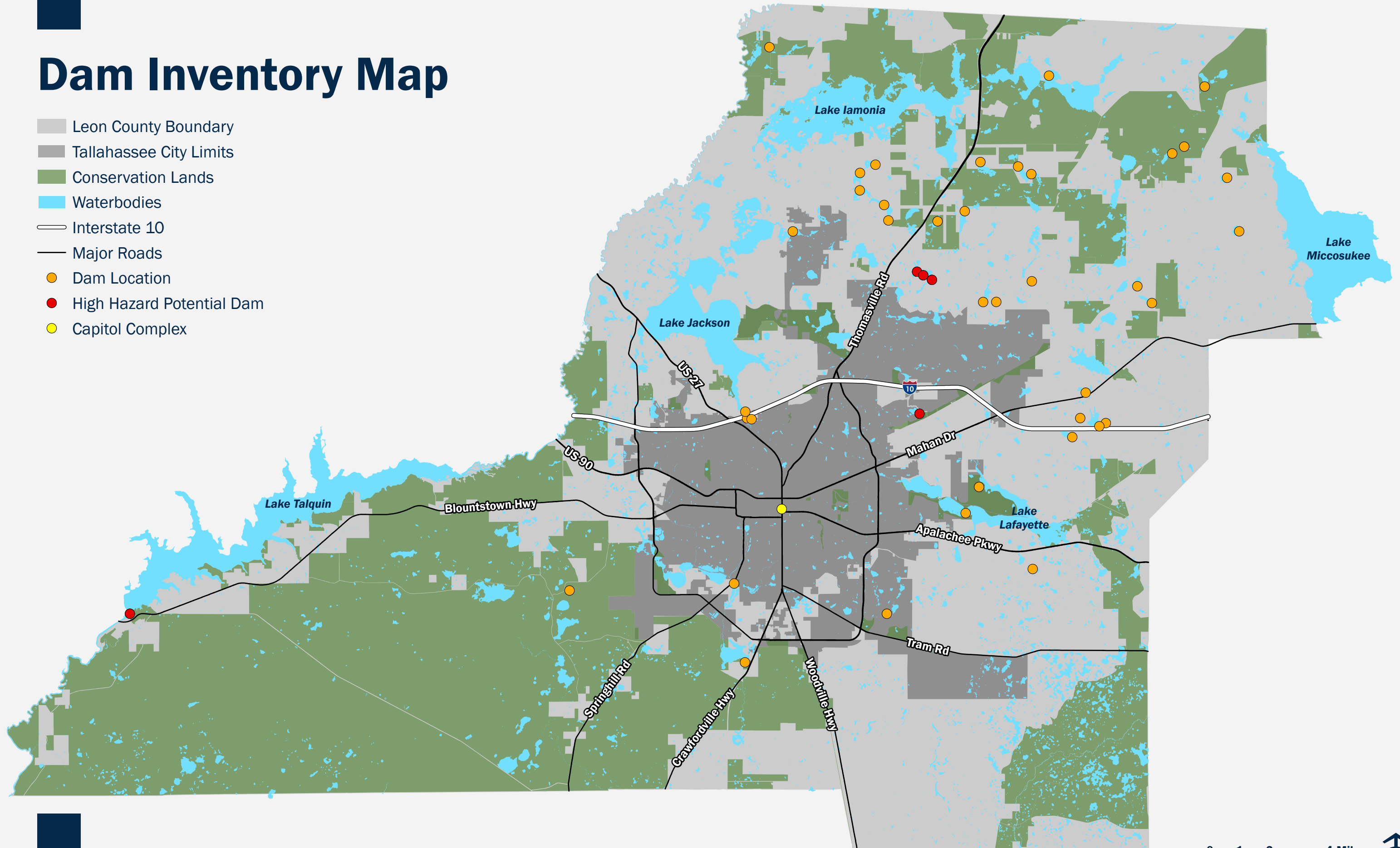
## Dam Failure: Low Risk

A dam is defined as an artificial barrier with the ability to impound water, wastewater, or any liquid-borne material, for the purpose of storage or control of water. A dam failure is a catastrophic type of failure, characterized by the sudden, rapid, and uncontrolled release of impounded water or the likelihood of such an uncontrolled release. Dam failures are usually a secondary effect of massive rainfall and flooding, and failures occur when too much water enters the spillway system. Severe thunderstorms and heavy rainfall are contributory factors. Additionally, inadequate maintenance may also cause dam failures. The hazard potential varies for individual earthen dams, and generally depends upon the volume of water supported by the dam along with the proximity to homes or other vulnerable structures downstream of the waterbody created by the dam. Because many dams are not subject to regular inspection, the data record is not sufficient to assess the hazard potential of many earthen dams. Nevertheless, dam safety is a shared responsibility among the Northwest Florida Water Management District, the Florida Department of Environmental Protection, the US Army Corps of Engineers, local governments and private dam owners. These efforts are coordinated under the Florida Dam Safety Program. To date, no dam failures have been recorded since 1957.

According to the National Dam Inventory managed by the US Army Corp of Engineers<sup>18</sup>, there are 43 dams in Leon County and its jurisdictions. Of these dams, 5 are classified as High Hazard Potential Dams (HHPD), including the Dove Pond Dam, Lake Jean/Gilbert Pond Dam, Lake Warner Dam, Lake Carolyn Dam, and the Jackson Bluff Dam. HHPD is a classification standard for any dam whose failure or mis-operation will cause loss of human life and significant property destruction. Outside of the Jackson Bluff dam, each of the other 4 dams are privately owned, and 3 out of the 5 dams have established an emergency action plan (EAP). The National Dam Inventory shows that these EAPs have been established. However, the documentation is not publicly accessible, which makes coordination difficult. The Jackson Bluff dam, previously known as the C.H. Corn Hydroelectric Power plant, was formerly leased by the City for power generation but has since been decommissioned as a power plant and management was turned over to the State of Florida in 2019. The Florida Department of Environmental Protection (FDEP) assumed control of the dam and reservoir for the state, and FDEP coordinates with emergency management personnel from potentially impacted counties (Leon, Liberty, Gadsden, Wakulla and Franklin) during any high-water events to ensure that they are aware of the operations and can coordinate as necessary in the event of a dam failure.

# Dam Inventory Map

- Leon County Boundary
- Tallahassee City Limits
- Conservation Lands
- Waterbodies
- Interstate 10
- Major Roads
- Dam Location
- High Hazard Potential Dam
- Capitol Complex



According to the Florida Dam Safety Program, owners of HHPDs are strongly encouraged to develop EAPs to implement in the event of a catastrophic dam failure, and FEMA states that dam failures can be attributed to the following reasons:

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

The frequency of dam failure in Leon County and its jurisdictions is unknown, and climate change has little impact on dam failure given its categorization as a human-caused hazard. Further, most local dams are small and located in rural areas, and the downstream impacts of their failure would be relatively minimal. Based on these data, Leon County and its jurisdictions have limited vulnerability to dam failure. Downstream from Jackson Bluff Dam, the Ochlockonee River travels through four counties before entering into the Gulf of Mexico. A camping area, a mobile home park, and a road with 45 homes are about a half mile downstream from the dam. These residential developments are in relatively low-lying areas. In the event of a breach of the dam, the main impact will occur on Crooked Road, a residential area downstream of the facility in unincorporated Leon County. Priority has been given to the Jackson Bluff dam and Initiative 11 in the Hazard Mitigation Initiatives Appendix addresses the need for continued coordination.

### **Winter Weather: Low Risk**

The National Weather Service defines a winter weather event as a winter weather phenomenon that impacts public safety, transportation, or commerce and includes extreme cold, snowfall, ice storms, winter storms, or strong winds. Although Florida in general does not experience winter weather temperatures at the same extreme as much colder parts of the United States, there are periodically seasonal fluctuations in low temperatures that can be impactful to Leon County and its jurisdictions. Winter weather is measured by wind chill and the number of days below 32° F. As defined by the National Weather Service, wind chill is used to describe what the air temperature feels like to the skin due to the combination of cold temperatures and wind blowing on exposed skin.



Within Florida, Leon County and the northern counties in the panhandle can have comparatively colder winters than central and southern Florida counties. As shown in the Florida SHMP, while southern and central Florida could experience less than 5 days of extreme cold below 32 degrees, Leon County can be subject to between 20 and 37 days of these extreme cold temperatures. Given the relative lack of agricultural industry in Leon County and its jurisdictions, this does not impact economic activities as much as it impacts property, residents, and the delivery of public services.

An arctic blast impacted a majority of the United States in December of 2022. In Tallahassee-Leon County, temperatures were below 20° F for several days, and a hard freeze warning was in effect<sup>19</sup>. In addition, Leon County and its jurisdictions experienced a historic snowstorm in January of 2025 that resulted in over 2 inches of snow. This once in a generation event resulted in public facilities and critical infrastructure being impacted for days as the snow melted and refroze overnight. Damaged electric transmissions lines disrupted power distribution, and Interstate 10 was closed due to freezing roads.

When these type of extreme cold snaps occur, low-income populations that include the elderly and unsheltered individuals are most at risk from potential impacts. Those without centralized heating systems may not have the capabilities to warm their living spaces or may rely on space heaters, which could result in space heater-related fires from overloading a residential electric system. This is potentially exacerbated by older housing stock with electrical components that no longer meet code requirements for safety. While potentially less hazardous to public health, these cold temperatures and hard freezes also impact plumbing and can cause property damage if appropriate precautions are not taken.

Given the observable historic data and climate change projections, it should be anticipated that extreme temperature swings in Tallahassee-Leon County will continue to increase. Residents help mitigate this increasing vulnerability, but there are limits to what can be mitigated locally. For those experiencing homelessness, the Big Bend Continuum of Care assists with cold weather sheltering in coordination with Leon County Emergency Management. On nights where the temperatures are expected to be at or below 35° F, the Kearney Center will open to provide overnight shelter. There are also housing programs such as free Energy Audits that can assist with residents in identifying ways to improve weatherization and winterization of homes. In addition, the City of Tallahassee and Leon County have committed to addressing the impacts of climate change through adopted plans related to resiliency, sustainability, and energy.

## 2.3 Impacts of Climate Change

Over the last several decades and particularly since the first Tallahassee-Leon County LMS was adopted, global climate change has been increasingly disruptive to Florida in general. According to the Florida Climate Center<sup>20</sup>, since 1950, Florida's average annual temperature has risen by 3.5°F while the global temperature has risen by 2.7°F. Additionally, it is projected that the panhandle of Florida will experience between 30-40 more days of extreme heat per year. As shown in the extreme heat section of the hazard impacts and vulnerability chapter, Tallahassee-Leon County had 93 days of 90°F or higher in 2023. Conversely, while it is expected to continue to get hotter, it is also expected to get wetter. The 2023 National Climate Assessment<sup>21</sup> projects that extreme precipitation events are projected to increase, which will increase the vulnerability of currently flood prone areas. The warming of the Gulf of Mexico has resulted in tropical storms and hurricanes that rapidly intensify into major storm categories before landfall.

These increasing impacts of climate change will further exacerbate the natural hazards currently experienced in Leon County and its jurisdictions. A mismatch of extreme heat and extreme precipitation throughout the seasonal weather patterns could mean more drought and risk of wildfire at some times in the year with more flooding and severe thunderstorms at other times. Hurricane season has historically been a precarious time of the year for the region and increased threats will continue to necessitate mitigation and response efforts. There have been several initiatives at the local level that acknowledge these realities and seek to plan accordingly. In 2023, Leon County passed a resolution endorsing the declaration of a climate emergency that recognized the environmental and social threat associated with climate change<sup>22</sup>. Prior to that resolution, in 2019, Leon County adopted the Integrated Sustainability Action Plan<sup>23</sup> and the City of Tallahassee adopted the Clean Energy Plan and the Community Resilience Plan<sup>24</sup>.

The Leon County Integrated Sustainability Action Plan lays out specific goals and action items reflecting sustainability priorities and responsibilities across the government with the ultimate aim to reduce greenhouse gas emissions from County operations. Similarly, the City of Tallahassee Clean Energy Plan commits to transitioning to 100% renewable energy by 2050 community-wide. As a benchmark for this transition, the plan calls to achieve 100% renewable energy in City operations by 2035. Along with the City of Tallahassee Community Resilience Plan goal to equip residents for shocks and stressors, these plans work together with the LMS to make Tallahassee-Leon County stronger for all residents.

## **2.4 Community Vulnerability**

While it is important to consider the physical locations that could be impacted by natural hazards, it is essential to remember the human element associated with hazard vulnerability. Given that climate change and natural hazard impacts tend to exacerbate existing societal inequities, mitigation efforts should focus on areas of high social vulnerability. In addition, the funding sources that will be discussed in the hazard mitigation projects section below prioritize projects that will be completed in these areas of social vulnerability. Tools such as the Social Vulnerability Index, Climate and Economic Justice Screening Tool, and National Risk Index have all been developed to provide a snapshot of the areas throughout the country with high levels of vulnerability.











### **Social Vulnerability Index**

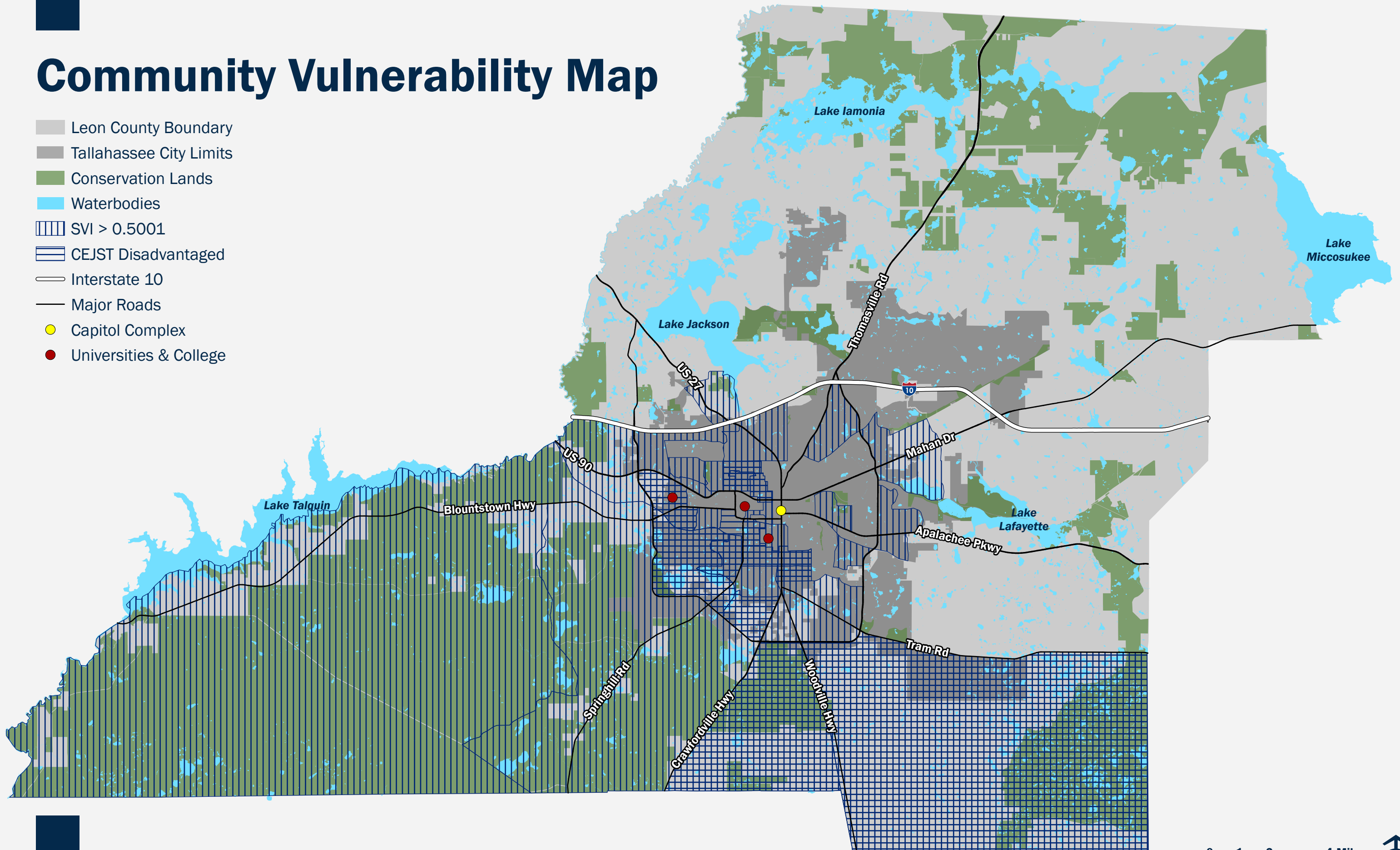
The Social Vulnerability Index (SVI) was developed by the US Center for Disease Control and Prevention's (CDC) Agency for Toxic Substances and Disease Registry (ATSDR) to help communities identify and map the areas that will be most likely to need support before, during, and after a hazardous event<sup>25</sup>. The SVI uses Census tract data to measure four categories: (1) socioeconomic status, (2) household characteristics, (3) racial and ethnic minority status, and (4) housing type and transportation. These categories included 16 factors that are analyzed to calculate the overall social vulnerability index rank. Scores on a scale from 0 to 1 can be calculated individually for each of the four categories or can be applied as an overall score for Census tracts. Grant programs such as the FEMA Flood Mitigation Assistance program use SVI scores over 0.5001 for cost share options.

### **Climate and Economic Justice Screening Tool**

Developed by the Council on Environmental Quality (CEQ), the Climate and Economic Justice Screening Tool (CEJST) is used to implement the Justice40 Initiative by identifying disadvantaged communities<sup>26</sup>. This identification is based on categories of burden that include climate change, energy, health, housing, legacy pollution, water and wastewater, transportation, and workforce development. Grant programs such as the FEMA Building Resilient Infrastructure and Communities program use the CEJST tool to establish priority for projects occurring in Census tracts that have been identified as disadvantaged. The map below shows the overlap of areas in Tallahassee-Leon County with SVI scores greater than 0.5001 and classified as disadvantaged.

# Community Vulnerability Map

-  Leon County Boundary
-  Tallahassee City Limits
-  Conservation Lands
-  Waterbodies
-  SVI > 0.5001
-  CEJST Disadvantaged
-  Interstate 10
-  Major Roads
-  Capitol Complex
-  Universities & College



## National Risk Index

The National Risk Index (NRI) was developed by FEMA to provide a view of the likelihood and consequences of natural hazards<sup>27</sup>. An overall risk index score is calculated using three components: (1) expected annual loss, (2) social vulnerability, and (3) community resilience. The expected annual loss is the average economic loss in dollars resulting from natural hazards each year. Social vulnerability is the susceptibility of social groups to adverse impacts. Community resilience represents the ability to adapt to changing conditions and recover rapidly from disruptions.

The NRI score for Leon County is 94.56. The score is ranked by percentile, which means that 95% of counties in the US have a lower risk index score than Leon County. This is typical for Florida counties in general because Florida tends to be more prone to hazards than most of the country. In contrast, within Florida, 54% of counties have a lower risk index score. This means that Leon County tends to be less hazard prone than the rest of Florida, which is most likely due to it being an inland rather than coastal county. The NRI shows Leon County with relatively high levels for both social vulnerability and community resilience with relatively moderate levels of expected annual loss. The map on the next page breaks down the risk score by census tract.

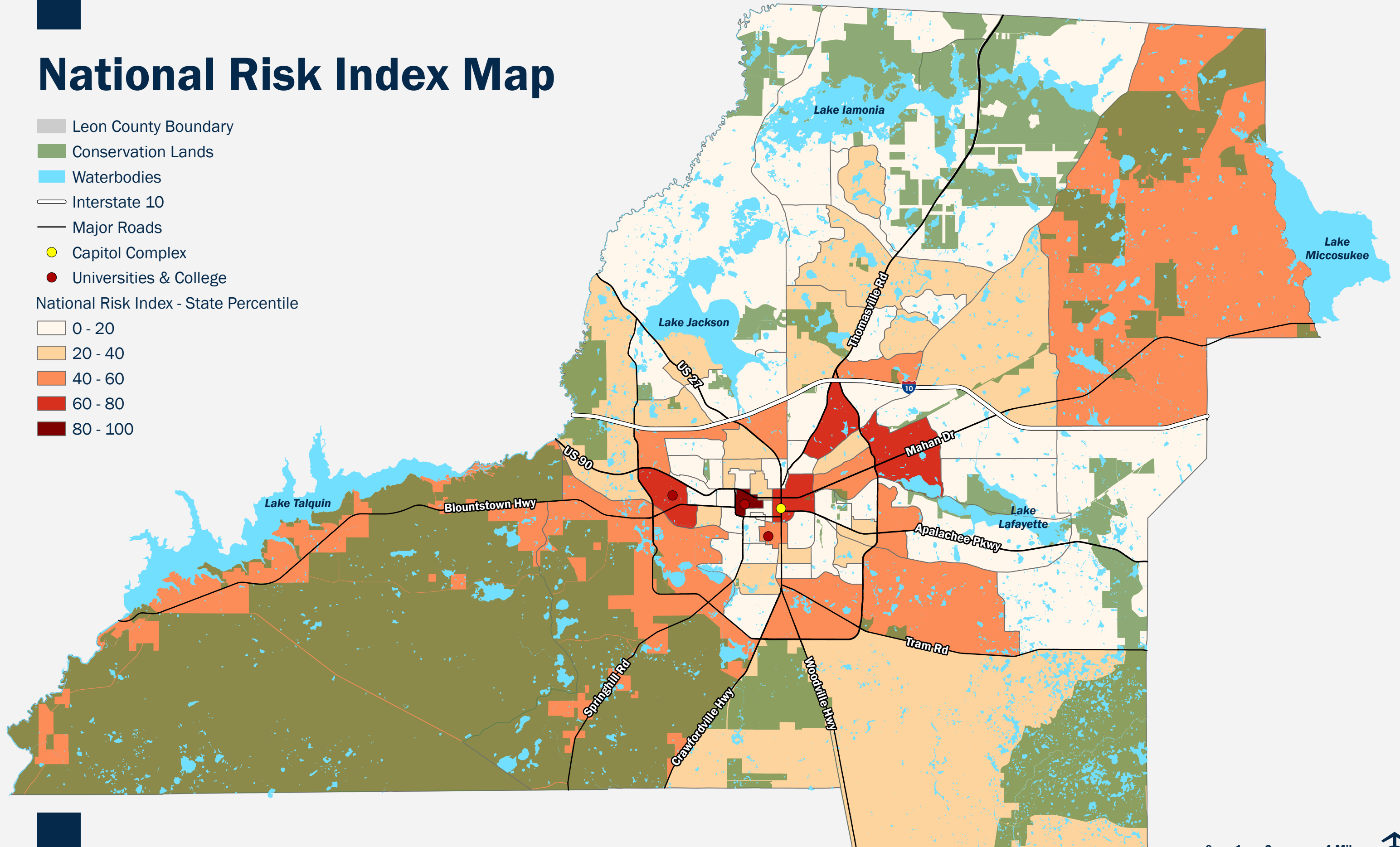
Tallahassee-Leon County Expected Annual Loss (EAL) for Hazard Types		
Natural Hazard	EAL Rating	EAL Value
Hurricane	Relatively High	\$54,574,019
Severe Thunderstorm	Relatively High	\$16,590,790
Wildfire	Relatively Moderate	\$4,114,675
Flooding	Relatively Moderate	\$3,215,896
Extreme Heat	Relatively Moderate	\$1,068,465
Erosion (Landslide)	Relatively Moderate	\$122,400
Winter Weather	Relatively Moderate	\$84,759
Drought	Relatively Low	\$35,058

# National Risk Index Map

- Leon County Boundary
- Conservation Lands
- Waterbodies
- Interstate 10
- Major Roads
- Capitol Complex
- Universities & College

National Risk Index - State Percentile

- 0 - 20
- 20 - 40
- 40 - 60
- 60 - 80
- 80 - 100



## Vulnerability Tools Analysis

Each of these three vulnerability tools are encouraged to be used when applying for federal hazard mitigation grant funding and each assesses risk but from a slightly different perspective. For example, the NRI is calculated by multiplying the expected annual loss by the CDC's SVI index and then dividing the result by the community resilience score. Given that the expected annual loss takes into account property values, areas with higher property values tend to score higher on the NRI. The community resilience score is at the county scale so each of the Census tracts receives the same score. When combined with older populations and areas in flood zones, generally higher income areas like downtown and northeast Tallahassee south of I-10 can be identified with high-risk index scores.

In comparison, the SVI and CEJST tend to de-emphasize property values by prioritizing socioeconomic and environmental factors. Each of these tools uses Census tracts as the geographic unit of measurement. There are 79 census tracts in Tallahassee-Leon County. Of these census tracts, 33 have been classified with a SVI score of greater than 0.5001 and 14 have been identified as disadvantaged by the CEJST. The areas of overlap between these two indices consist of 13 census tracts in southeast Leon County and southwest Tallahassee. Most of these areas have high levels of housing cost burden, single-parent households, multi-unit or manufactured housing, and lack of vehicle access. These areas tend to be racially and ethnically diverse, but the most consistent indicator is poverty rate.

## Property Vulnerability

The Structures Age Map on the next page uses Leon County Property Appraiser data to assess the property vulnerability throughout Leon County and its jurisdictions. As stated in the Flood section, Tallahassee-Leon County has over 112,000 total parcels. Of that total number of parcels, there are 34,057 parcels with structures that were built prior to 1980 and another 21,189 were built prior to 1990. Representing just under 50% of all properties in Tallahassee-Leon County, this is significant given that the Florida Building Code (FBC) was entirely overhauled following the destruction experienced by Hurricane Andrew in 1992. Following a lengthy commission and recommendation process, a new FBC was adopted in 2002 to improve the hazard resilience of properties<sup>28</sup>. While nearly 50% of properties in Tallahassee-Leon County were built prior to Hurricane Andrew, there have been 20,610 structures (18%) built since 2003. For hazards such as flooding, severe thunderstorms, and hurricanes, the year a structure was built is particularly important.

# Structures Age Map

Leon County Boundary

Conservation Lands

Waterbodies

Interstate 10

Major Roads

Year Built

1920

1930

1940

1950

1960

1970

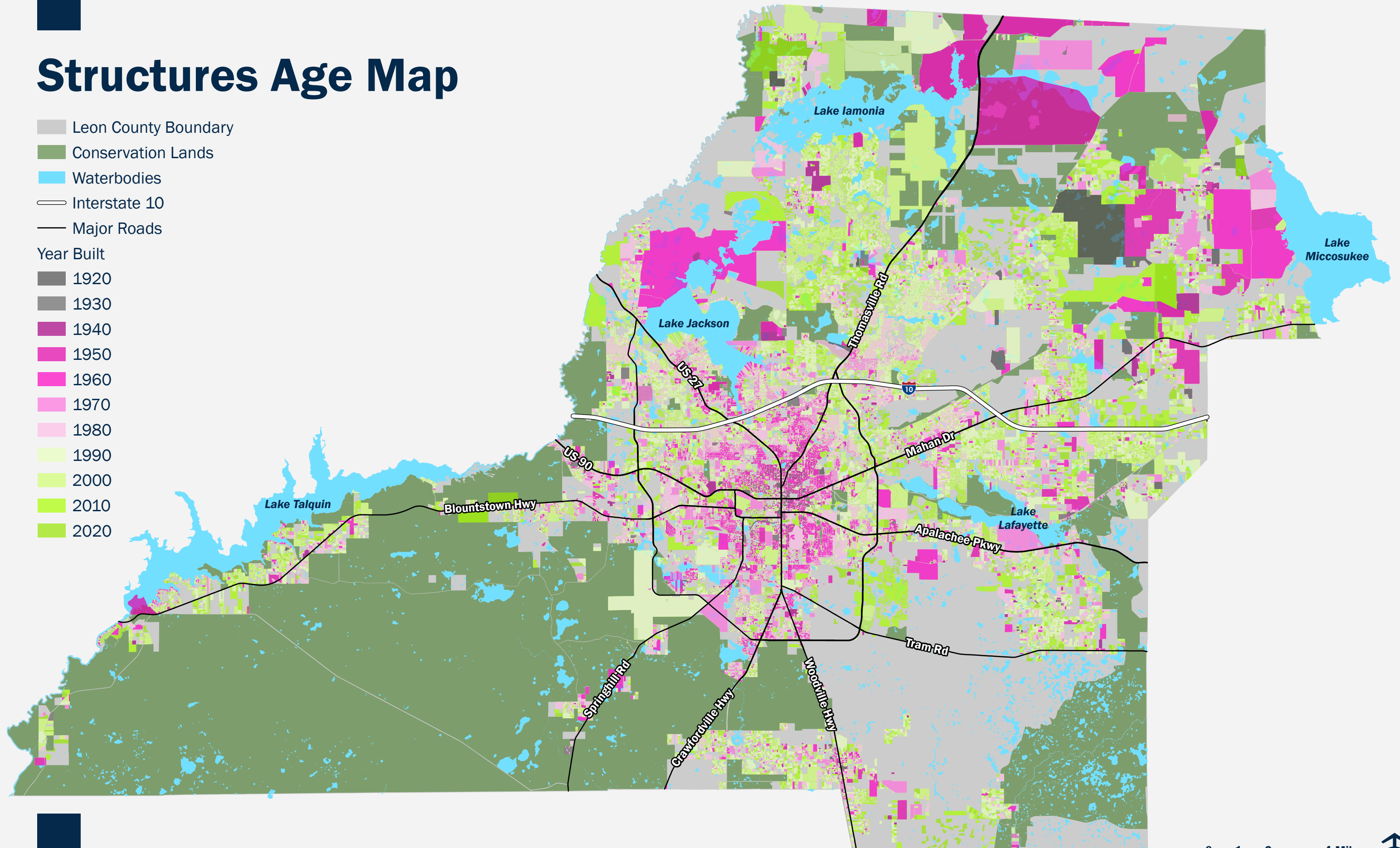
1980

1990

2000

2010

2020





## Critical Facilities

FEMA encourages but does not require the mapping of critical facilities. Given this guidance and the security implications of mapping critical facilities, the Tallahassee-Leon County LMS uses the table below to show the types and numbers of existing high priority critical facilities. Specific locations and descriptions of critical facilities can only be obtained from Tallahassee-Leon County Geographic Information Systems by qualified personnel. Critical facilities are defined as providers of goods or services that are vital to local response functions in the event of a disaster. Critical facilities also play a vital recovery role during the aftermath of natural hazards. The following table summarizes the types and number of high priority critical facilities in Tallahassee-Leon County. The LMS Goals and Objectives highlight the importance of critical facilities.

Critical Facility Type	Total Number of Sites	City of Tallahassee	Unincorporated Leon County
Child Care Facilities	191	153	38
Communications Towers	163	93	70
Corrections	4	4	0
Electric Generation Facilities	41	22	19
Emergency Operations Centers	7	7	0
Emergency Shelters	68	57	11
Fire Stations	25	11	14
Government Center	7	7	0
Hazardous Materials Sites	282	190	92
Healthcare Facility	82	69	13
Higher Education Facilities	7	7	0
Hospitals	9	7	2
Hurricane Shelters	19	13	6
Key Resources (Aid Distribution)	18	11	7
Law Enforcement Facilities	14	14	0
Military Facilities	4	4	0
Public Water Supply (Wells)	63	30	33
Schools (K-12)	59	47	12
Sewage Treatment Facilities	6	2	4
Solid Waste Facilities	6	0	6
<b>Total Number of Critical Facilities</b>	<b>1,075</b>	<b>748</b>	<b>327</b>



# **Chapter 3**

## **Mitigation Strategy**



### **3.1 Hazard Mitigation Goals & Objectives**

Prior iterations of the Tallahassee-Leon County LMS have included an expansive list of goals, objectives, and initiatives. These have been largely carried through the subsequent updates from the original LMS that was adopted in 1999. Some revisions have been made throughout the years, but the changes have been relatively minor. This lists below show the original goals from 1999 compared to the most recent goals from the 2020 update.

In addition to the goals included in the original LMS, the objectives from the most recent 2020 LMS update are highly similar to the 1999 LMS objectives. These original objectives were intended to feed into the prioritized mitigation initiatives, which included 45 ranked initiatives for both policy change and capital projects. Over the years of updates, the number of initiatives has been reduced down to 20 but nearly all of the current initiatives shown in Appendix A continue to be the initiatives that were originally devised.

#### **2025 LMS Goals and Objectives**

This update has reimagined the goals and objectives for the Tallahassee-Leon County LMS using previous iterations as guidance. The goals have been streamlined while continuing to capture the spirit of the original LMS. Although economic activities are an important consideration for community resilience in general, the LMS Committee has determined that they are outside of the scope of hazard mitigation efforts. Mitigating critical facilities and infrastructure will continue to be a priority. As such, the goals of the Tallahassee-Leon County LMS are to support hazard mitigation efforts that achieve the following:

- 1) ***Protect public safety by continuing to assess the potential impacts and prepare accordingly for natural hazards affecting Tallahassee-Leon County***
- 2) ***Strengthen infrastructure and neighborhoods by continuing to invest resources in mitigating the impacts of natural hazards on critical facilities and community assets***
- 3) ***Enhance community resilience by continuing to support public programs, especially those focused on providing assistance to the most vulnerable populations***

## Protect Public Safety

The health, safety, and welfare of Tallahassee-Leon County residents are the most important considerations for hazard mitigation efforts. The role of the LMS for these objectives will be to support projects that ensure preparedness for the natural hazards that may impact the City and County. Objectives to protect public safety include:

### ***1a) Continual assessment of natural hazards and their impacts***

Learning from past experiences is a valuable process for hazard mitigation. Tallahassee-Leon County will continue to evaluate its preparedness and response to natural hazard events.

### ***1b) Evaluate and update emergency notification systems as necessary***

Automated text message systems and robust public notifications are currently in place for emergency preparedness, and the LMS will support efforts to update these communication systems as needed.

### ***1c) Pursue additional training opportunities for emergency responders***

Training programs beyond the required training will be encouraged to ensure that emergency responders and supplemental support staff are educated on the most up-to-date best practices.

### ***1d) Strengthen partnerships for hazard training, planning, and response***

Coordination with public, private, and non-profit stakeholders in Tallahassee-Leon County will be continued, and opportunities will be pursued to enhance regional mitigation efforts.

### ***1e) Incorporate hazard mitigation into development review processes***

Land development code regulations currently incorporate additional requirements for environmentally sensitive lands, and the best practices for managing development will continue to be pursued.

### ***1f) Support mitigation activities in conservation lands throughout the County***

Tallahassee-Leon County has a vast expanse of conservation lands that provide ecosystem services in the mitigation of hazards, and the LMS will support active management activities on these lands.

## Strengthen Infrastructure

Following a natural hazard event, disruptions to critical facilities can affect the delivery of essential public services. While the goal should be that these public services operate continually without disruption after a natural hazard, these objectives will prioritize minimizing disruptive events. Objectives to strengthen infrastructure include:

### ***2a) Enhance mitigation of critical facilities***

Critical facilities for emergency responders such as airports, fire stations, hospitals, and other public safety facilities that are located in high-risk areas will be prioritized for mitigation efforts.

### ***2b) Mitigate critical public infrastructure corridors as needed***

Roads, drainage, water, wastewater, and electrical systems are the public infrastructure that are critical to mitigating the impacts of natural hazards and will be upgraded appropriately as needed.

### ***2c) Improve disaster resistance of shelters and service provider facilities***

Community centers, health care facilities, and other neighborhood services often supplement emergency response efforts. Projects to improve these types of facilities will be solicited and pursued.

### ***2d) Utilize natural areas and green infrastructure for mitigation efforts***

Combining naturalized elements with public infrastructure can provide additional mitigation of natural hazard impacts. These green infrastructure techniques will be adopted as appropriate.

### ***2e) Invest in flood-related capital improvements projects***

Flooding is a critical issue, and natural hazards tend to exacerbate the problem. Flood prone areas will be targeted for capital improvement, at-risk property acquisition, and grant-funded projects.

### ***2f) Continually monitor and evaluate High Hazard Potential Dams (HHPDs)***

The LMS supports continuing to coordinate with the Northwest Florida Water Management District and the Florida Department of Environmental Protection to evaluate appropriate action on HHPDs.

## Enhance Community Resilience

As natural hazard events are projected to increase in the face of climate change, grassroots community resilience will need to be fostered to complement the role of public emergency response efforts. The objectives included are intended to facilitate citizen-led resilience and support local government programs:

### ***3a) Continue participation in the NFIP and CRS***

The City of Tallahassee and Leon County will continue to participate in the National Flood Insurance Program and Community Rating System to minimize premiums for flood insurance.

### ***3b) Maintain programs to mitigate vulnerable and repetitive loss structures***

There are currently programs in place to identify vulnerable structures and work with property owners that have been subject to repetitive losses. The LMS supports maintaining these programs to acquire at-risk properties as needed.

### ***3c) Promote public awareness of natural hazards and high-risk areas***

A key role of the LMS is to increase the awareness of residents on the natural hazards that may impact Tallahassee-Leon County, and public awareness campaigns should prioritize education for those who may be in high-risk areas.

### ***3d) Encourage resilience improvements to existing residential housing***

Thousands of properties throughout Tallahassee-Leon County were built prior to the current building code. Efforts will be made to encourage the implementation of disaster-resistant improvements for all properties.

### ***3e) Support public education programs on resources for community resilience***

Several programs currently exist to educate residents on topics such as energy conservation and rain gardens. The LMS supports the expansion of public education campaigns on available resources.

### ***3f) Coordinate with community stakeholders to enhance mitigation efforts***

Neighborhood association and community stakeholder support is often needed to implement public infrastructure projects, and the LMS supports enhanced coordination with these groups on awareness efforts.

## **3.2 Hazard Mitigation Initiatives & Projects**

As part of developing the original LMS, the LMS Steering Committee prioritized a set of mitigation initiatives and infrastructure projects. These Hazard Mitigation Initiatives and the Prioritized Project List represent local mitigation efforts that support public health and safety, protect people, and protect real property in the most vulnerable areas of Leon County and its jurisdictions. As part of this effort, the Committee developed a list of criteria, performance measures, and number of points that could be assigned to weight these initiatives. Points were provided for initiatives that supported essential or critical public and private services, and previously identified mitigation goals. Bonus points were awarded to those initiatives that provide additional benefits. Based on the final scores, the Committee grouped the initiatives into high, medium, or low categories.

### **Hazard Mitigation Initiatives**

Many of the mitigation initiatives identified by the LMS Steering Committee are non-capital efforts such as policy changes and updates to existing codes and plans. Many of these efforts are ongoing, and there is no explicit starting or ending time or schedule in place. However, a general review of potential costs and benefits was conducted for the proposed mitigation initiatives. The requirements of FEMA's HMGP to mitigate hazards also require a full cost-benefit analysis as part of the grant application.

The general economic evaluation of each mitigation initiative was performed by determining the estimated costs, benefits, and available funding sources for each initiative. The estimated cost ranking system serves the purpose of assessing the potential cost of implementing each mitigation initiative. It also provides an indicator of the extent to which benefits may be maximized according to a cost-benefit review of the proposed initiatives. Estimated costs were previously derived through consultation with LMS Committee staff and other local officials familiar with the initiatives and related programs.

The ranking procedure was to simply rank-order each initiative. This number represented the number of points assigned to each initiative, from the highest-ranking initiative receiving the most points and the lowest-ranking initiative receiving the least points. The LMS Coordinator then tallied the LMS Committee voting member responses and ranked the initiatives from highest to lowest. The mitigation initiatives have been reviewed by the LMS Committee for this update, and the initiatives table can be found in Appendix A.

## Potential Funding Sources

The most commonly pursued grant funding source in Tallahassee-Leon County has historically been the Hazard Mitigation Grant Program (HMGP). This grant is administered following a Presidential Disaster Declaration and is disbursed to impacted counties proportionally based on the scale of damages. The list below shows the approximate funding that was available to Leon County over the most recent disaster declarations:

- Hurricane Idalia (2024): \$2.6 million
- Hurricane Nicole (2023): \$76,000
- Hurricane Ian (2023): \$2.2 million
- COVID-19 (2021): \$1.9 million
- Hurricane Michael (2021): \$8 million
- Hurricane Hermine (2017): \$628,000

Eligible HMGP projects include acquisition of at-risk structures, floodproofing and elevation of structures, generators for critical facilities, facility retrofits, wildfire mitigation, and wind mitigation. Projects for HMGP funding tend to be smaller-scale structural and power redundancy retrofits of existing facilities. Ineligible projects include equipment purchases, stand-alone studies not directly related to design and implementation, tree and debris removal, and projects that are currently in progress. HMGP grant applications must include an endorsement letter from the respective LMS Chairperson and should indicate the priority of projects if more than one project is submitted.


For larger-scale projects with multi-year time horizons, the Flood Mitigation Assistance (FMA) and the Building Resilient Infrastructure and Communities (BRIC) grants should be pursued. Each of these annual grant opportunities can be implemented over a three-year period and can fund capacity building activities such as assessments and planning efforts. FMA grants are focused on flood mitigation projects that will benefit NFIP-insured properties, especially those that have been identified as Severe Repetitive Loss or Repetitive Loss. BRIC grants are focused on hazard mitigation projects that increase resilience. Addressing multiple hazards can result in higher prioritization, and emphasis is given to projects that are implemented in census tracts where the SVI index is greater than 0.5001 and in tracts that have been identified as disadvantaged. In addition, grant applications that have been previously awarded with capacity building activities funding receive a higher evaluation score for implementation projects.



## Prioritized Project List


Since its initial adoption, the LMS Committee has continued to meet on a regular basis to endorse specific projects for grant funding. The Prioritized Project List (PPL) includes infrastructure projects intended to increase the resilience of critical facilities. Projects are added to the PPL following endorsement by the LMS Committee and are prioritized annually as needed. In most annual updates, the priority of the projects does not change. However, in the event that a large number of new projects are added, the LMS Committee prioritizes the projects according to a rank order approach, where each project is ranked by the Steering Committee members and the scores are calculated to determine the priority order. The PPL in Appendix B reflects the projects that continue to seek grant funding for implementation. Projects will continue to be considered by the LMS Committee and endorsed as necessary. From 2017 to 2024, the LMS Committee has endorsed a total of 30 hazard mitigation projects requesting approximately \$20.4 million in hazard mitigation funding through FDEM. These requests resulted in securing approximately \$5.9 million in federal funding for 16 endorsed projects. Projects that were withdrawn or not approved for funding totaled approximately \$1.3 million. Ten of the 30 endorsed projects have been recently submitted to FDEM for federal funding and are currently still under review. The total federal funds requested from these projects is approximately \$13.2 million.

Year LMS Endorsed	No. Projects Endorsed	Total Requested	No. Projects Funded	Total Funded	Applicants
2017	7	\$2,121,561	3	\$828,689	City UUPI, Big Bend 211
2018	0	\$0	0	\$0	Leon County Public Works
2019	11	\$4,559,946	11	\$4,559,946	211 Big Bend, Leon County Public Works, City UUPI, Talquin Electric, Leon County Sheriff's Office, City Fleet Management
2021	2	\$556,961	2	\$556,961	City UUPI, City Fire Department
2023	6	\$8,637,027	N/A	Projects currently under review	City UUPI, Leon County Public Works, Leon County Facilities Management, City Housing and Community Resilience
2024	4	\$4,525,815	N/A	Projects currently under review	Leon County Public Works, City UUPI, City Housing and Community Resilience
<b>Totals</b>	<b>30</b>	<b>\$20,401,310</b>	<b>16</b>	<b>\$5,945,596</b>	



# **Chapter 4**

## **Planning Process & Plan Maintenance**



## 4.1 Planning Process

The federal rules that govern the local mitigation strategy process require that the LMS Committee meet regularly at least once a year to review the LMS and any proposed changes. The LMS Committee Bylaws are included in Appendix D and the minutes from the LMS Committee meetings are found in Appendix E. All Committee members and additional stakeholders are contacted via an email distribution list that is regularly updated by the LMS Coordinator. The Public Information Officers for both jurisdictions are also on this email distribution list, and all meetings are open to the public. The formal planning process to review and update the existing Tallahassee-Leon County Local Mitigation Strategy began in late 2023 with a meeting of the LMS Steering Committee and Working Group. Since that initial meeting, local staff and other community organizations have met several times as a subcommittee to share information and coordinate the update processes for policies and information included in the 2025 update.

Planning staff initiated a discussion of the required five-year update of the LMS, including the proposed timeline and the role of the Steering Committee and Working Group. The Steering Committee Chair suggested that a meeting in early 2024 be scheduled so that volunteers for a Working Group could meet on a more regular basis with Planning staff to review and update the LMS and then schedule a regular meeting of the Working Group to review these work products as the process moves forward. Quarterly meetings of the Working Group were proposed by the Chair for this purpose. The Working Group reviewed elements of the existing LMS, including hazards, new flood major mitigation and emergency management initiatives and projects, and the hazard rating system. The subcommittee at the November meeting discussed the goals and objectives in the LMS. Throughout 2024, staff collected supporting documents, researched new occurrences of hazards, analyzed the vulnerability of the community to these hazards, and gathered other relevant data as part of the update process. Staff reviewed the previous LMS update, reviewed new requirements, and noted data deficiencies.

A draft copy of the 2025 update was submitted to the Florida Division of Emergency Management for review in December 2024. A draft copy of this plan was added to the Tallahassee-Leon County Planning Department website. The public meeting to present the 2025 update was also advertised on this webpage. The advertised Leon County and City of Tallahassee commission meetings for adoption by resolution of the 2025 LMS update were scheduled respectively for May 2025.

## 4.2 Opportunity for Public Involvement

To encourage public participation and increase community knowledge regarding the current LMS update, a draft copy of the 2025 LMS update was added to the Tallahassee-Leon County Planning Department LMS webpage and links to the website were provided in community newsletters and email subscriptions to solicit feedback. Documentation for this review is included in Appendix E. At any time, citizens can engage with staff on questions, concerns, or comments via the email address and phone number on the Planning Department LMS webpage. Finally, the County and City commission meetings adopting the 2025 update were publicly noticed, and citizens were able to review and comment on the draft LMS before the City and County Commissions adopted the 2025 LMS update. Citizens were also provided an opportunity to speak during these public meetings.

Soliciting effective public input and raising awareness about the potential hazards impacting Tallahassee-Leon County is a core objective of the LMS. To reach neighborhoods throughout the community, LMS Committee members work with the City's Neighborhood Affairs Division and the County's Neighborhood Services Division on outreach efforts that seek to engage underserved and vulnerable populations. These include programs such as Neighborhood PREP and Leon Ready, which help educate residents on how to prepare for natural disasters. In addition to these efforts, both traditional and new forms of communication, including social media, are used to encourage awareness of hazard preparedness. Through these outreach efforts, the most vulnerable populations in Leon County and its jurisdictions are encouraged to provide input and feedback.

Although there are a variety of means through which public engagement on the goals and objectives of the Tallahassee-Leon County LMS is encouraged, the nature of the LMS can make it difficult to effectively engage with the general public at-large. A key component of the LMS is grant eligibility for projects mostly targeted at increasing the resilience of critical facilities and public infrastructure. Through the PPL, these efforts tend to be a piecemeal approach with individual projects that are implemented by separate governmental departments. Even though these infrastructure projects fit together in the critical facilities ecosystem, it can be difficult to communicate how all of these separate projects and initiatives work together to achieve the goals and objectives of the LMS. As the LMS Committee considers future updates and opportunities for public involvement, efforts will be made to communicate the major projects, initiatives, and accomplishments through a more interactive platform that stimulates robust engagement.

### **4.3 Coordination with Existing Plans & Policies**

This section is intended to summarize all existing authorities, policies, programs, and resources available to accomplish hazard mitigation in Leon County and its jurisdictions. The individual agencies and departments responsible for each of the plans and policies described below review the LMS and coordinate with the LMS Committee as necessary to ensure that hazard mitigation goal and objectives are implemented appropriately.

#### **Authorities**

The Leon County Division of Emergency Management and the Sheriff's Office are responsible for maintaining and updating plans necessary for disaster situations. These plans include the Leon County Comprehensive Emergency Management Plan and various Continuity of Operations Plans (COOPs). The Leon County Division of Emergency Management maintains an Emergency Operations Center. The City of Tallahassee formed a Division of Emergency Management in 1992. The Division of Emergency Management has a full-time Emergency Coordinator who works with city agencies on emergency preparedness, response, and recovery activities.

#### **Tallahassee-Leon County Comprehensive Plan**

The Comprehensive Plan is a joint plan that directs long range growth and development in Tallahassee-Leon County. The Comprehensive Plan is comprised of multiple Elements, each addressing certain aspects of the community. Each Element is made up of aspirational goals, measurable objectives, and strategic policies. The Future Land Use Element establishes goals, objectives, and policies governing land use. This element is based on the population projections of the community, as well as natural resource considerations and the distribution of infrastructure. Land uses are allocated on the Future Land Use Map based on these assumptions and the community's commitment to concentrate urban development in a compact form within the Urban Service Area (USA). This is intended to minimize urban sprawl and focus growth where infrastructure currently exists. In addition to emphasis within the USA, the element includes incentives to direct growth to underutilized areas. These strategies are linked to how well the USA boundary is maintained, and a high priority has been placed on limiting expansions to the USA. Amendments to the Comprehensive Plan have resulted in the addition of policies based on mitigation initiatives contained in the LMS and recommendations of the LMS Committee.

The Intergovernmental Coordination Element was amended to incorporate policies describing the role and function of the LMS Committee. The Intergovernmental Coordination Element states:

*The Tallahassee-Leon County Local Hazard Mitigation Steering Committee shall review and update the adopted Leon County Local Mitigation Strategy as required by state law. The composition of the LMS Committee shall be comprised of a broad representation from governmental and private sector interests to ensure effective disaster mitigation coordination. The LMS Committee shall meet on a regular basis and provide an annual report to the City and County Commissions on the status of disaster mitigation efforts and recommendations for prioritization of disaster mitigation programs in the annual schedule of Capital Improvements. [Policy 1.3.5: [I] (EFF. 4/10/09)]*

The Conservation Element was amended to incorporate policies to increase wildfire mitigation efforts, as promoted through the LMS. Policies and objectives in the Land Use Element were amended to incorporate goals and actions prescribed in the LMS Prioritized Mitigation Initiatives List. Lastly, the Glossary was amended to add the terms ‘hazard’ and ‘hazard mitigation’ to the language and terms within the Comprehensive Plan.

If any amendments related to hazard identification and mitigation are identified by the LMS Committee, they will be transmitted to the Planning Department through the LMS coordinator. If specific text or map changes are recommended or by the elected officials, the Planning Department will file an amendment to the Comprehensive Plan.

### **Land Development Code**

Floodplain management regulations have long been incorporated into the land development regulations for the City of Tallahassee and Leon County, based on policies in the Tallahassee-Leon County Comprehensive Plan. Mitigation initiatives included in the LMS will continue to be considered as part of amending existing ordinances and regulations and in the drafting of new ordinances and regulations for inclusion in the Code. Planning staff regularly meet with the City’s Growth Management department and the County’s Development Support and Environmental Management (DSEM) department on variety of issues, including hazard identification and mitigation. Planning Department staff also manage the Leon County Water Resources Committee.

## **Comprehensive Emergency Management Plan**

The Leon County Comprehensive Emergency Management Plan (CEMP) establishes uniform policies and procedures to effectively coordinate resources in response to natural, man-made and technological emergencies. It outlines direction and control of emergency situations from the Board of County Commissioners to the FDEM. The Recovery Function of the CEMP outlines how the transition from response to recovery is managed and the activities conducted during the recovery phase. The Mitigation Function is a summation of the Leon County Local Mitigation Strategy and includes a brief discussion of concept of operations, pre-disaster mitigation planning and funding opportunities.

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

## **Tallahassee-Leon County Post-Disaster Redevelopment Plan**

The PDRP identifies policies, operational strategies and roles and responsibilities for implementation that will guide decisions that affect long-term recovery and redevelopment of the community after a disaster. The PDRP emphasizes seizing opportunities for hazard mitigation and community improvement consistent with the goals of the Comprehensive Plan and the initiatives of the LMS. THE PDRP is updated every five years, and includes information on hazards, vulnerability, and risk also found in the LMS.

The 2012 Tallahassee - Leon County Post-Disaster Redevelopment Plan (PDRP) was developed as a tool to better prepare the community for long-term recovery and redevelopment after a disaster. The PDRP identifies policies, operational strategies, and roles and responsibilities for implementation that will guide decisions that affect long-term recovery and redevelopment of the community after a disaster. The PDRP emphasizes seizing opportunities for hazard mitigation and community improvement consistent with the goals of the Comprehensive Plan and the initiatives of the LMS.

## City of Tallahassee Community Resilience Plan

The Tallahassee Community Resilience Plan is a comprehensive assessment of threats to social, economic, and environmental features and characteristics which influence the community's ability to be resilient and recover from a range of acute shocks and chronic stresses. This document is intended to address underlying chronic stresses that affect our community, such as job, food, and housing insecurity, as well as acute shocks that include flooding, extreme temperatures, and significant storm events, especially as they intensify with our changing climate. This Plan was developed following Hurricane Hermine (2016) based on community input where residents expressed the need to better prepare for hurricanes and other hazards that present an increasing threat to life, property, and the environment. The Tallahassee Community Resilience Plan includes a comprehensive set of recommendations that includes mitigation measures to address selected threats. The Resilience Plan is intended to be consistent with the LMS, and the LMS in turn recognizes the Resilience Plan. The Resilience Plan has a suite of recommendations for various City departments to implement, including the Comprehensive Plan and the LMS. Staff will be meeting to coordinate these recommendations at a policy level and will bring recommended changes as appropriate to the LMS Committee for consideration.

## City of Tallahassee Urban Forest Management Plan

The City of Tallahassee, designated as a Tree City USA, is known for its abundance of trees and iconic canopy roads. At 55 percent tree canopy coverage, the City boasts one of the highest percentages in the nation. In September 2016, Hurricane Hermine highlighted some of the challenges the City faces related to its tree canopy. Subsequently, the City Commission voted in March 2017 to develop an Urban Forest Master Plan (UFMP) to help ensure the proper management of the urban tree canopy. Recent damage caused by Hurricane Michael further reinforced the importance of urban forest management for public safety and resilience. The UFMP is a long-term plan of action that guides proactive and effective urban forest management that will support the City's efforts to balance the needs for storm hardening, infrastructure and growth, while ensuring that the City's trees contribute to key Commission priorities. A healthy urban forest provides ecological and social value to the community, increasing an already high quality of life. Additionally, when properly managed, trees contribute to quality infrastructure and public safety rather than cause unnecessary expense. The latter includes managing the canopy to make the City's electric transmission and distribution system more resilient to the effects of hurricanes.



## **Continuity of Operation Plans**

A Continuity of Operation Plan (COOP) identifies essential functions and core responsibilities of the agency. It establishes backup plans and identifies alternate locations for agencies to function from if their facility is impacted during an emergency. COOPs assure that the essential functions continue without interruption. This is essential in assisting a community to return to normalcy after a catastrophic disaster. The City of Tallahassee maintains COOPs for the Fire Department, City Manager, Police Department, Growth Management, Housing and Community Resilience, Facilities Management, Parks and Recreation, and the City Commission. Leon County maintains COOPs for Emergency Management, Sheriff's Office, Emergency Medical Services, County Administration, County Attorney, Facilities Management, Growth and Environmental Management, Health Department, Management Information Services, Property Appraiser, Public Works, Tax Collector, Red Cross. Tallahassee Memorial Hospital, Capital Regional Medical Center, FSU, FAMU, and TSC have also created COOPs.

## **Community Rating System**

The LMS will continue to contribute to the maintenance requirements for the Community Rating System (CRS) for both the City of Tallahassee and Leon County. The City's Public Infrastructure Engineering Division will also continue to produce an annual report on the status of the LMS and the list of prioritized mitigation initiatives. Division staff regularly coordinate on an annual basis with Planning staff on the production of the annual CRS report. They are also participants in the LMS Committee. The CRS annual report is also integrated into the LMS update. If projects are completed or deleted or if new projects are identified, the LMS is modified to reflect these changes.

## **Local Government Capital Improvement Projects**

Previous LMS initiatives included current flood-related capital improvement projects as an important mitigation action for addressing flood-related hazards in the City of Tallahassee and Leon County. In the LMS updates, initiatives included identifying flood-related capital improvement projects as an important mitigation action for addressing flood-related hazards. Capital improvement projects identified by the City of Tallahassee and Leon County will continue to be incorporated into future updates to the LMS. The current list of flood-related capital improvement projects is found in Appendix F.

## Departments Supporting Hazard Mitigation Programs and Resources

The Tallahassee-Leon County Public Safety Complex is a multi-purpose facility developed in partnership with the City of Tallahassee and Leon County and is a state-of-the-art facility is designed to withstand winds from a Category 3 hurricane or F4 tornado. This facility houses the City of Tallahassee Regional Transportation Management, the Leon County Emergency Operations Center, the Consolidated Dispatch Center, the Leon County Emergency Medical Services, and the Tallahassee Fire Department Administration. Most importantly, the public safety dispatchers for all services work together in the same facility. This ensures that when assistance is needed, the closest and most appropriate Fire, Police, Sheriff or EMS unit will be sent.

The Tallahassee Fire Department provides fire protection and Advanced life support first-response emergency medical services to the city of Tallahassee, Florida and Leon County. TFD presently has 16 Fire stations serving approximately 702 square miles of incorporated and unincorporated land with over 278,000 residents. The department is staffed by 267 certified firefighters and responds to over 22,000 incidents annually.

Leon County Emergency Medical Services provides emergency medical services to all citizens and visitors of Leon County regardless of social economic status. Leon County EMS is part of a comprehensive system operating through a cooperative agreement between the City of Tallahassee and Leon County.

The Leon County Department of Public Works maintains facilities such as County roads, stormwater facilities, mosquito control, conducts transportation and stormwater planning and permitting, and administers the permitting and inspection of water and sewer system construction. The Leon County Public Works Department consists of four major divisions: Administration/Transportation, Engineering Services, Operations, and Fleet Management.

The City of Tallahassee's Underground Utilities and Public Infrastructure department operates the City's water, wastewater, stormwater utility systems, as well as public works and transportation infrastructure. Major infrastructure includes a 26 million gallons per day wastewater treatment facility, 102 pump stations, 1,000 miles of sanitary sewers, 444 miles of storm drains, 310 miles of ditches and canals, 1,200 miles of water mains, 650 miles of streets, 8 water towers, and 27 water wells producing 10 billion gallons of water annually for residents and businesses in Tallahassee-Leon County.

The City of Tallahassee's Electric and Gas Utilities Department provides the generation, transmission, and distribution of electric energy to commercial and residential sectors, as well as providing potable water, wastewater treatment and sewer services, natural gas, and solid waste pickup services.

The Leon County Sheriff's Office provides police patrol, detective service, court protection, coroner service, and county prison operation for the unincorporated area of Leon County. The Tallahassee Police Department provides public safety services.

The Tallahassee-Leon County Planning Department's mission is to provide accurate information, creative and effective planning recommendations, and expertise in the areas of long-range land use, environmental, and transportation planning for the orderly growth of the Tallahassee community. The Department coordinates the LMS, including its five-year updates and adoption by both the City and County Commissions.

At present, a great deal of formal and informal coordination occurs on a daily basis within Leon County, including the LMS committee member organizations, stakeholders, and other institutions and organizations that provide employment, education, transportation, utilities, and neighborhood services. The various plans and programs previously described are constantly being evaluated and updated when necessary and required.

In addition to these actions, the Leon County Board of County Commissioners and the City of Tallahassee's City Commission have directed staff to review existing programs, plans, and other capabilities following the most recent disasters. These were comprehensive reviews of the impacts of these disasters upon citizens, infrastructure, and property formalized into after action reports that included recommendations and other direction incorporated where appropriate into these existing plans, policies, and programs. Any updates that are needed will be considered by the appropriate agency and department.

Although these plans, policies, and programs will be continually refined and updated as necessary to accommodate the lessons learned from prior hazard events, at this time, there are no proposed changes to the accompanying ordinances and regulations addressing hazard mitigation. Any proposed changes will be reviewed by the Planning Department and the two local government growth management departments for consistency with the Comprehensive Plan, reviewed by the Tallahassee-Leon County Planning Commission, and brought to the City and County Commissions for consideration.


#### **4.4 Monitoring & Maintenance of the LMS**

The Steering Committee, with the assistance of the LMS Coordinator, will meet annually to review the local mitigation strategy to ensure it is current, that the prioritization is still valid, and that it reflects changing conditions within the community. This will provide adequate time to incorporate any needed revisions prior to the next grant cycle. The Steering Committee will meet earlier on a more frequent basis if needed, such as in a post-disaster environment. To track the status of LMS projects, a GIS dashboard will be developed and will be updated quarterly to reflect the ongoing progress.


Additional stakeholders will also be invited to participate in the review. Changes recommended by the Steering Committee will be forwarded to the Tallahassee-Leon County Planning Department and to Leon County Emergency Management for consideration. The Tallahassee-Leon County Planning Department, as coordinator for the LMS process, will forward recommended revisions to the City and County Commissions for final review and determination of action as directed by the Committee Chair.

Additionally, an annual Status Report will be prepared by the City of Tallahassee's Public Infrastructure Engineering Division in coordination with Leon County. This report will contain a report on the status of each mitigation initiative, including progress towards the achievement of the initiative's purpose and new developments or programs impacting the implementation of the initiative. The Steering Committee will review these annual reports to monitor the progress in meeting the established goals and objectives, as well as monitoring the implementation of the mitigation initiatives.

The Tallahassee-Leon County Planning Department will be the lead agency for the required five-year update of the LMS. The LMS Coordinator will start preparations for this update at least 18 months prior to the expiration of the LMS. This will include meeting with the LMS Committee to lay out the process, setting up a Planning Subcommittee composed of knowledgeable members of the Working Group to review the various parts of the plan, holding regular meetings as necessary with this subcommittee, and setting up public meetings for additional stakeholder input. The Coordinator will also put a draft copy of the updated LMS on the Planning Department's website along with a description of the process and write the agenda items for both the Leon County Board of County Commissioners and the Tallahassee City Commission to adopt the updated LMS by resolution at least one month prior to the expiration of the LMS.



**Tallahassee-Leon County  
Local Mitigation Strategy  
Appendix A-F**





# **Appendix A**

# **Hazard Mitigation**

# **Initiatives**



Priority	Initiative	Project Name	Estimated Cost & Timeframe	Responsible Organization	Hazard	Potential Funding Sources	Benefits/Costs Review	Background & Status
1	Continue to identify needs for improving the disaster resistance of critical facilities	Improving Disaster Resistance of Critical Facilities	<p>Estimated costs are based on 722 critical sites across all jurisdictions within the County. To mitigate all 722 sites within the jurisdiction the County would require ≥\$750 million which averages \$1,038,781 per site. Not every site would require this amount, but other sites would require more.</p> <p>Estimated Timeframe: Five Years</p>	<ul style="list-style-type: none"> <li>City of Tallahassee (COT)</li> <li>Leon County Emergency Management</li> </ul>	<ul style="list-style-type: none"> <li>Flooding,</li> <li>Hurricanes &amp; Tropical Storms</li> <li>Storm Surge</li> </ul>	<p>HMGP (Florida Division of Emergency Management (EM))</p> <p>Community Development Block Grant (Department of Economic Opportunity (DEO))</p> <p>Regional Domestic Security Task Force (RDSTF) (Department of Homeland Security (DHS))</p>	<p>High/High</p> <p>Discussion: Critical facilities include a mix of small and large installations. Larger facilities such as the EOC, fire stations, sewage treatment facilities, military facilities, the County jail, hospitals, and power generation stations benefit all citizens of Leon County.</p>	<p>Critical facilities provide essential services in the event of an emergency but may be housed in structures that require improvements to weather the impacts of a disaster. Improvements may include, but not be limited to, installing storm shutters, moving utilities underground, and acquiring or retrofitting generators, pumps, and associated appurtenances and/or connections for traffic signals, sewage pump stations, water well pump stations, and emergency shelters.</p> <p>Status: The Local Mitigation Strategy Steering Committee continues to work to identify additional security measures to protect critical facilities within the community. The City has installed extra security measures at certain critical facilities throughout the City. The North Florida Regional Domestic Security Task Force is provided funding to address K-12, Universities, Court houses and communications towers, funding is still needed to protect utilities.</p> <p>There is increased emphasis on identifying needs for improving critical facilities and monitoring since Hurricane Hermine on September 2, 2016 and Hurricane Michael October 10, 2018. Several sewage pump stations (#12, #74) have been replaced, some backup generators have been obtained, other electrical lines to critical facilities have been moved underground, a new water well is on line (#32), and redundant force mains have been installed.</p> <p>Additional funding needs have been identified for generators to operate, traffic signals, sewage pump stations, water well pump stations and emergency shelters such as schools, public community centers and libraries. There are approximately 150 key overhead main circuit lines, and these frequently serve medical, public safety and other critical facilities.</p> <p>A local committee outlines certain items to be purchased, and some funding is coordinated through the Regional Domestic Security Task Force (RDSTF). However, available funding for this initiative is decreasing.</p>
2	Increase intergovernmental coordination of stormwater management	Create Project Manager Position	<p>Administrative Services: Hire 1 Project Manager for Mitigation Services: \$66,550 per year AND/OR</p> <p>Contract Services: 1 Mitigation Services Specialist \$145 per hour: (160 hours: \$23,200 per month, \$69,600 per quarter or \$278,400 per year).</p> <p>Estimated Timeframe: Five Years</p>	<ul style="list-style-type: none"> <li>COT Underground Utilities &amp; Public Infrastructure</li> <li>Leon County Public Works</li> <li>City and County Commissions</li> </ul>	Flooding	Local	<p>High/Medium</p> <p>Discussion: The design, construction, and operation of stormwater mitigation and other treatment facilities can be very expensive. The hiring of a project manager to increase intergovernmental coordination will generally benefit most residents and property owners within both Leon County and the City of Tallahassee by mitigating flooding and enhancing the environmental quality of existing surface and subsurface water resources.</p>	<p>Stormwater does not follow jurisdictional boundaries. Land use activities in the City can affect drainage characteristics outside municipal boundaries and, to a lesser extent, vice versa. In the past, stormwater management opportunities have been constrained by fiscal concerns and the impacts of significant amounts of pre-code development. These factors necessitate strong intergovernmental coordination for stormwater management efforts to be effective.</p> <p>Status: Intergovernmental Stormwater management coordination is currently accomplished through several initiatives including countywide land development ordinance, Blueprint 2000 intergovernmental agency Stormwater improvement projects and Local Mitigation Strategy Steering Committee meetings. In addition, the City and County are currently working with the Northwest Florida Water Management District to improve the accuracy of the Flood Insurance Rate Maps through the Risk Map program, which is funded by FEMA. The City has shared stormwater model data with the Northwest Florida Water Management District (NFWFMD) to assist in the county wide Special Flood Hazard Area remapping effort.</p>
3	Improve the disaster resistance of existing site-built housing stock	Create Project Manager Position	<p>Administrative Services: Hire 1 Project Manager for Housing Services: \$66,550 per year AND/OR</p> <p>Contract Management: 1 Housing Services Specialist \$145 per hour: (160 hours: \$23,200 per month, \$69,600 per quarter or \$278,400 per year).</p> <p>Estimated Timeframe: 10 Years</p>	<ul style="list-style-type: none"> <li>COT Economic &amp; Community Development</li> <li>Leon County Housing and Human Services</li> <li>Capital Area Red Cross</li> </ul>	All	<p>CDBG Program</p> <p>SHIP</p> <p>HOME</p> <p>HMGP</p> <p>FMAP</p> <p>Repair and Restoration of Disaster Damaged Historic Properties (FEMA)</p> <p>National Flood Mitigation Fund (FEMA)</p> <p>Emergency Advance Measures for Flood Prevention (U.S. Army Corp of Engineers (COE))</p>	<p>Medium/Medium</p> <p>Discussion: Improving the disaster resistance of existing site-built housing stock varies from structure to structure, and the benefits depend on the number and type of improvements. The hiring of a project manager to increase intergovernmental coordination will benefit a limited number of residents and property owners within Leon County and the City of Tallahassee.</p>	<p>Build upon current CDBG, HOME and SHIP programs to improve the disaster resistance of existing site built housing stock, including elevating structures where feasible.</p> <p>Status: The Capital Area Chapter of the American Red Cross continues to provide educational programs to low income population on how they can be disaster resistant and be part of the Ready Rating Program. <a href="http://www.readyrating.org/">http://www.readyrating.org/</a></p>

Priority	Initiative	Project Name	Estimated Cost & Timeframe	Responsible Organization	Hazard	Potential Funding Sources	Benefits/Costs Review	Background & Status
4	Advocate that FEMA modify its policies to accommodate local floodplain management program requirements so as to avoid the frequent necessity for duplicate, and sometimes conflicting, modeling for NFIP purposes	Create Project Manager Position	Administrative Services: Hire 1 Project Manager for Planning Manager: \$66,550 per year (benefited) AND/OR  Contract Management: 1 Housing Services Specialist \$125 per hour: (160 hours: \$20,000 per month, \$60,000 per quarter or \$240,00 per year).  Estimated Timeframe: Two Years	<ul style="list-style-type: none"> <li>COT Underground Utilities &amp; Public Infrastructure</li> <li>Leon County Public Works</li> <li>Leon County Development Support and Environmental Management (DSEM)</li> </ul>	<ul style="list-style-type: none"> <li>Flooding</li> </ul>	Local	Medium/Medium  Discussion: The hiring of a project manager to increase coordination between FEMA and local floodplain managers regarding modeling and maps will benefit a limited number of residents and property owners within Leon County and the City of Tallahassee.	<p>Tallahassee and Leon County have advanced stormwater regulations and require sophisticated digital modeling. FEMA is slow to review/approve new modeling software or even more current versions of previously approved software. As a result, local communities frequently are faced with having to do advanced modeling for design and local permitting and then duplicate modeling with the FEMA-approved software list for NFIP purposes.</p> <p>Status: The City of Tallahassee and Leon County continue to cooperate with the Northwest Florida Water Management District through a Cooperating Technical Partnership with FEMA, which will be instrumental in accomplishing this goal. The City and County attended the Apalachee Bay Saint Mark River Watershed Discovery Meeting for updating the FEMA flood maps for the Saint Marks Basin. The City of Tallahassee has provided a map of areas to be reviewed to FEMA. The City of Tallahassee has worked with stormwater model providers to endorse modeling programs that have been added to the list of FEMA accepted stormwater models.</p>
5	Improve floodplain boundary identification and implementation of the FEMA map amendment process	Create GIS Specialist Position	Administrative Services: Hire 1 GIS Specialist trained in LiDAR or Hi-Resolution mapping: \$56,049 (benefited) AND/OR  Contract Management: 1 GIS Specialist \$110 per hour (160 hours: \$17,600: \$52,800 per quarter or \$211,200 per year).  Estimated Timeframe: Two Years	<ul style="list-style-type: none"> <li>COT Growth Management</li> <li>COT Underground Utilities &amp; Public Infrastructure</li> <li>DSEM</li> <li>Leon County Public Works; Tallahassee-Leon MIS/GIS</li> </ul>	<ul style="list-style-type: none"> <li>Flooding</li> <li>Storm Surge</li> </ul>	EMPA Trust Fund (DEM) Small Watershed Program (USDA) Emergency Advance Measures for Flood Prevention (COE) Resource Conservation and Development Program (USDA) Soil and Water Conservation Program (USDA) National Flood Mitigation Fund (FEMA)	Medium/Medium  Discussion: The hiring of a project manager to increase coordination between FEMA and local floodplain managers regarding floodplain boundary identification and implementation of the FEMA map amendment process will benefit selected residents and property owners within Leon County and the City of Tallahassee.	<p>Efforts would focus on correcting inaccuracies in FEMA flood hazard boundaries. These boundaries are used for insurance purposes and frequently increase rates for residents that are clearly not in the floodplain. Other citizens use this information to guide property purchases and find out they are susceptible to flooding despite lying outside the hazard areas of a FIRM. This initiative would require the hiring of sufficient personnel to identify and prepare map amendments and expand the existing floodplain database to include best available information, such as permitting models, for incorporation into a GIS. Besides providing better data that could reduce insurance rates and improve decisions regarding property purchases, this information could guide acquisition efforts.</p> <p>Status: The City and County are currently working with the Northwest Florida Water Management District to improve the accuracy of the Flood Insurance Rate Maps through the Risk Map program funded by FEMA. Once complete, it is expected that FEMA will issue updates to the FIRM, which will improve the accuracy of the depiction of Special Flood Hazard Areas for the community. The City has provided several stormwater models and highwater elevations to NFWFMD.</p>
6	Explore methods to eliminate additional development in the 25-year floodplain	Update Existing and/or Create New Ordinance(s)	Land Acquisition Costs: The average parcel in Leon County \$187,400 (Median value of owner-occupied unit).  Estimated Timeframe: Five Years	<ul style="list-style-type: none"> <li>COT Growth Management</li> <li>DSEM</li> <li>Tallahassee-Leon County Planning</li> </ul>	<ul style="list-style-type: none"> <li>Flooding</li> </ul>	Local	Medium/Medium  Discussion: This ongoing initiative utilizes existing staff and programs. This initiative will benefit a limited number of residents and property owners within Leon County and the City of Tallahassee.	<p>This initiative aims at keeping new buildings from the highest risk area of the floodplain, and might include an acquisition effort targeting undeveloped lots.</p> <p>Status: The City of Tallahassee and Leon County growth management departments continue to consider new ordinance language to accomplish this goal.</p>



Priority	Initiative	Project Name	Estimated Cost & Timeframe	Responsible Organization	Hazard	Potential Funding Sources	Benefits/Costs Review	Background & Status
7	Create a public education campaign and community program that promotes awareness of vulnerability to hazards in our community and encourage disaster preparation	Support and expansion of ongoing natural and manmade hazard awareness and mitigation public education programs for residents and property owners in Leon County and the City of Tallahassee	<p>\$125,000 for creating a primarily digitally driven campaign with some supplemental public relations to include distribution of material.</p> <p>Continue to utilize COT Utility billing educational inserts.</p> <p>Estimated Timeframe: Five Years</p>	<ul style="list-style-type: none"> <li>COT</li> <li>Leon County Emergency Management</li> <li>Capital Area Red Cross</li> </ul>	<ul style="list-style-type: none"> <li>All Hazards</li> </ul>	EMPA Trust Fund (DEM)	<p>High/Medium</p> <p>Discussion: This initiative will utilize existing staff and programs with the possible addition of PR consultants as necessary. This initiative will benefit all residents and property owners within Leon County and the City of Tallahassee.</p>	<p>Status: Capital Area Chapter of the American Red Cross has developed the "Ready Rating Program." The program is designed to mitigate the impact of various disasters by educating residential and commercial property owners on personal actions they can take to reduce the effects of a disaster (such as removing dead limbs, putting up shutters / plywood, creating a safe room in your house/business, etc.).</p> <p>The City, Red Cross and County hosted an annual "Build a Bucket" disaster fair focusing on the community's vulnerability to various disasters and possible mitigation techniques, including wildfire mitigation actions developed by the Florida Forest Service. The fair could be hosted annually as a stand-alone event and integrated into other community events throughout the year. This strategy would address creating a safe room within the home, general home protection procedures, etc.</p> <p>Leon County Emergency Management also supports NOAA's Weather Ready Nation initiative. NOAA's Weather-Ready Nation initiative is first and foremost to save more lives and livelihoods. By increasing the nation's weather-readiness, the country will be prepared to protect, mitigate, respond to and recover from weather-related disasters.</p> <p>As part of the Weather-Ready Nation initiative, NOAA, along with partners, wants to motivate individuals and communities to take actions that will prepare them in the event of a weather disaster and to share their preparedness steps with others. These actions can save lives anywhere - at home, in schools, and in the workplace before tornados, hurricanes, and other extreme types of weather strike.</p>
8	Continue current efforts to remove dead, dying or diseased trees or branches next to roadways and power lines	Tree Removal	<p>Tree Removal Costs: Contract Labor: Leaners: \$108.5 per tree Hangers: \$80.17 per tree</p> <p>Estimated Timeframe: Ongoing</p>	<ul style="list-style-type: none"> <li>COT Underground Utilities &amp; Public Infrastructure</li> <li>Leon County Public Works</li> <li>COT Electric Utilities</li> <li>Talquin Electric</li> </ul>	<ul style="list-style-type: none"> <li>Hurricanes &amp; Tropical Storms, Severe Storms</li> <li>Drought</li> </ul>	Local	<p>High/High</p> <p>Discussion: This ongoing program utilizes existing staff and contractors. This program benefits all residents and property owners within Leon County and the City of Tallahassee by providing dependable electric service.</p>	<p>Debris from storm events poses a hazard to overhead power lines and roads.</p> <p>Status: Existing City Electric utility tree trimming policy is to trim all vegetation back to 6 feet from existing power lines. The entire system is trimmed on an 18-month cycle. Commission approved policy</p> <p>allows neighborhoods with high rates of outages due to vegetation to request additional clearance up to 10 feet from existing power lines. In 2017, the City started an enhanced tree trimming program cutting 12' above the electric lines. The City has been designated as a "Tree City" USA and "Tree City Growth" USA for 2018. Significant tree clearing has been done before, during and after Hurricane Michael on 10/10/18.</p>
9	City of Tallahassee and Leon County flood-related capital improvement projects	Create Project Manager Position	<p>Administrative Services: Hire 1 Project Manager for Mitigation Services: \$66,550 per year AND/OR</p> <p>Contract Services: 1 Mitigation Services Specialist \$145 per hour: (160 hours: \$23,200 per month, \$69,600 per quarter or \$278,400 per year).</p> <p>Estimated Timeframe: Five Years</p>	<ul style="list-style-type: none"> <li>COT Underground Utilities &amp; Public Infrastructure</li> <li>Leon County Public Works</li> </ul>	<ul style="list-style-type: none"> <li>Hurricanes &amp; Tropical Storms</li> <li>Flooding</li> <li>Storm Surge</li> </ul>	<p>CDBG (DEO)</p> <p>HMGP (DEM)</p> <p>Emergency Bank Protection (COE)</p> <p>STP (ISTEA)</p> <p>Sustainable Development Challenge Grants (EPA)</p> <p>National Flood Mitigation Fund (FEMA)</p> <p>Soil and Water Conservation (USDA)</p> <p>Resource Conservation and Development (USDA)</p> <p>Small Watershed Program (USDA)</p>	<p>Medium/Medium</p> <p>Discussion: The hiring of a project manager to increase coordination between City of Tallahassee and Leon County flood-related capital improvement projects will benefit selected residents and property owners within Leon County and the City of Tallahassee.</p>	<p>Status: Numerous stormwater projects have been identified as necessary to provide relief to existing flood problems. A complete list of projects for the City of Tallahassee and Leon County are included in Appendix D.</p>

Priority	Initiative	Project Name	Estimated Cost & Timeframe	Responsible Organization	Hazard	Potential Funding Sources	Benefits/Costs Review	Background & Status
10	Acquire parcels subject to flooding in the 100-year floodplain	Land Acquisition of Parcels Vulnerable to Flooding in the 100-Year Floodplain	<p>Land Acquisition Costs: The average parcel in Leon County \$187,400 (Median value of owner-occupied unit).</p> <p>Estimated Timeframe: Ongoing</p>	<ul style="list-style-type: none"> <li>City of Tallahassee Underground Utilities &amp; Public Infrastructure</li> <li>Leon County Public Works</li> <li>Tallahassee - Leon County Planning</li> </ul>	<ul style="list-style-type: none"> <li>Hurricanes &amp; Tropical Storms</li> <li>Flooding</li> <li>Storm Surge</li> </ul>	<p>Florida Communities Trust</p> <p>HMGP</p>	<p>Medium/Medium</p> <p>Discussion: This ongoing program utilizes existing staff and contractors as necessary. This initiative benefits selected residents and property owners within Leon County and the City of Tallahassee.</p>	<p>This initiative builds on past City/County floodplain acquisition efforts and would be enhanced by improved information developed through Initiative #5. Acquisitions would target improved parcels with the most vulnerable structures.</p> <p>Status: The City and County continue to evaluate potential acquisition projects and possible funding sources for property acquisitions within the 100-year floodplain. Many parcels within the 100-year floodplain have been purchased by the City of Tallahassee and Leon County during previous years to provide flood relief to flood prone property owners. Some of these acquisition projects were entirely funded using local dollars. Others were funded through state and federal programs while also making use of local matching funds. Examples of these programs include the Flood Mitigation Assistance Program and the Hazard Mitigation Grant Program, both of which are FEMA programs administered by the Florida Division of Emergency Management. The City of Tallahassee has recently purchased and exchanged floodplain property near Texas Street.</p>
11	Develop and maintain emergency notification systems for all hazards and critical facilities	Emergency Notification System	<p>Per site costs can range from \$25,000 to \$150,000 per year depending on the size of the facility.</p> <p>Estimated Timeframe: Ongoing</p>	<ul style="list-style-type: none"> <li>Leon County, City of Tallahassee, Emergency Management; Law Enforcement, Fire and Health; FSU; FAMU; TCC</li> </ul>	<ul style="list-style-type: none"> <li>All Hazards</li> </ul>	<p>HMGP (DEM)</p> <p>National Flood Mitigation Fund (FEMA)</p> <p>U.S. Department of Homeland Security</p>	<p>High/Medium</p> <p>Discussion: Certain hazards affect all citizens of Leon County. Critical facilities include a mix of small and large installations. Larger facilities such as the EOC, fire stations, sewage treatment facilities, military facilities, the County jail, hospitals, and power generation stations benefit all citizens of Leon County.</p>	<p>Emergency notifications and warnings are essential to protecting lives and property. Immediate notification to a specific area is critical during rapidly developing situations such as tornados, hazardous material releases, pandemics, and flash and other flooding events. This system can also be used to inform residents, caregivers, and service providers of issues such as boil water notices, power outages, sewer issues, Amber Alerts and more.</p> <p>Status: Both the City of Tallahassee and Leon County have developed communications departments that also regularly send out public notifications via press releases, social media, and institutional websites. In addition to these capabilities, there are several warning systems already in place within Leon County and the City of Tallahassee. For instance, the Federal Emergency Management Agency, Federal Communications Commission, and the Wireless Communications Industry launched the Wireless Emergency Alert (WEA) system in 2013. This system sends concise, text-like messages to WEA capable mobile devices. Wireless providers, representing 97% of subscribers, are participating in distributing Wireless Emergency Alerts. Mobile users will not be charged for receiving these text-like alerts and are automatically enrolled to receive them. Wireless Emergency Alerts are a point-to-multipoint system, which means alert messages will be sent to those within a targeted warning area, unlike text messages which are not location aware. Wireless Emergency Alerts distributed by the National Weather Service include: Tornado warnings, Extreme Wind warnings, Flash Flood warnings, and Hurricane warnings. There are several flood-warning networks in place throughout the City and County, including a telephone-based warning system at the Lake Talquin Dam, and the Capital Area Flood Warning Network and the City of Tallahassee's Rainfall Data Telemetry System. The Capital Area Flood Warning Network and the City of Tallahassee Rainfall Data Telemetry System provide real-time rainfall totals and water levels at key points within the community. Emergency Management Officials can then use this information during major storm events to identify potential areas of flooding.</p> <p><u>Leon County</u></p> <p>Leon County utilizes the internet website <a href="http://cms.leoncountyfl.gov/ei/">http://cms.leoncountyfl.gov/ei/</a> to post all-hazards emergency public information for use by citizens and the media during emergency events. They also utilize a subscription service (powered by GovDelivery) available at the Leon County website for citizens to sign up for all-hazards emergency notifications, traffic notifications, as well as general Leon County government announcements. Notifications are available via email and SMS.</p> <p>During an emergency, Leon County Emergency Management staff can broadcast live through an electronic link on WFSU-88.9 FM. This provides full radio coverage throughout Leon County and the surrounding area as a primary resource for emergency and public safety information. From local government's experiences with Hurricane Hermine, County emergency management staff has recommended that WFSU be designated as a critical facility, that EOC personnel be tasked to report this information, and to review and upgrade if necessary, the existing telecommunications link with WFSU (88.9 FM) located in the Public Safety Complex. An additional recommendation includes considering providing WFSU's video production support to media partners in the Public Safety Complex in order to broadcast briefings and community updates.</p>

Priority	Initiative	Project Name	Estimated Cost & Timeframe	Responsible Organization	Hazard	Potential Funding Sources	Benefits/Costs Review	Background & Status
11	Develop and maintain emergency notification systems for all hazards and critical facilities	Emergency Notification System	Per site costs can range from \$25,000 to \$150,000 per year depending on the size of the facility.  Estimated Timeframe: Ongoing	<ul style="list-style-type: none"> <li>Leon County, City of Tallahassee, Emergency Management; Law Enforcement, Fire and Health; FSU; FAMU; TCC</li> </ul>	<ul style="list-style-type: none"> <li>All Hazards</li> </ul>	HMGP (DEM) National Flood Mitigation Fund (FEMA) U.S. Department of Homeland Security	High/Medium  Discussion: Certain hazards affect all citizens of Leon County. Critical facilities include a mix of small and large installations. Larger facilities such as the EOC, fire stations, sewage treatment facilities, military facilities, the County jail, hospitals, and power generation stations benefit all citizens of Leon County.	<p><u>City of Tallahassee</u></p> <p>The City of Tallahassee's Water Quality Administration has initiated a remote detection system to determine the status and condition of the potable well facilities. This system achieves the goal of an audible alarm system for our potable water system. The Thomas P. Smith wastewater treatment plant on Springhill Road has a separate monitoring system with audible alarms for all equipment. The SCADA system monitors for potential chemical and gas leaks with audio and visual alarms. State of Florida/DEP/Florida Park Service staff maintains a list of email and phone numbers for residents downstream of the Lake Talquin Dam. This list enables automatic email and phone distribution of either early warning of flooding due to know events upstream or emergency notification of rapidly developing events. Additionally, an emergency siren exists at the dam for boaters and residents in the immediate downstream area. These systems are tested on a quarterly basis and worked well during Hurricane Hermine and Hurricane Michael.</p> <p><u>Tallahassee State College</u></p> <p>Tallahassee State College utilizes an Emergency Notification System called TSC Alert. System components include: RAVE emergency reporting software sends messages to classroom phones, personal phones including text messages, E-mails and computer screen pop-ups for all campus computers; Federal Signal Outdoor Siren System/Audible Message; Captiveyes T.V. monitors screen pop-ups located throughout the campus</p> <p><u>Florida State University</u></p> <p>The Florida State University (FSU) Alert emergency notification and warning system (<a href="http://emergency.fsu.edu/services/FSUAlert">http://emergency.fsu.edu/services/FSUAlert</a>) at provides 35+ methods of delivery, single-button activation, and end-user delivery in 5 minutes or less. The university continues to develop and improve the system with expanded coverage, new interoperable communications technologies, and redundancies to ensure operability always under all conditions. FSU recently added capabilities to issue emergency alerts and share response information through a new mobile app called SeminoleSAFE. The FSU ALERT EZ system allows for single-button activation and streamlines warning and notification to 3-5 minutes or less in the most extreme situations. FSU has identified locations on its campus prone to flooding with associated personal injury and property damage. University emergency management staff has proposed to install flood detection equipment in several key locations on its campus and integrate these stations into the FSU ALERT emergency notification and warning system. This Flood Detection and Warning system will require additional funding to implement. A local company, WeatherSTEM, has partnered with Florida State University, Tallahassee Community College, Florida A&amp;M University, Leon County Schools and others to install forty-three weather stations throughout Tallahassee-Leon County. This regional weather MESONET of weather stations allows the public and others the opportunity to enroll in personal notifications of a variety of weather conditions, including lightning. The system provides a Professional Lightning Advisor (PLA) feature which allows people to monitor an ongoing lightning threat and determine when it is safe to resume normal activities. Additional stations and system features are in continual development. FSU previously proposed a regional lightning mapping array (LMA). This regional lightning detection and warning system would provide all public and non-profit entities in the region advanced warning of the potential of a lightning strike, followed by active monitoring capabilities once lightning is occurring. With advanced warning, detection and monitoring capabilities, the goal is to mitigate the risk to life and property from lightning strikes.</p> <p><u>Florida Agricultural and Mechanical University</u></p> <p>The Florida Agricultural and Mechanical University (FAMU) emergency notification system issues warnings through Blackboard Connect, the University's emergency notification system. This web-based system sends instant alerts to all students, faculty and staff cell phones, e-mail, and/or pagers. On the main campus (Tallahassee), when notification is necessary due to an immediate and serious threat to public safety, the campus community will also be alerted through its Emergency Siren System, which delivers an audible tone followed by a voice message to the community notifying them of the immediate threat. Overall, monitoring and communications equipment, especially for state of the art digitally-based systems that protect critical facilities, can often require significant startup and/or maintenance funding commitments.</p>

Priority	Initiative	Project Name	Estimated Cost & Timeframe	Responsible Organization	Hazard	Potential Funding Sources	Benefits/Costs Review	Background & Status
12	Explore the feasibility of adding a full build-out component to the Leon County Master Stormwater Management Plan	Create Project Manager Position	Administrative Services: Hire 1 Project Manager for Mitigation Services: \$86,578 per year based on the average of 39,244 positions. AND/OR  Contract Services: 1 Mitigation Services Specialist \$145 per hour: (160 hours: \$23,200 per month, \$69,600 per quarter or \$278,400 per year).  Estimated Timeframe: Five Years	<ul style="list-style-type: none"> <li>DSEM</li> <li>Tallahassee-Leon County Planning</li> </ul>	<ul style="list-style-type: none"> <li>Flooding,</li> <li>Hurricanes &amp; Tropical Storms</li> <li>Storm Surge</li> </ul>	EMPA Trust Fund (DCA) Small Watershed Program (USDA) Emergency Advance Measures for Flood Prevention (COE) Resource Conservation and Development Program (USDA) Soil and Water Conservation Program (USDA) National Flood Mitigation Fund (FEMA)	Medium/Medium  Discussion: The hiring of a project manager to increase coordination between City of Tallahassee and Leon County stormwater management capital improvement projects and to recommend revisions to existing stormwater management regulations will benefit selected residents and property owners within Leon County and the City of Tallahassee.	Status: The master Stormwater management plan does not address stormwater and flooding impacts given future build-out conditions for the entire County. This information could be used to revise existing floodplain regulations so that they reflect projected build-out conditions. Based on information from the Leon County Public Works Department, there are no plans to update the Master Plan at this time due to staffing limitations and current allocation of available resources.
13	City and County acquisition of easement or fee simple property to allow legal access for maintenance of major ditches and canals to reduce flooding	Access Acquisition Program	Construction + Maintenance Costs: Curbs and Gutters: \$29.65 linear foot  Estimated Timeframe: Ongoing	<ul style="list-style-type: none"> <li>COT Underground Utilities &amp; Public Infrastructure</li> <li>Leon County Public Works</li> </ul>	<ul style="list-style-type: none"> <li>Flooding</li> </ul>	HMGP (DEM); National Flood Mitigation Fund (FEMA)	Medium/Medium  Discussion: This ongoing program utilizes existing staff and contractors as necessary. This initiative benefits selected residents and property owners within Leon County and the City of Tallahassee.	The program would consist of the acquisition of easements for ditches and the necessary land to access the ditches so normal maintenance can be performed. Currently the City of Tallahassee is responsible for the maintenance of over 23 miles of major ditches, and the County maintains over 28 miles of major ditches. About 15 miles have adequate access easements, are located within an easement or are located on public ROW. Approximately 30 acres are needed to have full public access to maintain the ditches.  Status: The County has no plans to acquire any additional easements or fee simple properties for maintenance access. The City continues to acquire properties and/or easements as needed in conjunction with stormwater management capital improvement projects. The most recent easement was obtained near Golf Terrace Drive.
14	Secure funding source for identified shuttering and hardening needs for windows at Tallahassee Memorial Hospital (TMH)	Windows Replacement Project	Impact Resistant Windows average: \$500 per window plus labor (conservatively: \$80 per window).  Estimated Timeframe: Two years	<ul style="list-style-type: none"> <li>COT</li> <li>Leon County Emergency Management</li> </ul>	<ul style="list-style-type: none"> <li>Flooding,</li> <li>Hurricanes &amp; Tropical Storms</li> <li>Storm Surge</li> </ul>	EMPA Trust Fund (DEM) HMGP (DEM) CDBG (DEO)	High/Medium  Discussion: TMH is a major regional hospital in Tallahassee. This project benefits all residents within Leon County and the City of Tallahassee.	Tallahassee Memorial Hospital is highly susceptible to wind damage from a tropical storm/hurricane. Currently neither hospital has storm shutters in place. As one of the primary hospitals serving the City of Tallahassee, Leon County and the region, local emergency management personnel should work with TMH to identify shutter options and hardening needs for windows, including costs. In addition, efforts should be undertaken to identify and harden essential support facilities at the hospital.  Status: Once a possible funding source is identified, the committee has discussed applying for window protection at TMH. TMH has developed an application for hazard mitigation and is ready to proceed when funding becomes available. The other Tallahassee community hospital, Capital Regional Medical Center has installed hardened windows.
15	Consider addressing the economic impact of different disaster scenarios, as information becomes available	Economic Analysis of Disaster Scenarios	Administrative Services: Contract Services: Hire at least one 1 Human Services Specialist at \$145 per hour: (160 hours: \$23,200 per month, \$69,600 per quarter or \$278,400 per year). Additional contract support may be required at a lesser hourly rate.  Estimated Timeframe: Five Years	<ul style="list-style-type: none"> <li>TLCGIS</li> <li>City &amp; County Offices of Management and Budget</li> </ul>	<ul style="list-style-type: none"> <li>All Hazards</li> </ul>	Local	High/Medium  Discussion: The hiring of a Human Services Specialist to analyze the economic impact of different disaster scenarios will benefit all residents and property owners within Leon County and the City of Tallahassee.	Status: The Florida Division of Emergency Management (FDEM) has considered developing an economic impact model as part of their disaster modeling. The City of Tallahassee, Leon County, and the Capital Area Chapter of the American Red Cross have programs in place to assess the impacts of disaster immediately following an event. Damage Assessment Teams are deployed following a disaster on a countywide basis to document disaster-related damages. These data are available to local, state, and federal governments, as well as local non-profits, universities, and other organizations. Tallahassee - Leon County GIS (TLCGIS) has developed Hazus capabilities and training. This software program has been used to estimate direct economic loss from building damage and indirect losses such as business interruption. These data and their model results are also used in the Tallahassee - Leon County Post-Disaster Redevelopment Plan (PDRP). Additionally, HAZUS can estimate shelter needs based on population and socioeconomic information, as well as other impacts and mitigation needs. The Apalachee Regional Planning Council and FDEM maintain and provide HAZUS information annually to the City and Leon County.

Priority	Initiative	Project Name	Estimated Cost & Timeframe	Responsible Organization	Hazard	Potential Funding Sources	Benefits/Costs Review	Background & Status
16	Continue to improve and expand regional response capabilities for responding to biohazards, hazardous materials, and terrorism events	Review of Regional Response Capabilities for Hazardous Materials and Terrorism Events	Resources: Hazmat PPE: \$890 per Hazmat Suit Spill Kit: \$2,018 per kit Oxygen tanks: \$2,162 per rig (includes mask) Radiation Detector: \$667 per unit Storage Cabinet: ≥\$900 Drain Cleaning Machine: ≥\$906 Water Jetter: ≥\$3,999 - Estimated Timeframe: Ongoing	<ul style="list-style-type: none"> <li>COT</li> <li>Leon County Emergency Management</li> </ul>	<ul style="list-style-type: none"> <li>Pandemics</li> <li>Hazardous Materials</li> <li>Transportation Incidents</li> <li>Terrorism</li> </ul>	DEO/FEMA and other federal agency grants Chemical Emergency Preparedness and Prevention Grants Program (EPA) Disposal of Federal Surplus Property (GSA) Hazardous Materials Training Program (FEMA)	High/Medium Discussion: The improvement and expansion of regional response capabilities benefits all residents and property owners within Leon County and the City of Tallahassee.	<p>The possibility of an incident involving a weapon of mass destruction or a hazardous materials release exists within Leon County. County EM is preparing a response plan and now needs to identify the equipment needed to respond to effectively to an incident. In addition, the City and County need to identify potential funding sources to acquire the highly specialized, and often expensive, equipment.</p> <p>Status: Tallahassee Fire Department (TPD) has the only hazardous materials response unit in the region (between Alachua and Escambia Counties, and to a lesser extent, Bay County). Currently, TPD will respond to hazardous materials incidents outside of the County. TPD has also created a Regional Hazardous Materials Response Team.</p> <p>Our community emergency management officials have identified equipment needs and have purchased many of these items with funding from the federal Department of Homeland Security and the Federal Emergency Management Agency. A local committee outlines items to be purchased, and funding is coordinated through the Regional Domestic Security Task Force. However, available funding for this initiative is decreasing.</p>
17	Maintain training programs for emergency responders and continue to identify new training programs as needed.	Development & Maintenance of Emergency Responders Training Programs	Administrative Services: Hire 1 Staff for training and exercising: Average of 1,517 salaries reported \$60,600 per year (benefited) AND/OR Contract Services: Hire at least one 1 Human Services Specialist at \$145 per hour: (160 hours: \$23,200 per month, \$69,600 per quarter or \$278,400 per year). Additional contract support may be required at a lesser hourly rate. Estimated Timeframe: Five Years	<ul style="list-style-type: none"> <li>COT</li> <li>Leon County Emergency Management</li> </ul>	<ul style="list-style-type: none"> <li>All</li> </ul>	Hazardous Materials Training Program (FEMA) Chemical Emergency Preparedness and Prevention Grants Program (EPA)	High/Medium Discussion: The hiring of a Training Specialist to develop and maintain ER training programs will benefit all residents and property owners within Leon County and the City of Tallahassee.	<p>In the event of a natural disaster, hazardous material release, or other catastrophic incident, numerous emergency responders, often with widely different roles, will be required to work as a single, integrated unit. Key to this effort is training. The City and County need to continually identify the different training needs for numerous responders, including, but not limited to dispatchers, initial responders, field responders, and incident commanders. Included as part of this is a continuous training program, involving classroom training, tabletop exercises and field exercises. The effort should also address the development and implement public awareness training programs.</p> <p>Status: The Apalachee Regional Planning Council, Tallahassee, Gainesville, Thomasville, Valdosta and other surrounding communities have worked together on regional responses. In Florida, surrounding communities have agreed to support each other through the Fire Chief's Association and the Regional Domestic Security Tasks Forces. There are seven of these in Florida, and they support each other as needed.</p>
18	Identify populations at risk under different scenarios	Population Analysis of Disaster Scenarios	Administrative Services: Hire 1 Social Services Manager: Average of 9,505 salaries reported \$57,443 per year (benefited). AND/OR Contract Services: Hire at least one 1 Human Services Specialist at \$145 per hour: (160 hours: \$23,200 per month, \$69,600 per quarter or \$278,400 per year). Additional contract support may be required at a lesser hourly rate.	<ul style="list-style-type: none"> <li>TLCGIS</li> <li>COT</li> <li>Leon County Emergency Management</li> <li>Tallahassee - Leon County Planning</li> </ul>	<ul style="list-style-type: none"> <li>All</li> </ul>	EMPA Trust Fund (DEM)	High/Medium Discussion: The hiring of a Social Services Manager to conduct a population analysis of disaster scenarios will benefit all residents and property owners within Leon County and the City of Tallahassee.	<p>The intent of this initiative is to determine the impact on housing, medical, evacuation, shelters, etc., for different populations such as those attending special events, student populations, homeless populations, and the elderly.</p> <p>Status: The Tallahassee - Leon County Geographical Information System (TLCGIS) interlocal department has developed Hazus capabilities, including the acquisition of Hazus 4.2 software, data, and staff training. This software program has been used to estimate direct economic loss from building damage and indirect losses such as business interruption. Additionally, Hazus can estimate shelter needs based on population and socioeconomic information. TLCGIS has previously used it to compare known damages from Hurricane Hermine.</p> <p>In addition to the use of digital data and modeling, the Leon County and the City of Tallahassee in 2011-2012 collaboratively developed a Post-Disaster Redevelopment Plan (PDRP) to better prepare the community for long-term recovery and redevelopment after a disaster. This plan complements other planning efforts ongoing in the city and the county, including the Comprehensive Plan, Local Mitigation Strategy (LMS) and Comprehensive Emergency Management Plan (CEMP). The PDRP identifies policies, operational strategies and roles and responsibilities for implementation that will guide decisions that affect long-term recovery and redevelopment of the community after a disaster. The PDRP is required to be updated every five years.</p> <p>Leon County now also requires a Temporary Uses, Construction Staging Areas, and Special Events Permit for events intended to accommodate an attendance of 250 or more persons. The County's Department of Development Support and Environmental Management processes this permit, which is reviewed by the County's Development Services Division, Fire Safety Office, Emergency Medical Services, Sheriff's Office and the Health Department.</p>

Priority	Initiative	Project Name	Estimated Cost & Timeframe	Responsible Organization	Hazard	Potential Funding Sources	Benefits/Costs Review	Background & Status
19	Encourage the establishment of community-based emergency shelters and increase the disaster resistance of existing community shelters and other non-profit service provider facilities.	Establish Community-based Emergency Shelters	Resources: ≥\$100,000 for a shelter to meet the needs of trailer park.  Estimated Timeframe: Five Years	<ul style="list-style-type: none"> <li>COT</li> <li>Leon County Emergency Management</li> </ul>	<ul style="list-style-type: none"> <li>All</li> </ul>	Local	High/Medium  Discussion: The establishment of and increasing the disaster resistance of community-based emergency shelters and other service provider facilities will benefit all residents and property owners within Leon County and the City of Tallahassee.	<p>Subdivisions, mobile home parks, etc. that have storm shelters incorporated into their designs would provide additional sheltering capacity and eliminate the need to evacuate residents. These buildings could double as community centers.</p> <p>Status: The City of Tallahassee and Leon County have a total of 15 school campuses and 72 buildings, which meet the Red Cross standards and can be used as emergency shelters. In addition, the City of Tallahassee is now providing transportation to persons who regularly ride StarMetro seeking shelter. Six shelters were employed during Hurricane Michael on October 10, 2018 serving over 1,500 people.</p> <p>Through the successful completion of several structural hardening mitigation projects, Florida State University now maintains an inventory of four buildings with the capability to shelter 3,140 of its own students, faculty, staff and their immediate family members on campus.</p>
20	Identify major land-based transportation corridors and establish safe zones around these corridors based on the exposure pathway for different chemicals	Transportation Corridor Safe Zone Mapping	Administrative Services: Contract Services: 1 Mitigation Services Specialist \$145 per hour: (160 hours: \$23,200 per month; \$69,600 per quarter or \$278,400 per year). - Estimated Timeframe: Two Years	<ul style="list-style-type: none"> <li>COT</li> <li>Leon County Emergency Management</li> </ul>	<ul style="list-style-type: none"> <li>Hazardous Materials</li> <li>Transportation Incidents</li> </ul>	Hazardous Materials training Program (FEMA)  Chemical Emergency Preparedness and Prevention Program (EPA)	High/Medium  Discussion: The hiring of a Mitigation Services Specialist to identify and establish safe zones around major land-based transportation corridors will benefit all residents and property owners within Leon County and the City of Tallahassee.	<p>This would also include identification of all structures, facilities and special need populations in the corridors. Provide ready access to this information to hazardous material response personnel, preferably from deployed resources (such as a GIS capability on the hazardous response vehicle).</p> <p>Status: The Apalachee Regional Planning Council has developed a commodity transportation study for hazardous materials. In addition, local Emergency Management officials have developed preliminary mapping of safe zones, 1-2 miles along the major routes through the community.</p>



# **Appendix B**

# **Prioritized Project List**



Priority	Name & Project Description	Jurisdiction of Project Location	Implementing Agency	Hazards Mitigated	Potential Funding Sources	Estimated Costs	New, Deferred, Completed, or Deleted	Notes	Timeframe for Completion
1	Munson Slough Embankment Stabilization	Leon County	Leon County Public Works	Flood, Tropical Cyclone, Severe Thunderstorm	HMGP	\$1,600,000		Endorsed by the LMS Committee on 03/19/2024	Intermediate Term: 3-5 years
2	Pump Station 94 Flood Risk Reduction Project	City of Tallahassee	City of Tallahassee Underground Utilities & Public Infrastructure	Flood, Tropical Cyclone, Severe Thunderstorm	HMGP	\$3,800,000		Endorsed by the LMS Committee on 03/19/2024	Intermediate Term: 3-5 years
3	Sandstone Ranch Subdivision East-West Concrete Ditch	Leon County	Leon County Public Works	Flood, Tropical Cyclone, Severe Thunderstorm	HMGP	\$700,000		Endorsed by the LMS Committee on 03/19/2024	Short Term: 1-3 years
4	Lawrence Gregory Community Center Generator Project	City of Tallahassee	City of Tallahassee Housing And Community Resilience	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$485,000		Endorsed by the LMS Committee on 03/19/2024	Short Term: 1-3 years
5	Installation of Emergency Backup Generators at Wastewater Pump Stations 25, 49, 85, 137, 164	City of Tallahassee	City of Tallahassee Underground Utilities & Public Infrastructure	Flood, Tropical Cyclone, Severe Thunderstorm	HMGP	\$1,000,000		Endorsed by the LMS Committee on 06/06/2023	Intermediate Term: 3-5 years
6	Antlers Subdivision Pond Dam Repair	Leon County	Leon County Public Works	Flood, Tropical Cyclone, Severe Thunderstorm, Dam Failure	HMGP	\$1,140,000	Deleted	No longer pursued for grant funding	
7	Water Quality Laboratory Administration Building Retrofit	City of Tallahassee	City of Tallahassee Underground Utilities & Public Infrastructure	Flood, Tropical Cyclone, Severe Thunderstorm	HMGP	\$1,235,000		Endorsed by the LMS Committee on 06/06/2023	Intermediate Term: 3-5 years
8	Leon County Main Library Hardening	City of Tallahassee	Leon County Library Services	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$5,000,000		Endorsed by the LMS Committee on 06/06/2023	Long Term: 5-10 years
9	Installation of an Emergency Generator at Wastewater Pump Station 106	City of Tallahassee	City of Tallahassee Underground Utilities & Public Infrastructure	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$150,000		Endorsed by the LMS Committee on 10/04/2023	Short Term: 1-3 years
10	Rural Fire Station 10, 11, 12, 13, 14 Hardening	Leon County	City of Tallahassee Fire Department	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$2,500,000			Intermediate Term: 3-5 years
11	City of Tallahassee Watershed Master Plan	City of Tallahassee	City of Tallahassee Underground Utilities & Public Infrastructure	Flood, Tropical Cyclone, Severe Thunderstorm	HMGP	\$300,000	New	Endorsed by the LMS Committee on 12/18/2024	Short Term: 1-3 years
12	Leon County Detention Facility Full Envelope Project	City of Tallahassee	Leon County Sheriff's Office	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$9,850,000			Long Term: 5-10 years
13	Lake Henrietta Sediment Removal	Leon County	Leon County Public Works	Flood, Tropical Cyclone, Severe Thunderstorm	HMGP	\$2,000,000			Intermediate Term: 3-5 years
14	Lincoln Center Climate Resilience Enhancements Project	City of Tallahassee	City of Tallahassee Housing And Community Resilience	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$3,375,000		Endorsed by the LMS Committee on 12/11/2023	Intermediate Term: 3-5 years
15	Storm Hardening of the Electric Transmission Lines 1A, 2A, 3A	Leon County & City of Tallahassee	City of Tallahassee Electric and Gas Utilities	Flood, Tropical Cyclone, Severe Thunderstorm	HMGP & BRIC	\$3,100,000		Endorsed by the LMS Committee on 02/06/2024	Intermediate Term: 3-5 years
16	Smith-Williams Center Climate Resilience Enhancements Project	City of Tallahassee	City of Tallahassee Housing And Community Resilience	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$485,000	Deleted	No longer pursued for grant funding	



Priority	Name & Project Description	Jurisdiction of Project Location	Implementing Agency	Hazards Mitigated	Potential Funding Sources	Estimated Costs	New, Deferred, Completed, or Deleted	Deferred or Deleted Reasoning	Timeframe for Completion
17	Utility Operations Center Resiliency	City of Tallahassee	City of Tallahassee Electric and Gas Utilities	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$3,000,000	Deleted	No longer pursued for grant funding	
18	Disaster Recovery Center Generators and Wind Mitigation Studies	Leon County & City of Tallahassee	Leon County Facilities Management	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$535,000	Deleted	No longer pursued for grant funding	
19	HOPE: New metal roof	City of Tallahassee	Family Promise of the Big Bend	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$45,000	Deleted	No longer pursued for grant funding	
20	Home Front: Purchase and installation of a generator to provide power to 52 residences	City of Tallahassee	Family Promise of the Big Bend	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$300,000	Deleted	No longer pursued for grant funding	
21	Balkin: Purchase and installation of a generator for 17 residences	City of Tallahassee	Family Promise of the Big Bend	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$130,000	Deleted	No longer pursued for grant funding	
22	Generator for Shelter	City of Tallahassee	Capital City Youth Services	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$110,000	Deleted	No longer pursued for grant funding	
23	Generator for Shelter	City of Tallahassee	Refuge House	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$95,000	Deleted	No longer pursued for grant funding	
24	Roof Replacement — Courthouse Main	City of Tallahassee	Leon County Facilities Management	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$500,000	Deleted	No longer pursued for grant funding	
25	Installation of Safety Glass at the Kearney Center	City of Tallahassee	Kearney Center	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$25,000	Deleted	No longer pursued for grant funding	
26	Upgrading Overhead Wire to Tree Wire	Leon County	Talquin Electric Cooperative	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$3,725,000			Intermediate Term: 3-5 years
27	Transmission Line Back feed	Leon County	Talquin Electric Cooperative	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$1,745,000			Intermediate Term: 3-5 years
28	Westgate: 9 house generators	City of Tallahassee	GESC Health Services	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$915,000	Deleted	No longer pursued for grant funding	
29	Roof Replacement – Fort Braden Community Center	Leon County	Leon County Facilities Management	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$50,000			Short Term: 1-3 years
30	Service Wire Overhead to Underground Conversions (25%)	Leon County	Talquin Electric Cooperative	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$7,000,000			Long Term: 5-10 years
31	Miracle Hill Permanent Generator	City of Tallahassee	Miracle Hill Nursing and Rehabilitation Center	Tropical Cyclone, Severe Thunderstorm, Extreme Heat	HMGP	\$500,000	Deleted	No longer pursued for grant funding	
32	GIS 3D Modeling	Leon County & City of Tallahassee	Tallahassee – Leon County Geographic Information Systems	All Hazards	HMGP	\$80,000	Deleted	No longer pursued for grant funding	
33	City and County acquisition of easement or fee simple property for maintenance of major ditches and canals to reduce flooding	Leon County & City of Tallahassee	Leon County Public Works and City of Tallahassee Underground Utilities and Public Infrastructure	Flood, Tropical Cyclone, Severe Thunderstorm	HMGP National Flood Mitigation Fund	\$0	Deleted	No longer pursued for grant funding	
34	Explore the feasibility of adding a full build-out component to the Leon County Master Stormwater Management Plan	Leon County	Leon County Public Works	Flood, Tropical Cyclone, Severe Thunderstorm	National Flood Mitigation Fund	\$0	Deleted	No longer pursued for grant funding	
35	Window Upgrades at TMH	City of Tallahassee	Tallahassee Memorial Hospital (TMH)	Tropical Cyclone, Severe Thunderstorm	HMGP, CDBG	\$0	Deleted	No longer pursued for grant funding	



# **Appendix C**

## **Local Government**

### **Stormwater Management**



## City of Tallahassee

The City of Tallahassee Stormwater Management program is funded by a stormwater utility fee with nearly 91,580 residential accounts and over 9,084 non-residential accounts. The stormwater utility generates approximately \$17.9 million per year, and employs over 90 positions including scientists, biologists, engineers, planners, administrators and maintenance personnel. The City's stormwater program provides the including services stormwater planning, pollution reduction floodplain management, infrastructure maintenance, lakes monitoring, street sweeping regulatory compliance, and National Pollution Discharge Elimination System (NPDES). The Planning and Administration program oversees regulatory compliance, floodplain management, the Stormwater On-site Mitigation Loans (Loan Program) and lakes monitoring. The SW Pollution Reduction Program (SPRP) is responsible for public education and coordinating with FDEP on IWR/TMDL/BMAP development and implementation. The City's stormwater infrastructure maintenance program is responsible for approximately 28,408 drainage structures, over 426 stormwater ponds, 24 miles of major outfall canals, 225 miles of roadside ditches, 59 miles of minor to medium outfall ditches and over 426 miles of enclosed storm drains.

## Leon County Government

Leon County's Stormwater Engineering program within the County's Department of Public Works is intended to reduce flooding and improve surface and ground water quality. This program is responsible for program development, capital improvement programming, master planning, and other projects. Professional support includes design, contract administration, monitoring of projects, construction and maintenance, and policy development. The components of this program include stormwater planning, pollution reduction floodplain management, infrastructure maintenance, lakes monitoring, National Pollution Discharge Elimination System (NPDES), flooded property acquisition program, Total Maximum Daily Loads (TMDL), and water quality monitoring program. The County's Stormwater Maintenance program is responsible for the creation, maintenance, management, and preservation of functional, safe, and effective stormwater systems for the citizens of Leon County and its visitors. This program maintains and retrofits drainage systems along county rights-of-way and easements; provides for water quality and rate control; protects against personal injury, private property loss, and loss to Leon County associated with stormwater runoff; and responds to public needs by investigating complaints, obtaining permits, and accomplishing needed facility improvements.

Project	Implementing Jurisdiction	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Total
Medium Stormwater System Improvements	City of Tallahassee	\$2,750,000	\$2,750,000	\$2,750,000	\$2,750,000	\$2,750,000	\$13,750,000
Miscellaneous Stormwater Engineering	City of Tallahassee	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$400,000
NPDES Municipal Stormwater Permitting	City of Tallahassee	\$0	\$88,150	\$90,350	\$92,600	\$94,950	\$366,050
Rainfall and Stream Gauging—Stormwater Project	City of Tallahassee	\$110,000	\$110,000	\$110,000	\$110,000	\$110,000	\$550,000
Small Projects Initiative	City of Tallahassee	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
Think About Personal Pollution (TAPP)	City of Tallahassee	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$750,000
2020 City Water Quality Sales Tax Projects	City of Tallahassee	\$1,200,000	\$2,125,000	\$2,125,000	\$2,125,000	\$2,125,000	\$9,700,000
Lee Avenue Drainage Improvement Project	City of Tallahassee	\$1,600,000	\$0	\$0	\$0	\$0	\$1,600,000
Minor Stormwater Improvements	City of Tallahassee	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000	\$6,000,000
Storm Drain System Inspection/Rehabilitation/Replacement	City of Tallahassee	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$3,000,000
Myrick Road Outfall Ditch Improvements	City of Tallahassee	\$4,400,000	\$0	\$0	\$0	\$0	\$4,400,000
Blueprint 2020 Water Quality and Stormwater	Leon County	\$2,125,000	\$2,125,000	\$2,125,000	\$2,125,000	\$2,125,000	\$10,625,000
LIFE Stormwater and Flood Relief	Leon County	\$0	\$295,460	\$333,270	\$302,220	\$412,310	\$1,343,260
Public Works Design and Engineering Services	Leon County	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
Stormwater Infrastructure Preventative Maintenance	Leon County	\$231,260	\$800,000	\$800,000	\$800,000	\$800,000	\$3,431,260
	<b>Total</b>	<b>\$14,746,260</b>	<b>\$10,623,610</b>	<b>\$10,663,620</b>	<b>\$10,634,820</b>	<b>\$10,747,260</b>	<b>\$57,415,570</b>



# **Appendix D**

# **LMS Committee Bylaws**



## **LMS COMMITTEE PREAMBLE**

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

## **LMS COMMITTEE PURPOSE AND FUNCTION**

- (1) Persons representing governmental entities, agencies, and public, private, and non-profit organizations noted herein who are active in or have a role in emergency management and response, public safety, planning, and other aspects of hazard mitigation shall participate in the hazard mitigation planning process via an LMS Committee.
- (2) The purpose of the LMS Committee shall be to ensure the technical sufficiency and completeness of the Local Mitigation Strategy (LMS plan), associated studies, applications for disaster assistance and related funding, and to ensure coordination and consistency with applicable state, local and regional hazard mitigation plans and programs.
- (3) The LMS Committee shall assist Leon County (County) and the City of Tallahassee (City) in carrying out local governments' hazard planning functions through recommendations on various issues.
- (4) To carry out its function as an advisory committee to the County and the City, the LMS Committee shall:
  - (a) Review the Local Mitigation Strategy and its updates and to make recommendations as to its need, feasibility, technical accuracy, and consistency with local, state and regional plans, programs, projects and comprehensive plans;
  - (b) Report to the County and City regarding current and future hazard mitigation needs, applicable funding sources, and other planning issues to assist local government with achieving coordination and consistency among local Comprehensive Plan, the Comprehensive Emergency Management Plan, and regional, state, and federal hazard mitigation initiatives;
  - (c) Review information that is input to or produced by the LMS Planning process;

- (d) Recommend policies, projects, and studies (to be undertaken by applicable staff, departments or organizations) that further the intent or directly implement federal, state or local hazard mitigation goals or objectives;
- (e) Transmit to the County and City and share with other agencies or entities all significant findings and comments on hazard mitigation matters; and
- (f) Conduct any other functions assigned to the LMS Committee by the County or the City Commissions.

### **COMMITTEE MEMBERSHIP**

- (1) The Tallahassee-Leon County LMS Committee shall include representatives from the organizations named below concerned with the impacts of natural and man-made hazards on the health, safety and welfare of the community.
- (2) There is no limit on the number of members who may serve on the LMS Committee. The addition of any new voting organizations to the LMS Committee other than those specified in these bylaws must be approved by the County and the City Commissions.
- (3) The LMS Committee shall include the following voting organizations:
  - (a) Leon County Department of Development Support and Environmental Management
  - (b) Leon County Department of Public Works
  - (c) Leon County Emergency Management
  - (d) Leon County Sheriff's Office
  - (e) Leon County Emergency Medical Services
  - (f) City of Tallahassee Department of Underground Utilities and Public Infrastructure
  - (g) City of Tallahassee Fire Department
  - (h) City of Tallahassee Police Department
  - (i) Tallahassee-Leon County Planning Department
  - (j) Tallahassee-Leon County GIS
  - (k) Blueprint Intergovernmental Agency
  - (l) American Red Cross – Capital Area Section

- (4) The following organizations shall be represented as ex-officio (non-voting) members on the LMS Committee:
- (a) Florida Division of Emergency Management
  - (b) Florida Department of Health in Leon County
  - (c) Florida Forest Service
  - (d) Apalachee Regional Planning Council
  - (e) Leon County School District
  - (f) City of Tallahassee Department of Housing and Community Resilience
  - (g) City of Tallahassee Electric and Gas Utility
  - (h) Talquin Electric Cooperative
  - (i) Tallahassee Memorial Hospital
  - (j) HCA Florida Capital Hospital
  - (k) Florida State University
  - (l) Florida Agricultural and Mechanical University
  - (m) Tallahassee State College
  - (n) Council of Neighborhood Associations
  - (o) Tallahassee Chamber of Commerce
  - (p) Big Bend Continuum of Care

Other non-voting staff may be added pursuant to Section 1.3(2) of these bylaws.

- (5) It is the prerogative of the leadership of the organizations on the Steering Committee to attend regular LMS Committee meetings. They may designate a proxy as necessary or as preferred to serve as their representative at the meeting.
- (6) If a member no longer wishes to serve on the LMS Committee, they shall notify the chairperson and designate a replacement who holds a position within that department or organization that either is professionally more responsible for LMS-related activities or can fairly represent the organization's stakeholder concerns in the LMS process.
- (7) A person cannot be an alternate for more than one LMS Committee organization or member.

## VOTING

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



- (2) Non-voting members shall sit with the same rights and privileges as other members, except that non-voting members shall not have the right to present motions or second same, or to vote upon any motions of the LMS Committee.

## **OFFICERS AND ELECTIONS**

- (1) The officers of the LMS Committee will be the Chairperson and Vice Chairperson. The officers shall be voting members elected by the LMS Committee membership.
- (2) The LMS Committee Chairperson shall preside at all meetings. In the event of the Chairperson's absence or at his/her direction, the Vice Chairperson shall assume the powers of the Chairperson. In the event that neither the Chairperson nor Vice Chairperson can preside at the meeting, the committee members present shall elect one of its members to serve as acting Chairperson for the meeting.
- (3) Officers shall be elected in November of each year, or in the event there is not a meeting in November, the next scheduled meeting. Nominations for officers shall be made at the meeting. Election shall be a majority vote of the LMS Committee voting members present.
- (4) Newly elected officers shall assume their duties at the first meeting of the next calendar year. They shall hold office for one year, or until their successors are elected, and they shall be eligible for re-election.
- (5) In the event that either the Chairperson or Vice Chairperson office becomes vacant, a replacement shall be elected by the committee at the next scheduled LMS Committee meeting and assume duties immediately and hold the position for the remainder of the calendar year.

## **MEETINGS AND AGENDAS**

- (1) The LMS Committee shall meet not less than annually. Regular LMS Committee meetings shall be held at dates, times, and places as approved by the LMS Committee. Regular meeting dates and times may be changed to accommodate holidays or for other valid reasons.
- (2) There shall be an official agenda for every LMS Committee meeting. The agenda shall be prepared by the designated LMS Coordinator.
- (3) Every attempt shall be made to send agenda packages to LMS Committee members seven (7) calendar days prior to a regular LMS Committee meeting.

- (4) Any LMS Committee member or alternate who is eligible to vote at the LMS Committee meeting may place additional items on the LMS Committee agenda, with the approval of the majority of the voting members or alternates present.

## **OFFICIAL ACTIONS**

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

## **CONDUCT OF MEETING**

- (1) All LMS Committee meetings shall be conducted under the requirements of the Florida “Government in the Sunshine” law (Chapter 286, F.S.), including applicable notice requirements, and be open to the public and press.
- (2) The public will have the right to speak, enter into discussion, or actively participate in any way only with the permission of the chairperson.
- (3) In the absence of rules covered in this document, Roberts Rules of Order shall be followed at all LMS Committee meetings.
- (4) A quorum for LMS Committee meetings shall consist of a minimum of five voting members or alternates including at least one member representing a City-only department and one member representing a County-only department.
- (5) The LMS Committee must comply with Section 122.3143, F.S., “Voting Conflicts,” which requires that a member who has a conflict of interest on any particular matter to declare the conflict of interest before discussion and a vote is taken and shall be excused from voting on that issue.
- (6) The LMS Committee shall operate in compliance with the Standards of Conduct set forth in Section 112.313, F.S.
- (7) These bylaws may be amended by a two-thirds vote of those voting members or alternates present at a regularly scheduled LMS Committee meeting.
- (8) Amendments to the bylaws shall become effective immediately after the approval by both the County and the City.

## ADMINISTRATION

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

## EFFECTIVE DATE

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



# **Appendix E**

## **LMS Meeting Minutes**



Organization	Status	Name	Title	Email
Leon County Department of Development Services and Environmental Management	Voting	Barry Wilcox	Department Director	<a href="mailto:wilcoxb@leoncountyfl.gov">wilcoxb@leoncountyfl.gov</a>
Leon County Department of Public Works	Voting	Brent Pell	Department Director	<a href="mailto:pellb@leoncountyfl.gov">pellb@leoncountyfl.gov</a>
Leon County Emergency Management	Voting	Kevin Peters	Emergency Management Director	<a href="mailto:petersk@leoncountyfl.gov">petersk@leoncountyfl.gov</a>
Leon County Sheriff's Office	Voting	Benjamin Benedict	Chief of Patrol	<a href="mailto:benedictb@leoncountyfl.gov">benedictb@leoncountyfl.gov</a>
Leon County Emergency Medical Services	Voting	Chad Abrams	EMS Chief	<a href="mailto:abramsc@leoncountyfl.gov">abramsc@leoncountyfl.gov</a>
City of Tallahassee Department of Underground Utilities and Public Infrastructure	Voting	Andrew Platt	Manager of Water Utilities Engineering	<a href="mailto:andrew.platt@talgov.com">andrew.platt@talgov.com</a>
City of Tallahassee Fire Department	Voting	Brian Bradshaw	Emergency Manager	<a href="mailto:brian.bradshaw@talgov.com">brian.bradshaw@talgov.com</a>
City of Tallahassee Police Department	Voting	Lawrence Revell	Chief of Police	<a href="mailto:lawrence.revell@talgov.com">lawrence.revell@talgov.com</a>
Tallahassee-Leon County Planning Department (PLACE)	Voting	Artie White	Department Director	<a href="mailto:artie.white@tlcplace.org">artie.white@tlcplace.org</a>
Tallahassee-Leon County Geographic Information Systems	Voting	Scott Weisman	GIS Coordinator	<a href="mailto:weismans@leoncountyfl.gov">weismans@leoncountyfl.gov</a>
Blueprint Intergovernmental Agency	Voting	Autumn Calder	Director	<a href="mailto:autumn.calder@tlcplace.org">autumn.calder@tlcplace.org</a>
American Red Cross - Capital Area Section	Voting	Kathy Bland	Program Manager	<a href="mailto:kathy.bland3@redcross.org">kathy.bland3@redcross.org</a>
Florida Division of Emergency Management	Non-Voting	Angie Odell	Mitigation Planning Manager	<a href="mailto:angie.odell@em.myflorida.com">angie.odell@em.myflorida.com</a>
Florida Department of Health in Leon County	Non-Voting	Tyler Rapposelli	Public Health Preparedness Analyst	<a href="mailto:tyler.rapposelli@flhealth.gov">tyler.rapposelli@flhealth.gov</a>
Florida Forest Service	Non-Voting	Chris Colburn	Forestry Center Manager	<a href="mailto:chris.colburn@fdacs.gov">chris.colburn@fdacs.gov</a>
Apalachee Regional Planning Council	Non-Voting	Christian Levings	Emergency Planning Manager	<a href="mailto:clevings@arpc.org">clevings@arpc.org</a>
Leon County School District	Non-Voting	Yaite Arthmann	Project Manager	<a href="mailto:arthmanny@leonschools.net">arthmanny@leonschools.net</a>
City of Tallahassee Department of Housing and Community Resilience	Non-Voting	Adam Jacobs	Chief Sustainability and Resilience Officer	<a href="mailto:adam.jacobs@talgov.com">adam.jacobs@talgov.com</a>
City of Tallahassee Electric and Gas Utility	Non-Voting	Boscoe Wilhite	Special Projects Coordinator	<a href="mailto:boscoe.wilhite@talgov.com">boscoe.wilhite@talgov.com</a>
Talquin Electric Cooperative	Non-Voting	Lisa Burnett	Grants Administrator	<a href="mailto:lisa.burnett@talquinelectric.com">lisa.burnett@talquinelectric.com</a>
Tallahassee Memorial Hospital	Non-Voting	Philip Doyle	Chief of Public Safety	<a href="mailto:philip.doyle@tmh.org">philip.doyle@tmh.org</a>
HCA Florida Capital Hospital	Non-Voting	Bobby Bodiford	Director of Facilities Management	<a href="mailto:bobby.bodiford@hcahealthcare.com">bobby.bodiford@hcahealthcare.com</a>
Florida State University	Non-Voting	Curt Sommerhoff	Emergency Management Director	<a href="mailto:csommerhoff@fsu.edu">csommerhoff@fsu.edu</a>
Florida Agricultural and Mechanical University	Non-Voting	Ashley Davis	Emergency Management Director	<a href="mailto:ashley.davis@famu.edu">ashley.davis@famu.edu</a>
Tallahassee State College	Non-Voting	Vacant		
Council of Neighborhood Associations	Non-Voting	Vacant		<a href="mailto:conapresident@gmail.com">conapresident@gmail.com</a>
Tallahassee Area Chamber of Commerce	Non-Voting	Sue Dick	President/CEO	<a href="mailto:sdick@talchamber.com">sdick@talchamber.com</a>
Big Bend Continuum of Care	Non-Voting	Johnna Coleman	Executive Director	<a href="mailto:jcoleman@bigbendcoc.org">jcoleman@bigbendcoc.org</a>

**TALLAHASSEE-LEON COUNTY  
LOCAL MITIGATION STRATEGY  
WORKING GROUP & STEERING COMMITTEE**

**Meeting Minutes  
2:30 p.m. – 4:30 p.m.  
Tuesday, April 4, 2023**

Planning Department Conference Room  
3<sup>rd</sup> Floor, Renaissance Center  
435 N Macomb Street  
Tallahassee, FL 32301

**Attendees**

Chad Abrams (LCEMS)	Adam Jacobs (COT HCS)
Brian Bradshaw (COT EM/TFD)	Anna Padilla (LCPW)
Scott Brockmeier (DSEM)	Brent Pell (LCPW)
Shalonda Connor-White (COT Res. Mgmt)	Kevin Peters (LC EM)
Martin DeHaven (COT HCR)	Andrew Platt (UUPI)
Ned Fernandez (ICF)	Kelli Reddick (ICF)
Mark Fuller (UUPI)	Michelle Taylor (LC IT)
Blas Gomez (UUPI)	Scott Weisman (TLCGIS)
Desiree Gorman (UUPI)	Artie White (TLCPD)
Stephen Hodges (TLCPD)	Gary Williams (TPD)

The meeting began at 2:30 p.m. with a quorum and introductions. There were no modifications to the agenda.

The group began with a discussion of proposed HMGP projects. There were five projects on the Hurricane Michael project list that were funded and completed: Projects #6, #7, #8, #10, and #11. Staff from the City’s Underground Utilities and Public Infrastructure and the County’s Public Works department proposed three projects for consideration by the Committee for funding from the County’s Hurricane Ian (FEMA-4673-DR-FL) allocation. Following a discussion of these projects, the Steering Committee voted to endorse these projects in the following order and projects costs:

<b>Funding Priority</b>	<b>Project Name or Description</b>	<b>Applicant</b>	<b>Goal/Objective Implemented</b>	<b>Total Estimated Project Cost</b>	<b>Estimated Federal Share (75%)</b>
1	Leon County Main Library Hardening	Leon County	Goal 1 Objective 1.2	\$1,500,000	\$1,125,000
2	Installation of Emergency Backup Generators at Wastewater Pump Stations 25, 49, 85, 137, and 164	City of Tallahassee	Goal 1 Objective 1.2	\$870,000	\$652,500
3	Antlers Subdivision Pond Dam Repair	Leon County	Goal 1 Objective 1.2	\$1,140,000	\$855,000

Artie White motioned the endorsement and ranking. Chad Abrams seconded the motion, and it was approved unanimously by the Steering Committee.

Following a discussion about the issue of having two project lists in the LMS and the need to have only one, based on feedback received from the State of Florida’s Division of Emergency Management, Andrew Platt, current chair of the Steering Committee, requested staff to schedule another meeting this spring to clean up the project lists and to ensure that the endorsed projects were included on this master project list.

Kevin Peters motioned approval of the December 8, 2022 minutes. Artie seconded the motion, and the Steering Committee voted unanimously to pass the motion.

There were no other actions taken by the Steering Committee. The Committee adjourned at approximately 3:10 p.m. p.m.

Approved:

Attest:

\_\_\_\_\_

Chairman

\_\_\_\_\_

Stephen M. Hodges, Committee Staff

Minutes approved on: \_\_\_\_\_

TALLAHASSEE-LEON COUNTY  
LOCAL MITIGATION STRATEGY  
STEERING COMMITTEE

Meeting Minutes  
2:00 p.m. – 4:00 p.m.  
Tuesday, June 6, 2023

Planning Department Conference Room  
3<sup>rd</sup> Floor, Renaissance Center  
435 N Macomb Street  
Tallahassee, FL 32301

Attendees

Chad Abrams (LCEMS)  
Benjamin Benedict (LCSO)  
Scott Brockmeier (DSEM)  
Richard Brown (DOH PHP)  
Ned Cake (TLGIS)  
Edward Fernandez (ICF)  
Mark Fuller (UUPI)  
Blas Gomez (UUPI)  
Desiree Gorman (UUPI)

Stephen Hodges (TLCPD)  
Taylor Mackin (DOH PHP)  
Brent Pell (LCPW)  
Kevin Peters (LC EM)  
Andrew Platt (UUPI)  
Eugene Sherman (LCSO)  
Artie White (TLCPD)  
Alexandra Yerby (COT Res. Mgmt.)

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The meeting began at 2:00 p.m. with a quorum and introductions. There were no modifications to the agenda.

Kevin Peters motioned approval of the April 4, 2023 minutes. Andrew Platt seconded the motion, and the Steering Committee voted unanimously to pass the motion.

As a followup to the previous consideration of Proposed DR-4673 Hurricane Ian HMGP projects on April 4, 2023 by the Committee, Planning staff presented a draft project list for consideration by the Committee. This draft project list was assembled from the Hurricane Michael project list incorporated as Appendix I in the 2020 Local Mitigation Strategy (LMS), the proposed projects endorsed by the Committee for Hurricane Ian HMGP funding, and from several specific projects in Table 52 of the LMS. (Table 52 previously described our local mitigation initiatives and projects, but was determined by staff to be inconsistent with the prioritized mitigation project list with estimated costs as currently required by the Division of Emergency Management and FEMA.) Staff recommended that this project list be incorporated into Chapter 3 of the LMS (which describes the mitigation strategies) replacing Table 52. Following discussion, the Committee agreed with this recommendation.

Staff also recommended that this draft project list be shared with the Working Group and that they be asked to confirm their projects or offer edits or suggest deletion if their project(s) was no longer necessary or feasible. These edits would be brought back to the Committee at a later date in 2023



to be confirmed by the Committee. Any new projects would also be added to this list, which would be maintained by Planning staff. Following discussion, the Committee agreed with this recommendation.

Staff then briefly updated the Committee and Working Group on the anticipated Notice of Funding Availability for Hurricane Nicole.

There were no other actions taken by the Steering Committee. The Committee adjourned at approximately 3:00 p.m.

Approved:

Attest:

\_\_\_\_\_

\_\_\_\_\_

Chairman

Stephen M. Hodges, Committee Staff

Minutes approved on: \_\_\_\_\_

TALLAHASSEE-LEON COUNTY  
LOCAL MITIGATION STRATEGY  
STEERING COMMITTEE

Meeting Minutes  
1:30 p.m. – 3:00 p.m.  
Wednesday, October 4, 2023

Planning Department Conference Room  
3<sup>rd</sup> Floor, Renaissance Center  
435 N Macomb Street  
Tallahassee, FL 32301

Attendees

Jake Adams (COT Electric)  
Tim Barden (LC PW)  
Brian Bradshaw (TFD & EM)  
Richard Brown (DOH PHP)  
Brett Davidson (LC EMS)  
Martin DeHaven (COR HCR)  
Jennette Duncan (TLCPD)  
Mark Fuller (UUPI)  
Blas Gomez (UUPI)  
Stephen Hodges (TLCPD)

Adam Jacobs (COT HCR)  
Christian Levings (ARPC)  
Mindy Mohrman (TLCPD)  
Anna Padilla (LC PW)  
Kevin Peters (LC EM)  
Andrew Platt (UUPI)  
Scott Weisman (TLCGIS)  
Artie White (TLCPD)  
Alexandra Yerby (COT Res. Mgmt.)

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The meeting began at 1:30 p.m. with a quorum and introductions. There were no modifications to the agenda.

Artie White motioned approval of the June 6, 2023 minutes. Brian Bradshaw seconded the motion, and the Steering Committee voted unanimously to pass the motion.

As a followup to the previous consideration of Proposed DR-4673 Hurricane Ian HMGP projects on April 4 and June 6, 2023 by the Committee, Planning staff presented the latest version of a draft Prioritized Project List (PPL) for consideration by the Committee. This draft project list was previously assembled from the Hurricane Michael project list incorporated as Appendix I in the 2020 Local Mitigation Strategy (LMS), the proposed projects endorsed by the Committee for Hurricane Ian HMGP funding, and from several specific projects in Table 52 of the LMS.

The Steering Committee had previously agreed that this PPL be incorporated into Chapter 3 of the LMS (which describes the mitigation strategies) but asked staff to bring the revised PPL back to the Working Group for confirmation of projects or to suggest deletion if their project(s) was no longer necessary or feasible. Staff presented this latest draft to be confirmed by the Committee. The changes made to the list included removing all previous grant project (applied for, completed, or ongoing) to another tab, and color-coding the projects that have been confirmed and those that have not.

Following extensive discussion, Brian motioned that the confirmed projects be moved up in priority over the unconfirmed projects, give those who have not confirmed their projects 90 days (early January) to confirm their proposed projects, and that this list be revisited as part of the 2025 Update of the LMS. Artie White seconded the motion, and the Committee voted unanimously to support the motion.

The Committee considered a mitigation project proposed for DR-4680 Hurricane Nicole HMGP funding. Blas Gomez described the project as the installation of a new emergency backup generator for the City’s wastewater Pump Station 106. Following a discussion, Artie motioned the endorsement of this proposed project by the Committee. Brian seconded motion, and the Committee voted unanimously to support the motion.

There were no other actions taken by the Steering Committee. The Committee adjourned at approximately 3:00 p.m.

Approved:

Attest:

\_\_\_\_\_

\_\_\_\_\_

Chairman

Stephen M. Hodges, Committee Staff

Minutes approved on: \_\_\_\_\_

TALLAHASSEE-LEON COUNTY  
LOCAL MITIGATION STRATEGY  
STEERING COMMITTEE

Meeting Minutes  
10:00 a.m. – 12:00 p.m.  
Monday, December 11, 2023

Planning Department Conference Room  
3<sup>rd</sup> Floor, Renaissance Center  
435 N Macomb Street  
Tallahassee, FL 32301

Attendees

Chad Abrams (LC EMS)  
Jake Adams (COT Utilities)  
Benjamin Benedict (LC SO)  
Brian Bradshaw (TFD & EM)  
Scott Brockmeier (LC DSEM)  
Richard Brown (DOH PHP)  
Martin DeHaven (COR HCR)  
Mark Fuller (UUPI)  
Stephen Hodges (TLC PD)  
Adam Jacobs (COT HCR)  
Mindy Mohrman (TLC GIS)

Brent Pell (LC PW)  
Kevin Peters (LC EM)  
Andrew Platt (UUPI)  
Kelli Reddick (ICF)  
Jason Smith (LC DSEM)  
Max Stout (COT RM)  
Alima Valencia (COT HCR)  
Scott Weisman (TLC GIS)  
Charles Wu (LC PW)  
Alexandra Yerby (COT RM)

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The meeting began at 10:00 a.m. with a quorum and introductions. There were no modifications to the agenda.

Brian Bradshaw motioned approval of the October 4, 2023 minutes. Brent Pell seconded the motion, and the Steering Committee voted unanimously to pass the motion.

The Committee discussed the selection of new officers (Chair and Vice-Chair) for 2024. Following this discussion, Chad Abrams motioned a slate of nominees consisting of the present Chair and Vice-Chair (Andrew Platt and Brent Pell respectively). Kevin Peters seconded this motion, and the Steering Committee voted unanimously to pass the motion.

The Committee considered a mitigation project proposed by the City's Housing And Community Resilience department for currently available Building Resilient Infrastructure and Communities (BRIC) funding. Martin DeHaven described the project as Climate Resilience Enhancements for the City of Tallahassee's Lincoln Center. Following discussion, Brian motioned the endorsement of this proposed project by the Committee, and its inclusion onto the Prioritized Project List in the LMS. Scott Weisman seconded this motion, and the Committee voted unanimously to support the motion.

Planning staff initiated a discussion of the required five-year update of the LMS, including the proposed timeline and the role of the Steering Committee & Working Group. This included informing the Committee of the impending expiration of the LMS in May 2025, and options for how the Committee should participate in the update process. Andrew Platt suggested that a meeting in early 2024 be scheduled so that volunteers for a sub-committee or technical committee could volunteer to meet on a more regular basis with Planning staff to review and update the LMS and then schedule a regular meeting of the Working Group to review these work products as the process moves forward. Quarterly meetings of the Working Group was proposed by Andrew for this purpose. The Committee agreed to this plan.

There were no other actions taken by the Steering Committee. The Committee adjourned at approximately 10:30 a.m.

Approved:

Attest:

\_\_\_\_\_

\_\_\_\_\_

Chairman

Stephen M. Hodges, Committee Staff

Minutes approved on: \_\_\_\_\_

TALLAHASSEE-LEON COUNTY  
LOCAL MITIGATION STRATEGY  
STEERING COMMITTEE

Meeting Minutes  
9:30 a.m. – 11:30 p.m.  
Tuesday, February 6, 2024

Planning Department Conference Room  
3<sup>rd</sup> Floor, Renaissance Center  
435 N Macomb Street  
Tallahassee, FL 32301

Attendees

Chad Abrams (LC EMS)  
Jake Adams (COT Electric & Gas)  
Ivy Baker (FAMU)  
Brian Bradshaw (TFD & EM)  
Lisa Burnette (Talquin Electric)  
Martin DeHaven (COR HCR)  
Mark Fuller (UUPI)  
Desiree Gorman (UUPI)  
Blas Gomez (UUPI)  
Laurel Harbin (TLCPD)

Stephen Hodges (TLCPD)  
Adam Jacobs (COT HCR)  
James Pittman (LC SO)  
Brent Pell (LC PW)  
Kevin Peters (LC EM)  
Andrew Platt (UUPI)  
Susan Poplin (TLCPD)  
Scott Weisman (TLCGIS)  
Barry Wilcox (DSEM)

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The meeting began at 9:32 a.m. with a quorum and introductions. Martin DeHaven asked that the Committee add a proposed City of Tallahassee hazard mitigation project to the agenda for consideration.

Brian Bradshaw motioned approval of the December 11, 2023 minutes. Brent Pell seconded the motion, and the Steering Committee voted unanimously to pass the motion.

After a discussion, Andrew Platt asked staff to set up a meeting in early March to consider Martin's proposed project as well as several other proposed projects being considered for DR-4734 Hurricane Idalia Hazard Mitigation Grant Program (HMGP) funding.

Kevin Peters informed the Committee of a technical assistance program offered by the Division of Emergency Management for prospective HMGP applicants. Staff committed to sharing this information with the Working Group.

Jake Adams presented a proposed City of Tallahassee project to replace existing high-power electric transmission line poles in the main corridors coming into Leon County from the Purdom Electric Generating Plant for consideration for HMGP funding. Andrew asked that this project be added to the Priority Project List (PPL) but that any discussion of prioritization for HMGP funding be postponed to the March meeting to give any additional applicants time to put a proposal together. Jake also asked that two projects previously submitted by City Electric currently on the PPL be

removed. These included the Gemini Building Hardening/Utility Operations Resilience project and the Electrical Undergrounding in Medical Corridor project, both of which are already underway.

Martin DeHaven of the City’s Housing And Community Resilience department presented a City of Tallahassee Smith-Williams Climate Resilience Enhancements project to provide backup electric generating capacity for the Laurence Gregory Community Center in the Griffin Heights neighborhood.

Following a discussion of these two projects, Kevin made a motion to add these projects to the PPL and to consider their endorsement and prioritization at the next LMS Committee meeting in early March. Brian seconded this motion, and the Committee voted unanimously to support the motion.

Andrew discussed the creation of an LMS Update technical committee for the required five-year update of the LMS. Staff presented new update requirements for the LMS, including a new hazard mitigation funding source for dams. This discussion included streamlining the PPL, among other updates. As part of this discussion, Andrew asked for volunteers to work with staff as part of a sub-committee or technical committee and meet on a more regular basis to review and update the LMS. The following individual Working Group members who volunteered include:

- Brian Bradshaw
- Jeannine Fier
- Mark Fuller
- Blas Gomez
- Desiree Gorman
- Audra Hayden
- Christian Levings
- Anna Padilla
- Kevin Peters
- Jason Smith

The sub-committee will meet as necessary to review and provide input to staff, and their recommendations will be presented to the Steering Committee for review. Following this discussion, Brian made a motion to create this sub-committee. Kevin seconded this motion, and the Committee voted unanimously to support the motion.

There were no other actions taken by the Steering Committee. The Committee adjourned at approximately 10:15 a.m.

Approved:

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Chairman

Attest:

\_\_\_\_\_

Stephen M. Hodges, Committee Staff

Minutes approved on: \_\_\_\_\_

TALLAHASSEE-LEON COUNTY  
LOCAL MITIGATION STRATEGY  
STEERING COMMITTEE

Meeting Minutes  
10:00 a.m. – 12:00 p.m.  
Tuesday, March 19, 2024

Planning Department Conference Room  
3<sup>rd</sup> Floor, Renaissance Center  
435 N Macomb Street  
Tallahassee, FL 32301

Attendees

Chad Abrams (LC EMS)  
Jake Adams (COT Electric & Gas)  
Ivy Baker (FAMU)  
Benjamin Benedict (LC SO)  
Brian Bradshaw (TFD & EM)  
Martin DeHaven (COR HCR)  
Mark Fuller (UUPI)  
Desiree Gorman (COT UUPI)  
Laurel Harbin (TLCPD)  
Stephen Hodges (TLCPD)

Justin Lazzara (FDEM)  
Brian Moody (COT UUPI)  
Brent Pell (LC PW)  
Andrew Platt (UUPI)  
Kelli Reddick  
Jason Smith (COT UUPI)  
Scott Weisman (TLCGIS)  
Artie White (PLACE)  
Quinn Williams (COT UUPI)

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The meeting began at 10:00 a.m. with a quorum and introductions. There were no requested modifications of the agenda.

Artie White motioned approval of the February 6, 2024 minutes. Brian Bradshaw seconded the motion, and the Committee voted unanimously to pass the motion.

Four proposed mitigation projects eligible for DR-4734 Hurricane Idalia Funds were considered for endorsements by the Committee. Following these presentations, Artie motioned to endorse the following projects in funding priority:



<b>Funding Priority</b>	<b>Project Name or Description</b>	<b>Applicant</b>	<b>Goal/Objective Implemented</b>	<b>Total Estimated Project Cost</b>	<b>Estimated Federal Share (75%)</b>
1	Munson Slough Embankment Stabilization	Leon County Public Works	Goal 1 Objective 1.2	\$1,600,000	\$1,200,000
2	Pump Station 94 Flood Risk Reduction Project	City of Tallahassee Underground Utilities & Public Works	Goal 1 Objective 1.2	\$3,799,420	\$2,849,565
3	Sandstone Ranch Subdivision East-West Concrete Ditch	Leon County Public Works	Goal 1 Objective 1.2	\$150,000	\$112,500
4	City of Tallahassee Lawrence Gregory Community Center Generator Project	City of Tallahassee Housing And Community Resilience	Goal 1 Objective 1.2	\$485,000	\$336,750

Brian Bradshaw seconded this motion, and the Committee unanimously voted for the motion. Staff committed to providing an endorsement letter to the applicants.

Planning staff presented an updated list of hazards for review and approval by the Committee. This document was prepared for the ongoing five-year update of the LMS with the assistance of the LMS Update Subcommittee. Laurel Harbin motioned approval of the updated list, Artie seconded the motion, and the Committee unanimously voted for the motion.

There were no other actions taken by the Steering Committee. The Committee adjourned at approximately 10:40 a.m.

Approved:

Attest:

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\_\_\_\_\_

Chairman

Stephen M. Hodges, Committee Staff

Minutes approved on: \_\_\_\_\_

TALLAHASSEE-LEON COUNTY  
LOCAL MITIGATION STRATEGY  
STEERING COMMITTEE

Meeting Minutes  
9:30 a.m. – 11:30 p.m.  
Tuesday, June 25, 2024

Planning Department Conference Room  
3<sup>rd</sup> Floor, Renaissance Center  
435 N Macomb Street  
Tallahassee, FL 32301

Attendees

Chad Abrams (LC EMS)  
Ivy Baker (FAMU)  
Brian Bradshaw (TFD & EM)  
Scott Brockmeier (DSEM)  
Eryn Calabro (LC OMB)  
Martin DeHaven (COR HCR)  
Mark Fuller (UUPI)  
Desiree Gorman (COT UUPI)  
Stephen Hodges (TLCPD)  
Adam Jacobs (COR HCR)  
Justin Lazzara (FDEM)

Tyler Maldonado (TLCPD)  
Brent Pell (LC PW)  
Andrew Platt (UUPI)  
Kevin Peters (LC EM)  
Susan Poplin (TLCPD)  
Pedro Rebolledo (FAMU)  
Scott Weisman (TLCGIS)  
Boscoe Wilhite (COT Electric)  
Artie White (PLACE)  
Alexandra Yerby (COT RM)

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The meeting began at 9:30 a.m. with a quorum and introductions. There were no modifications of the agenda.

Tyler Maldonado was introduced to the Committee as the new LMS staff coordinator, as Stephen Hodges is retiring from the Planning Department.

Planning staff presented several documents for review and approval by the Committee. These included the the Risks and Vulnerabilities section, Goals and Objectives, and the Committee Bylaws. With the exception of the Committee Bylaws, these documents were prepared for the ongoing five-year update of the LMS with the assistance of the LMS Update Subcommittee.

As part of the review and discussion of the Risks and Vulnerabilities section, there were several questions and a discussion about a recent disaster declaration following the tornadoes on May 10, 2024 and whether the “Severe Thunderstorm” hazard previously agreed by the Committee earlier this year would adequately address any opportunities to apply for grant funding to mitigate tornados, which are associated with Severe Thunderstorms. Staff committed to review the State Hazard Mitigation Plan (SHMP) definition of Severe Thunderstorms to ensure that tornadoes are explicitly associated with this hazard, and to review the definitions of risk (i.e., High, Medium, and Low) to ensure consistency between the LMS and the SHMP. There was also a recommendation

from the Committee to consider increasing the risk level of Severe Thunderstorms to High from Medium based on the damages and fatalities from the May 10<sup>th</sup> storms.

Staff recommended elimination of Goal 2 in the Goals and Objectives (“Strengthen economic activities within the community). Following a review and discussion of the Goals and Objectives, staff was directed by the Committee to integrate the objectives within this goal into the other goals so as to recognize the importance of addressing economic activity as a component of hazard mitigation and recovery following a disaster. Staff was also directed to integrate the Initiatives section of the LMS into the objectives as they have outlived their original purpose in the LMS as a list of projects.

Staff then presented recommended changes within the Committee Bylaws. This included recommended additions, deletions, and organizational name changes to the composition of the Steering Committee. This included a discussion of eliminating the list of non-voting/ex officio members of the Committee. Following a review and discussion of the bylaws, staff was directed by the Committee to maintain the non-voting/ex officio members of the Committee and provide a revised draft of the voting/non-voting members at the next meeting.

Additionally, the name of the Capital Regional Medical Center was changed to the HCA Florida Capital Hospital.

The Committee discussed the timeline for reviewing the draft updated LMS. Staff was directed to schedule a meeting of the Committee in August to review and approve the recommended changes to the Risks and Vulnerabilities section, Goals and Objectives, and the Committee Bylaws, and to review the existing Project Priority List (PPL). The Committee requested that a draft of the LMS be readied for review by the Committee at a meeting in September or October 2024 so that any changes can be made to the document prior to its submission to the state Division of Emergency Management in late November or December. Staff was also directed to schedule an agenda item for both commissions to adopt the plan by resolution in March 2025 in case there are any questions or other issues with the updated LMS.

There were no other actions taken by the Steering Committee. The Committee adjourned at approximately 11:10 a.m.

Approved:

Attest:

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Chairman

\_\_\_\_\_

Stephen M. Hodges, Committee Staff

Minutes approved on: \_\_\_\_\_

TALLAHASSEE-LEON COUNTY  
LOCAL MITIGATION STRATEGY  
STEERING COMMITTEE

Meeting Minutes  
2:00 p.m. – 3:30 p.m.  
Wednesday, August 28, 2024

Growth Management Conference Room  
1<sup>st</sup> Floor, Renaissance Center  
435 N Macomb Street  
Tallahassee, FL 32301

Attendees

Chad Abrams (LC EMS)  
Deji Ajose-Adegun (LC DSEM)  
Yaite Arthmann (LCSD)  
Ivy Baker (FAMU)  
Timothy Barden (LC PW)  
Benjamin Benedict (LC SO)  
Brian Bradshaw (TFD-EM)  
Jennifer Burgess (COT RM)  
Lisa Burnett (Talquin Electric)  
Jeannine Fier (COT HCR)  
Mark Fuller (COT UUPI)  
Audra Hayden (LC DSEM)  
Adam Jacobs (COT HCR)  
Christian Levings (ARPC)  
Tyler Maldonado (TLC PLACE)  
Desiree Mosley (COT UUPI)

Carol Mumford (LC DSEM)  
Gabriel Otuonye (Bond CHC)  
Anna Padilla (LC PW)  
Brent Pell (LC PW)  
Andrew Platt (COT UUPI)  
Kevin Peters (LC EM)  
Susan Poplin (PLACE)  
Edmund Powell (COT RM)  
Jason Smith (COT UUPI)  
Max Stout (COT RM)  
Alex Thomas (COT RM)  
Scott Weisman (TLC GIS)  
Artie White (TLC PLACE)  
Barry Wilcox (LC DSEM)  
Boscoe Wilhite (COT Electric)  
Charles Wu (LC PW)

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The meeting began at 2:00 p.m. with a quorum and introductions. There were no modifications of the agenda. The meeting minutes from the June 25 meeting were reviewed. A motion to approve the minutes was made by Artie White and seconded by Brian Bradshaw. The meeting minutes were approved unanimously.

Moving into the old business portion of the agenda, the first item for discussion was the committee membership. There was extensive discussion on the merits of adding new members, rearranging the composition of voting vs. non-voting members, and removing members with limited recent participation in committee meetings. A motion to maintain the current voting members was made by Kevin Peters and seconded by Chad Abrams. The motion was passed unanimously. Discussion moved onto considering additional non-voting members.

The Florida Forest Service, Leon County School District, City of Tallahassee Department of Housing and Community Resilience, Talquin Electric Cooperative, and the Big Bend Continuum of Care were suggested as entities that should be considered for addition to the committee as non-voting members. A motion to add these entities to the non-voting members of the committee was made by Artie White and seconded by Brent Pell. The motion was approved unanimously.

Continuing old business discussion topics included the hazard risk identification and the draft goals and objectives for the LMS update. Staff explained that tsunami and earthquake would be removed from the hazard risks. The committee discussed the reasoning for including dam failure, and it was agreed that the dam failure risk would remain in the list of risks. The discussion of the goals and objectives for the LMS update focused on the specific wording in the materials provided to the committee. The direction of the committee was to revise the wording of the goals and objectives to ensure that the LMS is supporting activities of implementing organizations and entities rather than carrying out the actions on its own.

The funding opportunities for LMS projects were discussed in reference to the prioritized project list, and direction from the committee was provided to investigate the current projects on the list to determine if they are still needed or if they have been completed. Further discussion of the project list will occur at upcoming LMS committee meetings. To end the meeting, committee staff provided a general overview of the timeline for completing the draft LMS update.

There were no other actions taken by the Steering Committee. The Committee adjourned at approximately 3:30 p.m.

Approved:

Attest:

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Chairman

\_\_\_\_\_  
Committee Staff

Minutes approved on: \_\_\_\_\_

TALLAHASSEE-LEON COUNTY  
LOCAL MITIGATION STRATEGY  
STEERING COMMITTEE

Meeting Minutes  
3:00 p.m. – 4:30 p.m.  
Wednesday, November 13, 2024

Growth Management Conference Room  
1<sup>st</sup> Floor, Renaissance Center  
435 N Macomb Street  
Tallahassee, FL 32301

Attendees

Chad Abrams (LC EMS)	Tyler Maldonado (TLC PLACE)
Deji Ajose-Adeugun (LC DSEM)	Ronald O'Brien (LC SO)
Ramone Anderson (COT HCR)	Angie Odell (FDEM)
Yaite Arthmann (LCSD)	Anna Padilla (LC PW)
Benjamin Benedict (LC SO)	Brent Pell (LC PW)
Kathy Bland (ARC)	Andrew Platt (COT UUPI)
Brian Bradshaw (TFD-EM)	Kevin Peters (LC EM)
Lisa Burnett (Talquin Electric)	Susan Poplin (TLC PLACE)
Johnna Coleman (BBCOC)	Edmund Powell (COT RM)
Ashley Davis (FAMU)	Jason Smith (COT UUPI)
Nawfal Ezzagaghi (LC Admin)	Curt Sommerhoff (FSU)
Mark Fuller (COT UUPI)	Alex Thomas (COT RM)
Blas Gomes (COT UUPI)	Sabrina Uribe (FDEM)
Audra Hayden (LC DSEM)	Alma Valencia (COT HCR)
Necole Holton-Jacobs (EBS)	Barry Wilcox (LC DSEM)
Justin Lazzara (FDEM)	Boscoe Wilhite (COT Electric)
Christian Levings (ARPC)	Charles Wu (LC PW)

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The meeting began at 3:00 p.m. with a quorum. There were no modifications of the agenda. The meeting minutes from the August 28 meeting were reviewed. A motion to approve the minutes was made by Chad Abrams and seconded by Brian Bradshaw, and the meeting minutes were approved unanimously.

Moving into the new business portion of the agenda, the only item for discussion was a review of the 2025 LMS Draft. Tyler Maldonado presented a high-level overview of the draft for the LMS Committee members. This included a discussion of how the previous LMS update was used to develop the new update and how information has changed in the most recent draft.

The LMS Committee members provided specific examples of information that needed to be revised in the draft. Some of this information was typos that needed to be corrected. Other suggested revisions were related to providing additional explanation for why the LMS update is needed and having a more robust description of how the projects on the Prioritized Project List (PPL) achieve the goals and objectives outlined in the LMS. Extensive discussion focused on the relation of the LMS to the Community Rating System (CRS) process. The LMS Committee provided direction to the Working Group to make sure that the LMS update includes all of the required CRS information. The merits of an additional appendix for hazard risk material and source references were discussed. For the PPL, it was noted that the project descriptions need to be in a location in the LMS where they can be updated as projects are changed and updated on an annual basis.

There were no other actions taken by the Steering Committee. The Committee adjourned at approximately 4:30 p.m.

Approved:

Attest:

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\_\_\_\_\_

Chairman

Committee Staff

Minutes approved on: \_\_\_\_\_



# **Appendix F**

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