Local Mitigation and Resiliency Strategy

for

Seminole County

and its

Municipalities

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

2025-2030

Contents

Executive Summary

Seminole County is threatened by a variety of natural, technological, and human-caused hazards. These hazards may endanger the health and safety of the community, jeopardize its economic vitality, and threaten the quality of its environment. The public and private sectors of Seminole County have joined to create the Seminole County Local Mitigation Strategy Working Group (locally called the Seminole County Resiliency Working Group) to undertake a comprehensive planning process. This process analyzes all the hazards that affect Seminole County while developing effective mitigation measures to reduce the overall impact to the community.

This document encompasses a multi-jurisdictional approach to hazard mitigation planning. The planning process was conducted through the coordinated and cooperative effort of several local governments including City of Altamonte Springs, City of Casselberry, City of Lake Mary, City of Longwood, City of Oviedo, City of Sanford, City of Winter Springs, and Seminole County. Seminole County's seven municipalities have formally adopted the current Seminole County Local Mitigation Strategy.

The Resiliency Working Group has also conducted a significant amount of research to identify the hazards threatening Seminole County in order to estimate relative risk posed to the County by those hazards. For each hazard, an impact analysis was completed which evaluated impacts to the public, property, environment, and program operations. A consequence analysis was completed that examined the potential consequences in relationship to the economy, responder safety, continuity of operations, property/facilities/infrastructure, and public confidence in the jurisdictions' governance[1]. The information in this document has been used by the Resiliency Working Group to

[1] 2016 EMAP Standard 4.1.1/4.1.2

prioritize its planning efforts to assess the vulnerabilities of the facilities and neighborhoods of Seminole County to the impacts of future disasters.

Proposed projects and programs aimed at reducing the impacts of future disasters are called "mitigation initiatives" in this document. Mitigation initiatives have been developed and will continue to be developed by the Resiliency Working Group as new hazard research is conducted, risk levels are increased, and as resources and opportunities become available. Implementation of this strategy is essential and will continue to help make participating communities more resistant to the effects of major disasters.

This strategy will continue to be updated and expanded in the future to encompass changes in characteristics of hazards, experiences with disasters, and changing conditions of participating jurisdictions. The update process and future editions of this mitigation plan will be used to continue to inform and involve the public and other interested groups to improve the overall resilience of the whole community.

General

Introduction

Mitigation is any action taken to permanently reduce or eliminate the risk to people and their property from the effects of hazards. The key to successful hazard vulnerability reduction through mitigation is to implement a well-conceived planning process. The Seminole County Resiliency Working Group, formerly known as the LMS Working Group, was established to encourage the public, private, and non-profit sectors of the community to become more resistant to the impacts of future disasters. The Resiliency Working Group has been tasked with a comprehensive evaluation of the vulnerabilities of Seminole County for all-hazards in order to identify ways to make the community more resilient to the impacts of disasters.

Purpose

The primary purpose of the LMRS is to establish an on-going process that encourages hazard mitigation as part of a daily routine for Seminole County. The LMRS process encouraged Seminole County to assess its vulnerabilities to all types of hazards; identify a comprehensive list of goals, objectives, plans, programs and projects in order to decrease or eliminate the effects of the identified vulnerabilities; and then prioritize the implementation of the selected initiatives.

Planning Process

The Seminole County Resiliency Working Group (Resiliency Working Group) is comprised of all local government agencies within Seminole County, business leaders, community organizations, inter-faith groups, healthcare facilities, school board personnel and citizens.

On a periodic basis, the Resiliency Working Group solicits the continuing involvement in mitigation planning by each jurisdiction in Seminole County. Jurisdictions are encouraged to identify agencies and organizations that should represent the jurisdiction on the Resiliency Working Group. Written solicitation was issued by

Seminole County's Office of Emergency Management to local jurisdictions, adjacent counties, community organizations, and citizens to attend a LMRS Planning Team Kick-Off Meeting on March 19th, 2024. Subsequent meetings were held on April 10th, May 15th, June 18th, July 30th, and August 29th, 2024, . Organizations not directly associated with the state, regional or local governments, such as large businesses and volunteer agencies and the public are solicited on an annual basis to join the planning process, as well as through periodic public information efforts through the Resiliency Working Group and its members. Organizations that respond and attend the meetings are considered to be participants in the Seminole County LMRS Planning Process and requested to engage in the meetings and planning activities necessary to develop, maintain and implement the plan.

An important part of the planning process is the review and research of historical events, studies, reports, technical information, current conditions, and current plans. These resources help to build the background for the risk assessment of each hazard and assist the planning team with updating the mitigation plan. Resources used in the planning process for this plan include:

FEMA – National Flood Insurance Program and Community Rating System
Florida Division of Emergency Management
National Weather Service
Seminole County Board of County Commissioners
Seminole County Community Wildfire Protection Plan
Seminole County Comprehensive Emergency Management Plan 2021
Seminole County Comprehensive Plan
Seminole County Extension Services
Seminole County Floodplain Management Plan
Seminole County Emergency Communications
Seminole County Water Quality Report

Participating Organizations

Participating local government agencies are registered as organizations under the appropriate jurisdiction, as are other groups, associations, districts, regions, and agencies, both public and private, which serve the jurisdiction they are headquartered in.

Seminole County's multi-jurisdictional planning approach enables all interested organizations, groups, and agencies, regardless of their total number, to be directly and actively involved in the planning within a limited number of jurisdictions. Seminole County has involved seven jurisdictions defined as active participants in the planning process. The active planning participants include City of Altamonte Springs, City of Casselberry, City of Lake Mary, City of Longwood, City of Oviedo, City of Sanford, City of Winter Springs, and Seminole County.

This is an all-inclusive list for all the entities within Seminole County required to approve the LMRS as a multi-jurisdictional plan. Participation will be identified by attendance and active participation in the process. However, many additional partners, agencies, and neighboring jurisdictions were invited via email to each

meeting. Participating municipalities are the same jurisdictions which participated in the 2020 plan update and have been consistently active in the process since that time.

This LMRS Planning Team has had participation by all the entities listed below to the extent that they have attended the meetings, participated, and contributed to the update process of gathering data, or providing insight and information all in the effort to better mitigate Seminole County.

Name	Agency	Position
Michelle Bernstein	Citizen	Citizen
Lucius Cushman	Citizen	Citizen
Ricardo Soto-Lopez	Citizen	Citizen
April Davis	City of Altamonte Springs	Water Resources Engineer
Anthony Apfelbeck	City of Altamonte Springs	Director of Building & Fire Safety
Avi Bryan	City of Altamonte Springs	Emergency Management Administrator
Jane Dai	City of Casselberry	City Engineer
Danielle Koury	City of Lake Mary	Public Works Director
David Hamstra	City of Longwood/ Winter Springs	Pegasus Engineering
Matt Hockenberry	City of Longwood	Stormwater Supervisor
Eric Nagowski	City of Longwood	Public Works Engineer
Michael Peters	City of Longwood	Fire Chief
Shad Smith	City of Longwood	Public Works Director
Amanda Kortus	City of Oviedo	Public Works Floodplain Manager
Paul Yeargain	City of Oviedo	Assistant City Engineer
Prince Bates	City of Sanford	City Engineer
Michael Cash	City of Sanford	Planning Engineer/ Floodplain Manager
Ronnie McNeil Jr.	City of Sanford	
Phil Hursh	City of Winter Springs	City Manager
Kevin Monser	City of Winter Springs	Stormwater Manager
William Opperman	City of Winter Springs	Fleet Manager
Terrilyn Rolle	City of Winter Springs	Director of Community Development
Margarita Calo	Duke Energy	Maintenance and Strategy Manager
Patty D'Alesandro	Duke Energy	Government & Community Affairs Manager
Elizabeth Caison	Florida Division of Emergency Management	Regional Recovery Coordinator
Cliff Frazier	Florida Forest Service	Wildfire Mitigation Specialist
Theresa Adlam	Florida Office of the Attorney General	Operations & Management Consultant
Wayne Thomas	Seminole County Building Department	Plans Examiner
Jim Potter	Seminole County Development Review	Professional Engineer
Emaze Blue	Seminole County Emergency Management	Emergency Management Associate

Benjamin Duenas	Seminole County Emergency Management	Recovery Coordinator
Aaron Funk	Seminole County Emergency Management	Operations Manager
Ricardo Gonzalez	Seminole County Emergency Management	Program Coordinator
Alan Harris	Seminole County Emergency Management	Director of Emergency Management
Steven Lerner	Seminole County Emergency Management	Division Manager
John Lockwood III	Seminole County Emergency Management	Mitigation Coordinator
Kathryn Valentine	Seminole County Emergency Management	Mitigation and Resiliency Manager
Davison Heriot	Seminole County Office of Management and Budget	Financial Manager
Matt Hassan	Seminole County Public Works	Deputy Public Works Director
Marie Lackey	Seminole County Public Works	Program Manager for Special Projects
Owen Reagan	Seminole County Public Works	Roads & Stormwater Division Manager
John Slot	Seminole County Strategic Initiatives	Chief Technology Officer
Bill White	Seminole County Utilities Department	Utilities Engineering Division Manager
Richard LeBlanc	Seminole County Public Schools	Director of Project Management & Facilities Planning
Gabriel Shuler	Seminole County Public Schools	Chief Fire Official
Susan Davis	St. Johns River Water Management District	Governmental Affairs Manager

Public Participation

At the start of the planning process, the Seminole County Office of Emergency Management (OEM) requested citizen members to join the LMRS Planning Team using multiple avenues. The OEM requested citizen representatives from the Resiliency Working Group and its member organizations, and posted meeting dates of the LMRS Planning Team to the PrepareSeminole webpage.

The OEM also engaged community leaders from low-income and underserved communities to request input on the risks and hazards over the 5-year planning period. A survey was created and distributed to these partners as a way to report local experiences of hazard events in the low-income and underserved areas of Seminole County. Results of this survey were compared to the historical occurrences in the hazard profiles and included where a gap was identified.

Several public information activities will be undertaken to allow for public comment on the draft plan. Every LMRS Planning Team meeting was posted on the Prepare Seminole dedicated Mitigation webpage. The Resiliency Working Group held a public meeting to solicit input from citizens in person on October 30, 2024; and advertisements for this meeting were shared through social media, the Prepare Seminole website, and a local newspaper advertisement. For the update of this document, a link was added to

www.prepareseminole.com to continue to allow the public to submit written input and comment for the LMRS update. Comments from the public can be made through the Office of Emergency Management or directly via email to the Resiliency Working Group Secretary.

The final opportunity for public comment will take place at the Board of County Commissioners meeting when the plan is presented for formal adoption.

Once the plan is adopted the approved plan will continue to be made available via the website for future review and comment. Public comment on the plan will continue to be encouraged on www.prepareseminole.com. In addition to seeking public comment and input to the overall planning process and the draft plan, many of the participating agencies and organizations in the Resiliency Working Group individually conduct efforts to inform the public about the impacts of disasters, hazard mitigation and the mitigation planning process.

Upcoming community outreach efforts will focus on including the concepts of mitigation in current public information activities, and to make the public aware of this planning process, its goals and objectives, and opportunities for public input at every possible occasion.

The Seminole County Resiliency Working Group will continue efforts to develop and implement a year-round program to engage the community in the LMRS planning process and to provide them with mitigation-related information and education. These efforts will be to continually invite public comments and recommendations regarding the mitigation goals for the community, the priorities for the planning, and the unique needs of each community for mitigation-related public information.

Update Process

The current Resiliency Working Group participants and attendees came together to update the plan to meet the federal and state LMS Plan requirements. Using the 2020 plan as a foundation, a review of every section of the Seminole County LMS was conducted and the plan was revised using the *2023 Florida Local Mitigation Strategy Crosswalk* and the *2023 Florida Division of Emergency Management Local Mitigation Strategy Update Manual*.

During the 2025-2030 Seminole County LMRS update the following actions were taken by the Resiliency Working Group:

A LMRS revision kick-off meeting with the LMRS Planning Team was conducted to confirm the list of hazards as a starting point for the update of the plan.

The following sections were reviewed and updated:

General Section:
This section includes the plan introduction, purpose, and planning process. This section was revised to reflect the current approach and processes of the Seminole County Resiliency Working Group.

Risk Assessment Section:
This section includes the hazard analysis and assessing the vulnerabilities of Seminole County. This section was updated to reflect current documented history and outlook of the hazards that could impact Seminole County. Each section was revised to reflect updated hazard events and to reflect current vulnerabilities. The Seminole County Resiliency Working Group determined the need for updates to the hazards list, and came to a consensus on a new list of hazards.

Mitigation Goals Section
This section includes the mitigation goals, specific objectives under each goal, National Flood Insurance Program (NFIP) compliance data, and the process for mitigation project implementation. Each section was revised to reflect current updated goals for the LMRS, updated NFIP data, and the revised process for the implementation and prioritization of the mitigation projects.

Plan Maintenance Section
This section includes the monitoring and evaluation process for the LMRS, the update process for the LMRS, and how the LMRS is implemented through existing plans and procedures. This section was revised to reflect the current processes for the monitoring, evaluation, and update for the LMRS. The implementation of existing plans and processes for LMRS were reviewed and revised to reflect the current implementation process.

The draft revisions of the LMRS sections that required updates were disseminated to all Resiliency Working Group members for review and comment.

The Seminole County Resiliency Working Group will continue to send out annual written invitations to everyone who may have a stake in the process and will include any additional people or groups as needed and identified, as required by Florida Administrative Rule 27P-22.

Risk Assessment

Hazards

The technical planning process begins with hazard identification. In this process, the LMRS Planning Team and representatives of individual jurisdictions identify all the natural, technological and human-caused hazards that could threaten Seminole County. The following hazards were selected by the LMRS Planning Team for the 2025 - 2030 LMRS:

- Agriculture (Exotic Pests and Disease)
- Civil Disorder
- Critical Infrastructure Disruption
  - Communication
  - Power
  - Water/ Wastewater
- Cyber Security/Cyber Attack
- Disease and Pandemic Outbreak
- Domestic Security/ Terrorism (CBRNE)
- Drought and Water Shortage
- Earthquakes
- Extreme Heat
- Financial Collapse
- Flooding
- Harmful Algal Bloom
- Hazardous Materials/ Radiological (Fixed Site and Transportation)
- Mass Gatherings/ Planned Events
- Mass Migration/ Repatriation
- Severe Weather
  - Hail
  - Lightning
  - Micro-bursts
  - Thunderstorms
- Sinkholes/Land Subsidence
- Structural Integrity/ Collapse
  - Fires
  - Aging Infrastructure
- Tornadoes
- Transportation Disruption
  - Aircraft
  - Rail
  - Mass Casualty Incident
- Tropical Cyclones
  - Hurricanes
  - Tropical Storms
- Violent Acts (Non- Terrorism)
- Wildfires
- Winter Storms/ Freezes

As hazards are identified for Seminole County, participants can make an estimate of the relative risk each possesses to the community. This section details the natural and human-caused hazards to which Seminole County is vulnerable.

The Seminole County LMRS Planning Team has incorporated hazard history that was available. In the future, the LMRS Planning Team will incorporate continued hazard history for inclusion in the LMRS.

Relative Risk

Each hazard described in this section is ranked by level of relative risk based on probability and severity. These scales are defined below:

Probability Scale- based on historical data this scale takes into effect the likelihood that Seminole County will be impacted by the hazard within a given period of time

- 0 = None - Although the hazard is noted, no previous occurrence has been recorded and the hazard is considered no threat to the jurisdiction
- 1 = Low - Some potential for the hazard to exist once every 10 years or more
- 2 = Moderate - Potential for the hazard to exist once every 5-10 years
- 3 = High - Potential for the hazard to exist once every 1-5 years

Severity Scale- based on the magnitude of the hazard and the on-going mitigation measures

Vulnerability

Human Impact (Possibility of death or injury)

- 0 = None - No possibility of death or injury
- 1 = Low - Some potential for death or injury
- 2 = Moderate - Potential for death or injury
- 3 = High - Strong potential for death or injury

Property Impact (Physical losses and damages)

- 0 = None - No possibility of physical loss and/or damage
- 1 = Low - Some potential for physical loss and/or damage
- 2 = Moderate - Potential for physical loss and/or damage
- 3 = High - Strong potential for physical loss and/or damage

Spatial Impact (Amount of geographic area affected)

- 1 = Low - Up to 25% of total land mass affected
- 2 = Moderate - 25%-50% of total land mass affected
- 3 = High - 50% or more of total land mass affected

Economic Impact (Interruption of business services)

- 0 = None - No interruption of business services
- 1 = Low - Some potential for business service interruption
- 2 = Moderate - Potential for business service interruption
- 3 = High - Strong potential for business service interruption

Mitigation

Preparedness (Specialized Plans)

- 1 = High - Specific plan dedicated to this hazard
- 2 = Moderate - Hazard is addressed in other plans
- 3 = Low - No specific plan for hazard

Training and Exercising (Integrated Preparedness Planning)

- 1 = High - Yearly training and exercising
- 2 = Moderate - Training and exercising completed every other year
- 3 = Low - Rarely trained or exercised

Logistics (Availability of specialized equipment, teams or support)

- 1 = High - Highly specialized equipment, teams or support
- 2 = Moderate - Minimal specialized equipment, teams or support
- 3 = Low - Very few teams, equipment and support available

Relative Risk Calculation/Scale

$$\left(\frac{\text{Probability}}{\text{Total Potential Probability } (3)}\right) \times \left(\frac{(\text{Vulnerability} + \text{Mitigation})}{\text{Total Potential Vulnerabilty and Mitigation } (24)}\right) \times 100 = \text{Risk}$$

Low = 0%-30%	Medium = 31%-60%	High = 61%+

The following Hazard Analysis profiles were developed through gauging extent, location of hazard presence, significant occurrences, environmental impact, program operations, impact to responders, Continuity of Operations Plan impact, infrastructure impact, public confidence in the response effort of hazard impact, potential and currently utilized mitigation efforts, relevant plans related to the hazard, and lastly, the risk-rating.

The risk-rating formula for Seminole County evaluates hazard risk based on the probability of occurrence, regional vulnerabilities, and current mitigation efforts. The probability score (1-3) is divided by the maximum potential probability (3). Vulnerability and mitigation are assessed through combined scores of various impacts and mitigation measures, with vulnerability being measured from 0-3 and mitigation being measured from 1-3. The results from the probability portion will then be multiplied by the results from the vulnerability and mitigation portion of the equation. This will result in a decimal which is then multiplied by 100 to convert it into a tangible percentage. This percentage indicates the relative threat, or risk, that the identified hazard poses to Seminole County and the communities it encompasses.

Hazard Analysis

Hazard: Agriculture (Exotic Pests and Diseases)

Probability of Occurrence	1-5 Years
Risk	48%
Relative Risk	Medium
Description	Agriculture incidents in Seminole County are quite rare and historically have not caused much damage to the community. In coordination with Seminole County's Agriculture Extension Office, Emergency Management is made aware of incidents involving crops and exotic pest outbreaks that may pose a threat to the community. Diseases that may pose a threat to crops in Seminole County include Citrus Canker and Citrus Greening. Potential pests include mosquitos, toads, mice, rats, and other harmful pests. On-going crop diseases present a threat to the agriculture community in Seminole County.
Extent	Ranges from small, affected area of crops, up to 17,031 acres of farmland in the County.
Location	Much of the agricultural foundation of Seminole County is located in the northwestern portion of the county including the Cities of Lake Mary and Sanford and the unincorporated Seminole County, but the effects of an incident may impact the entire county.
Significant Occurrences	(1982): The City of Longwood - Toad infestation due to heavy rains (1995): Citrus Canker detected in Seminole County (1999): The City of Altamonte Springs experienced mice infestations (2007): Huanglongbing (HLB), also known as Citrus Greening, confirmed in Seminole County. Between 2008-2017, Seminole County citrus filled 157,000 boxes but declined to 29,000 boxes in less than one decade. Spatial extent - while the direct impacts may be less than 25%, the indirect effects of an incident could be county-wide
Overall Vulnerability	Overall vulnerability of Seminole County and its jurisdictions to agricultural diseases and pests is low. Although there is not a large percentage of farmland in the county, disease can spread quickly if response is not immediate. The cities of Lake Mary and Sanford and unincorporated parts of Seminole County are most vulnerable to agricultural incidents because this is the largest area of farmland countywide. As the county continues to expand

	in residential, commercial, industrial, and infrastructural development the overall risk for this hazard decreases as a result. As more land is developed, the overall risk to agriculture decreases since there is less agricultural land vulnerable to hazards such as weather events, pests, and disease outbreaks.
	Impacts/ Consequences
Human	Low Impact Increased possibility of death or injury to agriculture diseases and risk to contaminated food crops.
Property	Low impact Hazard has low impact to critical infrastructure and property resulting in physical losses. Historically this hazard has more of an impact on crops. Exotic pests can become a nuisance to property owners in all jurisdictions in Seminole County.
Economic	Low Impact The community may experience a low economic loss, primarily for the farming and agriculture industry, as a result of a pest or disease outbreak.
Environment	Hazard can have broader negative impacts to local ecosystems such as habitat loss and biodiversity degradation, specifically in the unincorporated areas of Geneva and Chuluota. The 2023 U.S. Global Change Research Program's Fifth National Climate Assessment found that increasing temperatures, along with changes in precipitation, reduce productivity, yield, and nutritional content of many crops. These changes can introduce disease, disrupt pollination, and result in crop failure, outweighing potential benefits of longer growing seasons and increased CO_2 fertilization.
Program Operations	The County Comprehensive Emergency Management Plan (CEMP) covers basic response and recovery capabilities for exotic pests and diseases that are agriculturally based.
Responders	Depending on the nature of the pest or disease, responders may require certain protective equipment and tools.
COOP	An agriculture incident would have minimal impacts on COOP because this hazard would not disrupt normal operations.
Property/ Facilities/ Infrastructure	Privately owned farmland, in unincorporated Seminole County and in the cities of Oviedo, Sanford, and Winter Springs; has the potential to be devastated.

Public Confidence in the Jurisdiction's Governance	Public confidence would depend on how satisfied those impacted are with the local response.

Risk Reduction Through

Mitigation

Types of mitigation projects in the county include:

- Collection and destruction of infected plant species
- Diversification of agricultural landscaping
- Fertilizer reduction / ordinance
- Inspection and sampling species
- Introduction of higher trophic level species
- Invasive plant species reduction
- Larvicide, adulticide, aerial spray
- Prescribed burning
- Public education / outreach
- Sanitation with chemical control

Plans

Mosquito Response Plan
Rabies Procedures

Table 1

Category	2022 Value	% Change Since 2017
Number of farms	320	-21
Land in farms (acres)	17,031	-51
Average size of farm (acres)	53	-39
Market value of products sold	$16,087,000	-25
Government payments	$66,000	-52
Farm-related income	$4,032,000	+156
Total farm production expenses	$20,091,000	-3
Net cash farm income	$94,000	-96
Per farm average - Market value	$50,271	-5
Per farm average - Government	$16,426	+57
Per farm average - Farm-related	$50,402	+156
Per farm average - Total expenses	$62,785	+22
Per farm average - Net cash income	$293	-95

Source

Table 2

Item	Amount	
Total Crop Land	3,369 Acres	2022 Census of Agriculture

Total Farmland	17,031 Acres	2022 Census of Agriculture
Citrus	19,000 Boxes	2021-2022 USDA Citrus Summary

Figure A

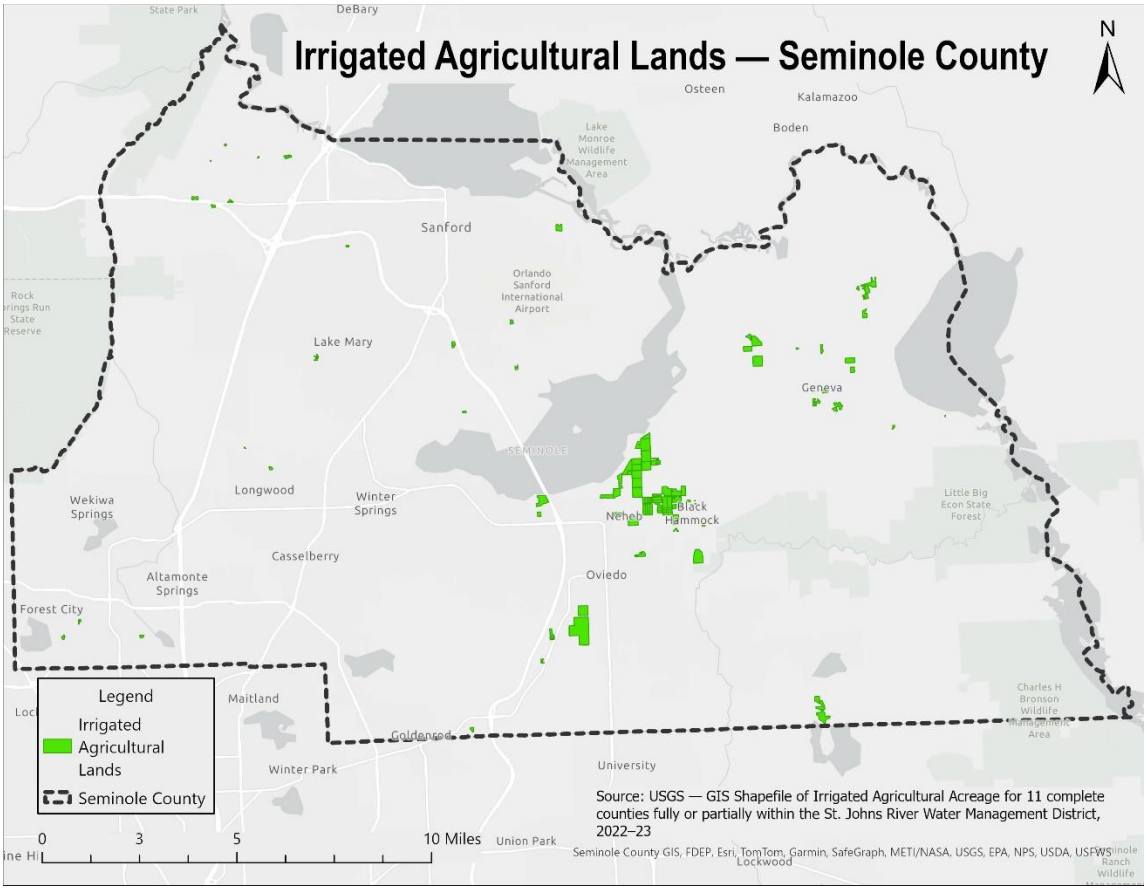


Figure B

Year	2002	2007	2012	2017	2022
Total Citrus Acres	874	846	504	641	456

Chart showing change in citrus acres in Seminole County since 2002

Hazard: Civil Disorder

Probability of Occurrence	1-5 Years
Risk	48%
Relative Risk	Medium
Description	Events of civil disorder are classified as armed violence, riots, protests, swatting and threats against military or the government. "Swatting" is a criminal harassment act of deceiving an emergency service dispatcher into sending a police or emergency service response team to another person's address. The proper planning and prevention methods aid in the mitigation of civil disorder events. For threats of civil disorder utilizing armed violence, it is likely that a joint jurisdictional management of operations will take effect, coordinated at the county level between the Sheriff's Office, Florida Department of Law Enforcement (FDLE), and the Office of Emergency Management.
Location	Not specific to any geographic area(s) of Seminole County
Significant Occurrences	(2012): February 26 – Shooting of 17-year-old, Trayvon Martin in Sanford. There were public protests, school walk outs, and thousands of planned rallies across the nation. The Seminole County EOC provided support for seven weeks in the trial phase of the event. (2021): March 28 – Group of individuals congregated at the Seminole Wekiva Bridge in protest against the mask mandate that was issued as a response to the Covid-19 Pandemic. (2022): March 3 – Student-led walkouts were demonstrated at two [2] middle schools and nine [9] high schools within the Seminole County Public School (SCPS) system in support of the LGBTQ+ community in the face of HB 1557, nicknamed the "Don't say Gay" bill. (2023): September 2 – Multiple different groups of neo-Nazi and white supremacy groups held two different demonstrations. The first being held right outside of Walt Disney World and the second being held at an I4 bridge in Altamonte Springs. Demonstrators held different flags depicting Nazi, anti-LGBTQ+, and antisemitic content. While spatial extent of the hazard would be 25% or less, civil disorder could have county-wide effects.

Overall Vulnerability	The overall vulnerability of civil disorder in Seminole County is moderate. While moderate human impact is possible, civil disorder can spread quickly and disrupt the public's confidence in the jurisdictions' governance. All jurisdictions of Seminole County are vulnerable to civil disorder and its effects. Land use development does not have a direct effect on the risk of civil disorder, as social, political, and economic factors are the primary drivers of unrest. Urban growth or infrastructure expansion does not inherently increase or decrease the likelihood of civil disorder events.

Impacts/ Consequences

Human	Moderate Impact The hazard is human in nature; tension between the public, law enforcement, judicial system, and media would be heightened. Disorder can also lead to violent acts potentially impacting the local population.
Property	Moderate Impact There would be little impact in general, but protests and riots have the potential to cause localized problems.
Economic	Moderate Impact Depending on the population involved, strikes, protests, and riots could have negative impacts to economic prosperity including employees missing work.
Environment	This hazard would not affect the environment.
Program Operations	A joint jurisdictional management of operations will likely take effect, coordinated at the County level between the Sheriff's Office, Florida Department of Law Enforcement (FDLE), and the Office of Emergency Management.
Responders	Those in Law Enforcement may need additional protective equipment when responding to potentially violent incidents of disorder. There may be possible increases in crime rate.
COOP	There could be some impact to the COOP as civil unrest could lead to disruption in operations in affected areas.

Property/ Facilities/ Infrastructure	Potential for property, facilities, and infrastructure to be affected is possible. This can be caused from riots or malicious attempts to disrupt local infrastructure.
Public Confidence in the Jurisdiction's Governance	Public confidence may be a significant factor in the case of civil disorder. Public messaging will need to stay consistent throughout the event.

Risk Reduction Through

Mitigation

Types of Civil Disorder mitigation projects in the county include:

- Designation of peaceful protest areas
- Intelligence / threat assessment for special events
- Metal detector/handheld metal detector to critical facilities
- Mobile field force training and exercise Security system/video surveillance for critical facilities
- Permitting for special events
- Public education / outreach
- Tracking and incident planning for special events

Plans

CEMP – Civil Unrest Operational Plan

Hazard: Critical Infrastructure Disruption (Communication, Power, Water/ Wastewater)

Probability of Occurrence	1-5 Years
Risk	57%
Relative Risk	Medium
Description	Numerous facilities in Seminole County are classified as critical infrastructure. Disruption of these facilities could severely impact the economic and social wellbeing of the citizens and patrons of Seminole County. The Office of Emergency Management maintains a listing of the critical infrastructures, protected by Florida Statute 119, for Department of Homeland Security 16 critical infrastructure sectors whose assets, systems, and networks, whether physical or virtual, are considered so vital to the United States that their incapacitation or destruction would have a debilitating effect on security, national economic security, national public health or safety, or any combination thereof. Presidential Policy Directive 21 (PPD-21): Critical Infrastructure Security and Resilience advances a national policy to strengthen and maintain secure, functioning, and resilient critical infrastructure. An electromagnetic pulse (EMP) is a high-frequency burst of electromagnetic energy caused by the rapid acceleration of changed particles. An EMP event can occur naturally from a great geomagnetic storm, or it can be man-made through the use of a single, crude nuclear weapon delivered by a primitive missile, and the effects would be virtually identical. A catastrophic EMP would cause the collapse of critical infrastructure such as the power grid, telecommunications, transportation, banking, finance, food, and water systems. Water contaminants, such as industrial chemicals, biological pathogens, and agricultural runoff, can infiltrate water sources through various means including natural disasters, accidental spills, or intentional acts of sabotage. These contaminants can lead to severe degradation of water quality, rendering it unsafe for consumption and everyday use.
Location	All of Seminole County
Significant Occurrences	Occurs fairly frequently mainly due to severe weather or in extreme cases tropical cyclones. Strong thunderstorms in the summer and storms associated with passing fronts or low-pressure systems occur every year.

(1989): In March, a geomagnetic storm struck the Earth, causing widespread electrical and hydro system disruptions throughout Quebec, Canada. These disruptions lasted as long as nine hours.

(2003): In November, ionizing radiation from a solar flare hit Earth's atmosphere causing severe radio blackout throughout North America.(2024): In May, The strongest geomagnetic storm in 20 years hit Earth causing disruptions to power grids, broadband technology, and GPS satellites in space

Spatial Extent - Impacts from a disruption could impact more than 50% of the county but may have county-wide effects.

Overall Vulnerability

The overall vulnerability of Seminole County and its jurisdictions to critical infrastructure disruption is medium. Because CI disruption can be caused by many different forces, it is one of the hazards with the highest vulnerability. Severe weather, tropical cyclones, tornadoes, and geomagnetic storms are just some examples of harmful incidents that may cause CI disruption. Disruption of critical infrastructure can include communication, power, and water/ wastewater; all of which are key components of community functions in all jurisdictions.

Underserved communities within Seminole County and its jurisdictions are more vulnerable to this hazard as they have historically been more impacted in terms of both severity and length of impact from this hazard than other communities within Seminole County.

Land use development has no effect on the risk of critical infrastructure disruption. The risk is more closely tied to system vulnerabilities, operational practices, and external threats rather than the overall extent of development in a region.

Impacts/ Consequences

Human

High Impact

Could cause loss of power to homes, disruption in drinking water supply, and loss of communication to the public.

Due to the increased health risks facing the special need population, individuals with special needs are more vulnerable overall to the impacts of Critical Infrastructure Disruption.

Property

Moderate Impact

	Depending on the severity of the disruption various homes and businesses could lose electrical power, water, and communications capability.
Economic	Low Impact this would depend on the type, scale, duration, and severity of disruption.
Environment	Hazards such as flooding from water main breaks, pollution from damaged or malfunctioning power plants and contamination from sewage/solid waste pose threats to local ecosystems and air quality.
Program Operations	Disruption to these facilities by threat or attack will be dealt with utilizing the Seminole County Terrorism Annex. In other situations, the responsible agency would coordinate with emergency management.
Responders	Depending on the size of the disruption, this may cause an interruption of emergency radio traffic in the event of a communications failure.
COOP	There may be some impact to the COOP if communication is disrupted. If so, alternate methods would be used to coordinate the appropriate response.
Property/ Facilities/ Infrastructure	Facilities near the affected areas may have to shut down. Properties may have to undergo decontamination, and infrastructure at a regional level could be severely affected if shut down.
Public Confidence in the Jurisdiction's Governance	High confidence in jurisdictional response will be partially dependent on a timely recovery.

Risk Reduction Through

Mitigation

Types of Critical Infrastructure Disruption mitigation projects in the county include

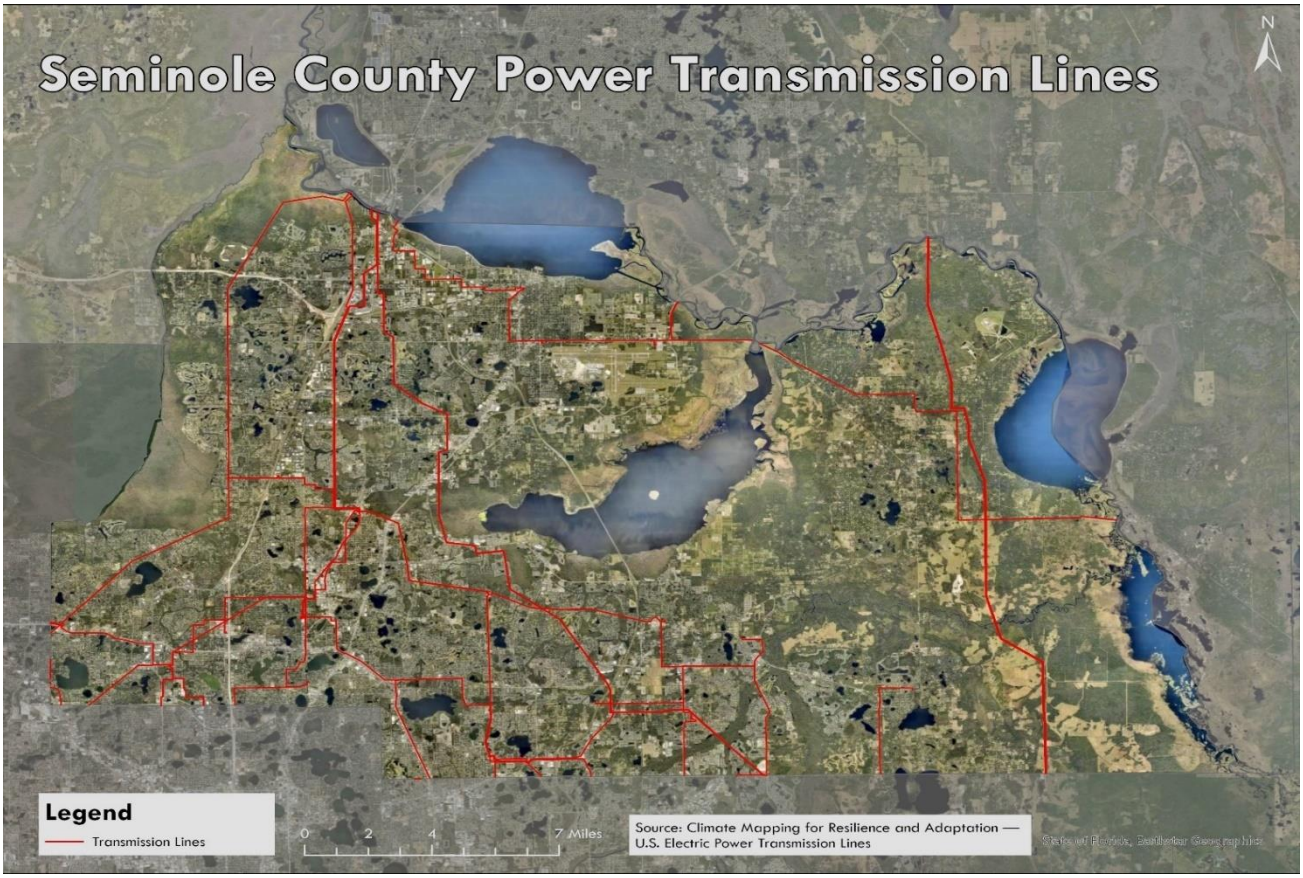
- Amateur Radio
- Analogue back-up systems
- Backup generator and other alternate power sources for critical facilities
- Building codes and enforcement
- Crime Prevention Through Environmental Design (CPTED)
- Emergency public information and warning systems
- Public education / outreach

- Retrofit of network hardware and equipment for alternate 9-1-1 communications centers
- Security dates, barricades, and electronic surveillance
- Underground electrical and structural retrofit
- Satellite Phones
- Satellite Internet Services

Plans

Continuity of Operations Plan
Points of Distribution Plan

Figure C



Hazard: Cyber Security/Cyber Attack

Probability of Occurrence	1-5 Years
Risk	62%
Relative Risk	High
Description	Over the past decade, the nation as a whole has seen an increase in cyber-attack; defined as any offensive maneuver employed by individuals or whole organizations that target computer information systems, infrastructure and/or networks, by means of malicious acts to either steal, alter, destroy, or hold hostage valuable data from the victim(s). Furthermore, the rise of Artificial Intelligence (AI) technology has transformed the complexity and variety of cyber-attacks. Seminole County's Office of Emergency Management and Seminole County's Information Technology Department strives to ensure the safety and security of the technical infrastructure within the County. In doing so, threat analyses are completed to note vulnerabilities in the system and develop corrective actions to mitigate these attacks in the Seminole County Information Security Policy. The Internet Crime Complaint Center (IC3) has reported over $12.5 billion in monetary value was lost nationally in 2023 alone. To prevent this crime, laws have been enacted, specifically, the Cybercrime Prevention Act of 2012. The focus in the future will be to ensure that Seminole County Information Services in partnership with various public safety agencies conduct annual exercises and monitor the current threat levels of cyber-attack for county information technology infrastructure.
Location	Not specific to any geographic areas of Seminole County
Significant Occurrences	The nation as a whole has been affected by various cyber-attacks, especially credit card fraud. (2017) December - The Internet Crime Complaint Center (IC3) reported over $5.52 billion in monetary value lost. (2023) December – The Internet Crime Complaint Center (IC3) reported over $12.5 billion in monetary value lost. (2024) January – The Seminole County Public Schools (SCPS) finance office received what looked like an official email from one of the district vendors, asking to change their banking information and to pay their bill into the new account. The employees deemed the email legit without verifying the information allowing for the change to be made, allowing the perpetrators to scam the district out of $1.3 million.

	(2024) June – On June 26, 2024, the Florida Department of Health (the Department) discovered a security breach in its network that led to unauthorized access to some of the department's data. This unauthorized access affected a limited number of internal systems and resulted in the transfer of data from a specific location within the network. The Department immediately launched an investigation and collaborated with cybersecurity experts to determine the nature and scope of the breach. The Department also promptly informed law enforcement and referred the matter to the Florida Department of Law Enforcement for investigation. The Department conducted direct outreach and notification to individuals who were potentially affected. Impacted individuals were offered complimentary credit monitoring and identity theft protection services provided by the Department. A cyber security threat would physically affect less than 25% of Seminole County but could have county-wide effects.
Overall Vulnerability	The overall vulnerability of Seminole County and its jurisdictions to cyber security threats is high. Targets include any individual, household, business, house of worship, or government agency. Even with protection programs and awareness campaigns, all jurisdictions of Seminole County are highly likely to receive cyber-attacks including malware, phishing, and other hacking. Countywide systems and data could potentially be compromised by cyber-attacks, which makes protecting these systems a high priority. The risk of cybersecurity breaches or cyber attacks is largely independent of land use development. While increased digital infrastructure can expand the surface area for potential threats, the risk is primarily shaped by technology vulnerabilities, cybersecurity policies, and threat actor activity, rather than physical land use.
	Impacts/ Consequences
Human	Moderate Impact Potential for physical harm to the public as a result of cyber-attack on medical and other critical facilities.
Property	Moderate Impact Physical damage to property is possible through cyber-attack of critical facilities and infrastructure.
Economic	High Impact

	Depending on the nature of the threat, financial transactions and other economic processes could be heavily impacted.
Environment	Potential for impact depending on the nature of the attack.
Program Operations	Program operations could be significantly impacted if data or vital systems are compromised.
Responders	Minimal impact to responders due to nature of hazard.
COOP	Depending on target of attack - this may cause the relocation of a particular service if severe enough.
Property/ Facilities/ Infrastructure	Information technology infrastructure could be stressed or shut down, but otherwise there is a low risk to property and facilities.
Public Confidence in the Jurisdiction's Governance	Public confidence will depend on the timeliness of restoration of lost services or data.

Risk Reduction Through

Mitigation

Cyber Attack mitigation strategies include

- Anti-phishing education
- Back-up systems / off-site storage
- Cyber insurance for critical infrastructures
- Cyber response team
- Cyber security assessments
- Enhanced cyber security training
- Firewalls and testing environments
- Intelligence gathering for new cyber threats
- Mutual aid for cyber services
- Public education / outreach
- Multi-Factor Authentication
- Data Encryption

Plans

Seminole County Cyber Security Procedures

Figure D: IC3 Complaint/Monetary Value Loss Statistics

Hazard: Disease and Pandemic Outbreak

Probability of Occurrence	1-5 Years
Risk	57%
Relative Risk	Medium
Description	The Department of Health is the lead agency if an outbreak occurs. The Florida Department of Health- Seminole County (ESF-8 Health / Medical) duties include epidemiology surveillance, public outreach, distribution of pharmaceuticals, and tracking the trends of possible outbreaks throughout the country and world. The Department of Health has plans in place, including: the use of the Strategic National Stockpile, how to identify the outbreak, and how to determine the particular diseases. During the COVID-19 pandemic a multitude of facilities, primarily the Sears in the Oviedo Mall and community centers/ faith-based organizations, were established in order to distribute vaccines and prevent the spread of the disease.
Location	All of Seminole County
Significant Occurrences	Hepatitis C: yearly cases averaging 300 patients. Influenza: Reported every other year averaging 40 cases. Salmonellosis: averaging over 100 reported cases per year. (2009): H5N1 and H7N9 Avian flu reported 141 cases. (2015): Seminole County experienced significant occurrences of diseases such as H3N2, Influenza, Hepatitis A, Measles, and Zika. (2019): 2,034 cases of Hepatitis A virus as of June 2019. Florida Surgeon General declared a public health emergency in August 2019. (2020) In March, the World Health Organization (WHO) declared the COVID-19 outbreak a pandemic. On March 1, Governor DeSantis signed Executive Order 2020-52 and directed State Surgeon General to issue a Public Health Emergency. Seminole County remained in a State of Emergency for over 450 days which expired on June 15, 2021. Spatial Extent - Depending on the severity, a disease outbreak could affect more than 50%, and most likely the entire county.
Overall Vulnerability	Seminole County's overall vulnerability to disease and pandemic is medium. The people of Seminole County are highly vulnerable to the spread of disease due to the population size and proximity to tourist hotspots with travelers from all over the country and the world. Through training, public education, and patient tracking, first response agencies work to reduce the

	overall vulnerability to the spread of diseases. All jurisdictions in the county are similarly vulnerable to the effects of diseases. Underserved communities within Seminole County and its jurisdictions are more vulnerable to this hazard as there has been a history of government mistrust which could potentially present a barrier to providing proper care and administering vaccinations. Land use development does not alter the risk of disease or pandemic outbreaks, which are more heavily influenced by factors such as population density, healthcare infrastructure, public health systems, and global connectivity, rather than by the type or extent of land development.
	Impacts/ Consequences
Human	High Impact Depending on the characteristics and scale of the disease can have overwhelming impact to death or injury. Due to the increased health risks facing the special need population, individuals with special needs are more vulnerable overall to the impacts of Disease and Pandemic Outbreak.
Property	Not Applicable
Economic	High Impact May slow down business and economic activity in an area affected by the disease due to workers missing work (sickness), temporary business closures, hospital resources/space usage and limited interaction between people due to quarantine and fear of exposure.
Environment	Can potentially impact environment if a disease were to spread within animal populations.
Program Operations	The Department of Health is the lead agency in an event. The County would make use of the Strategic National Stockpile and use the County's preestablished Memorandums of Understand (MOUs) as a point of dispensing of pharmaceuticals, vaccines, personal protective equipment (PPE), or anything else that is needed. A hospital's capacity may be impacted depending on size and severity of event.
Responders	Heightened stress on medical personnel and may require higher level of personal protective equipment (PPE).
COOP	The COOP should remain unphased unless disease is spread and affected individuals are involved in the response operations.

Property/ Facilities/ Infrastructure	Increased stress on local hospitals with increasing patients related to disease, however there would likely be minimal impact to physical structures.
Public Confidence in the Jurisdiction's Governance	Seminole County's response to a disease outbreak would determine the public's confidence in all sectors of government.

Risk Reduction Through

Mitigation

Types of Disease and Pandemic mitigation projects in the county include:

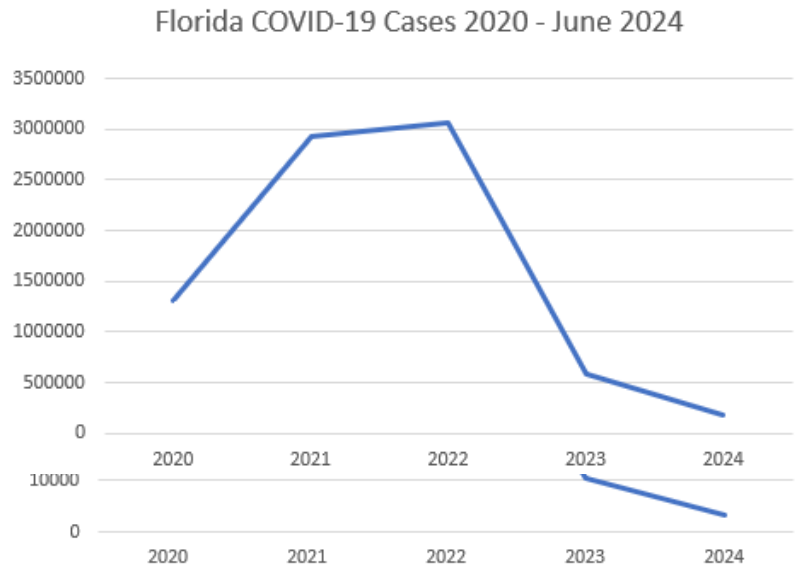
- Contact tracing
- Epidemiology surveillance
- Environmental hazardous waste disposal
- Isolation / quarantine methods
- Personal protective equipment & training
- Public outreach from the Health Department
- Vaccinations
- Zoonotic disease surveillance

Plans

Pandemic Response Plan

Epidemiology Plan

Figures E & F



Hazard: Domestic Security/ Terrorism (CBRNE)

Probability of Occurrence	6-10 Years
Risk	32%
Relative Risk	Medium
Description	State and local governments have primary responsibility in planning for and managing the consequences of a domestic security/ terrorist incident using available resources in the critical hours before Federal assistance can arrive. The terrorist threat may represent Chemical, Biological, Radiological, Nuclear, Explosive (CBRNE) hazards, and/or other threats or a combination of several hazards. The initial detection of a Weapon(s) of Mass Destruction (WMD) attack will likely occur at the local level by either first responders or private entities (e.g., hospitals, corporations, etc.). The detection of a terrorist incident involving covert biological agents will most likely occur through the recognition of similar symptoms or syndromes by clinical in-hospital or clinical settings. It is incumbent upon all county and municipal responders to be as well trained as possible in WMD response. The intricacies of an effective response demand the utmost cooperation among all responders, Federal, State, County and municipalities. Terrorism is a serious issue in Florida. Terrorism increases the likelihood of mass casualty and mass evacuation from a target area. For threats of armed violence, it is likely that joint jurisdictional management of the operation will take effect and will be coordinated at the county level between the Sheriff, fire/rescue, the Department of Health and FDLE. There are seven regional coordination teams throughout the State of Florida, called Regional Domestic Security Task Force (RDSTF). These consortiums evaluate vulnerabilities to the community and provide strategic plans for strengthening the homeland. In addition to the RDSTF, the Central Florida area is listed as an Urban Area Security Initiative (UASI). In 2003, the U.S. Department of Homeland Security (DHS) created the Urban Areas Security Initiative (UASI) Grant Program to support the planning, equipment, training, and exercise needs of high-threat, and high-density urban areas around the country.
Location	No particular area in Seminole County
Significant Occurrences	(2016): June 12, Pulse Nightclub – The City of Orlando experienced the worst mass shooting event in the United States' history up to that date. 49 victims were killed, 53 additional were injured, and the shooter was killed.

	A terrorist attack would most likely be very localized and isolated and impact less than 25% of the geographic area of the County, however effects could be county-wide.
Overall Vulnerability	Overall vulnerability to a terrorist attack is medium within Seminole County and its jurisdictions. Human and property impacts could be severe and widespread depending on the nature of the attack. Because terrorist attacks can take many forms and include many types of weapons, it is difficult to reduce the county's overall vulnerability to these incidents. First response agencies attempt to reduce vulnerability through prevention tactics and intelligence sharing. No jurisdiction in Seminole County is more vulnerable to attack than another. Land use development does not directly affect the risk of domestic terrorism or CBRNE (Chemical, Biological, Radiological, Nuclear, and Explosive) threats. The risk is influenced more by national security measures, intelligence, and counterterrorism efforts than by urban growth or land use patterns.
	Impacts/ Consequences
Human	High Impact Great potential for threat to health and safety depending on type of attack. Localized impact if explosive, but potentially widespread effects if CBRNE.
Property	Low Impact Potential for higher impact if CBRNE is dispersed. Depending on type of attack and location of the attack can scale to higher impact.
Economic	Moderate Impact If target is financial or major commercial building or institution, impacts can be greater and more widespread; other cases could shut down industries, infrastructure, and/or the delivery of services.
Environment	Potential for high consequence if CBRNE is dispersed. Aquifer system is vulnerable to intentional spill of hazardous materials.
Program Operations	If attack is in vicinity of program operations, there could be major impacts and disruption; potential relocation.
Responders	Potentially very dangerous and hazardous conditions. Requires proper personal protective equipment for various threats; potential for increased stress and fatigue.

COOP	Depending on type, scale, and specific location of event, the COOP could be disrupted.
Property/ Facilities/ Infrastructure	Potentially high impact to critical facilities and infrastructure depending on target of attack and type of threats.
Public Confidence in the Jurisdiction's Governance	Public's confidence could be severely impacted by terrorist attack depending on nature and scale of threat. Prevention and response are key to maintaining confidence.
	Risk Reduction Through
Mitigation	Mitigation projects for terrorism include: • Crime Prevention through Environmental Design • Homeland Security assessment / surveys • Intelligence surveillance systems • Public outreach / education • Security and surveillance systems for critical facilities • See Something, Say Something systems/programs • VIPER surveillance programs
Plans	CEMP – Terrorism Annex C

Hazard: Drought and Water Shortage

Probability of Occurrence	1-5 Years
Risk	67%
Relative Risk	High
Description	A drought is noted as a period of unusually dry weather that persists long enough to cause serious problems such as crop damage and/or water supply shortages. There are four basic approaches to measuring drought (Wilhite, 1985): Meteorological- defined usually on the basis of the degree of dryness (in comparison to some "normal" or average amount) and the duration of the dry period. Agricultural- drought to agricultural impacts, focusing on precipitation shortages, differences between actual and potential evapotranspiration, soil water deficits, reduced ground water or reservoir levels. Hydrological- associated with the effects of periods of precipitation (including snowfall) shortfalls on surface or subsurface water supply (i.e., streamflow, reservoir and lake levels, groundwater). Socioeconomic- associated with the supply and demand of some economic good with elements of meteorological, hydrological, and agricultural drought. The severity of the drought depends upon the degree of moisture deficiency, the duration, and the size of the affected area. In the past, most of Central Florida has suffered from droughts to the extent that unnecessary water usage has been curtailed by legislation. This curtailment, imposed by local governments and the St. Johns Water Management District was accomplished by water use restriction during designated hours and alternate days. Many natural hazards can arise from the effects of drought. Historically, drought in Florida has been known to contribute to wildfires, sinkholes, and major water shortages between the months of November-April. One of the major bodies of water providing a water source for much of our crops and agriculture territory in Seminole County is the St. Johns River. During long periods of drought, a disruption in the watering cycle can have potentially damaging effects, including substantial crop loss in the northwestern portion of the unincorporated county and city of Lake Mary. In addition to the crop loss and livestock reductions, drought in Seminole

	County is associated with an increase in wildfire threat which in turn, places both human and wildlife populations at a higher risk.
Extent	Between D0– Abnormally Dry and D4 – Exceptional Drought (Drought Severity Classification)
Location	All of Seminole County could be affected by drought
Significant Occurrences	(2012): The 2-month period of April and May of 2012, reached highest level of drought with portions of the state under a D-4 Drought Exceptional condition. (2015): July through September, D-3 conditions were reported. (2017): May, a major portion of the state displayed D-3 conditions. (2018): March, Seminole County was under a burn ban due to dry conditions. (2019): June, Seminole County was under a burn ban for one week due to dry conditions and increased fire risk. (2023): Seminole County was under a burn ban for four weeks between March and April due to extreme dry conditions and associated fire risk. (2024): June, Seminole County was under a burn ban due to drought conditions. Spatial Extent – A drought would affect more than 50%, and most likely the entire county.
Overall Vulnerability	Overall vulnerability to drought or water shortage in Seminole County and its jurisdictions is high. During the dry months of the year, drought can cause serious consequences and have compounding effects. Tactics such as water usage restrictions are implemented to save water. Drought or water shortage would have a similar level of vulnerability in all jurisdictions of Seminole County. Due to the steady annual increase in population within Seminole County the Local Mitigation and Resiliency Strategy recognizes that this hazard has an increased impact to all jurisdictions within the county. Underserved communities within Seminole County and its jurisdictions are more vulnerable to this hazard as this hazard has historically impacted these communities more severely than other communities within Seminole County.

	As Seminole County continues to expand, increasing land development places greater demand on local water resources. Urbanization reduces natural groundwater recharge areas, while higher water consumption for residential, commercial, and agricultural needs accelerates depletion.
	Impacts/ Consequences
Human	Low Impact May require water use restrictions, which could cause stress to agricultural production. Increase in heat-related illness including dehydration. Due to the increased health risks facing the special need population, individuals with special needs within Seminole County and its jurisdictions are more vulnerable overall to the impacts of Drought and Water Shortages.
Property	Low Impact Heat-sensitive components may be compromised.
Economic	Moderate Impact Agribusiness, public utilities, and other industries reliant upon water for production or services.
Environment	A reduction in ground water supplies creates a situation conducive to sinkholes, most commonly in the east and west unincorporated county areas, and the cities of Altamonte Springs and Oviedo; however, effects can be felt in any jurisdiction. Non-domesticated animals will be directly impacted, flora may die off, increased fire risk as well as likelihood of soil quality degradation. The Local Mitigation and Resiliency Strategy recognizes that with a changing climate, there is the potential for an increasing risk of environmental impacts from drought and water shortages and that future mitigation and adaptation strategies related to this hazard should be considered.
Program Operations	Prolonged drought periods may require suspension of services.
Responders	Prolonged exposure to severe conditions, overexertion required by job will increase risk of heat-related illness.

COOP	No major disruptions are associated with this hazard to the COOP.
Property/ Facilities/ Infrastructure	Heat-sensitive components may be compromised.
Public Confidence in the Jurisdiction's Governance	The response of various utilities, water resource managers, and emergency management would be subject to the public's approval.

Risk Reduction Through

Mitigation

Types of Drought and Water Shortage mitigation efforts include:

- Improvement in the social awareness of droughts, their effects, and countermeasures
- Increasing soil water retention and its availability for plants
- Landscaping and plan selection for irrigation reduction
- Landscape water usage restrictions
- Modification of the technology of water use on farms, in fields, in catchments
- Public Education / outreach
- Rain barrels for landscaping / rainwater harvesting

Plans

Environmental Water Usage Procedures

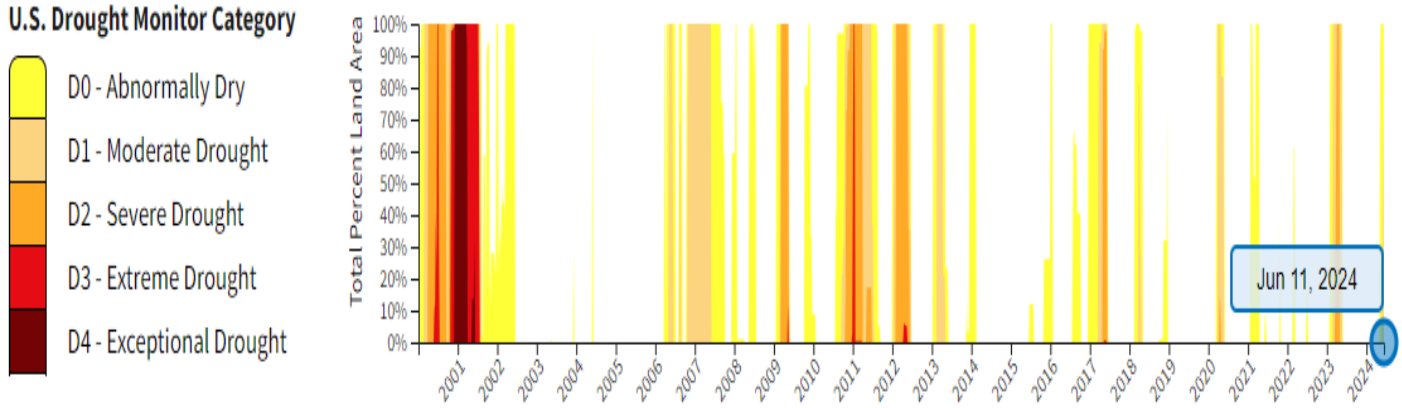
Community Wildfire Protection Plan

Figure G: Drought Categorical Descriptions relative to Standardized Precipitation Index (SPI)

Category	Description	SPI
D0	Abnormally dry	−0.5 to −0.7
D1	Moderate drought	−0.8 to −1.2
D2	Severe drought	−1.3 to −1.5
D3	Extreme drought	−1.6 to −1.9
D4	Exceptional drought	<−2.0

Note: Source: U.S. Drought Monitor [44].

Figure H: Seminole County Drought Timeline



Hazard: Earthquakes

Probability of Occurrence	10+ Years
Risk	22%
Relative Risk	Low
Description	An earthquake is a sudden movement of the Earth's lithosphere (its crust and upper mantle). Earthquakes are caused by the release of built-up stress within rocks along geologic faults or by the movement of magma in volcanic areas. They are usually followed by aftershocks. There are no fault lines in Seminole County, but effects of offshore impacts could be felt if the earthquake was strong enough.
Extent	The Richter scale measures the intensity or magnitude of an earthquake and represents the intensity with a scale ranging from 1 to 10. Each whole number increase on the scale represents a tenfold increase in wave amplitude and roughly 32 times more energy release.
Location	Not specific to any geographic areas of Seminole County
Significant Occurrences	Earthquakes have not had a major impact in Florida. Notable occurrences include: (1879): January – St. Augustine (1880): January – Cuba and Key West (2006): September 10, 2006 – rare 5.9 magnitude earthquake occurred in the eastern Gulf of Mexico and produced weak to light shaking across much of Florida, including Seminole County. There were no reported damages in Seminole County. (2014): January – Cuba and Key West (2024) A 4.0 magnitude earthquake hit approximately 100 miles from the Cape Canaveral coast. Spatial Extent - An earthquake would likely affect more than 50% of the county's land area.
Overall Vulnerability	The overall vulnerability of Seminole County and its jurisdictions to earthquakes is low. While earthquakes are possible in or near Seminole County, their likelihood is low, and effects would be felt equally throughout the county. Property damage would be one of the greatest losses caused by earthquakes, with little

prevention activities possible for these events. All jurisdictions are similarly vulnerable to the effects of earthquakes.

While Seminole County and its jurisdictions have a low probability of experiencing significant earthquake activity, the county's growing population increases the number of structures and residents potentially affected by even minor seismic events. Underserved communities, often located in older or lower-cost housing that may not be built to modern seismic standards, face heightened risks of structural damage and displacement.

Land use development can increase the risk of damage from earthquakes by expanding infrastructure, buildings, and critical facilities in areas with unstable soils or poor structural resilience. The addition of high-density developments, particularly those not built to seismic-resistant standards, can lead to amplified ground shaking effects in the event of an earthquake. Furthermore, increased groundwater extraction and construction activity can contribute to soil instability, potentially exacerbating ground movement or subsidence in certain areas.

Impacts/ Consequences

Human	Low Impact Risk to health and safety from falling debris, stress and fatigue are also possible if incident is severe enough.
Property	Low Impact Earthquakes can cause damage to property, facilities, and infrastructure but are historically rare in Seminole County.
Economic	Low Impact The overall economy of Seminole County. Businesses would be able to reopen once a building inspection was complete.
Environment	Localized consequences, but earthquakes are historically rare in Seminole County.
Program Operations	If severe enough, can affect program operations, but extremely unlikely.
Responders	There would be a risk of falling debris and impacted transportation routes.

COOP	Resources to continue operations may be limited (i.e. phones, Internet).
Property/ Facilities/ Infrastructure	If severe enough, can affect infrastructure, but extremely unlikely.
Public Confidence in the Jurisdiction's Governance	Public confidence in this hazard will be directly related to the County's overall response by local leaders and public safety officials.

Risk Reduction Through

Mitigation

Types of Earthquake mitigation strategies in the county include:

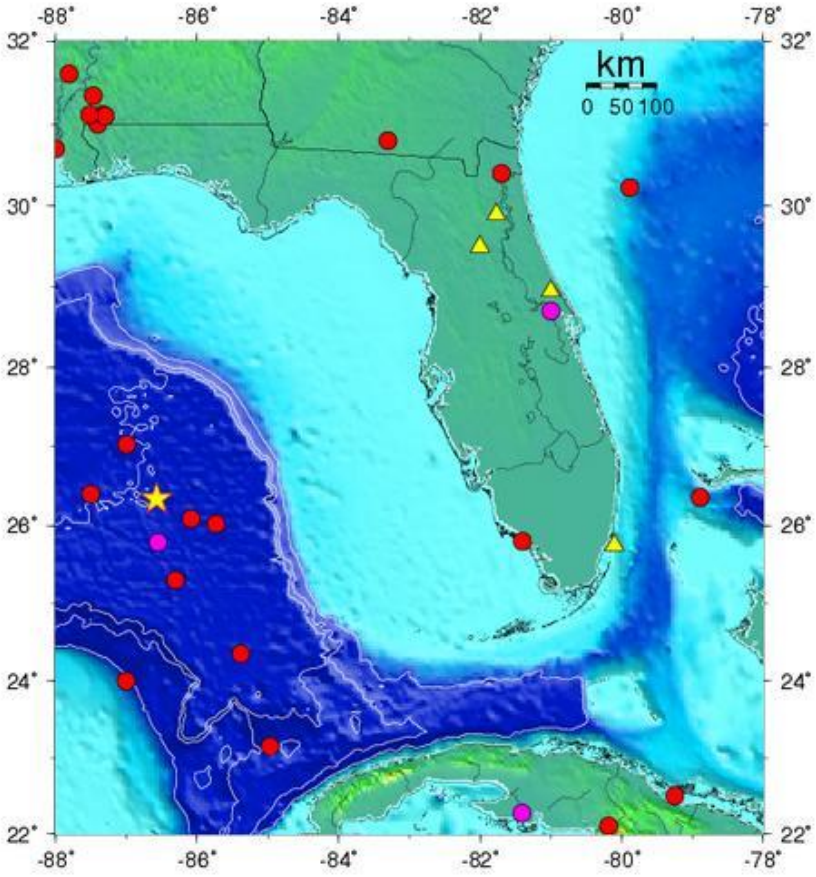
- Anti-fracking rules / ordinances
- Hardening of infrastructure
- Structural mitigation measures to improve the capacity of a building to resist seismic forces

Plans

No Plans

The figure below shows the locations of all known earthquakes which occurred in the Florida region since 1875. The red and purple circles lie at the epicenters (e.g., on the surface) above predominantly very shallow (0-35 km) seismic foci. The yellow triangles are reported and/or located earthquakes that occurred on land in Florida prior to 1975.

Figure I: Known earthquakes occurrences in Florida



Hazard: Extreme Heat

Probability of Occurrence	1-5 Years
Risk	52%
Relative Risk	Medium
Description	Heat-related deaths and illness are preventable, yet annually, many people succumb to extreme heat. According to NOAA's National Weather Service, heat is the number one weather-related killer in the United States. During 2023, 2,300 people died nationwide as a result of extreme heat. This number is also a new record for heat related deaths. The National Weather Service statistical data shows that heat causes more fatalities per year than floods, hurricanes, tornadoes, and lightning (individually) nationwide most years and within short-term (10-year) and long-term (30-year) averages. Temperatures that hover 9 degrees or more above the average high temperature of 90°F for the region and last for 3 or more consecutive days are defined as extreme heat. A major impact to these extreme heat events includes the monitoring of heat and drought indices for the implantation of county-wide burn bans. Public information activities are also put in place during extreme heat events that remind people of the risk of heat exhaustion. Humid or muggy conditions, which add to the discomfort of high temperatures, occur when a "dome" of high atmospheric pressure traps hazy, damp air near the ground. Excessively dry and hot conditions can provoke dust storms and low visibility. Droughts occur when a long period passes without substantial rainfall. A heat wave combined with a drought is a very dangerous situation. The highest recorded temperature for Seminole County was on June 1, 2004 at 101°F.
Extent	3 -10 consecutive days of 99°F or higher
Location	Extreme Heat would affect all of Seminole County

Significant Occurrences

Summer heat indices can exceed 100 degrees.

(2004): June – Reaching 101 degrees.

(2016): July – Reaching 100 degrees.

(2020) In Seminole County the temperatures reached over 95F thirty-three times.

(2021) In Seminole County the temperatures reached over 95F twelve times.

(2022) In Seminole County the temperatures reached over 95F twenty-six times.

(2023) According to scientists at NASA's Goddard Institute for Space Studies (GISS) in New York, July 2023 was hotter than any other month in the global temperature record.

(2023) According to NWS, a record high of 99 degrees was observed in the Sanford area. Which warranted an excessive heat warning to be issued.

(2024) In Seminole County the temperatures reached over 95F twenty-nine times (so far).

Temperatures above 95F occur most often in June, July, August, and occasionally in May and September.

The Natural Resources Defense Council expects for the county to have 13.8 summer days per year of extreme heat.

Spatial Extent - Extreme heat would affect more than 50%, if not the entire county.

Overall Vulnerability

Overall vulnerability to extreme heat is medium in Seminole County and its jurisdictions. While property is unlikely to be affected by extreme heat conditions, homeless populations are highly vulnerable to extreme heat with approximately 2,883 homeless citizens in Seminole, Orange and Osceola counties as of 2024. Extreme heat can also have greater impacts on outside workers, and elderly and infant populations. Extreme heat would impact all of Seminole County and would have similar vulnerability levels across all jurisdictions.

Due to the steady annual increase in population within Seminole County the Local Mitigation and Resiliency Strategy recognizes that this hazard has an increased impact to individuals within the county and its jurisdictions.

Underserved communities within Seminole County and its jurisdictions are more vulnerable to this hazard as homes within these communities are typically older homes with insufficient

	HVAC capabilities. Land use development changes have led to expanding urban areas which contribute to the urban heat island effect, where concrete, asphalt, and reduced vegetation lead to higher localized temperatures. This intensifies heat waves, increasing risks to public health, energy consumption, and infrastructure.
	Impacts/ Consequences
Human	High Impact Inside a home with little or no air conditioning is the most dangerous place to be during extreme heat. Due to the increased health risks facing the special needs population, individuals with special needs are more vulnerable overall to the impacts of Extreme Heat.
Property	Not Applicable Most infrastructure is built to withstand high temperatures seen with Central Florida's climate.
Economic	Moderate Impact May stress local water supply demands.
Environmental	A reduction in ground water supplies create a situation conducive to sinkholes, non-domesticated animals will be directly impacted, and flora may die off. The Local Mitigation and Resiliency Strategy recognizes that with a changing climate, there is the potential for an increasing risk of environmental impacts from extreme heat and that future mitigation and adaptation strategies related to this hazard should be considered.
Program Operations	Operations should not be impacted from an extreme heat event as long as working conditions remain normal (proper A/C, etc.).
Responders	Prolonged exposure to severe conditions and overexertion required by job will increase heat-related illness.
COOP	The COOP should not be impacted from an extreme heat event as long as working conditions remain normal (proper A/C, etc.).

Property/ Facilities/ Infrastructure	Property, facilities, and infrastructure are built to withstand high temperatures.
Public Confidence in the Jurisdiction's Governance	The public confidence would be related to any response actions the county takes to alleviate effects from extreme heat.

Risk Reduction Through

Mitigation

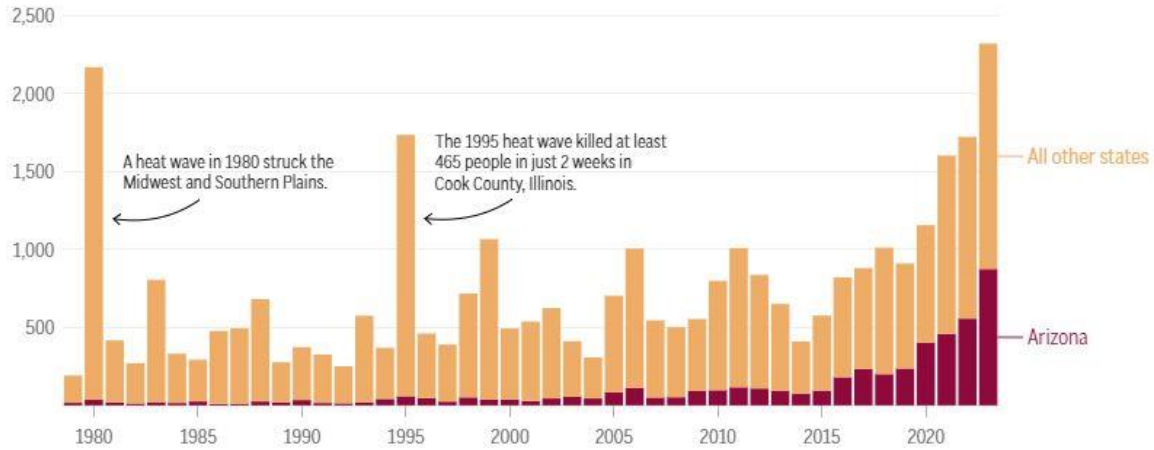
Types of mitigation efforts that can be adopted include:

- Cooling centers
- Cool pavements
- Cool roofs / infrastructure
- Emergency public information / warning
- Green infrastructure / roofing
- HVAC / Generator rules / ordinances for healthcare facilities
- Increased vegetation / canopy covering
- LEED certified building / construction
- Public education / outreach
- Rubber chipping at playground and recreational facilities
- Temporary shading / tenting
- Tree Planting / Maintenance Annual Program
- Resiliency Hubs

Plans

Extreme Weather Plan Operations Annex to CEMP

Figure J: Heat Related Deaths in the U.S



Hazard: Financial Collapse

Probability of Occurrence	10+ Years
Risk	25%
Relative Risk	Low
Description	A financial collapse is a devastating breakdown of the national, regional, or territorial economy. The span of time these events last could range anywhere from months to decades while the lasting effects can be seen for a long time after. In our country, there were two notable financial collapses known as the Great Depression lasting from 1929 to the early 1940s and the Great Recession lasting from December 2007 to June 2009. Following the COVID-19 pandemic, the United States experienced economic hardships due to affected supply chain across the globe, dramatically increasing the cost of consumer goods, real estate, and construction/fuel costs. Unemployment skyrocketed to 14.7% at the height of the COVID-19 pandemic in April 2020, and those rates remained elevated through late 2021.
Location	Any geographic area of Seminole County could be affected.
Significant Occurrences	(1929-1940s): The Great Depression (2007-2009): Great Recession - December 2007 - June 2009 Spatial Extent- Would affect more than 50% of area - a financial collapse would impact virtually the entire county's population.
Overall Vulnerability	The overall vulnerability of Seminole County and its jurisdictions to financial collapse is low. Keeping county funds in reserves helps to reduce the vulnerability of financial collapse however, the lack of diverse employment opportunities increases the potential losses from the collapse of one field. Underserved communities within Seminole County and its jurisdictions are more vulnerable to this hazard as there is a higher percentage of lower-income individuals present. Land use development does not directly impact the risk of financial collapse, which is typically driven by economic conditions, market forces, global trade dynamics, and financial systems, rather than by local urbanization or land development.

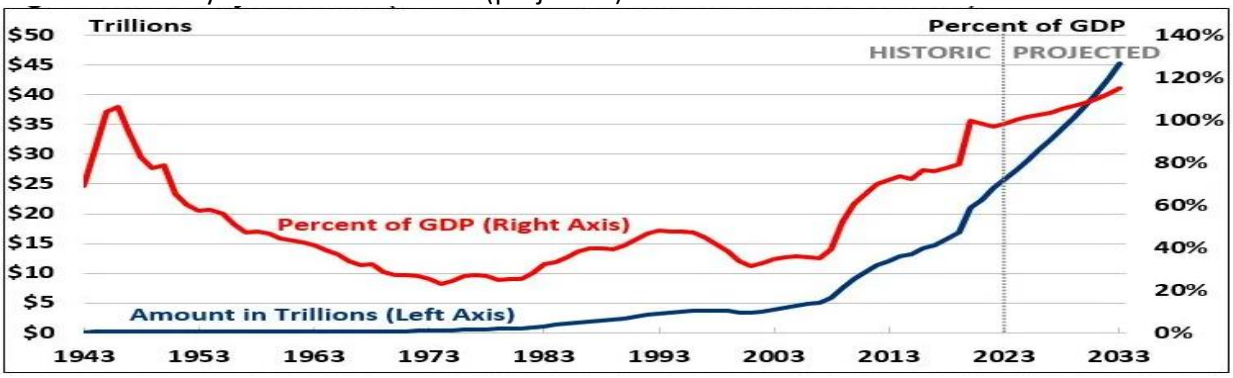
Impacts/ Consequences

Human	Low Impact

	Although a financial collapse will certainly have an impact on human life, it will not directly introduce any hazardous factors to human life as a whole.
Property	Low Impact There is potential for loss of houses, vehicles, etc. due to individuals' inability to afford costs however, no physical loss to property is noted.
Economic	High Impact Subject to the nature of the collapse, many, if not all economic properties would be affected. Stocks, unemployment, and the ability to loan and borrow would all be impacted.
Environment	Economic effects could indirectly affect environmental protection projects, initiatives, etc.
Program Operations	Certain operations may be slowed by an economic crisis.
Responders	Higher stress and anxiety could affect responders, but there are no direct effects.
COOP	Employees needed to help in the recovery may lose their jobs as a result of a financial collapse.
Property/ Facilities/ Infrastructure	Physical damage not applicable, but any repairs or new construction needed may be impacted by a struggling economy.
Public Confidence in the Jurisdiction's Governance	Public's confidence would be dependent on the ability of the economy to recover in a timely manner.

	Risk Reduction Through
Mitigation	Types of mitigation measures in the county include: • Affordable work force housing alternatives • Community gardens / co-ops for feeding • County reserves • Diversifying careers / businesses • Diverse business portfolio • Promotion of financial insurance programs • Public education / warning • Public transportation / infrastructure • Small business continuity educational programs • Sustainable development ordinances
Plans	Points of Distribution (POD) Operations Annex to CEMP

Figure K: Debt held by the Public 1943-2033 (projected):



Hazard: Floods

Probability of Occurrence	1-5 Years
Risk	67%
Relative Risk	High
Description	Flooding is the covering of land by water that is not normally covered by water. It occurs when an area is inundated beyond its natural or designed ability to drain and absorb this water. Flooding is measured through a percent annual chance, or the frequency at which a certain flood level is likely to occur. The elevation at which a base flood would take place has a 1% annual chance of occurring, also known as a 100-year flood. .2% annual chance would be a 500-year flood, and areas identified as minimal flooding have less than .2% annual chance of flooding or need further study. Locations in the minimal flooding areas can still experience flooding due to heavy rainfall. These areas can include closed basin lakes, areas experiencing stormwater related flooding, or ground saturated from early season rainfall. Seminole County does not address risk and vulnerabilities related to Dams as there are no dams present within the County.
Extent	Flood gages along the St. John's River and at the Little Wekiva River indicate flood levels between Action, Minor, Moderate, and Major flood stages. Minor flood impacts can start to occur at Action Stage with minimal flooding to low lying areas and parks, all the way to historic flooding in Major Stage with water covering major roads and standing water in homes.
Location	The areas most affected by heavy rains are located in the northeastern and eastern parts of the County along the St. John's River, Econlockhatchee River, Lake Monroe, Lake Jessup and Lake Harney in unincorporated areas, City of Oviedo, City of Winter Springs, and City of Sanford. Flood impacts are also seen in the western part of the County from the Wekiva River and Little Wekiva River in the City of Altamonte Springs, City of Longwood, and unincorporated areas. Localized flooding can also occur anywhere in the county due to heavy rainfall. More specific information on the flood hazard area can be found in the Seminole County Floodplain Management Plan, 2020, which is an annex to the Local Mitigation and Resiliency Strategy.
Significant Occurrences	(1924): Historic flooding event (2004): Hurricanes – Charley, Frances, and Jeanne (2008): Tropical Storm Fay – Localized flooding, roadway washouts, affected over 150 homes, prompted Presidential Disaster Declaration.

	(2017): Hurricane Irma – major flooding event (2018): St. John's River action stage in summer of 2018 – sandbag operations in localized areas (2020) Fall of 2020 experienced Action Stage on St. Johns River, sandbag sites, and closure of boat ramps (2022) Historic flooding occurred from Hurricanes Ian and Nicole on the St. John's River and Little Wekiva River Spatial Extent - Flooding could impact between 25%-50% of the county's area, potentially greater in rare events.
Overall Vulnerability	The overall vulnerability to floods in Seminole County and its jurisdictions is high. With several large bodies of water in the county and municipalities including Lake Jesup, Lake Monroe, Lake Harney, and the St. John's River; our community is very vulnerable to flooding. Enforcing floodway restrictions and building codes reduces vulnerability however, with heavy rains caused by severe weather and tropical cyclones, flooding is possible in any jurisdiction of the county. Due to the steady annual increase in population within Seminole County the Local Mitigation and Resiliency Strategy recognizes that this hazard has an increased impact to individuals within the county and its jurisdictions. Land use changes and development in flood-prone areas increases impervious surfaces, reducing natural absorption of rainfall and worsening runoff. Poor stormwater management and loss of wetlands elevate the frequency and severity of flooding events.

Impacts/ Consequences

Human	High Impact Risk of loss of life and injury, displacement, and increased distress. May affect drinking water; can increase risks to health. Due to the increased health risks facing the special need population, individuals with special needs are more vulnerable overall to the impacts of this hazard.
Property	High Impact Utility outages, transportation infrastructure closures, and varying levels of damage to structures in low-lying areas. Impacts will be greatest along the St. Johns River and in unincorporated Seminole County and the cities of Altamonte

	Springs, Sanford, and Winter Springs but can occur in any jurisdiction.
Economic	High Impact Severe flooding can cause economic turmoil for individuals, businesses, and subsequently the county through both direct and indirect methods.
Environment	Increased risk of exposure to hazardous materials. Displacement of wildlife may increase public health and safety issues, and potential increased arboviral vectors such as disease-carrying mosquitos. These can occur in any jurisdiction but will be most likely in areas of flooding where water is standing. The Local Mitigation and Resiliency Strategy recognizes that with a changing climate, there is the potential for an increasing risk of environmental impacts from flooding and that future mitigation and adaptation strategies related to this hazard should be considered.
Program Operations	Operations may be affected or interrupted by flooding.
Responders	Risk to life and safety while responding to populations affected by flooding.
COOP	Staffing difficulties are possible (personnel unable to drive to work or attending to own family).
Property/ Facilities/ Infrastructure	Utility outages, transportation infrastructure closures, and varying levels of damage to structures in low-lying areas.
Public Confidence in the Jurisdiction's Governance	Confidence will be shaped by the response of emergency management in mitigating, preparing, and responding to a flooding event.

	Risk Reduction Through
Mitigation	Types of flooding mitigation projects in the county include: • Clear waterways of obstructions • Demolition of Severe Repetitive Loss properties • Design and reconstruction of improved drainage system • Designated natural lands • Elevation of structures above Base Flood Elevation • Floodplain and stream restoration • Floodplain ordinances • Installation of storm water flood control measures to prevent flooding and related damage • Low impact development • Promoting flood insurance

- Public Information / outreach
- Sandbaggers / sandbag jigs
- Storm water system for bodies of water
- Structure modifications to commercial buildings
- Water retention, green space preservation, green infrastructure

Plans

Storm Water Clearing Operations Plan

Flood Response Plan

Sandbag Operations Plan

Floodplain Management Plan

Figure L: Seminole County Regulatory Flood Zones Across all Jurisdictions

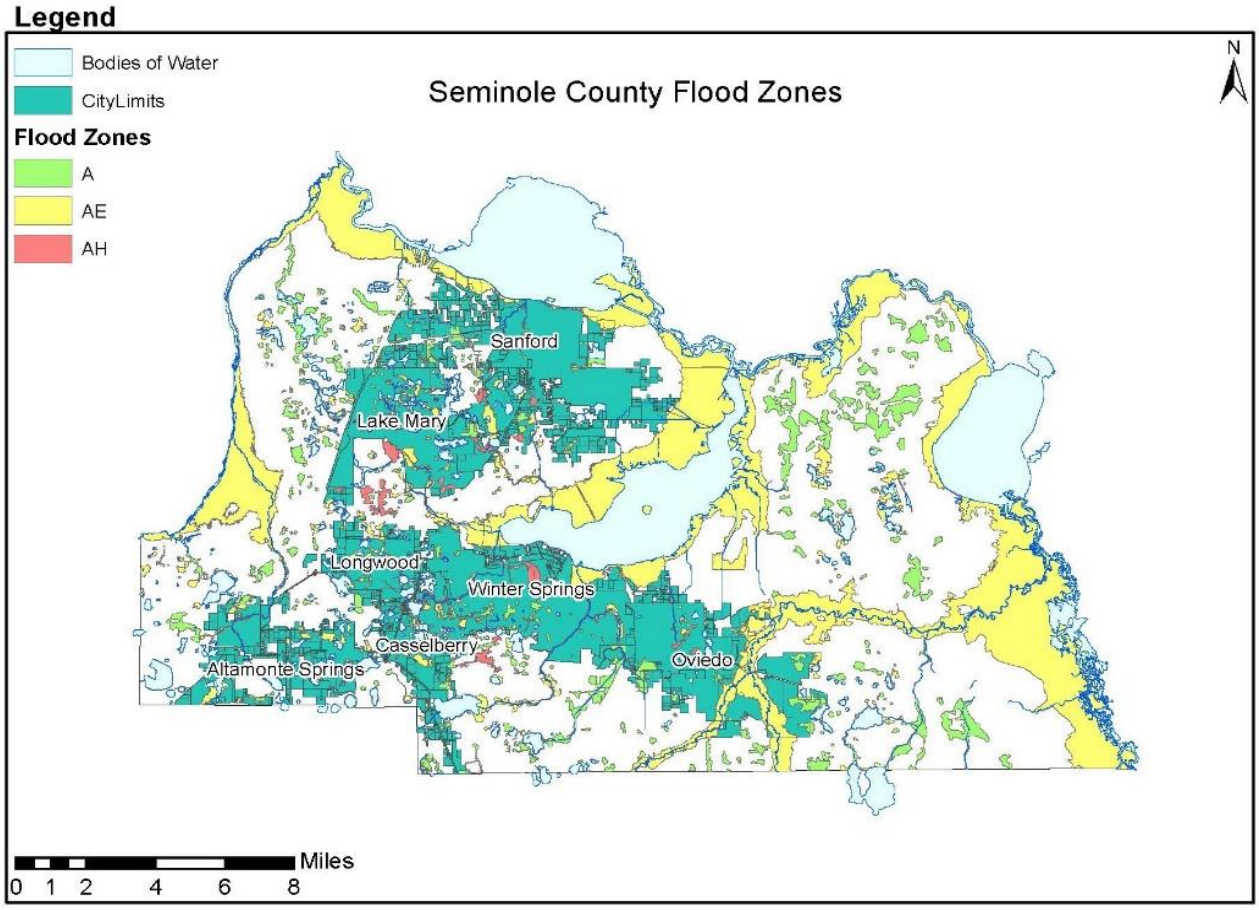


Figure M: The highest crest at Lake Harney, the mouth of the St. Johns River

Height (ft)	Date
12.67	10/03/2022
11.15	08/28/2008
10.62	10/13/1953
10.57	09/19/2017
10.10	10/01/1924
10.07	10/02/2004
9.50	09/12/2004
9.45	11/21/1994
8.83	03/01/1998
8.71	10/24/1995
8.61	09/21/2001

Hazard: Harmful Algal Bloom

Probability of Occurrence	1-5 Years
Risk	43%
Relative Risk	Medium
Description	Cyanobacteria, also called blue-green algae, are microscopic organisms found naturally in every aquatic habitat including fresh, brackish (combined salt and fresh water), and marine water. The organisms use sunlight to make their own food and as a by-product, produce oxygen. In warm, nutrient-rich (high in phosphorus and nitrogen) environments, cyanobacteria can multiply quickly, creating blooms that spread across the water's surface. Cyanobacteria can be toxic to humans, pets, and livestock. Blooms can stay below the water's surface, or they sometimes float to the surface in warmer climate. Some cyanobacteria blooms can look like foam, scum, or mats, particularly when the wind blows them toward a shoreline. Harmful algal blooms, often caused by the proliferation of cyanobacteria, pose significant risks to human health and the environment. Cyanobacteria produce toxins known as cyanotoxins, which can contaminate water sources such as lakes, rivers, and reservoirs. Ingestion of water contaminated with cyanotoxins can lead to gastrointestinal problems such as nausea, vomiting, diarrhea, and abdominal pain. These symptoms can be particularly severe in children, the elderly, and individuals with compromised immune systems. Additionally, contact with water containing cyanobacteria or their toxins can cause skin irritation, rashes, or allergic reactions, especially in individuals with sensitive skin. Inhalation of cyanobacteria aerosols, particularly during recreational activities like swimming or boating in affected water bodies, can lead to respiratory problems such as coughing, wheezing, or difficulty breathing. Overall, harmful algal blooms represent a public health concern.
Location	Waterbodies across Seminole County
Significant Occurrences	(2019): In October, Seminole County was alerted to two (2) blue-green algae blooms in residential lakes. Sampling and testing of the lakes confirmed toxins in the lake, and alert signage was placed in public locations surrounding the waterbody. A reverse emergency call was placed to all of the residents in the area. (2022): In November, Seminole County was alerted to two (2) blue-green algae blooms in Lake Howell and Deep Lake. Sampling and testing of the lakes confirmed toxins in the lake,

and alert signage was placed in public locations surrounding the waterbody. A reverse emergency call was placed to all of the residents in the area.

(2023): In January, Seminole County was alerted to one (1) blue-green algae bloom in Wood Lake. Sampling and testing of the lakes confirmed toxins in the lake and alert signage was placed in public locations surrounding the waterbody. A reverse emergency call was placed to all of the residents in the area.

(2024): In April, Seminole County was alerted to two (2) blue-green algae blooms in Little Big Econ River and Lake Jesup. Sampling and testing of the bodies of water confirmed toxins in the lake and alert signage was placed in public locations surrounding the waterbody. A reverse emergency call was placed to all of the residents in the area.

Overall Vulnerability

Seminole County's overall vulnerability to harmful algal blooms (HABs) is medium. The people of Seminole County are highly vulnerable to the threat of HABs due to the numerous areas where it can be present. Through continuous monitoring, public education, and deploying alerts/messaging when HABs are identified, first response agencies work to reduce the overall vulnerability to the effects of HABs. All jurisdictions in the county are similarly vulnerable to the effects of HABs.

Land use development does not have a direct impact on the risk of harmful algal blooms, as these events are primarily driven by nutrient runoff, water temperature, hydrological conditions, and other environmental factors.

Impacts/ Consequences

Human

Low Impact

Gastrointestinal Illness – Ingestion of water contaminated with cyanotoxins produced by HABs can cause gastrointestinal symptoms such as nausea, vomiting, diarrhea, and abdominal pain. These symptoms can be particularly severe in children, the elderly, and individuals with compromised immune systems.

Skin Irritation – Direct contact with water containing cyanobacteria or their toxins can lead to skin irritation, rashes, or allergic reactions, especially in individuals with sensitive skin. Dermatitis and other skin conditions may occur upon exposure to cyanobacterial blooms.

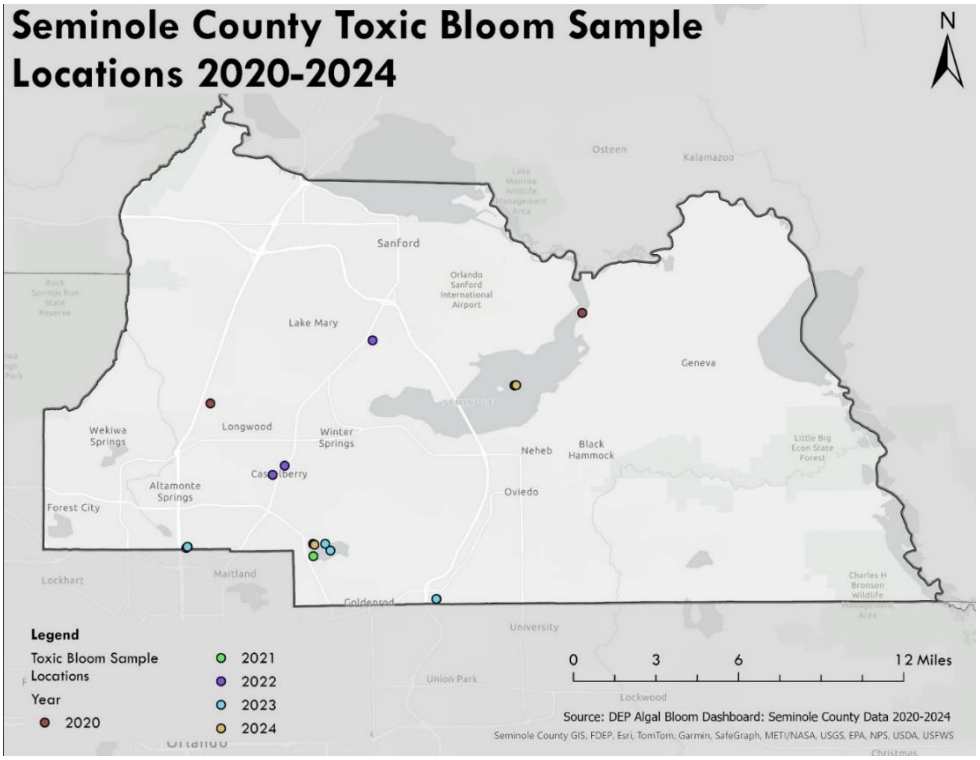
Respiratory Issues – Inhalation of cyanobacteria aerosols, particularly during recreational activities like swimming, boating, or water sports in affected water bodies, can lead to respiratory

	problems such as coughing, wheezing, or difficulty breathing. Respiratory irritation may result from exposure to cyanotoxins, or other organic compounds released by algal blooms. Neurological Effects – Some cyanotoxins, such as microcystins, have been associated with neurological symptoms including headaches, dizziness, weakness, confusion, and in severe cases, seizures, or paralysis. Long-term exposure to cyanobacterial toxins may increase the risk of neurodegenerative diseases. Long-Term Health Risks – Chronic exposure to cyanotoxins over time may pose long-term health risks, including an increased risk of liver cancer, kidney cancer, neurodegenerative diseases, and other chronic health conditions. Prolonged exposure to HABs may exacerbate pre-existing health conditions and contribute to cumulative health effects.
Property	Low Impact HABs can negatively influence property value during an active bloom.
Economic	Low Impact HABs cause lakes, reservoirs, and rivers to become unsightly and at times dangerous, reducing tourism, recreation, commercial fishing, and property values and increasing water quality monitoring, management, and treatment costs.
Environment	A bloom of algae on the water's surface creates a turbid (cloudy) underwater environment, one that prevents much of the sun's light from reaching bottom-dwelling organisms, including plants. Underwater plants are often a critical source of food and shelter for other organisms, and without them entire aquatic food webs and ecosystems can suffer. Even nontoxic algal blooms can have a detrimental impact on aquatic ecosystems in the form of dead zones, areas in a water body with so little oxygen that aquatic life can't survive. Also known as hypoxic zones, dead zones are typically a result of eutrophication, which is what happens when a waterway becomes overly polluted with nutrients. The Local Mitigation and Resiliency Strategy recognizes that with a changing climate, there is the potential for an increased risk of environmental impacts from harmful algal blooms and that future mitigation and adaptation strategies related to this hazard should be considered.
Program Operations	This hazard would have minimal impact to program operations.
Responders	Responders should ensure to rinse off with fresh water if contact is made with suspected HAB waterways.

COOP	This hazard would not affect the COOP.
Property/ Facilities/ Infrastructure	Physical structures would not be affected by this hazard.
Public Confidence in the Jurisdiction's Governance	In the event of a failure or poor response to a reported HAB, the public's perception of Seminole County can become negative.

	Risk Reduction Through
Mitigation	Potential Methods for Mitigation of HABs: • Floating Treatment Wetlands • Riparian Vegetation • Aeration • Mechanical Circulation • Hypolimnetic Oxygenation • Coagulation & Flocculation • Barley Straw
Plans	CEMP – Operations Annex D-38 Recreational Water Contamination Response Plan

Figure N: Locations of toxic water samples leading to a health alert in Seminole County waterways



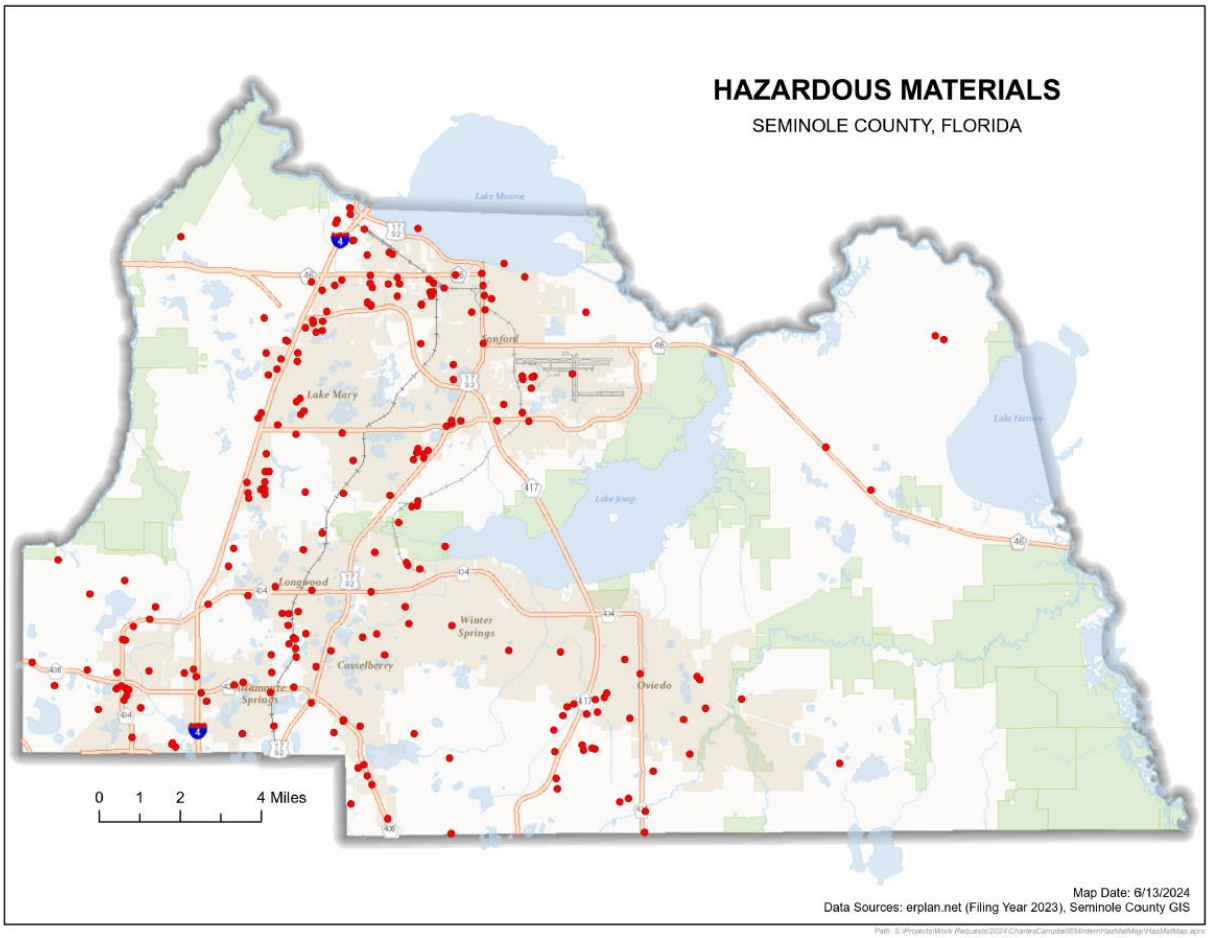
Hazard: Hazardous Materials/ Radiological (Fixed Site and Transportation)

Probability of Occurrence	1-5 Years
Risk	48%
Relative Risk	Medium
Description	There are numerous hazardous materials facilities and plants throughout Seminole County. A majority of these facilities are water treatment facilities and some construction and building facilities. In addition, there are hazardous materials located in minor quantities at schools, hospitals, and some of the telecommunication facilities throughout Seminole County. Seminole County has an aggressive hazardous materials inspection and cataloging program. The information collected from the facilities is placed into a State-wide system for easy access by emergency responders. The Emergency Operations Center monitors planning and training activities, spills, chemical releases, and hazardous materials events. Seminole County would not be directly affected by a coastal oil spill; therefore, an assessment is excluded. However, the County could feel the effects from a spill during an incident affecting the Florida Power and Light facility on the St. John's River in Volusia County at Highway 17-92 near the bridge. Seminole County has a minimal chance of experiencing the effects of a hazardous material/radiological incident caused by rocket launches out of Kennedy Space Center.
Location	North, Central and West geographic areas of Seminole County
Significant Occurrences	(2013-2016) 1,4-Dioxane, which is not regulated by State or Federal standards, was first identified in three (3) Seminole County Water Treatment Plants in 2013, results were published in a 2015 Annual Water Quality Report, and operational adjustments were made in 2016 to minimize concentrations of 1,4-d drinking water. Since then, county drinking water has tested below the Health Advisory Level of .35 parts per billion. (2023) Lake Mary water treatment facility experienced a hydrogen peroxide leak; levels were not harmful. Notably, Interstate 4 and SR 417are both essential roadways that are used to transport hazardous materials. Spatial Extent – Any hazardous material accident would have very localized impacts and would account for less than 25% of the county's geographic area.

Overall Vulnerability	Overall vulnerability of hazardous materials incidents is medium in Seminole County and its jurisdictions. While the spatial extent of these incidents would likely be low, the impacts to humans could be substantial. Having busy interstates and active railways leaves the county vulnerable to hazardous materials leaks. Having major bodies of water such as Lake Jesup, Lake Monroe, and the St. Johns River also leaves room for vulnerability because some hazardous materials may be spread through the waterways. Land use changes that increase industrial activity, transportation networks, and storage of hazardous materials elevate the potential for spills, leaks, and exposure risks. Development near industrial sites or major transportation routes compounds vulnerabilities.
	Impacts/ Consequences
Human	Moderate Impact Depending on the hazardous material, there may be ranging impacts to human health and safety; may require shelter-in-place.
Property	Moderate Impact The property affected by a spill could have varying impacts depending on the type and scale of the disaster.
Economic	Moderate Impact Depending on the severity and material that is spilled it can impact property value, local businesses, and tourism.
Environment	Certain materials can be detrimental to environmental ecosystems.
Program Operations	Rare events can occur requiring relocation of program operations.
Responders	Protective actions required for responders such as proper PPE, depending on the hazardous materials.
COOP	Unless directly impacted operations center, this hazard poses very little threat to COOP.
Property/ Facilities/ Infrastructure	Depending on the nature and severity of event, there could be a larger risk to infrastructure, etc.
Public Confidence in the Jurisdiction's Governance	The public's confidence would be related to the ability of the county to respond appropriately and contain the situation.
	Risk Reduction Through

Mitigation	Mitigation projects for hazardous materials include: • Air monitoring equipment • Containment equipment / logistics • Convert gas chlorination system to liquid chlorine system • Develop proactive hazardous materials response plan • Emergency Public Information and Warning • Hazardous Materials storage ordinance • Hazardous Materials team training and exercises • Public Education / outreach
Plans	Hazardous Materials Standard Operating Guidelines

Figure O: Hazardous Material Locations



Hazard: Mass Gatherings/ Planned Events

Probability of Occurrence	1-5 Years
Risk	43%
Relative Risk	Medium
Description	There are numerous special events in Seminole County that bring over 10,000 persons together in one venue. Of these, the largest event is the annual "Red Hot and Boom" celebration in the City of Altamonte Springs. This event draws more than 150,000 people to enjoy the Independence Day celebration. In addition to "Red Hot and Boom", the City of Sanford's Fort Mellon Independence Day Celebration, Winter Springs, and Oviedo events have significant numbers of people on July 4th. Other special events are normally located in the various parks and recreational centers throughout Seminole County. The largest of the non-government sponsored events is the Scottish Highland Games Festival. Thousands of people come to Seminole County to visit the parks during these events.
Location	No particular geographic area of Seminole County
Significant Occurrences	"Red, Hot, and Boom" Independence Day Celebration in Altamonte Springs brings over 150,000 people. City of Sanford's Fort Mellon, Winter Springs and Oviedo fireworks together equal roughly 150,000. The Scottish Highland Games is the second largest event in Seminole County with over 20,000 attending each of the three days. The ECNL Boys and Girls Soccer League Tournament in December brings in over 100 teams from around the Nation. Spatial Extent - These events are localized and would affect less than 25% of the county
Overall Vulnerability	The overall vulnerability of mass gatherings or planned events is medium. Even with specialized equipment, teams and training for these type of events, mass gatherings continue to be vulnerable targets. First responders work to reduce the vulnerability of large events by implementing security checkpoints, vehicle barricades and other safety measures. Buildings, infrastructure, and systems within Seminole County are not very vulnerable to violent acts. Although large events take place in all jurisdictions of Seminole County, the cities of Altamonte Springs and Sanford may be more vulnerable to attacks due to their large number of outside public events.

	Due to the steady annual increase in population within Seminole County the Local Mitigation and Resiliency Strategy recognizes that this hazard has an increased impact to individuals within the county and its jurisdictions. The risk associated with mass gatherings or planned events is not significantly impacted by land use development. Event risks are primarily influenced by event management, security measures, crowd behavior, and external factors such as weather, rather than the overall development of the area.
	Impacts/ Consequences
Human	Moderate Impact With large amounts of people, general injuries are more likely, civil disturbances more likely, increased traffic and accident risk.
Property	Low Impact Influx of people may overtax local resources if not prepared however, no impact to the physical property is expected.
Economic	Moderate Impact Increased demand of local resources, food, water, etc.
Environment	This human-caused hazard would likely not have an impact on local environment.
Program Operations	If gathering near center of operations, large gatherings could lead to disruption in operations in affected areas.
Responders	May experience increased calls of service, potentially dealing with heavy traffic and slowing response time.
COOP	If gathering near center of operations, large gatherings could lead to disruption to the COOP in affected areas.
Property/ Facilities/ Infrastructure	Influx of people may overtax local facilities, roads, and resources, if not prepared.
Public Confidence in the Jurisdiction's Governance	How the County responds with security and response to any emergency may determine the public's confidence.
	Risk Reduction Through
Mitigation	Mitigation projects for mass gatherings include: • Air monitoring equipment • CCTV / Mesh Camera networks • Drone detection equipment / technology • Electronic signage / Variable message boards • Incident Action Plan training • Metal detector / check points

	• Public Education / outreach • Radiological detectors • Special event ordinance / rules • Vehicle barricades for high populated areas
Plans	Permitting Procedures Fusion Center Threat Assessment Bulletin Incident Action Plans

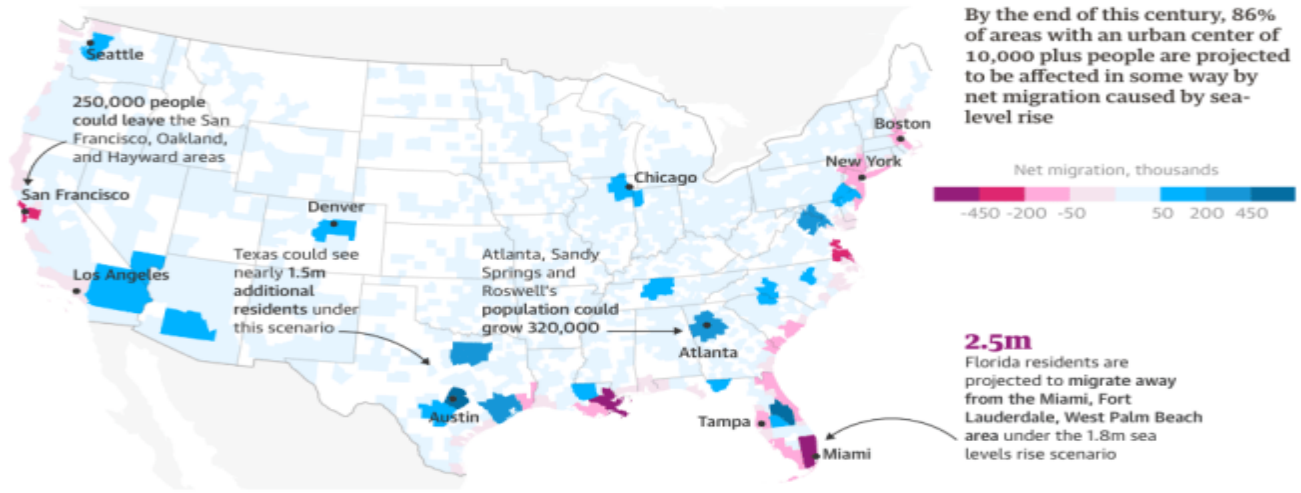
Hazard: Mass Migration/ Repatriation

Probability of Occurrence	6-10 Years
Risk	32%
Relative Risk	Medium
Description	Pockets of migrant workers in Seminole County remain very low. These workers are drawn from the local work force and migrants, if any, are transported into the area on a daily basis to work in the farmlands of Seminole County.
Location	No particular geographic areas in Seminole County.
Significant Occurrences	(2010): January – Operation Haiti Relief after an earthquake brought displaced and some injured people through Orlando Sanford International Airport. (2017): Hurricane Maria – mass migration of evacuees from the island of Puerto Rico to the Central Florida area after the hurricane. Over 250 families resettled in Seminole County and over 6,500 in Central Florida. (2024) In March of 2024, overwhelming gang violence and the overthrow of the Haitian government caused mass evacuations of American citizens from Haiti back to the United States. The FDEM first selected the OSIA as the reception point and one flight was received. Spatial Extent - this hazard would affect less than 25% of the geographical area
Overall Vulnerability	The overall vulnerability of mass migration and repatriation in Seminole County and its jurisdictions is low. While lack of housing and community resources could be a concern with mass migration, due to the low probability and lack of physical impacts, Seminole County is not very vulnerable to this hazard. While it's possible people migrating into the county may choose a more urban area to move to, each jurisdictions is equally vulnerable to this possibility. Due to the steady annual increase in population within Seminole County the Local Mitigation and Resiliency Strategy recognizes that this hazard has an increased impact to individuals within the county and its jurisdictions. As population centers grow due to changes in land use, an influx of displaced persons from disasters, conflicts, or economic instability can strain local infrastructure, social services, and emergency response capacity, complicating repatriation and relocation efforts.

Impacts/ Consequences	
Human	Moderate Impact Possible increases in crime rate, civil disturbances may increase.
Property	Low Impact Mass migration could potentially impact.
Economic	Low Impact Increase demands of deliverable goods and increased crime in affected areas could affect local economy.
Environment	Massive increase in population could strain the environment.
Program Operations	Increased population could lead to civil unrest which may affect operations.
Responders	Could be increased calls to service and need for additional personnel to handle influx of population.
COOP	Civil unrest could lead to disruption to COOP in affected areas.
Property/ Facilities/ Infrastructure	Depending on type and scale of event, some local facilities and infrastructure could be stressed or overtaxed.
Public Confidence in the Jurisdiction's Governance	The coordination of services provided and assimilation of migrants may affect confidence of the public.

Risk Reduction Through	
Mitigation	Potential mitigation projects include: • Affordable work force housing • Diverse employment / career development • Homeless sheltering – expansion / services • Public Education / outreach • Sheltering mitigation / retrofit
Plans	Repatriation Annex to the CEMP

Figure P: Climate migration estimates inside the United States



Guardian graphic. Source: Nature climate change, Mathew E. Hauer

Hazard: Severe Weather
(Hail, Lightning, Micro-Bursts, Thunderstorms)

Probability of Occurrence	1-5 Years
Risk	57%
Relative Risk	Medium
Description	Severe weather is defined as any meteorological event that poses a risk to life, property, social disruption, and/or requires the intervention of authorities. Hail: Hail is a form of solid precipitation consisting of balls or irregular lumps of ice .5 millimeters or larger that form during certain thunderstorm conditions. Hail Extent: 2.5in - tennis ball (NOAA Hail Conversions) (National Oceanic and Atmospheric Administration) Lightning: Lightning is the electrostatic discharge of atmospheric electricity, characterized by flashes that can travel within a thundercloud, between clouds, or from a cloud to the surface of the earth; lightning is usually accompanied by audible thunder. Lightning Extent: 17+ flashes/sq km/yr (Cloud to Ground flash Density) (NWS, 2019) Micro-burst: A micro-burst is a violent, short-lived, localized column of sinking air caused by an intense downdraft, creating extreme wind shears at lower altitudes; usually associated with thunderstorms. A micro-burst can present wind gust/bursts between 50-70mph but can reach as high at 115mph. Micro-burst Extent: 90mph wind gusts Thunderstorms: Thunderstorms are formed by the convection behavior of unstable air mass layers, which result in the meteorological effects of wind, heavy rainfall, lightning and thunder, and sometimes hail.
Extent	Hail: Small hail up to 2.5" – Tennis ball (NOAA Hail Conversions) Lightning: Direct strike, 2 fatalities, 25 injuries Micro-burst: Up to 90mph wind gusts Thunderstorms: Tornadoes (EF1- EF3), Flooding Rain (15" in 24hrs, 18.5" in 48hrs, 20.2" in 72hrs)
Location	Severe weather may take place in any geographic region of Seminole County.

Significant Occurrences	(1992): March 6 – A severe thunderstorm moved southeast across southwestern Seminole County producing hail the size of golf balls, damages around $300,000. (2011): March 30-31 – Winter Park storms caused widespread power outages, fallen trees, road flooding, and damage to homes. (2013): July 27 – Micro-burst near Sanford Airport- one slightly damaged building, carts blown across property. (2018): October 8 – Severe wind and thunderstorms caused boat to capsize on Lake Monroe carrying two men, one deceased and the other sent to hospital. (2020) May 21 - Severe thunderstorms produced large hail across Seminole County. Hail was reported to be up to 3" diameters (largest hail size ever in this area). (2021) Sep. 19 - Between 4-6 inches of rain fell in northern Seminole County. Storm stayed overhead for 2 hours and caused flash flooding. Standing water was as deep as 2 feet. Several homes in Downtown Sanford reported 2-3" of water inside. (2022) Mar. 16 - Storms produced up to 2" hail in Lake Mary and Longwood. (2022) May 21 - Storms produced up to 1.25" hail in Oviedo and Sanford. Spatial Extent – This hazard could impact greater than 50% of the county and in extreme cases cause county-wide effects.
Overall Vulnerability	Vulnerability to severe weather is medium due to its frequency in nature combined with our ability to monitor and predict when severe weather will impact Seminole County and its jurisdictions. While severe weather can have damaging effects on people and property, widespread awareness and lead time before storms reduces our overall vulnerability to its effects. Vulnerability to severe weather is consistent throughout all jurisdictions. Underserved communities within Seminole County and its jurisdictions are more vulnerable to this hazard as individuals within these communities have less access to immediate resources such as transportation, safe housing, and financial reserves. Denser development increases the number of structures and residents exposed to hazards like thunderstorms, high winds,

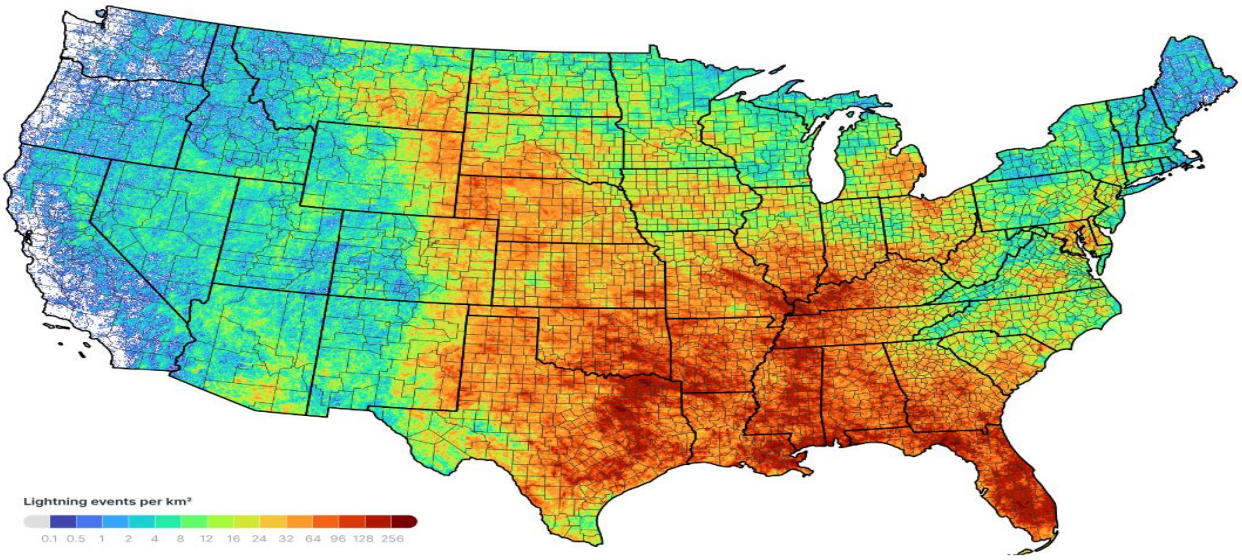
	and hail. Poor construction practices and inadequate mitigation measures can lead to greater damage and economic losses.
	Impacts/ Consequences
Human	Moderate Impact Potential for minimal loss of life and injuries and would likely impact all jurisdictions within Seminole County. May require shelter operations, potential impact on mental and physical health. Due to the increased health risks facing the special need population, individuals with special needs are more vulnerable overall to the impacts of Severe Weather.
Property	Moderate Impact Severe weather can cause utility outages and potentially major damage to buildings from wind, fires caused by lightning, and potential threat to aviation property.
Economic	Moderate Impact Depending on type of hazard and specific event, there could be damage to certain buildings, etc.
Environment	Environmental tolerances can be overwhelmed by hazards associated with severe weather. Debris and hazardous materials could be released into the environment. The Local Mitigation and Resiliency Strategy recognizes that with a changing climate, there is the potential for an increasing risk of environmental impacts from severe weather and that future mitigation and adaptation strategies related to this hazard should be considered.
Program Operations	Dangerous weather conditions may cause difficulty in responders' ability to travel. Loss of power may impact system operations and or communications.
Responders	Protective actions required, PPE required for safety in addressing downed utility lines, hazardous materials, and debris. Status of responder's family may affect responder's ability to perform his/her duties.
COOP	Only in extreme situations of damage would relocation be necessary; communication and utilities may be impacted.
Property/ Facilities/ Infrastructure	Possible utility outages and transportation infrastructure closures; damage to property and buildings in general is possible in all jurisdictions within Seminole County.

Public Confidence in the Jurisdiction's Governance	Residents affected by severe weather can look to local first responders and insurance companies to assist with damages. OEM responds to all reported severe weather events and coordinates messaging with the National Weather Service to alert residents of pending severe weather.

Risk Reduction Through

Mitigation	Mitigation projects to include: • Lightning Detection Warning System • Public Education / outreach • Public Information and Warning • Strengthen critical infrastructures / retrofit • SkyWarn certification • Wind retrofit / protection
Plans	Emergency Alert and Warning Systems Operations Annex to the CEMP

Figure Q: Number



Hazard: Sinkholes/ Land Subsidence

Probability of Occurrence	1-5 Years
Risk	33%
Relative Risk	Medium
Description	A sinkhole is a depression or hole in the ground brought about by one of the various forms of erosion beneath the earth, causing a collapse of the surface layer. Seminole County is susceptible to sinkhole and subsidence conditions because it is underlain by thick carbonate deposits that are susceptible to dissolution by circulating ground water. Florida's principal source of freshwater, ground water, moves into and out of storage in the carbonate aquifers – some of the most productive in the nation. Development of these ground water resources for municipal, industrial and agricultural water supplies creates regional ground water level declines that play a role in accelerating sinkhole formation, thereby increasing susceptibility of the aquifers to contamination from surface water drainage. Such interactions between surface-water and ground-water resources in Florida play a critical and complex role in the long-term management of water resources and ecosystems of Florida's wetlands. These conditions are monitored, but if the occurrence occurs on private property, it is the citizen's responsibility to repair the damage. If the condition exists on public property, the designated public works department will take control of the situation.
Extent	Average size: 3-4 ft. wide and 4-5 ft. deep. Could be up to 30 ft. deep in extreme cases.
Location	Sinkholes could occur in any area of Seminole County, but would be small in impact area.
Significant Occurrences	130 sinkholes/land subsidence in the county since 1962. They are a common, naturally occurring geological phenomenon. (2002): 50 foot wide and 30 foot deep sinkhole opened up in Sanford destroying a barn and swallowing two horses. Much of the damaged was caused by ground water filling the hole rapidly. No damage was reported to the residential structure of the home. (2012): In December, a 25 foot deep sinkhole in Lake Mary threatened a home causing the homeowners to evacuate. The City of Lake Mary deemed the home unsafe, however, the repairs to the home were covered by the homeowner's insurance with the claim totaling over $300,000. Major repairs noted were to major cracks in the structure.

(2014): In February, a 6 foot deep, and 5 foot wide hole on the Rock Lake Middle School in Longwood opened up causing no structural damage. Physical education classes were cancelled due to its location but the school operations were not impacted. Since then, the hole was filled with dirt and a fence erected around it to prevent further damage.

(2015): In January, a land subsidence event occurred in Geneva in which firefighters rescued a dog who was 75% trapped in the hole. There was no official confirmation if the depression was actually a sinkhole, however, the dog was rescued and administered oxygen. The dog was transported to a local animal hospital and made a full recovery.

(2016): In July, a sinkhole was reported by the Department of Environmental Protection in the City of Oviedo. The sinkhole was 4 feet deep and 7 feet in length. The location consists mainly of in cohesive and permeable sand.

(2017): In mid-January of 2017, Seminole County Fire Department responded to a sink hole in Longwood. The sink hole was 3 feet deep with a 4-inch width and a circular shape.

(2019) October 19th – Approximate 20x30 ft wide and 20 ft deep sinkhole formed at the Royal Arms Condominiums on Orange Drive causing 16 units to evacuate.

(2021) Sept. 20- Heavy rain caused an old stormwater culvert along East 1st St. to collapse, causing a sinkhole. Sanford city crews closed a portion of Fort Mellon Park to fill the sinkhole in.

Spatial Extent- localized incidents that affect less than 25% of the total land mass of the county.

Overall Vulnerability

The overall vulnerability to sinkholes in Seminole County is medium. While sinkholes generally affect a small area of land or property, they can happen within any jurisdiction of the county and with no notice. With little to no prevention activities available, it is difficult to reduce the vulnerability of sinkholes. While sinkholes are more common in the western part of the county in Altamonte Springs and Longwood, all jurisdictions are vulnerable.

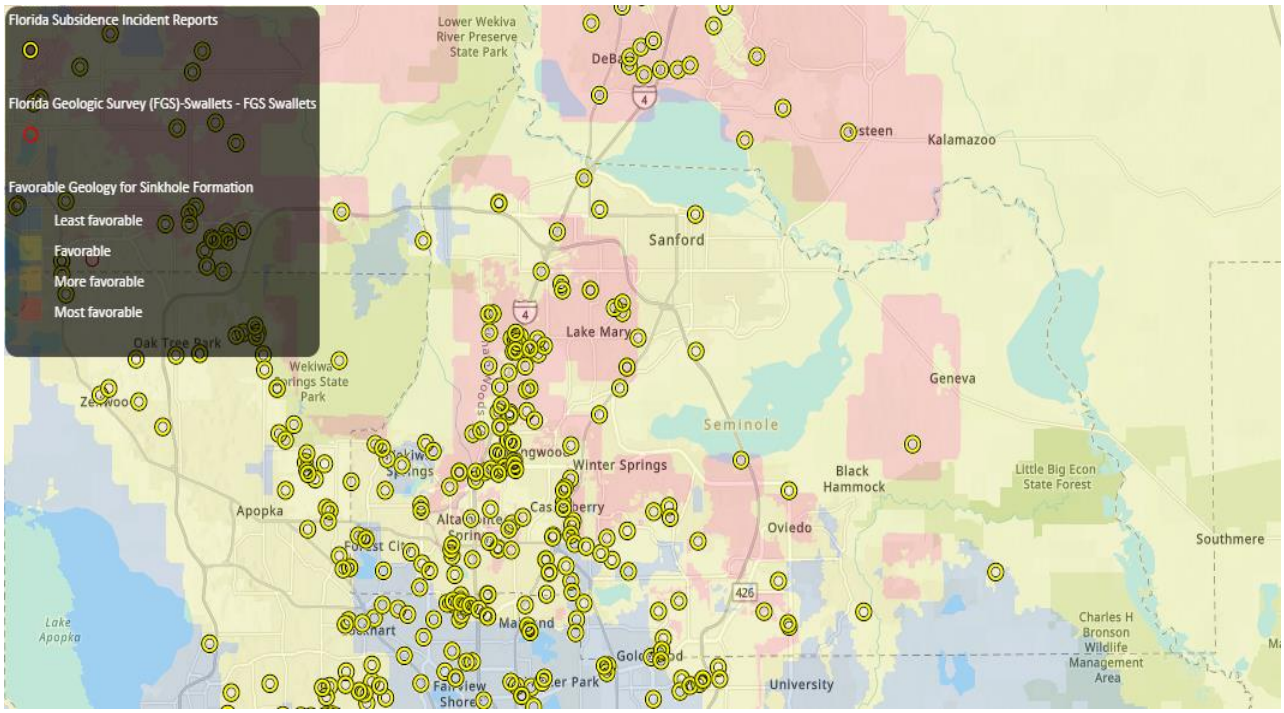
As Seminole County and its jurisdictions experience continued population growth, increasing land development and water consumption can contribute to sinkhole formation. Underserved communities, which may have fewer resources for property maintenance and mitigation, are disproportionately affected when sinkholes damage homes, disrupt transportation routes, or contaminate water supplies.

	Extensive construction can destabilize underlying limestone formations, increasing the likelihood of sinkhole formation. Land development in high-risk zones elevates potential property damage and infrastructure failures.
	Impacts/ Consequences
Human	Low Impact Sinkholes serve as a low impact to the general public outside of the immediate area. Risk to contaminated drinking water is possible when sinkhole encroaches on aquifer.
Property	Low Impact Any property impact is isolated to home or businesses affected; could be costly to repair to the individual.
Economic	Low Impact A localized sinkhole or land subsidence event would have a very limited impact on services.
Environment	Sinkholes can affect the environment by threatening water supplies by draining water from streams, lakes, and wetlands directly into the aquifer; this could affect wildlife habitats. The Local Mitigation and Resiliency Strategy recognizes that with a changing climate, there is the potential for an increasing risk of environmental impacts from sinkholes/land subsidence and that future mitigation and adaptation strategies related to this hazard should be considered.
Program Operations	Due to the isolated nature of sinkholes program operations should not be affected.
Responders	Due to the isolated nature of sinkholes responders should not be affected.
COOP	Due to the isolated nature of sinkholes the COOP should not be affected.
Property/ Facilities/ Infrastructure	Isolated sinkholes could impact critical facilities, transportation infrastructure, and private property. Sinkholes/ land subsidence events can affect the infrastructure by draining unfiltered water from streams, lakes and protected wetlands into the aquifer. These impacts can be felt in any of the jurisdictions of Seminole County, but are most common in the western unincorporated areas, and the cities of Longwood and Altamonte Springs.
Public Confidence in the Jurisdiction's Governance	Residents affected by sinkholes may look to first responders and insurance companies for assistance. OEM may respond to

reported sinkholes/land subsidence events to perform a site survey and take photos for documentation.

	Risk Reduction Through
Mitigation	Mitigation projects for sinkholes include: • Promote insurance to include sinkhole coverage • Public Education / outreach • Subsidence-proof construction design
Plans	Sinkhole Land Subsidence Response Operations Annex to CEMP

Figure R: Sinkholes and Subsidence in Seminole



Hazard: Structural Integrity/ Collapse (Fires, Aging Infrastructure)

Probability of Occurrence	1-5 Years
Risk	38%
Relative Risk	Medium
Description	Structural integrity concerns related to fires and aging infrastructure represent a significant hazard for Seminole County. This hazard encompasses the risks posed by the natural aging process of buildings and infrastructure, compounded by the increased susceptibility to fires. As buildings and infrastructure age, they often suffer from material degradation and outdated construction practices, which can lead to reduced structural strength and stability. This deterioration can be further exacerbated by environmental factors, such as the hot and humid climate of Florida, which can accelerate wear and tear. In many communities throughout the County, a considerable portion of the building stock may be decades old, having been constructed during periods of rapid development with materials and standards that may no longer be considered safe by today's codes. This aging infrastructure not only poses a risk under normal conditions but becomes particularly hazardous in the event of a fire. Fires in aging buildings can spread more quickly and cause more extensive damage due to the presence of combustible materials and the lack of modern fire suppression systems. This hazard is critical for Seminole County due to its unique geographic and demographic factors. The county's growth over the past several decades has resulted in a mix of older structures in established neighborhoods and new developments. The older neighborhoods often consist of buildings that have not been retrofitted to meet current building codes, making them more vulnerable to structural failure during a fire. Furthermore, Florida's climate presents additional challenges. The high humidity and frequent exposure to tropical storms and hurricanes can accelerate the deterioration of building materials, leading to weakened structures.
Extent	Varied in relation to size of structure.
Location	Compromised structures caused by aged infrastructure or fires can occur anywhere in the County.

Significant Occurrences	(2021) June, Champlain Towers South, a 12-story beachfront condominium in the Miami suburb of Surfside, partially collapsed, causing the deaths of 98 people. Four people were rescued from the rubble, but one died of injuries shortly after arriving at the hospital. Eleven others were injured. Approximately thirty-five were rescued the same day from the un-collapsed portion of the building, which was demolished ten days later.
Overall Vulnerability	The overall vulnerability to structural integrity/collapses is medium. Structural integrity and collapse, particularly due to fire damage, represent a frequent hazard with potential effects on infrastructure and human life. Fires can weaken structural components, leading to partial or total collapse of buildings. The impact of large-scale or multi-unit fires may include the potential loss of life, serious injuries, or displacement of residents and businesses. The frequency in which they occur will trend downwards as more effective building codes are implemented, and structures are retrofitted/rebuilt following a collapse. Structural collapses will also have a low spatial impact as, for the most part, these incidents primarily affect individuals or small groups of people. The presence of insurance can mitigate a large portion of financial burden on affected individual(s). Underserved communities within Seminole County and its jurisdictions are more vulnerable to this hazard as aging infrastructure and older buildings are less resilient to high winds. Additionally, the infrastructure is more likely to have outdated fire suppression systems and are more susceptible to electrical issues. The risk of structural integrity failure or collapse is more closely related to construction standards, maintenance practices, and engineering safety measures than to the amount or type of land development. Well-planned development that adheres to building codes can actually reduce the risk of structural issues.
	Impacts/ Consequences
Human	Low Impact Despite this hazard occurring every 1-5 years, death and injury associated with a majority of these incidents remain relatively low.
Property	Medium Impact Older structures are most vulnerable and can potentially lead to high financial burden for individuals, but this hazard is much less

	present in newer structures with more up-to-date building regulations.
Economic	Low Impact Incident occurrences minimally impact the economy. Older structures are most vulnerable and can potentially lead to high financial burden for individuals.
Environment	The environment would not be affected by this hazard.
Program Operations	There would be minimal impact to program operations due to structural collapses unless the collapses occur at an operational structure.
Responders	Although there is an objective presence of risk associated with structural collapse response, there are policies and procedures aimed at mitigating the risk.
COOP	There would be minimal impact to COOP due to structural collapse
Property/ Facilities/ Infrastructure	Structural collapses could impact critical facilities, transportation infrastructure, and private property. However, critical facilities and important infrastructure are generally built to be more resilient than private property structures.
Public Confidence in the Jurisdiction's Governance	Residents affected by sinkholes may look to first responders and insurance companies for assistance. OEM may respond to reported sinkholes/land subsidence events to perform a site survey and take photos for documentation.

Risk Reduction Through	
Mitigation	Mitigation projects for structural collapses/integrity include: • Building Code Enforcement and Updates • Public Education / outreach • Fire Prevention Measures • Retrofitting and Upgrading • Regular Inspections and Maintenance • Community Involvement • Specialized Response Teams
Plans	COOP

Figure S: Structure fire statistics in Seminole County (2020 – 2024)

	Structure Fire Incidents	Structure Fire Incidents with Casualties	Total Number of Casualties	Civilian Injuries	Civilian Deaths	Fire Service Injuries	Fire Service Deaths
2020	203	21	27	24	0	3	0
2021	204	13	15	10	1	4	0
2022	212	7	9	5	2	2	0
2023	219	15	16	15	0	1	0
2024	124	12	16	10	1	5	0
Grand Total	962	68	83	64	4	15	0

Hazard: Tornadoes

Probability of Occurrence	6-10 Years
Risk	32%
Relative Risk	Medium
Description	A tornado is a mobile vortex of violently rotating winds, extending downward from the cloud base and advancing in front of a storm front; they are made visible by vaporized moisture and debris. Florida is the state that experiences the most number of tornadoes per square mile. Florida had an average of 55 tornadoes per year since 1961, with an average of four fatalities per year. Florida tornadoes are generally short in duration and have a narrower path. Because of the unpredictable pattern of storms and tornadoes and the relatively high reoccurrence frequency, all of the state, including Seminole County is vulnerable to damage. As the number of structures and people increase, the potential damage and injury rates increase. Mobile and modular homes, poorly constructed and substandard housing apartment complexes, and low rent housing projects are extremely susceptible to damage and destruction.
Extent	The Enhanced Fujita (EF) Scale categorizes tornadoes based on estimated wind speeds and the damage they cause. The six EF ratings and their corresponding wind speeds are the following: EF0 (65-85 mph), EF1 (86-110 mph), EF2 (111-135 mph), EF3 (136-165 mph), EF4 (166-200 mph), EF5 (over 200 mph).
Location	Tornadoes may affect any area of Seminole County.
Significant Occurrences	(1966): April 4 – Central Florida experienced its largest tornado on record. An EF4 tornado hit Seminole County killing 11 and injuring 530 people. (1998): February 22 – EF 3 tornado struck Seminole County and caused $31 million dollars in damages. This is the deadliest in recorded history through the State of Florida. (2006): November 7 – Election Day tornado damaged over 30 homes and destroyed two. This tornado was in the Aloma/State Road 417 area just outside the Oviedo city limits. (2009): February 2 – Ground Hog Day Tornado. While most of the damage from this event was in Lake and Volusia counties, the tornadoes sparked the discussion of tornado sirens. The City of Oviedo elected to purchase these outdoor warning devices. Seminole County elected to provide an electronic text, voice, e-mail notification system which would be called “Alert Seminole”.

(2009): May 19 – Casselberry Tornado. An EF0 tornado touched down briefly (0.8 mile track) and removed the roofs from a single family home and mobile home. Portions of the roofs and other debris were carried downstream, with large metal pieces deposited in trees. Another 8 homes sustained minor damage.

(2019): January 24 – EF0 tornado hit Sanford peaking at 85 MPH winds, property damage estimated $1.38 M
Since 1966, Seminole County has been affected by a total of 28 tornado events that have caused significant damage across the county. Due to the impact to physical property, the possibility of death or injury, and the likelihood of interruption of economic services to the community, a tornado event is rated high on a threat level when compared to other hazards.

(2024): October 8-9 – At least 46 confirmed tornadoes touched down in Florida ahead of Hurricane Milton, during a prolific tornado outbreak that occurred between October 8–9, focused on the Florida Heartland, the Treasure Coast and the Space Coast. This became the largest single day of tornadoes in state history.

Spatial Extent - Tornadoes are usually very isolated and would impact less than 25% of the geographically area of the county

Overall Vulnerability

The overall vulnerability of tornadoes is high, especially with the increased rate of growth within Seminole County and its jurisdictions. Increased populations causes new development and a larger impact area for tornadoes to cause damage. More densely populated areas such as Altamonte Springs and Sanford are more vulnerable than loosely populated areas such as the eastern part of unincorporated Seminole County. Buildings not built to withstand high winds are vulnerable to even the weakest of tornadoes. The Local Mitigation and Resiliency Strategy identifies opportunities for critical infrastructure and other buildings to be retrofitted to reduce their vulnerability to tornadoes.

Due to the steady annual increase in population within Seminole County the Local Mitigation and Resiliency Strategy recognizes that this hazard has an increased impact to individuals within the county and its jurisdictions.

Expanding urban and suburban development increases the number of structures and people at risk from tornadoes. Weak building construction, particularly in mobile home communities, amplifies vulnerability to high winds.

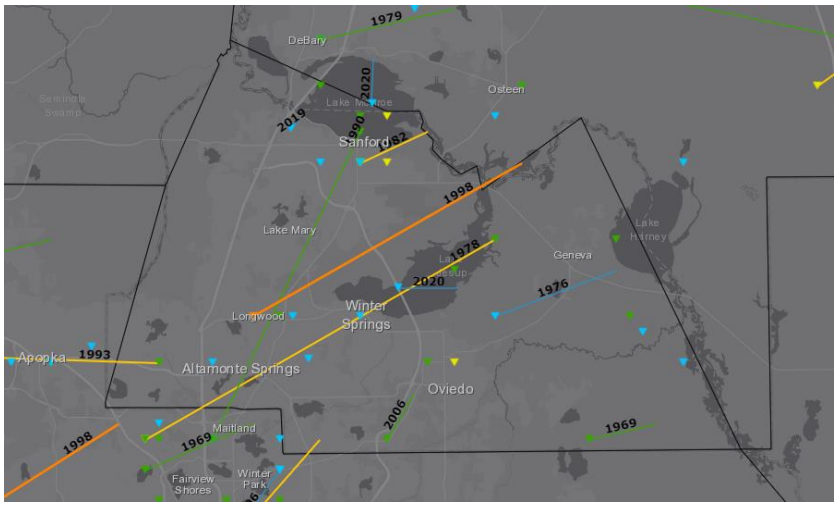
	Impacts/ Consequences
Human	Moderate Impact Extent of impact can highly vary as tornadoes can touchdown within the county, but completely miss any structures or people. Direct impact with a tornado can potentially lead to high impact.
Property	Moderate Impact Extent of impact can highly vary as tornadoes can touchdown within the county, but completely miss any structures or people. Direct impact with a tornado can potentially lead to high impact.
Economic	Moderate Impact A tornado can have a large economic impact to the community. Tornado events are typically very costly to recover from and can impact the ability for the community to reopen businesses.
Environment	Mainly isolated in nature but can harm or kill various plant and animals and debris and hazardous materials could be released into the environment. The Local Mitigation and Resiliency Strategy recognizes that with a changing climate, there is the potential for an increasing risk of environmental impacts from tornadoes and that future mitigation and adaptation strategies related to this hazard should be considered.
Program Operations	Agencies may be forced to relocate if tornado is threatening the area. Operations could be stalled by transportation and communication barriers.
Responders	Immediate response can be stalled because of dangerous weather conditions; proper personal protective equipment may be needed as well.
COOP	Possible impact to COOP. Agencies may be forced to relocate to continue essential operations as a result of the impact from tornadoes.
Property/ Facilities/ Infrastructure	Tornadoes can cause massive failures in electrical, communications, and other critical infrastructures.
Public Confidence in the Jurisdiction's Governance	Timely warning provided by local forecasters and emergency management will be critical along with response and recovery efforts taken by county agencies.

	Risk Reduction Through
Mitigation	Mitigation projects for tornadoes include: • Construction hardening ordinances / rules • Emergency / reverse calling systems

- Emergency tornado shelter
- Public education / outreach
- Sky Warn certification
- Wind retrofitting critical infrastructures

Plans Emergency Alert and Warning Systems Operations Annex to the CEMP

Figure T: Tornado tracks from 1950-2022 in Seminole County



Hazard: Transportation Disruption (Aircraft, Rail, Mass Casualty Incident)

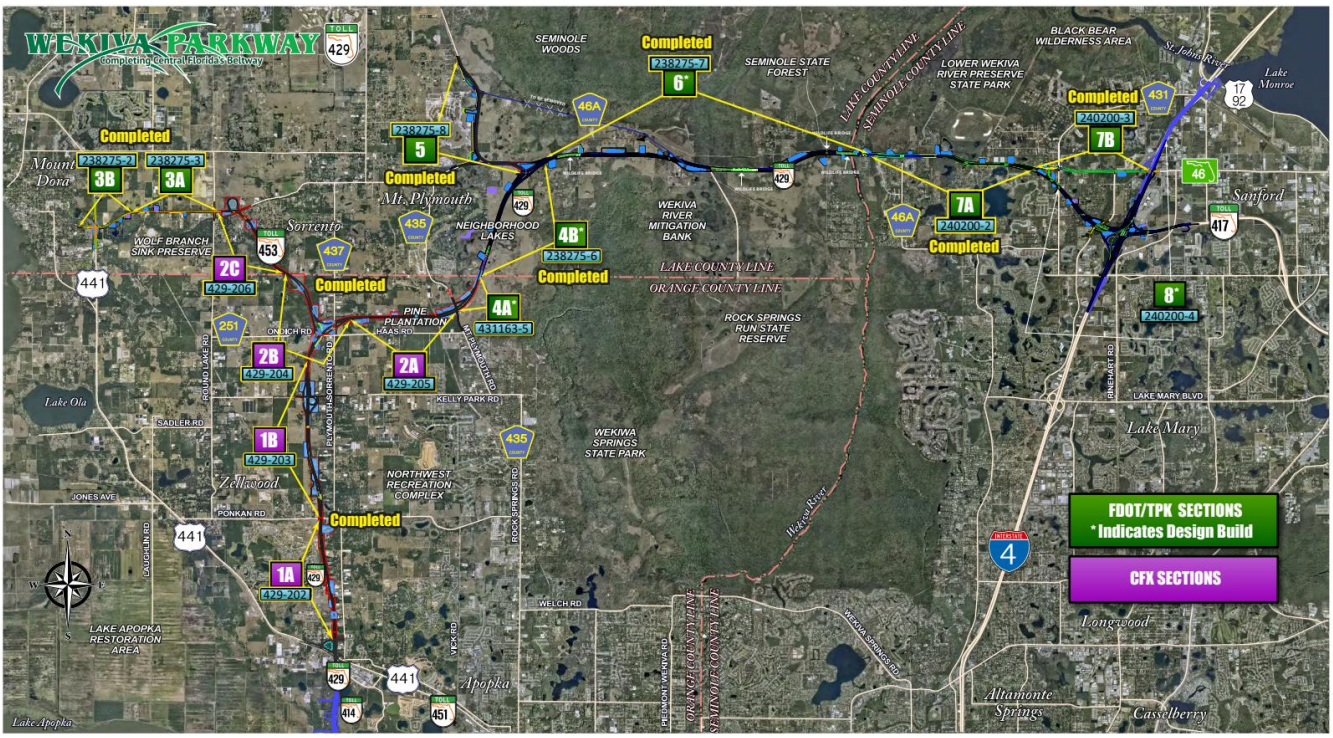
Probability of Occurrence	1-5 Years
Risk	43%
Relative Risk	Medium
Description	Seminole County has three (3) small air strips on the east side of Seminole County in Geneva, Lake Harney area, and Chuluota capable of landing a small aircraft (i.e. Cessna). In addition, many small planes use lakes as landing and take-off locations, including Prairie Lake (Altamonte Springs), Lake Jessup (Winter Springs), and various other large bodies of water. The largest airport in Seminole County is an international airport inside the City of Sanford. The Orlando Sanford International Airport (SFB) is situated on approximately 2,000 acres in the boundaries of the City of Sanford in the northwestern section of Seminole County. The Sanford Airport Authority is responsible for the operation, maintenance, and development of the SFB airstrips. In the year 2017, the SFB statistics included 307,064 landings and takeoffs; 196 imports and 136 exports of cargo; and 2,922,446 passenger arrivals and departures. Rail systems are another major transportation method within Seminole County. The addition of the Central Florida Rail Corridor (CFRC) Transit System provides new vulnerabilities for major transportation of persons through the community. SunRail began operations in 2014 with stations in DeBary, Sanford, Lake Mary, Longwood, Altamonte Springs, Maitland, Winter Park, Florida Hospital, LYNX Central Station, Church Street, Orlando Health/Amtrak and Sand Lake Road. The SunRail became fully operational in 2016 and there are now seventeen train stations along the 61 mile CRFC Corridor. The Amtrak Auto Train takes passengers and their vehicles nonstop from Sanford, Florida to the Washington, DC area. In addition to SunRail and the Amtrak Auto Train, Amtrak provides major transportation of customers through the center portions of Seminole County.
Location	No particular geographic area in Seminole County.
Significant Occurrences	(2003): April 5 - Students and chaperones from Maryland High School in Baltimore, MD were thrown from their seats as buses slammed into one another on Interstate 4 in the City of Sanford. Of the 118 people on the three buses -- 94 students, 21

	chaperones and 3 drivers -- half were injured. They suffered an assortment of cuts and bruises. (2017) April 8 - A Piper PA-12 aircraft crashed shortly after takeoff, along the grassy north side of Runway 9R at Sanford International Airport. The pilot died, but there were no other fatalities. (2017) December 8 - A Connection900 BE-9L aircraft carrying three passengers crashed into the southeast side of the lake, near Lake Harney Woods Boulevard and Morgan Alderman Rd. All three passengers and the pilot died. (2022) April 6 - A SunRail train carrying six passengers collided with a dump truck at S. Country Club Rd. and W. Lake Mary Blvd. There were no injuries and no fuel leakage. (2022) December 19 - A SunRail train collided with a pickup truck along Old Lake Mary Road. No injuries on the train, but the truck driver was killed. (2023) September 12 - SunRail train hit and killed a person between the Lake Mary and Sanford stations. Spatial Extent - accidents are very isolated in nature and would affect less than 25% of the geographical area of the county
Overall Vulnerability	The overall vulnerability of transportation accidents is medium within Seminole County and its jurisdictions. Humans are very vulnerable to transportation accidents especially in high traffic areas or incidents of large entities such as trains or airplanes where hundreds of lives are affected. While transportation incidents do not typically affect many physical buildings, infrastructure such as roadways and train tracks can be greatly affected or shut down completely. Jurisdictions with major highways such as I-4 and SR417; including Altamonte Springs, Lake Mary, unincorporated Seminole County, Oviedo, Winter Springs, and Sanford are more vulnerable to transportation accidents. Jurisdictions with active rail systems including Altamonte Springs, Longwood, Lake Mary, Sanford, and unincorporated Seminole County are vulnerable to rail accidents. The City of Sanford is most vulnerable to an aircraft accident because of the location of the Orlando Sanford International Airport. As more transportation infrastructure is built, i.e. express ways, additional lanes, and truck stops, the risk of this hazard increases. Due to the steady annual increase in population within Seminole County the Local Mitigation and Resiliency Strategy recognizes that this hazard has an increased impact to individuals within the county and its jurisdictions. New development leads to increased traffic, greater reliance on

	transportation networks, and expansion of critical infrastructure. Congested roads, inadequate evacuation routes, and aging bridges heighten susceptibility to disruptions from accidents, natural disasters, or other emergencies.
	Impacts/ Consequences
Human	Moderate Impact Depending on type of accident, major injuries and mass casualties are possible, especially with aircraft and trains.
Property	Low Impact Depending on nature and scale of accident, isolated property damage could occur.
Economic	Moderate Impact Isolated accidents do not pose major threats to the economy, though depending on the type and scale of the accident and areas impacted, the cost to repair and recover could be expensive.
Environment	This hazard would predominately be isolated from the environment unless in the extreme case a fire is started in a vulnerable wildfire area.
Program Operations	Program operations can remain stable regardless of the impact of this hazard.
Responders	Responders would require appropriate personal protective equipment; personnel may need support if a mass casualty incident occurs.
COOP	Impacts to COOP would likely be minimal because the isolated nature of a transportation accident.
Property/ Facilities/ Infrastructure	Isolated property and critical facilities and transportation infrastructure could be shut down or impacted depending on nature, scale, and location of event.
Public Confidence in the Jurisdiction's Governance	Public confidence is related to the overall response to a major traffic accident on the part of the County's responders.
	Risk Reduction Through
Mitigation	Mitigation projects for transportations accidents include: • Emergency alerting systems / signage • Installation of train track safety signage • Promote insurance to residents • Public education / outreach • Use of autonomous vehicles in State of Florida

Plans Comprehensive Emergency Management Plan

Figure U: The completion of the beltway around the Orlando Metropolitan area. The Wekiva Parkway will link to State Road 429 (west beltway) and State Road 417 (east beltway) in Heathrow/Lake Mary.



Source: Wekiva Parkway, CFX, FDOT

Figure V: The SunRail stations (the metro-train through the center of the Metropolitan area)

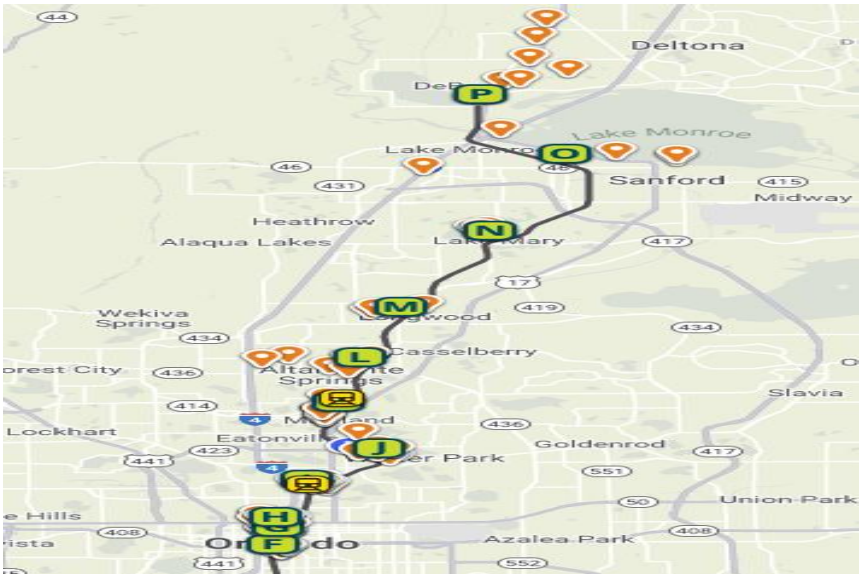
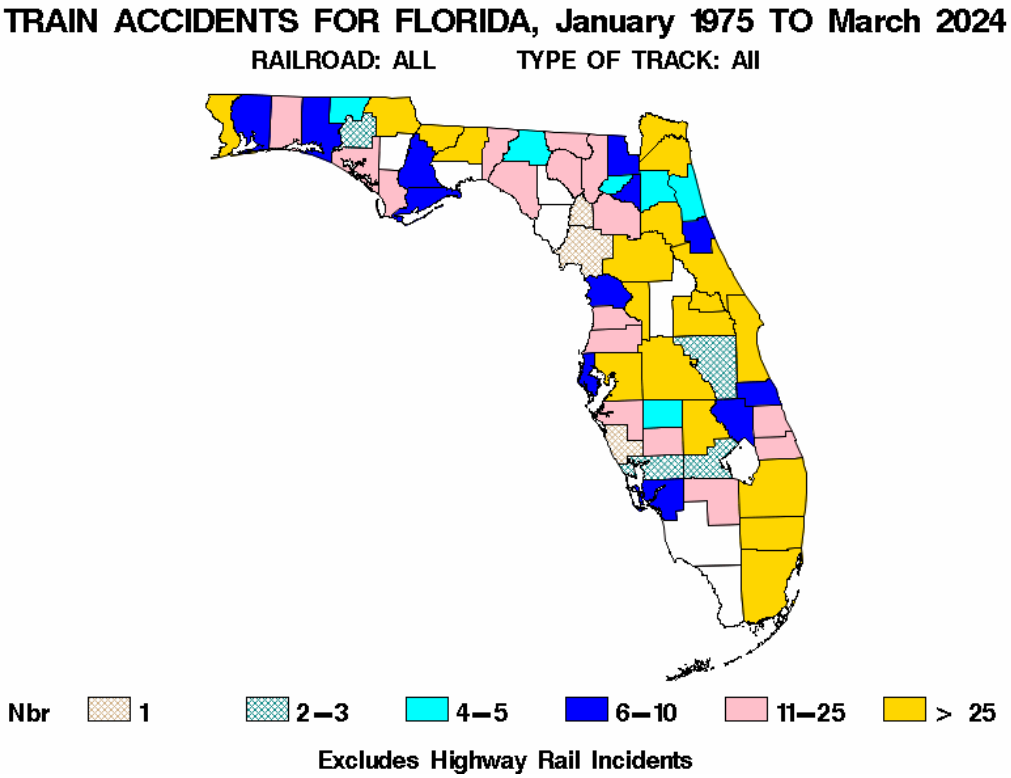


Figure W: Train Accident occurrence separated by county.



Hazard: Tropical Cyclones (Hurricanes and Tropical Storms)

Probability of Occurrence	1-5 Years
Risk	71%
Relative Risk	High
Description	A tropical cyclone is a rapidly rotating storm system characterized by a low-pressure center, strong winds, and a spiral arrangement of thunderstorms that produce heavy rain. Depending on their size, sustained wind speeds, and location they can be referred to as: Tropical Storms: A tropical storm is a tropical cyclone with an organized system of strong thunderstorms, defined surface circulation, and maximum sustained winds of 39-73 miles per hour. Storms with wind speeds below 39 mph are considered tropical depressions. Hurricanes: A hurricane is a tropical cyclone with sustained wind of forces equal to or exceeding or 74 mph, most often occurring in the Western Atlantic and usually accompanied by rain, thunder, and lightning. Hurricanes are categorized using Saffir-Simpson scale, which measures sustained wind speeds over a 1 minute average and at 33ft above the surface. The categories are: Category 1: Sustained wind speeds of 74-95 mph Category 2: Sustained wind speeds of 96-110 mph Category 3: Sustained wind speeds of 111-129 mph Category 4: Sustained wind speeds of 130-156 mph Category 5: Sustained wind speeds of 157 mph or higher Note: Categories three and above are considered major hurricanes.
Extent	Ranging from a Tropical Storm to the effects of a Category 5 Hurricane (Saffir-Simpson Scale)
Location	Because of the nature and size of these storms, they could affect any part of Seminole County and would likely impact the whole county.
Significant Occurrences	(2004): Hurricanes Charley, Frances, and Jeanne - Local State of Emergency declared, County offices and schools closed.

(2005): Wilma - flooding rains, etc.

(2008): Tropical Storm Fay - major flooding from torrential rains.

(2016): Hurricane Matthew - tropical storm force winds and heavy rain.

(2017): Hurricane Irma - damages recorded include infrastructure damage, debris, hazardous materials, flooded areas and road damage.

(2022): Hurricane Ian - Some wind damage and historic flooding on St. John's and Little Wekiva rivers.

(2022): Hurricane Nicole - Caused St. Johns River to swell, which increased flooding threats in Sanford and Geneva. High winds caused several tornado threats.

(2023): Hurricane Idalia - Some power outages, a couple of downed trees, and a small depression on Maitland Ave.

Spatial Extent - Tropical cyclones can have far reaching effects and would impact the entire county.

Overall Vulnerability

The overall vulnerability of tropical cyclones is high within all jurisdictions of Seminole County. The possibility of harm to humans, high property damage, and potential infrastructure losses all combine to make tropical cyclones one of the highest threat hazards. Seminole County is vulnerable to tropical cyclones to a similar level in all jurisdictions because of the spatial extent of a hurricane or tropical storm. The Local Mitigation and Resiliency Strategy works to protect critical infrastructure in order to reduce the vulnerability of the community.

Due to the steady annual increase in population within Seminole County the Local Mitigation and Resiliency Strategy recognizes that this hazard has an increased impact to individuals within the county and its jurisdictions.

Underserved communities within Seminole County and its jurisdictions are more vulnerable to this hazard as individuals within these communities have less access to immediate resources such as transportation, safe housing, and financial reserves.

Land development increases vulnerability to tropical cyclones by expanding impervious surfaces, which worsens flooding from heavy rainfall. As infrastructure and population grow, more

	buildings, utilities, and transportation networks are exposed to high winds, tornadoes, and prolonged power outages. Inadequate stormwater management and insufficient building standards can further amplify the impacts of tropical cyclones on the community.
	Impacts/ Consequences
Human	High Impact Depending on the strength of the storm, evacuations of low-lying areas and mobile/ manufactured homes may be called – in most recent storms, mandatory evacuations have been ordered for these areas. Food and water issues may arise if residents are unprepared and injuries and fatalities possible, most likely due to flooding. Due to the increased health risks facing the special need population, individuals with special needs are more vulnerable overall to the impacts of Tropical Cyclones.
Property	High Impact Depending on strength of the storm, structural damage to residential, commercial, industrial, and governmental buildings could be major. In Hurricane Irma, Seminole County and its jurisdictions received damage to roads, bridges, parks facilities, and water control facilities such as culverts.
Economic	High Impact Depending on strength of the storm, low to high impacts could be felt within the path of the storm on all business sectors. Regional impacts could be greater with a catastrophic storm.
Environment	Depending on strength of the storm, trees and shrubbery could sustain major damage. Transportation of foreign debris and flooding can disrupt ecosystem services. The Local Mitigation and Resiliency Strategy recognizes that with a changing climate, there is the potential for an increasing risk of environmental impacts from tropical cyclones and that future mitigation and adaptation strategies related to this hazard should be considered.
Program Operations	If damage to government offices occurs, relocation may be needed.

Responders	Difficulty responding during event due to dangerous weather conditions; staff may experience fatigue and stress during hazardous conditions, and status of responders' family may affect the responders' ability to perform his/her duties.
COOP	The COOP may be disrupted depending on strength of storm.
Property/ Facilities/ Infrastructure	Depending on strength of the storm, structural damage to residential, commercial, industrial, and governmental buildings could be major.
Public Confidence in the Jurisdiction's Governance	The public's confidence is related to how well services are kept online, proper warning information, and ability to respond to various hazards associated with tropical cyclones.

Risk Reduction Through

Mitigation

Mitigation projects for tropical cyclones include:

- Clear waterways of obstructions
- Demolition of Severe Repetitive Loss properties
- Electrical system – landscape clearing
- Elevation of structures above Base Flood Elevation
- Elimination of flooding of commercial buildings by structure modifications
- Enhancements of storm water systems (grey infrastructure)
- Floodplain and stream restoration
- Floodplain Ordinances
- Low impact development
- Public Education / Outreach
- Reconstruction and raising elevation of streets
- Redundant power systems to critical infrastructures
- SkyWarn certification
- Water retention, green space preservation, green infrastructure
- Wind and screen protection at shelters & critical infrastructures.

Plans

Comprehensive Emergency Management Plan

Emergency Alert and Warning Systems Operations Annex

Hazard: Violent Acts (Non-Terrorism)

Probability of Occurrence	1-5 Years
Risk	43%
Relative Risk	Medium
Description	Acts of violence in America are a legitimate hazard to communities and municipalities across America. Since the 1990s shootings in public schools, recreational parks, movie theatres, and college campuses have increased in both frequency of incidents and number of fatalities. Violent act hazards are not concentrated to a particular region or locale. Shootings, stabbings and other violent acts can take place anywhere in the country and are highly unpredictable. Perpetrators of violent acts do not have an agenda, do not have a target group in mind and do not have a purpose or mission to be accomplished. Unlike terrorist groups, perpetrators of violent acts are not organized and are very difficult to spot because perpetrators are largely ignored or go unnoticed. Violent acts negatively impact neighborhoods and communities because shootings and fatalities occur to members of younger population demographics (ages 5 to 30).
Location	All of Seminole County
Significant Occurrences	(2022) January 19 - Student shot in Seminole High School. He received a fractured wrist, nerve damage, and psychological trauma. No fatalities. (2023) January 16 - Shooting at Rinehart Road, CR-46A near Sanford. One fatality and five injuries. Spatial Extent - Event would be highly isolated in nature and would impact less than 25% of the geographic area of the county.
Overall Vulnerability	The overall vulnerability of people, systems, and buildings within Seminole County and its jurisdictions is medium. Even with specialized equipment, teams and training for these type of events, soft targets and mass gatherings continue to be vulnerable targets for violent acts. First responders work to reduce the vulnerability of large events by implementing security checkpoints, vehicle barricades and other safety measures. However, violent acts can occur anywhere and with no notice. Buildings, infrastructure, and systems within Seminole County are not very vulnerable to violent acts. Although a

	violent act can happen anywhere, the cities of Altamonte Springs and Sanford may be more vulnerable to attacks due to their large number of outside public events. Land use development does not directly influence the risk of violent acts. The likelihood of violent incidents is more related to social, economic, and psychological factors within a community, rather than the physical development or urbanization of the area.
	Impacts/ Consequences
Human	High Impact Violent acts can cause mass injuries/casualties depending on nature and scale of act. Mental and emotional stress can also be heightened.
Property	Low Impact Non-terrorist violent acts typically do not target or impact property specifically, and if so, damage would likely be minimal.
Economic	Low impact Any violent act would have minimal effects on local economy
Environment	There is low probability that the environment would be impacted from a violent act unless it is an intentional fire.
Program Operations	Unless an act directly impacts government personnel or buildings, the impacts would be minimal.
Responders	Would require necessary personal protective equipment depending on nature and scale of situation. Status of responders' family may affect the responders' ability to perform his/her duties.
COOP	The COOP would largely be unaffected by a non-terrorist violent act, depending on the act.
Property/ Facilities/ Infrastructure	Impacts would be isolated to facilities directly related to a violent act and some transportation infrastructure could be disrupted during response to a security threat.

Public Confidence in the Jurisdiction's Governance	Public's confidence would be dependent upon the ability of the County to thwart threat, respond to situation, and protect victims.

Risk Reduction Through

Mitigation	Mitigation projects for violent acts include: • Active Shooter Drills • Active Shooter Training • Assessment and assistance programs • Bollards, metal detection equipment, paid security, security checkpoints, and video surveillance, at critical infrastructures • Intelligence gathering equipment / systems • Public education / outreach • School Resource officers/deputies at all public schools • Stop the Bleed Training
Plans	Active Shooter Response Plan Operations Annex to the CEMP Family Reunification Center Plan

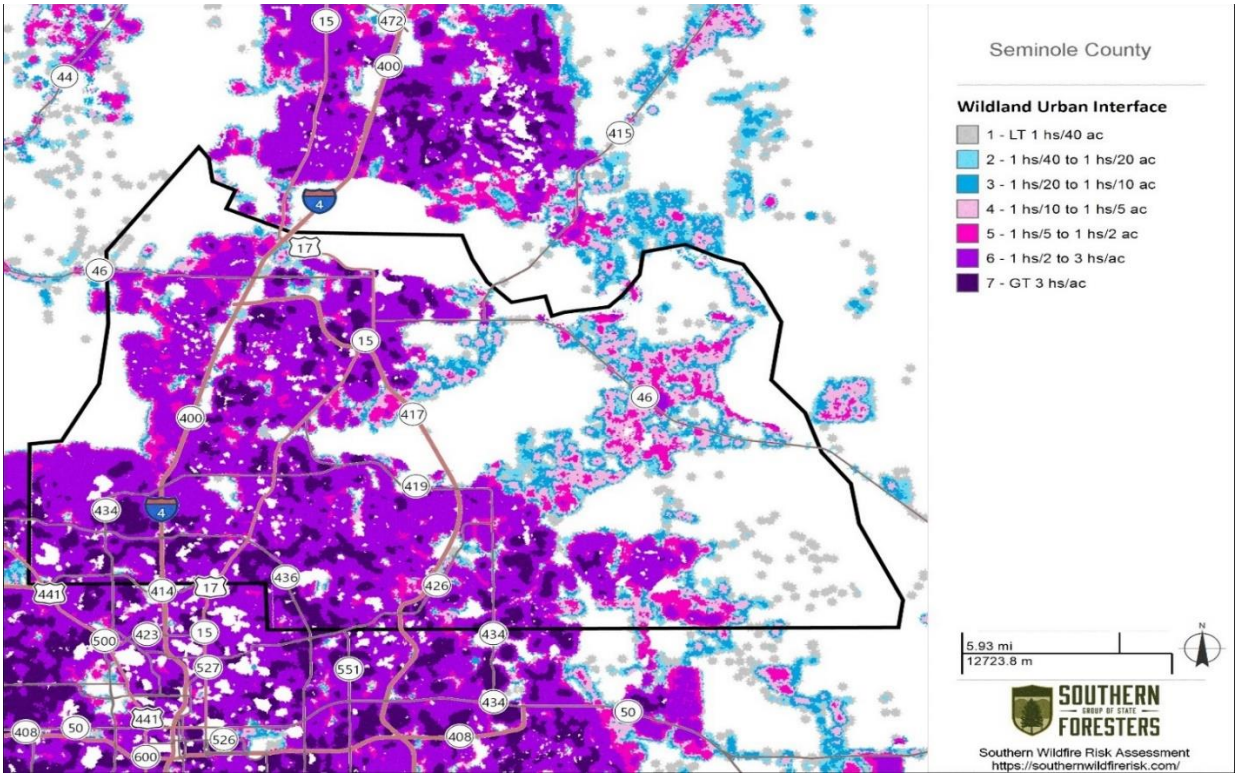
Hazard: Wildfires

Probability of Occurrence	1-5 Years
Risk	43%
Relative Risk	Medium
Description	A wildfire is an uncontrolled fire that begins in areas of combustible vegetation, usually the countryside or a wilderness area. Seminole County is susceptible to wildfires throughout the year, particularly during the months with minimal rainfall amounts. The major cause of brush fires and forest fires is due to residents not conforming to burning regulations in effect and not considering the conditions as they exist (dry or windy conditions). The Spring is the highest period for lightning-caused fires fueled by strong spring winds and lack of rainfall during the same period. In recent years, homes and businesses have been threatened by encroaching wildfires. The Seminole County Community Wildfire Protection Plan, an annex to the Local Mitigation and Resiliency Strategy, provides more in-depth detail to the wildfire mitigation measures in Seminole County.
Extent	41,636 high risk acres
Location	Unincorporated areas in the eastern part of the county, including the City of Oviedo, and western geographic areas of Seminole County, including the cities of Longwood and Altamonte Springs and unincorporated areas of Seminole County, are at highest risk for wildfires. However, wildfires could happen in any jurisdictions of the county.
Significant Occurrences	(1998): Summer – 2,000 acres burned in Geneva, 12 residences destroyed, no fatalities or injuries, about $1.1 million in losses. (2013): February – wildfire in Wekiva State Preserve consumed 50 acres near Markham Woods, closing of nearby roadways. (2017): March – Geneva Brush Fire surrounding 338 single family homes and 14 mobile homes, shelter opened. (2017): April – Level 3 activation for brush fire at Live Oak Reserve, 150 mandatory evacuees, shelter opened. No significant occurrences between 2018-2024. Spatial Extent - Impact less than 25% of the area within Seminole County, though the effects of smoke could cover a slightly larger area.
Overall Vulnerability	Overall vulnerability to wildfires is medium. Wildfires can happen quickly and cause widespread damage. With several

	areas indicated as urban wildland interfaces, rural northwestern and eastern parts of unincorporated Seminole County are more vulnerable to wildfires. Due to the steady annual increase in population within Seminole County the Local Mitigation and Resiliency Strategy recognizes that this hazard has an increased impact to individuals within the county and its jurisdictions. Furthermore, as the population continues to increase, as does the need for residential structures. As a result, more residential structures are being built in the wildland urban interface subsequently furthering the risk of this hazard. Expanding residential and commercial development into wildland-urban interface (WUI) areas increases the risk of wildfire ignition and property damage.
	Impacts/ Consequences
Human	Moderate Impact Wildfires have the potential to kill or injure people trapped in burning buildings. For immediate area, smoke that decreases air quality may exacerbate respiratory problems, and those with special needs may require more attention.
Property	Moderate Impact Wildfires can damage or destroy buildings including homes and businesses.
Economic	Low Impact Potential impact on agricultural industry and insurance industry.
Environment	Wildfires can have a detrimental impact to wildlife and vegetation in any jurisdiction where wildfire may occur. For example, 2,000 acres were burned in the 1998 fire in the unincorporated area of Geneva. The Local Mitigation and Resiliency recognizes that with a changing climate, there is the potential for an increasing risk of environmental impacts from fires/wildfires and that future mitigation and adaptation strategies related to this hazard should be considered.
Program Operations	If affected, operations may be relocated or suspended.
Responders	Increased exposure to smoke inhalation and high risk to health and safety of responders.
COOP	To continue the COOP, operations may be relocated or suspended.

Property/ Facilities/ Infrastructure	This hazard could affect transportation and utilities infrastructure depending on scale and severity. Property may also be affected.
Public Confidence in the Jurisdiction's Governance	The public confidence level may depend upon the ability of the county to contain and respond to the fire threat.
	Risk Reduction Through
Mitigation	Types of wildfire mitigation projects in the county include: • Burn bans • Cutting fire lines / protective barriers • Fire resistant construction in urban/wildland interface • Fire resistant vegetation and landscaping • Fire shelter for safety of firefighters • Hazardous wildfire fuel reduction – removal, trimming, cutting • Prescribed burns • Public education (Fire Wise community) – defensible space • Urban/Wildland Interface Ordinances
Plans	Community Wildfire Protection Plan Prescribed Burning Standard Operating Guideline

Figure X: Wildland Urban Interface intensity spectrum.



Hazard: Winter Storms/ Freezes

Probability of Occurrence	6-10 Years
Risk	35%
Relative Risk	Medium
Description	A freeze is when the surface air temperature is expected to be 32°F or below over a widespread area for at least 3 or more consecutive days. Use of the term is usually restricted to aversive situations or occasions when wind or other conditions prevent frost. "Killing" may be used during the growing season when the temperature is expected to be low enough for a sufficient duration to kill all but the hardiest herbaceous crops. Extreme cold can immobilize an entire region. Even areas, such as Seminole County, that normally experience mild winters can be hit with an extreme cold winter event. Winter storms can result in ice, localized flooding, closed highways, blocked roads, downed power lines, and hypothermia.
Extent	3 - 10 consecutive days of 32°F or lower
Location	Winter Storms/ freezes would impact all of Seminole County.
Significant Occurrences	(1989): December- cold outbreak and hard freeze, temperatures in the 20s, extensive damage to citrus crop, power blackouts, in the entire state of Florida, 26 deaths were the result of hypothermia. (2018): January- NWS declares Hard Freeze in Seminole County causing shelters to be opened for relief from the elements. (2020) Jan. 21-22; Dec. 8-9; Dec. 25-27; weather dropped below 40F. There was a total of 7 days that had weather under 40F. (2021) Feb. 3-4; weather dropped below 40F. There was a total of 2 days that had weather under 40F. (2022) Jan. 23-24; Jan. 29-31; Dec. 23-26; weather dropped below 40F. Spatial Extent- Would likely have county-wide consequences impacting greater than 50% of the geographic area of the county.
Overall Vulnerability	With an overall low vulnerability in all jurisdictions of Seminole County, winter storms and freezes can cause the most harm in homeless populations, with approximately 2,000 homeless

	residents across Seminole, Orange, and Osceola counties reported in 2018. Due to the mild nature of winter storms in Central Florida, the vulnerability of our infrastructure and buildings is low. Due to the steady annual increase in population within Seminole County the Local Mitigation and Resiliency Strategy recognizes that this hazard has an increased impact to individuals within the county and its jurisdictions. Underserved communities within Seminole County and its jurisdictions are more vulnerable to this hazard as homes within these communities are typically older homes with insufficient HVAC capabilities. Land use development does not significantly alter the risk of winter storms or freezes, as these weather events are driven by regional climate patterns. The risk remains consistent regardless of the level of urban development in the area.
	Impacts/ Consequences
Human	Moderate Impact Risk of hypothermia and extreme loss of heat if residents are not prepared for conditions (especially with wind chill factored in). Due to the increased health risks facing the special need population, individuals with special needs are more vulnerable overall to the impacts of Winter Storms/Freezes.
Property	Low Impact Historically, no major problems for properties in Seminole County, but in extreme situations electrical outages and dangerous road conditions are possible. Effects would likely be uniform across jurisdictions within Seminole County.
Economic	Low Impact Possible impact to agriculture, especially plant and animal industries within the county.
Environment	Damage or loss of susceptible plants and animals. The Local Mitigation and Resiliency Strategy recognizes that with a changing climate, there is the potential for an increasing risk of environmental impacts from winter storms/freezes and

	that future mitigation and adaptation strategies related to this hazard should be considered.
Program Operations	Prolonged severe cold weather periods may strain utility companies.
Responders	Extended periods of cold weather increased risk for hypothermia, fatigue, etc.
COOP	Very little to no impact on COOP from a winter storm or freeze except in the case of power outages.
Property/ Facilities/ Infrastructure	Historically, no major problems for properties in Seminole County, but in extreme situations electrical outages and dangerous road conditions are possible. Major disruption could occur with transportation infrastructure or damage to critical facilities.
Public Confidence in the Jurisdiction's Governance	The public's confidence is dependent upon the ability of responders to provide proper warning, respond to utility outages, and protect vulnerable populations and infrastructure.

Risk Reduction Through

Mitigation	Mitigation projects for winter storms include: • Agriculture business continuity planning education / training • Citrus / agriculture heater units • Personal protective equipment • Public education / outreach • Warming centers
Plans	Extreme Weather Plan Operations Annex to the CEMP

Figure Y: Average annual minimum temperature throughout Florida.

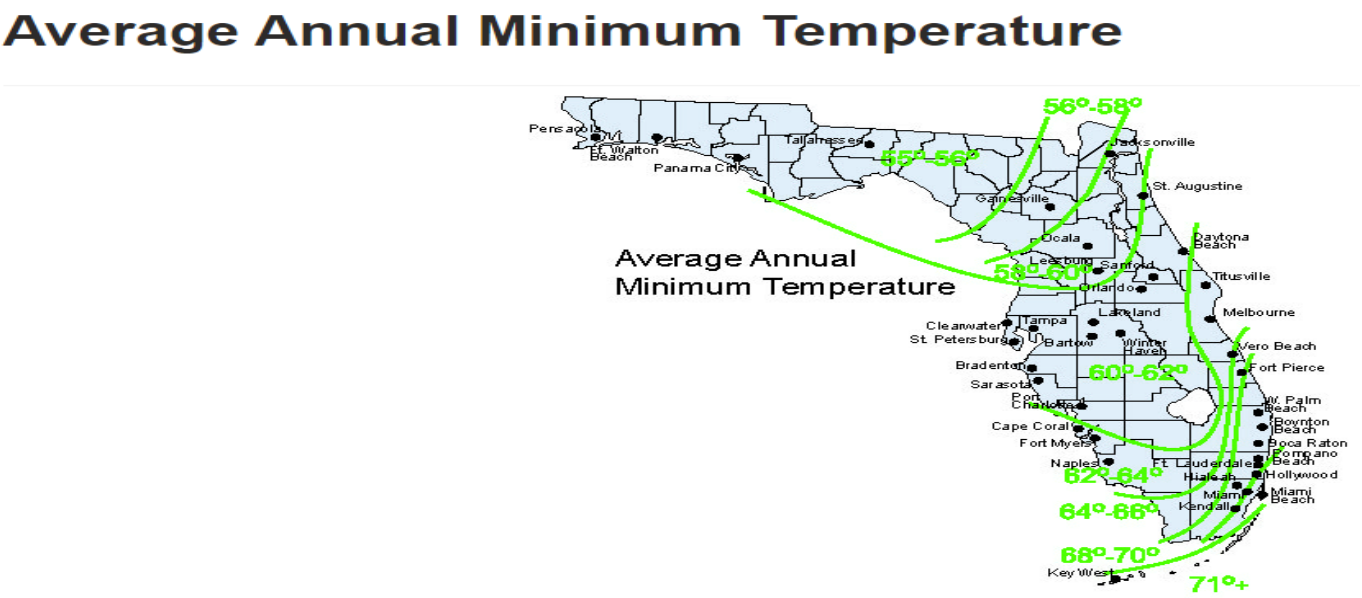


Figure Z: Days with lowest temperature recorded being below 40F in Seminole County

2020	2021	2022	2023
7 days with weather below 40F	2 days with weather below 40F	9 days with weather below 40F	4 days with weather below 40F

INCIDENT	PROBABILITY	VULNERABILITY				MITIGATION			RISK
		HUMAN IMPACT	PROPERTY IMPACT	SPATIAL	ECONOMIC IMPACT	PREPAREDNESS	TRAINING EXERCISE	LOGISTICS	
	Likelihood this will occur	*Possibility of death or injury*	*Physical losses and damages*	*Amount of Geographic Area Affected*	*Interuption of services*	*Specialized Plans*	*Integrated Preparedness Planning*	*Equipment Teams Support*	*Relative threat**
SCORE	1 = 10+ 2 = 6-10 yrs 3 = 1-5 yrs	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	1 = Up to 25% 2 = 25-50% 3 = 50 or more	0 = N/A 1 = Low 2 = Moderate 3 = High	1 = Specific Haz Plan /Test 2 = Addressed in other plans 3 = No spec plan for haz	1 = Yearly Training/ Exer. 2 = Every other year 3 = Rarely trained/exercised	1 = Highly Spec Teams/Equip 2 = Minimal Equip/Teams 3 = Low or none	*0 - 100%*
Agriculture	3	1	1	1	1	2	3	1	**48%**
Civil Disorder	3	2	2	1	2	1	1	1	**48%**
Critical Infrastructure Disruption	3	3	2	1	1	2	2	1	**57%**
Cyber Security	3	2	2	2	3	1	1	2	**62%**
Disease Pandemic	3	3	0	3	3	1	1	1	**57%**
Domestic Security/ Terrorism	2	3	1	1	2	1	1	1	**32%**
Drought / Water Shortage	3	1	1	3	2	2	3	2	**67%**
Earthquakes	1	1	1	3	1	2	3	3	**22%**
Extreme Heat	3	3	0	3	2	1	1	1	**52%**
Financial Collapse	1	1	1	3	3	2	3	3	**25%**
Floods	3	3	3	2	3	1	1	1	**67%**
Harmful Algal Bloom	3	1	1	1	1	1	3	1	**43%**
Haz Mat / Radiological	3	2	2	1	2	1	1	1	**48%**
Mass / Planned Events	3	2	1	1	2	1	1	1	**43%**
Mass Migration / Repat	2	2	1	1	1	1	2	2	**32%**
Severe Weather	3	2	2	3	2	1	1	1	**57%**
Sinkholes/ Land Subsidence	3	1	1	1	1	1	1	1	**33%**
Structure Integrity/ Collapse	3	1	2	1	1	1	1	1	**38%**
Tornadoes	2	2	2	1	2	1	1	1	**32%**
Transportation Disruption	3	2	1	1	2	1	1	1	**43%**
Tropical Cyclones	3	3	3	3	3	1	1	1	**71%**
Violent Acts (Non-Terror)	3	3	1	1	1	1	1	1	**43%**
Wildfires	3	2	2	1	1	1	1	1	**43%**
Winter Storms/ Freezes	2	2	1	3	1	1	2	1	**35%**

**Threat increases with percentage.*

				LOW	**0%-30%**	**MEDIUM**	**31%-60%**	**HIGH**	**61% +**

Vulnerability

The Resiliency Working Group has included a multi-layered approach to assessing the vulnerability of the participating jurisdictions to future disasters. The various vulnerability assessments build on the identification of hazards in the community and the risk that the hazards pose to the community.

Local planners can use the hazard identification and risk estimation process to prioritize the facilities and neighborhoods that most need to be assessed for their specific vulnerability, for example by beginning with the jurisdictions exhibiting the highest overall relative risk. Then, for these jurisdictions, the individual facilities, systems and neighborhoods of Seminole County are assessed specifically for the extent of their vulnerability to damage or disruption by the hazard events identified for the corresponding jurisdiction, and the specific impact to the community if this occurred.

In our jurisdiction, addressing the unique vulnerabilities of underserved communities remains a central tenet of this plan. Historically, the communities of *East Altamonte, Midway, Goldsboro, Jamestown, Bookertown,* and *Lincoln Heights* have faced disproportionate risks from natural hazards due to social, economic, and infrastructural challenges. These communities have been actively engaged by various partners within the Resiliency working group in previous years to identify and address their specific needs. Moving forward, the LMRS will continue to prioritize these communities, building on past partnerships to implement equitable strategies that enhance resilience, reduce vulnerabilities, and promote long-term sustainability.

Assessing Vulnerabilities

Repetitive Loss Properties

The Flood Mitigation Assistance (FMA) Grant Program was created as part of the National Flood Insurance Reform Act (NFIRA) of 1994 with the goal of reducing or eliminating claims under the National Flood Insurance Program.

Consistent with Biggert-Waters Flood Insurance Reform Act of 2012 (Public Law 112-141), the FMA Grant Program changed in FY 2013 to allow more federal funds for properties with repetitive flood claims and severe repetitive loss properties, and the Repetitive Flood Claims and Severe Repetitive Loss Grant Programs were eliminated.

The primary objective of the Repetitive Loss Properties Strategy is to eliminate or reduce the damage to property and the disruption of life caused by repeated flooding of the same properties. A specific target group of repetitive loss properties is identified and serviced separately from other NFIP policies by the Special Direct Facility (SDF). The target group includes every NFIP-insured property that, since 1978 and regardless of any change(s) of ownership during that period, has experienced:

- Insured property with at least 2 flood claims where the repairs equaled or exceeded 25% of the market value of the structure at the time of the flood event.

- Insured property with flood history of 4 or more separate claims of $5,000 each with cumulative total exceeding $20,000 or at least 2 claim payments where the cumulative amount of 2 claims exceeds the market value of the structure.

Although the Flood Mitigation Assistance Grant Program is federally funded, the program is administered through a partnership with the Florida Division of Emergency Management (FDEM), Native American Tribal governments, and the Federal Emergency Management Agency. FDEM has the authority and responsibility for developing and maintaining a State Mitigation Plan, assisting local jurisdictions and Native American Tribal governments in developing and maintaining Flood Mitigation Plans, reviewing Flood Mitigation Assistance Program sub-applications, recommending cost effective sub-applications to FEMA and providing pass-through grant funds to awarded Flood Mitigation Assistance Program projects from eligible sub-applicants.

FDEM is also responsible for ensuring that projects funded by the Flood Mitigation Assistance Program are completed and that all performance and financial reporting requirements are met.

# of Properties by Type	Seminole County	Altamonte Springs	Casselberry	Lake Mary	Longwood	Oviedo	Sanford	Winter Springs
Residential	38	15	0	0	0	0	7	3
Commercial	2	4	0	0	0	0	2	0
Institutional	0	0	0	0	0	0	0	0
Severe Repetitive Loss (SRL) Properties	4 (Res.)	0	0	0	0	0	0	0
Total # of Repetitive Loss Properties	40	19	0	0	0	0	9	3

The actual database of repetitive loss properties will not be provided in this LMRS plan because of the specific address and personal information associated with the information. However, specific requests for information may be requested from any of the appropriate jurisdictions directly, or through the NFIP at FEMA.

Through the various outreach methods in each jurisdiction that has repetitive loss properties, an effort is being made to eliminate or reduce the risks of future flooding to those properties through various mitigation techniques. Each jurisdiction sends a notice to each owner of a property in a repetitive loss area, soliciting interest and participation in various potential mitigation grant programs, and to keep them informed of flood risk and insurance information.

A Floodplain Management Plan, an annex to the LMRS, is also maintained by the Office of Emergency Management to further plan for the mitigation and reduction of flood risks in Seminole County and

its municipalities.

Land Use Trends and Potential Loss

The Resiliency Working Group recognizes that the way in which land is utilized, especially land within known hazard-prone areas, is a key measure of community vulnerability because some land uses, such as for residential or industrial development, can be more susceptible to disaster-related damages than others. For the Seminole County mitigation strategy, this analysis is done on a jurisdiction-specific basis because individual jurisdictions have the most significant planning and legal control over land use policy.

Within the jurisdictions that have completed this analysis, two reports contain information on land use trends within the jurisdiction:

- Current Land Uses and the Potential for New Development, which identifies the estimated amount of land still available for new development, as well as summarizing the relative extent of current land uses.

- Future Land Uses and General Development Trends, which summarizes the jurisdiction's rate of development of vacant lands or redevelopment of existing properties, and, if the jurisdiction has an adopted land use plan, the desired relative extent of planned land uses.

All jurisdictions in Seminole County continue to grow either slightly or rapidly, and all are participants in the National Flood Insurance Program. The steady increase in population within the county and its jurisdictions increases the need for both residential and commercial housing to be utilized or developed. This plan recognizes that the steady increase in population and its subsequent effects can lead to an increase in certain hazards as detailed within the hazard profile. These effects are addressed through the county and its jurisdictions by ensuring that building codes and procedures associated with building regulations are reviewed and adjusted as needed. This plan addresses the issues associated with a rapid increase in the population through leveraging operational procedures detailed in the county's Repatriation Annex to the CEMP.

The county has made significant progress in addressing vulnerabilities in hazard-prone areas through a variety of projects. One notable effort is the construction of a hurricane-resistant facility in the City of Casselberry. This building provides a secure staging area for public works field staff in the northern part of the city during emergencies, ensuring that essential personnel can continue operations without disruption. By safeguarding key staff and resources, the city has reduced its overall vulnerability during severe weather events.

In addition to structural improvements, the county has focused on mitigating flood risks through infrastructure enhancements. The stormwater system for Mullet Lake is a critical project aimed at managing water flow and reducing the risk of flooding in nearby areas. By improving drainage and water management capabilities, this project significantly lowers the potential for flood-related damage, particularly in communities that are prone to rising water levels during heavy rains or storms.

The county has also completed the Oregon Street and Michigan Avenue drainage project, further addressing flood vulnerabilities. This project improves the drainage capacity of the area, reducing the

likelihood of water pooling and flooding during significant rain events. Enhancing the drainage system in these locations protects both residential and commercial properties, minimizing potential losses and safeguarding the community from flood hazards.

In addition to these efforts, numerous other mitigation projects continue to be executed, as outlined in the Mitigation Project Priority List section of this plan. These projects include various flood control measures, infrastructure retrofits, and ongoing improvements to address vulnerabilities across the county. Pressure for development into wetland areas continues to be an ongoing issue in the county. Increasing populations in the past several years have caused an increase in development within Seminole County and its jurisdictions which can increase the communities' vulnerability to flooding and transportation incidents.

The Resiliency Working Group recognizes that its efforts, particularly to identify the areas of the participating jurisdictions at risk from various hazards, is a key factor in guiding the careful use of land to minimize future vulnerabilities to disaster. When needed and desired by a specific jurisdiction, modifications to the plans, ordinances, codes and similar policies can be proposed as mitigation initiatives for incorporation into this plan. During the update of this plan, the LMRS Planning Team considered the increasing population, and by extension increased development, when writing the new goals and objectives. The Goals and Objectives of this plan drive the mitigation initiatives that become the long-term projects of the Local Mitigation and Resiliency Strategy.

Critical Facilities and Infrastructure

Seminole County has conducted an inventory of existing buildings, infrastructure, and critical facilities located within the hazard areas boundaries. For purpose of this LMRS these include emergency service facilities, medical facilities, government facilities, schools, emergency/ evacuation shelters, fire and police stations, emergency operation center, facilities used by special needs populations, and any other facilities identified by the Office of Emergency Management. This critical facilities list aligns with the critical infrastructure sectors outlines by the Department of Homeland Security and is updated annually.

The identified potentially at-risk critical facilities and structures for Seminole County are listed in the Critical Facility and Structure List maintained by Seminole County's Office of Emergency Management. The Seminole County Comprehensive Emergency Management Plan contains additional information in regard to vulnerable existing buildings, infrastructure, and critical facilities. A 2023 grant through the Florida Department of Environmental Protection (DEP) Resilient Florida program allowed for a countywide vulnerability assessment (VA) related to flooding and the impacts to critical assets in the community. This VA will be completed by 2025 and provide a list of gaps of improvements items for critical facilities. All listed critical facilities will remain open during disaster operations of all hazards, and prioritization of power restoration is identified on the list. The Critical Facility and Structure List contains confidential information so therefore is not published with this plan.

Mitigation Goals

The Resiliency Working Group has established a number of goals and objectives to guide its work in the development of this plan. The goals and objectives help to focus the efforts of the group in the

mitigation planning effort to achieve an end result that matches the unique needs, capabilities and desires of the participating jurisdictions.

The goals are established for both the entire planning area and all of the participating jurisdictions. During the plan update process, a list of suggested goals and objectives selected from the previous LMRS document was circulated to members of the Resiliency Working Group. The goals selected by the Resiliency Working Group are related to the broad mitigation needs and capabilities of the communities involved, rather than addressing a specific hazard type or category. Therefore, the Seminole County mitigation goals and objectives, by definition, are multi-hazard in scope and can be described as statements of the desired mitigation-related capabilities which will be present in each participating jurisdiction in the future, as the goals are achieved.

Community priorities are reflected in the goals and objectives set by the Local Mitigation and Resiliency Strategy and the Seminole County Resiliency Working Group. Community members from each jurisdiction make up the planning team which came together to review and update this plan, communicating each jurisdiction's priorities for the plan moving forward. Priority changes that affect the goals and objectives come as a result of changes in administration, funding availability, identified hazards, and recent historical occurrences.

Mitigation Actions

The goals established by the Resiliency Working Group are considered to be broad, general guidance that define the long-term direction of the planning. Each goal statement has one or more objectives that provide a specific framework for actions to be taken by the Resiliency Working Group and its participants. The objectives define actions or results to be accomplished by the Resiliency Working Group and are a reflection of the priorities of the group and other stakeholders. These objectives were written by the LMRS Planning Team during the planning process.

The goals selected by the Resiliency Working Group are intended to create a specific framework for guiding the development of proposed mitigation initiatives for incorporation into the plan. Whenever feasible, the planning participants have associated each proposed mitigation initiative with the goal the initiative is intended to achieve. Proposing mitigation initiatives consistent with the overarching goals is a principal mechanism for the Resiliency Working Group participants to achieve the stated goals of the mitigation planning program.

Seminole County Local Mitigation and Resiliency Strategy Goals and Objectives

Goal 1	Local government shall make every reasonable effort to identify, develop, implement, and reduce hazard vulnerability through effective mitigation programs.
1.1	The Seminole County Resiliency Working Group will develop a mechanism for local jurisdictions, community partners, and residents to report hazard and risk data by the end of FY 2025.
1.2	Annually use historic and scientific data to identify hazards, risk areas and vulnerabilities in the community and evaluate the need for updates to the hazard profiles of the Local Mitigation and Resiliency Strategy and/ or annexes of the LMRS.
1.3	Measure the effectiveness of completed mitigation projects through the review of after action/ improvement items and public comments gathered during and after a disaster and provide to the Florida Division of Emergency Management and Seminole County Resiliency Working Group.
1.4	Seminole County Resiliency Working Group shall annually review to the Seminole County Mitigation and Resiliency Strategy Goals and Objectives. A status report will be produced annually.

Goal 2	All sectors of the community will work together to create a disaster resilient community.
2.1	Local jurisdictions will review existing interagency agreements on an annual basis for updates or necessary changes.
2.2	Quarterly invite public and private sector organizations to Seminole County Resiliency Working Group meetings to promote hazard mitigation programming throughout the community.
2.3	Encourage all participating agencies to conduct outreach programs including mitigation a minimum of one time annually with businesses, institutions, and community groups.
2.4	Encourage local elected governing bodies to adopt the Local Mitigation and Resiliency Strategy and support community mitigation programming through annual communication with city and county management and elected officials.
2.5	Encourage participation of each jurisdiction in training and exercise through an annual review of training and exercise documentation.
2.6	Distribute any relevant open statewide or national mitigation planning efforts or policy changes to the Seminole County Resiliency Working Group for comment or review.

Goal 3	Reduce the vulnerability of critical infrastructures and public facilities from the effects of all hazards.
3.1	Annually identify possible critical infrastructure or facilities which could be retrofitted or relocated using mitigation funding.
3.2	Evaluate utility, telecommunications, and information technology systems with external agency partners to determine potential mitigation opportunities.
3.3	Annually assess transportation and access routes, systems, and infrastructure to identify potential relocation, retrofit or modification opportunities to ensure safe passage before, during and after disaster events.
3.4	Annually assess opportunity for shelter retrofit funding for current or future evacuation shelters and apply for funding as applicable.
3.5	Participate in the annual assessment of health and safety needs in the community and propose mitigation or other initiatives based on assessment findings.
3.6	Annually invite private sector organizations who own or operate key community resources to the Seminole County Resiliency Working Group meetings to encourage hazard mitigation programs.
3.7	Assess and implement physical and cyber protective measures on critical infrastructure and identify opportunities for relocation or retrofit to withstand the impacts of disasters.

Goal 4	Develop policies and regulation to support effective hazard mitigation programming throughout the community.
4.1	Review, develop and enforce policies, plans and regulations to discourage or prohibit inappropriate location of structures or infrastructure components in the special flood hazard area or wildland urban interface.
4.2	Address current building, fire, and land development regulations to ensure consideration of identified hazards in the LMRS.
4.3	Encourage all jurisdictions to participate in the Building Code Effectiveness Rating Schedule, Fire Suppression Rating Schedule, National Flood Insurance Program, and the associated Community Rating System.
4.4	Conduct an assessment of potential mitigation or improvement measures during post-disaster reconstruction to reduce the vulnerability to all hazards.
4.5	Encourage participating agencies to conduct outreach to include encouraging the development and enforcement of energy conservation, green development, and resource sustainability best practices.
4.6	Local Mitigation and Resiliency Strategy goals and objectives should be added to Comprehensive Plans of all participating jurisdictions within two years of plan adoption.
4.7	Participating agencies will annually assess and identify gaps in resources associated with each hazard identified in the LMRS. Identified critical resource deficiencies shall be documented and presented to the Seminole County Resiliency Working Group and considered for future mitigation projects.

Goal 5	Encourage economic vitality of the community by promoting business continuity education, disaster planning, and supporting the socially vulnerable.
5.1	Review needs of key employers in the community and establish programs, facilities, or resources to support business resumption activities.
5.2	Identify socially vulnerable communities and foster community participation in resiliency planning and projects.

Addressing Known Risks and Vulnerabilities

In addition to developing proposed mitigation initiatives to achieve the established goals and objectives, an important emphasis of the Resiliency Working Group is to also include proposed mitigation initiatives in its plan that will address known vulnerabilities of important facilities and neighborhoods to the impacts of future natural, technological or human-caused disasters. By reducing known vulnerabilities to future disasters, it is important in the plan to document those initiatives that are intended to address identified vulnerabilities of facilities, systems and neighborhoods, as well as to strengthen the mitigation-related policy framework for the entire county.

There are a number of initiatives that are not directly associated with specific facilities or neighborhoods that have been assessed for their vulnerabilities, but address other mitigation-related concerns, such as storm water drainage —trouble spots in the county. While they may not affect an entire neighborhood or critical roadway, they can create unsafe conditions or damage properties.

National Flood Insurance Program (NFIP) Compliance

All jurisdictions are active participants in the NFIP. In an effort to ensure continued compliance with the NFIP, each participating community will:

- Continue to enforce their adopted Floodplain Management Ordinance requirements, which include regulating all new development and substantial improvements in Special Flood Hazard Areas (SFHA).
- Continue to maintain all records pertaining to floodplain development, which shall be available for public inspection
- Continue to notify the public when there are proposed changes to the floodplain ordinance or Flood Insurance Rate Maps.
- Maintain the map and Letter of Map Change repositories.
- Continue to promote Flood Insurance for all properties.
- Continue their Community Rating System outreach programs.

Table 3, below, summarizes information about polices, coverages, and written premiums for the active participants in the NFIP within Seminole County.

Community Name	Policies In-Force	Total Coverage	Written Premium In- Force
Altamonte Springs	819	$179,420,000	$437,263
Casselberry	361	$90,499,000	$270,613
Lake Mary	233	$77,879,000	$150,097

Longwood	210	$68,277,000	$147,462
Oviedo	728	$234,820,000	$446,158
Sanford	624	$172,496,000	$403,789
Winter Springs	657	$196,526,000	$517,653
Seminole County	3,974	$1,232,857,000	$2,489,926

As of 08/22/2024, FEMA NFIP Insurance Report

Seminole County Government is the agency with authority to implement and enforce local floodplain management regulations to regulate and permit development of Special Flood Hazard Areas (SFHAs). The County has adopted the minimum NFIP standards and latest FIRM map through the County Floodplain Ordinance. The County Floodplain Administrator, within the Public Works Department, is designated to implement the addressed commitments and requirements of the NFIP.

Per Seminole County's latest Floodplain Ordinance, for applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, Substantial Improvements, repairs of Substantial Damage, and any other improvement of or work on such buildings and structures, the County Floodplain Administrator, in coordination with the County Building Official, shall:

(1) Estimate the Market Value or require the applicant to obtain an appraisal of the Market Value prepared by a qualified independent appraiser of the building or structure before the Start of Construction of the proposed work; in the case of repair, the Market Value of the building or structure shall be the Market Value before the damage occurred and before any repairs are made and any appraisals shall be within one (1) year of the date of permit application;

(2) Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the Market Value of the building or structure;

(3) Determine and document whether the proposed work constitutes Substantial Improvement or repair of Substantial Damage; the determination requires evaluation of previous permits issued for improvements and repairs as specified in the definition of "Substantial Improvement"; and

(4) Notify the applicant if it is determined that the work constitutes Substantial Improvement or repair of Substantial Damage and that compliance with the Flood resistant construction requirements of the Florida Building Code and the County Floodplain Ordinance is required.

Community Rating System

The Community Rating System (CRS) is a voluntary program for NFIP-participating communities. The goals of the CRS are to reduce flood losses, to facilitate accurate insurance rating, and to promote the awareness of flood insurance. The CRS has been developed to provide incentives for communities to go beyond the minimum floodplain management requirements to reduce the losses from flooding.

The incentives are in the form of premium discounts.

Table 4, below, summarizes information about the active participants within the CRS in Seminole County.

Community Number	Community Name	CRS Entry Date	Current Effective Date	Current Class	% Premium Discount	Status
120290	Altamonte Springs	10/1/1994	5/1/2014	7	15	C
120291	Casselberry	10/1/2019	10/1/2019	8	10	C
120416	Lake Mary	10/1/2009	4/1/2021	5	25	C
120292	Longwood	10/1/1996	10/1/2010	10	0	P
120293	Oviedo	10/1/2008	10/1/2013	6	20	C
120294	Sanford	10/1/2016	10/1/2016	7	15	C
120289	Seminole County	10/1/1991	5/1/2011	6	20	C
120295	Winter Springs	10/1/1993	5/1/2013	6	20	C

October 2023, CRS Participating Communities Report | **Status:** C= Current, R= Rescinded, P= Pending

It must be emphasized that in many cases, detailed information regarding the areas potentially impacted by a specific hazard, as well as its potential health and safety, property, environmental and economic impacts of that hazard may not have been available. Further, it has not been the intent of the Resiliency Working Group, nor have funding resources been available, to conduct extensive new studies to obtain such information solely for the purposes of the development of this mitigation plan. Therefore, it has often been necessary to rely on the informed judgment of knowledgeable local officials to identify hazards and derive estimates of the risk each poses to the community.

ISO Building Code Effectiveness Grading Schedule (BCEGS):

The ISO Building Code Effectiveness Grading Schedule (BCEGS) is a voluntary program designed to evaluate the effectiveness of a community's building codes and the enforcement of those codes. The BCEGS program focuses on how well building codes are enforced to mitigate damage from natural hazards such as hurricanes and floods. Communities are graded on a scale of 1 to 10, with 1 representing exemplary enforcement. Communities with stronger building code enforcement benefit from improved resilience to natural disasters and may receive incentives such as lower insurance premiums for their residents and businesses.

Table 5, below, summarizes information about the ISO BCEGS Ratings in Seminole County.

Jurisdiction	BCEGS Rating (Commercial)	BCEGS Rating (Residential)
Altamonte Springs	2	2
Lake Mary	3	3
Longwood	4	4
Oviedo	3	4
Seminole County	3	3

ISO Public Protection Classification (PPC):

The ISO Public Protection Classification (PPC) is a program that evaluates the fire protection services of communities across the country. The PPC program assigns ratings from 1 to 10, where 1 represents superior fire protection and 10 indicates that the community's fire protection meets the minimum standards. The primary goals of the PPC program are to assist communities in improving their fire protection capabilities, facilitate accurate insurance rating, and ultimately help reduce fire-related losses. Communities with better PPC ratings benefit from reduced property insurance premiums, providing an incentive to invest in enhanced fire protection services. The Seminole County Fire Department directly serves the unincorporated areas of Seminole County as well as the cities of Altamonte Springs, Casselberry, and Winter Springs. The Seminole County Fire Department ISO rating is referenced below.

Table 6, below, summarizes information about the ISO PPC Ratings in Seminole County.

Agency	PPC Rating
Seminole County	ISO 1
Lake Mary	ISO 1
Longwood	ISO 2
Oviedo	ISO 2
Sanford	ISO 2

Implementation

Prioritization of Actions

The Resiliency Working Group is responsible for identifying projects and activities that Seminole County and its municipalities want to implement that will support the tasks identified in the Goals and Objectives section. Projects will be submitted to the Resiliency Working Group Scoring Subcommittee by eligible applicants which was created by unanimous vote at the July 2023 Resiliency Working Group meeting. The Resiliency Working Group approved the official implementation of the Scoring Subcommittee for future use, with a member of the Office of Emergency Management to serve as the Chair, a minimum of three (3) jurisdictions, one (1) citizen member, and not to exceed ten (10) members.

Project submissions must complete a Cost Benefit Analysis (CBA) and Hazard Mitigation Grant Program (HMGP) scoring form in order to be added to the project priority list (see Project List Appendix). To accomplish this responsibility, the Resiliency Working Group will do the following:

- Establish a schedule for the participants to submit proposed mitigation initiatives to be considered for incorporation into the next edition of the Seminole County Local Mitigation and Resiliency Strategy.
- Ensure the use of risk assessment methodology by all participating agencies and organizations in Seminole County for the identification, characterization and prioritization of proposed mitigation initiatives.
- Distribute the guidance, training or information incorporated into the LMRS as needed to facilitate complete and accurate submittals by the participants.

- Review each proposed mitigation initiative received for completeness, adherence to the prescribed methodology, the validity of the characterization information and data used by the participant, and the likelihood that the proposal will actually mitigate the hazard(s) or vulnerability(ies) of concern.
- Prepare a cost/benefit analysis of the proposed mitigation initiatives.
- Compare proposed mitigation initiatives with others already incorporated into the plan or being submitted during the current planning period to ensure an absence of conflict or redundancy in purpose.
- If needed, return the proposed mitigation initiatives to the submitting agency or organization for additional information or analysis to be resubmitted.
- Prepare a recommendation for action by the Resiliency Working Group to incorporate the proposed mitigation initiative into the Seminole County Local Mitigation and Resiliency Strategy and to consent to listing the proposed initiative on the project list.
- On request of the agency or organization attempting to implement an approved mitigation initiative, the Resiliency Working Group will certify to any identified party that the proposed mitigation initiative has been approved for incorporation into the strategy.
- The priority of implementation is based on the score given to the project by the submitting agency, review by the Scoring Subcommittee, and approval by a majority vote of the Resiliency Working Group.

Changes in prioritization of the project rankings could change for several reasons. Environmental conditions, such as a pending drought, would warrant more aggressive or rapid implementation of proposed mitigation initiatives associated with this hazard, even if their overall priority score was less than those addressing flood. In this way, adjustments in the implementation of the plan can be made. Conditions that could warrant a change in the implementation schedule of the mitigation initiatives could include but are not limited to:

- Declared Disasters
- Funding Availability
- New or Revised Policy Development
- Plan Revision Cycles
- Legal or Fiscal Restraints
- Life Safety Priorities

In 2023, the Seminole County Resiliency Working Group voted to review and implement a new Scoring Sheet for projects to be added to the Project Priority List. This change was made based on changing priorities from participating jurisdictions. The new scoring method also promotes mitigation through alternative methods, provides more areas to earn points, and prioritizes project with repetitive losses. The full Scoring Sheet can be found in the Project List Appendix (Appendix B).

Mitigation Project Priority List

The detailed project priority list can be found in LMRS Project Priority List Appendix of this plan. This Appendix (Excel Spreadsheet) also includes the completed and deleted project lists.

Responsibility for Mitigation Actions

Once incorporated into the Seminole County Local Mitigation and Resiliency Strategy, the agency or organization proposing the initiative becomes responsible for its implementation. This may mean developing a budget for the effort or making application to state and federal agencies for financial support for implementation. This is the approach utilized by the Resiliency Working Group because only the jurisdiction or organization itself has the authority or responsibility to implement its proposed mitigation initiatives.

In special circumstances, a participating municipality may make written request for direct project implementation support for eligible residential mitigation from the Seminole County Office of Emergency Management via the execution of an Interlocal Agreement pertaining to the referenced project(s). The Interlocal Agreement will grant authority from the Agency Having Jurisdiction to Seminole County for the management of mitigation projects identified, in accordance with FEMA Hazard Mitigation Assistance (HMA) requirements. In these circumstances, the requesting municipality must follow the normal project submission procedures referenced in the Implementation section of this plan. The current status of implementation of mitigation initiatives incorporated into the plan is discussed in the next section.

In this plan implementation process, the Resiliency Working Group continues to monitor the implementation status of initiatives, to assign priorities for implementation, and to take other such actions to support and coordinate implementation of initiatives by the involved organizations. In reality, it is the implementation of proposed initiatives, along with other actions by the organizations participating in the planning to maintain, refine and expand the technical analyses used in the planning, that constitutes the process to implement the mitigation plan.

Cost-Benefit Analysis

When a project is submitted for the LMRS for inclusion in the Project List with the intention of seeking funds from various grant programs, a cost/benefit analysis worksheet will be submitted with the proposed project for consideration by the Resiliency Working Group. This worksheet can be found in the Project List Appendix of this plan.

Actions Completed

A mitigation project that has been funded and completed will be added to the Completed Project List. The LMRS Completed Project List is maintained and housed within the Office of Emergency Management. This list can be found in the LMRS Project Priority List Appendix, Completed List Tab. The LMRS project list can change frequently as funding, various local, state and federal requirements, etc. change and/or are updated. For deleted or deferred mitigation projects a list is maintained with each project listed including an explanation as to why the project was deleted or deferred. This list can be found in the LMRS Project Priority List Appendix, Deleted List Tab.

Strategy Maintenance

LMRS Monitoring and Evaluation

The LMRS Plan will be housed in the Seminole County Office of Emergency Management (SCOEM). The Resiliency Working Group meets on a quarterly basis at a minimum, as well as after times of disaster events, and any other time deemed appropriate by the Working Group Chairperson, to update and revise the LMRS. The criteria used to evaluate the LMRS document and activities should include, but not be limited to the following:

- Federal and/or State Requirements
- Changes in development trends and land use that could affect infrastructure
- Storms or other disaster events that have altered Seminole County's hazard areas
- Completion of existing mitigation projects and introduction of new goals
- Changes in policy, procedure or code
- Changes in building codes and practices
- Review of legislative actions that could affect funding of mitigation efforts
- Changes in Flood Insurance Rate Maps, National Flood Insurance Program, etc.

Prior to the annual fourth-quarter Resiliency Working Group meeting, a mitigation staff member within SCOEM will send out a tracking sheet to a representative from each participating agency. The agency representative will then determine their status on each LMRS objective and report back. The responses will then be compiled and presented at the fourth-quarter Resiliency Working Group meeting.

The plan is periodically reviewed and adopted by the participating jurisdictions' governing bodies to ensure that the mitigation actions taken by their organizations are consistent with each community's larger vision and goals, as well as their overall unique needs and circumstances. The adoption process includes instructing the jurisdictions' agencies and organizations to continue to refine, expand and implement the plan.

LMRS Updates

Every five years, the LMRS plan applies for formal review to FEMA. A FEMA approved local mitigation plan allows participating communities to be eligible for various Federal and state grant programs.

Data collected during the implementation of the plan's objectives will be used to make updates every year, as needed. Damage assessment reports will be collected from disasters to determine what types of mitigation efforts may be necessary. Lessons learned from previous disasters and Improvement Items found from After Action Reports (AAR) may also contribute to the LMRS update.

Citizen input will be requested at various times throughout the year. These activities include the annual Severe Weather Awareness Week, Prepare Seminole! campaign, and various community outreach activities. The Local Mitigation and Resiliency Strategy Basic Plan is posted to the Seminole County Office of Emergency Management mitigation webpage. Any citizen input will be brought up at quarterly Resiliency Working Group meetings to be held at the Seminole County Emergency Operations Center. Each year, a list of meetings times and dates will be posted to the website.

All notes and mitigation efforts will be put together to develop a draft LMRS for update. The Seminole County Resiliency Working Group will establish a more aggressive meeting schedule in preparation for the updated/revised LMRS to be resubmitted for approval for each 5-year FEMA formal review. Mitigation staff within the SCOEM will be the lead for the 5-year update process. Once the document is ready for review, Resiliency Working Group members will conduct a public meeting to solicit additional input on the plan. The LMRS, any supporting documentation, and the criteria checklist will first be submitted to the Florida Division of Emergency Management for review, and then forwarded to FEMA for review and approval. It is anticipated that the review process could take several months.

Following adoption or approval of the plan by all parties involved, the respective agencies and organizations will continue to implement the plan, to expand its scope, continue its analyses, and take other such continuing action to maintain the planning process. This includes action by the Resiliency Working Group to routinely incorporate proposed mitigation initiatives into the plan, without the necessity to also continuously solicit the formal approval of the plan by the jurisdictions' governing bodies prior to expiration of the current plan. This process is administered by the Office of Emergency Management.

Implementation through Existing Plans and Programs

One of the methods to most effectively implement the LMRS is to propose and implement initiatives that will further the goals and objectives in the LMRS. Implemented initiatives will serve to mitigate existing issues. Other current plans, when reviewed and updated will be compared to the initiatives and objectives of the LMRS to ensure that all planning activities work toward the common goal. Some identified planning mechanisms utilized in this review process include, but have not been limited to, jurisdictional floodplain ordinances, comprehensive plans, land development codes, and the Seminole County Comprehensive Emergency Management Plan.

Seminole County's Office of Emergency Management has oversight of the process for incorporating the LMRS into other local government planning mechanisms. Some plans, such as the Comprehensive Emergency Management Plan (CEMP) and Continuity of Operations Plan (COOP), have prescribed processes that provide the opportunity for integration of LMRS goals and objectives at scheduled intervals. During these planning cycles, Emergency Management reviews the LMRS for consistency and identifies opportunities to link the LMRS to the revised plans. As an example, information collected for the LMRS risk assessment will be used to update the CEMP. The Seminole County CEMP is a multi-jurisdictional plan which includes participation from Seminole County and all seven municipalities.

Participating jurisdictions may maintain their own local Comprehensive Emergency Management Plan or equivalent document. The goals, objectives, and approach of the LMRS should be considered when those local plans are developed and revised.

As part of the planning integration process, participating agencies and County Emergency Management staff continuously seek plan-development opportunities that are not part of existing planning cycles but are relevant to the goals and objectives of the LMRS. The process for linking the LMRS to planning projects includes identifying mitigation-related elements in the plans under

development and ensuring policies and initiatives in the LMRS are considered and addressed. Strategic planning is an example of this, as the process includes looking at both short and long-term needs and addressing gaps and initiatives through policy and budget. During the 2020-2025 period, several objectives and mitigation actions have been implemented into planning mechanisms. The multi-jurisdictional Floodplain Management Plan, which includes participation from Seminole County and all seven municipalities, was updated to include plans for additional repetitive loss properties and to reduce future flood risk countywide. The Seminole County Continuity of Operations and Continuity of Government plans were updated to decrease the vulnerability of all county departments through backup systems, buildings, and chain of command. The City of Altamonte Springs has an emergency ordinance similar to Seminole County's.

Public education and outreach is a large portion of the Local Mitigation and Resiliency Strategy. The LMRS is incorporated in the Prepare Seminole! Campaign which is a community action program to help all citizens, businesses, and other organizations prepare and mitigate damages. This campaign was launched in 2005 after three (3) hurricanes affected the Central Florida area in 2004. The public outreach initiative uses LMRS goals and objectives to encourage mitigation efforts.

The LMRS goals are used to help strengthen vulnerable critical facilities by using other grants, funding opportunities, and policy. The State Homeland Security Grant has been used to strengthen interoperable communication systems that are used during disasters. In addition, these grants have strengthened capabilities of the Emergency Operations Center to provide redundant communications with other EOCs in the region and the State of Florida EOC in Tallahassee, Florida.

The Development Services Department as well as jurisdictional building, planning, and development departments use strict building codes to prevent loss from fires, natural disasters, as well as man-made events. In the City of Altamonte Springs, fire sprinkler codes were adopted to prevent the loss of homes and buildings from fires. Strict planning and building codes are used to minimize the vulnerability of newly constructed buildings throughout Seminole County.

Particular highlights of the Resiliency Working Group's efforts to implement the mitigation plan through other plans and programs include updates to the Comprehensive Emergency Management Plan (using the hazards/risk assessment), comprehensive future land use plans of Seminole County and each of the participating municipalities. One of the Objectives of the Seminole County Local Mitigation and Resiliency Strategy is to add the LMRS Goals and Objectives to each jurisdiction's comprehensive plan. These examples demonstrate that each participating jurisdiction is committed to incorporating mitigation principles and concepts into their normal operations and activities via their existing planning and programming processes.

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I: University of Florida Department of Geological Sciences – Earthquakes in the Gulf of Mexico

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K: Congressional Budget Office, Office of Management and Budget, and Committee for a Responsible Federal Budget

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L: Flood Zones – Seminole County GIS. (2024).

M: Southeast River Forecast Center. (2024). National Weather Service

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N: Florida Department of Health. (2024).

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Appendix A: Jurisdictional Profiles

City of Altamonte Springs

Introduction

This annex discusses the current status of development and implementation of the Seminole County Local Mitigation and Resiliency Strategy (LMRS) in the City of Altamonte Springs (City) and the next steps that may be undertaken to continue the process of making the community less vulnerable to the potential effects of natural, technological and societal disasters or events. The City is an active participant in the Seminole County Resiliency Working Group, a countywide, multi-jurisdictional collective that meets regularly to identify and reduce the vulnerabilities within Seminole County to future hazards of all types, which serves to continuously shape and update the LMRS. The LMRS is a living document and is active at all times, as is the City's Individual Jurisdiction Mitigation Plan. The goal of the City of Altamonte Springs Individual Jurisdiction Mitigation Plan is to align with, rather than conflict with, the Seminole County LMRS. Instead, it aims to serve as a complementary document that reaffirms the City's commitment to addressing the specific hazards identified in the LMRS that are relevant to Altamonte Springs.

Status of Plan Promulgation and Approval

Approval and promulgation of the LMRS and its annexes is crucial for its effective implementation and reflects each jurisdiction's commitment to disaster resilience. This Individual Jurisdiction Mitigation Plan annex provides details on the City's participation and ability to incorporate and supplement the capabilities described in the LMRS. The Resiliency Working Group expects each governing body to review and act on their plan promptly, ensuring the necessary resources for priority initiatives. Adoption of the plan also positions the City of Altamonte Springs to qualify for state and federal funding and demonstrates active participation in Seminole County's coordinated resilience efforts.

Once reviewed and revised by the Florida Division of Emergency Management for compliance with federal hazard mitigation planning standards, the City Commission may formally adopt the LMRS via resolution. This resolution may then be submitted to the State of Florida to obtain formal approval from the Federal Emergency Management Agency (FEMA).

Hazard Events and Hazard Identification

Identifying hazards is the first step in any effort to reduce community risk. Altamonte Springs proactively participates in technical analyses identifying potential hazards threatening the jurisdiction, defining vulnerabilities to those hazards and formulating mitigation initiatives to eliminate or reduce those vulnerabilities. The mitigation initiatives are included in the countywide mitigation plan and are scheduled for implementation when the resources to do so become available.

The LMRS Planning Team and representatives of individual jurisdictions, including Altamonte Springs, have identified the natural, technological and human-caused hazards that could threaten Seminole County. The City Comprehensive Emergency Management Plan (CEMP) recognizes and adopts the Resiliency Working

Group hazard identification process, incorporating the twenty-four (24) hazards and associated risk levels identified in the 2025-2030 LMRS planning process. All parts of the City of Altamonte Springs are vulnerable to these hazards. Ongoing initiatives, including hardening of critical infrastructure, public information and floodplain mitigation, address all of these hazards to the extent necessary and practicable both at the jurisdictional level and countywide.

Currently, there are four (4) commercial and fifteen (15) residential repetitive flood loss properties within the City of Altamonte Springs, and no severe repetitive loss properties, as defined pursuant to the National Flood Insurance Program. A number of mitigation approaches within the LMRS, and within the City of Altamonte Springs specific mitigation efforts, are targeted to reduce the potential flooding impact to these properties and the community as a whole.

Mitigation Policies and Plans

The City of Altamonte Springs has adopted a Land Development Code and Code of Ordinances which contain a number of mitigation and resiliency initiatives related to flooding, special events, fire protection, and ground water and wellhead protection. In addition, the City of Altamonte Springs enforces the Florida Building Code and the Florida Fire Prevention Code which also address the resiliency and safety of buildings, occupants and first responders.

In addition, important elements of the City's Comprehensive Plan and Land Development Code addressing comprehensive water management for the Little Wekiva Basin were developed together with Orange County, Seminole County, impacted municipalities (including Altamonte Springs) and the St. Johns River Water Management District. These elements address flood mitigation, erosion control, wetlands development restrictions for which the City has adopted land development regulations and using interagency hazard mitigation reports as a basis for prohibiting redevelopment which is inconsistent with report recommendations.

As part of the flood protection initiatives, the City of Altamonte Springs mandates that new residential construction, new non-residential construction and substantial improvement/damage to existing structures should have their lowest floor, including basement, elevated to at least one foot above the base flood elevation (BFE).

Per City of Altamonte Spring's latest Flood Ordinance, for applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the City of Altamonte Springs floodplain administrator, in coordination with the building official, shall:
(a) Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work; in the case of repair, the market value of the building or structure shall be the market value

before the damage occurred and before any repairs are made;
(b) Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure (excluding the land and other improvements on the parcel);
(c) Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; and
(d) Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood-resistant construction requirements of the Florida Building Code and this article is required.

The City is a participant in the National Flood Insurance Program (NFIP) and the Community Rating System (CRS), with a current rating of seven (7), and the City of Altamonte Springs Public Works is designated to implement and address commitments and requirements to the NFIP. Determination of a particular property's coverage need is based on the most recent Flood Insurance Rate Map (FIRM). This serves to set specific flood elevations for certain areas within the City, providing a higher level of accuracy when determining applicability to a specific property area. The City of Altamonte Springs is the agency with authority to implement and enforce local floodplain

management regulations to permit development of Special Flood Hazard Areas (SFHAs). The FIRM is to be used as a reference only - individual lot determinations should be made only with the assistance of a registered land surveyor.

The City holds a Building Code Effectiveness Grading Schedule (BCEGS) class rating of two (2), demonstrating a dedication to enforcing rigorous building codes that significantly improve community safety and resilience.

Seminole County, through its Fire Department, has earned the maximum Insurances Services Office Public Protection Class (PPC) rating of one (1), highlighting exemplary fire protection with regards to emergency communications systems, fire department effectiveness, water supply and community risk reduction. As part of this comprehensive fire protection approach, the City has a fire sprinkler ordinance in place that requires most new construction to be protected with fire sprinklers. Not only does this initiative provide resiliency for the built environment and protect the occupants, but this initiative also protects the first responders.

Participation and successful rating of PPC, BCEGS and CRS classification systems are an indication of strong building codes and enforcement practices. Insurance companies use these ratings to assess risk, which can lead to lower insurance premiums for property owners within Altamonte Springs.

Status of Previous Initiatives and Future Mitigation Actions

As an active participant of the Resiliency Working Group, the City of Altamonte Springs follows the procedures and mitigation actions outlined in the LMRS for gauging the success of previous initiatives and prioritizing future mitigation actions.

Public Information and Participation

The City provides several resources for public information. The City website, http://www.altamonte.org/, provides extensive information about various programs, resources and tools available to the community. Additionally, the LMRS, which includes the City's Individual Jurisdiction Mitigation Plan, is available online, as is zoning, building and fire safety information. Further, the City has a number of written materials available for citizens regarding preparedness and mitigation, available at City Hall and various departmental facilities.

The City continuously considers input and feedback from its citizens and encourages engagement through education, awareness and community meetings.

Summary

The City of Altamonte Springs plays an active role in developing and implementing the LMRS, identifying and mitigating hazards and partners continuously with Seminole County and its municipalities to maintain an

effective countywide strategy for mitigation and resilience. The LMRS and its annexes are integral parts of the City's Comprehensive Emergency Management Plan (CEMP) and its overall approach to resilience. The City's ongoing dedication to safeguarding lives, property and the environment in Altamonte Springs ensures the long-term safety, sustainability and well-being of the community.

City of Casselberry

Introduction

This section discusses the current status of development and implementation of the Seminole County Local Mitigation and Resiliency Strategy the City of Casselberry, and the next steps that may be undertaken to continue the process of making the community less vulnerable to the potential effects of natural, technological and societal disasters or events. There are several aspects of plan implementation that need to be addressed:

- The status of promulgation or formal adoption of the plan by the participating jurisdiction
- Disaster events that may have affected the community and identified a vulnerable facility, system, or neighborhood
- Continuing examination of facilities and neighborhoods' vulnerability to disasters, including terrorism
- Review of existing policies, plans or programs to see if there are opportunities to make changes or enhancements that might further the efforts to mitigate potential disasters
- Previously proposed mitigation initiatives that have been implemented, completed, or terminated, and their effect on the community
- Future mitigation actions, priorities for implementation of approved mitigation initiatives now incorporated into the plan, and active pursuit of funding opportunities
- Activities of the jurisdiction to engage the private sector and the community at large in the mitigation planning process

Status of Plan Promulgation and Approval

Promulgation and approval of the plan is a very important step in assuring its implementation. This is an "Individual Jurisdictional Mitigation Plan" which contains all of the jurisdiction-specific information developed to date. Included here are numerous data sources developed or coordinated through the efforts of personnel representing the individual jurisdiction participating in the planning process.

It is the expectation of the Resiliency Working Group that the governing body of each participating jurisdiction will review, consider and act on their Individual Jurisdiction Mitigation Plan in a timely fashion. If the governing body acts in a positive manner, this is basically an approval or endorsement of the proposed mitigation initiatives contained in the corresponding section of the plan. This approval or endorsement, with or without modification by the governing body, represents both consent and commitment by the representatives of that organization or jurisdiction to seek the resources needed to implement the priority initiatives contained therein. Only through actual implementation of the proposed mitigation initiatives contained in this plan can Seminole County be made a more disaster-resistant community. Plan adoption is also important evidence that the City of Casselberry is an active participant in the coordinated Local Mitigation and Resiliency Strategy effort of Seminole County, and therefore eligible for some types of state or federal funding not available to non-participants

This action by the City of Casselberry Council documents approval and endorsement of three fundamental aspects of the Seminole County Local Mitigation Plan. First, the City Council has approved its own, jurisdiction-specific component of the Seminole County plan, and instructed the participating city agencies and organizations to implement the plan. Second, it documents the city's endorsement of the aspects of the countywide planning process that pertain to all participants, such as approving the mitigation goals and objectives established by the Seminole County Resiliency Working Group for the countywide plan. Third, it stipulates that, because of the multi-jurisdictional character of the Seminole County mitigation planning process, that the City of Casselberry has reviewed the mitigation initiatives proposed by other jurisdictions for implementation and has found no reason to object to their implementation or to otherwise be concerned regarding mitigation actions planned by the other participating jurisdictions.

Hazard Events and Hazard Identification

Recent disaster events can be very helpful in highlighting the mitigation needs of the community based on the type, location or magnitude of the impacts experienced. In turn, this can be a major factor in the future progress of implementation of the plan, as the Resiliency Working Group considers and acts on actual disaster experience by the community. Such recommendations can be referred to a "lead" agency with the intention that that organization will use the information to propose additional mitigation initiatives for incorporation into the plan.

Although the City of Casselberry is susceptible to some degree to all 24 hazards addressed in this plan, for the purpose of developing cost-effective and acceptable mitigation initiatives it considers these seven (7) hazards as its most vulnerable:

Cyber Security
Disease/Pandemic Outbreak
Drought/Water Shortage
Floods
Mass Gatherings/ Planned Events
Tornadoes
Tropical Cyclones

Proposed initiatives, including a disaster preparedness public education project and a project to assess existing County and municipal codes for recommended mitigation improvements, address all of these hazards to some degree with the implementation of one or more initiatives.

Currently, there are no repetitive flood loss properties within the jurisdiction, as defined pursuant to the National Flood Insurance Program (NFIP).

Mitigation Policies and Plans

The City of Casselberry has adopted a Land Use/Zoning Code, Fire or Life Safety Code, and the Florida Building Code.

Additional policies were identified addressing areas of weather emergency, open burning, utility emergencies, special flood hazard areas, fire emergencies, property as emergency shelter, police emergencies, suspension of local building regulations during a declared state of emergency, sinkhole emergencies and hazardous materials emergencies.

All new manufactured homes and replacement manufactured homes installed in flood hazard areas shall be installed on permanent, reinforced foundations that are designed in accordance with the foundation requirements of the *Florida Building Code Residential* Section R322.2. All manufactured homes that are placed, replaced, or substantially improved in flood hazard areas shall be elevated such that the bottom of the frame is at or above the elevation required in the *Florida Building Code, Residential* Section R322.2. The city continues to review existing policies and ordinances for any needed improvements for the future. State or Federal policy changes are shared through the Seminole County Resiliency Working Group with all cities, with each jurisdiction having the opportunity to review for local compliance.

Per City of Casselberry's latest Flood Ordinance, for applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the Floodplain Administrator, in coordination with the Building Official, shall:
(1) Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work; in the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made;
(2) Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure;
(3) Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; and
(4) Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood-resistant construction and finish floor elevation requirements of the Florida Building Code.

The City of Casselberry is the agency with authority to implement and enforce local floodplain management regulations to regulate and permit development of Special Flood Hazard Areas (SFHAs). The City of Casselberry Public Works and Utilities Department is designated to implement the addressed commitments and requirements to the NFIP.
Efforts will be continued and expanded to identify any policies or plans that relate to the other high-ranking hazards and document them.

The city is a participant in the NFIP with over 320 flood insurance policies in force totaling over $76 million dollars. Casselberry has begun the process to become a member of the Community Rating System in order to make flood insurance more affordable through a reduction in premium costs.

Status of Previous Initiatives

The implementation of the mitigation initiatives proposed as a result of the Resiliency Working Group's planning process is an important measure of the progress in implementation of the Seminole County Local Mitigation and Resiliency Strategy. The true measure of progress in the implementation of mitigation initiatives is their effectiveness in saving lives, avoiding property damage and protecting valuable or irreplaceable resources in the community. As mitigation initiatives are incorporated into the Seminole County's Local Mitigation and Resiliency Strategy, there will be more opportunities to measure the "success" of the Resiliency Working Group's mitigation efforts, and the facilities, systems and neighborhoods of Seminole County can become more and more resistant to the impacts of future disasters.

Future Mitigation Actions

As a part of its future planning process, the Resiliency Working Group also will periodically review the proposed mitigation initiatives approved for incorporation into the plan to determine their priority for implementation during the next planning period. This assessment will provide guidance to the individual jurisdictions and organizations proposing the initiatives to encourage them to focus on those designated as priority. However, because each participating jurisdiction or organization has independent authority and responsibility for implementation of their proposed mitigation initiatives under the mitigation planning approach used by the Resiliency Working Group, the jurisdictions and organizations retain the prerogative to act in their own interests, using their own priorities for mitigation initiative implementation.

In many ways, the priority for implementation assigned to proposed mitigation initiatives could be considered a suggestion or recommendation to the proposal sponsors to seek the resources for implementation. These resources may range from the normal budgeting process for the jurisdiction or organization, to seeking state or federal financial or technical support for implementation of the initiative. (The designation "priority for implementation" means that the Resiliency Working Group recommends that sponsors of those initiatives so classified focus on their implementation as soon as feasible.)

Public Information and Participation

The city provides a mechanism for public Information on its extensive website, **http://www.casselberry.org** . The Community Development Department is responsible for Planning & Zoning, Development Review Coordination, Code Compliance, and Economic Development, all of which have implications for mitigation.

The Comprehensive Plan is available upon request by contacting the City's Planning Department, as are zoning, building and fire safety information, the latter of which is an identified hazard. In addition, the city has a number of written materials available for citizens regarding preparedness/mitigation, available at city hall. The Public Works Department has flood information available, and the Police Department offers a number of programs to combat crime including a House Check program.

As with other planning efforts, the city will take the opportunity to explain the mitigation planning process to the community and to solicit their input and involvement in the planning process, as well as to provide mitigation awareness and educational information. This may be done through the mechanism of a public meeting or hearing, or through media releases, as well as inclusion of information about other types of hazards on the city website.

Casselberry will continue to provide information to the public and provide outreach activities to the community in conjunction with area businesses and other private or non- profit entities, particularly during the hurricane season.

Summary

The City of Casselberry has been an active participant in the planning process, conducting additional assessments, implementing initiatives, and proposing further actions to mitigate known hazards to facilities and neighborhoods. The Resiliency Working Group recognizes that it will take a long period of time and implementation of many if not all of the proposed initiatives approved for this plan, to make Seminole County a truly disaster-resistant community. However, the continuing dedication to the safety and welfare of the community shown by the participants from the City of Casselberry in this planning process will make this ambitious goal possible.

City of Lake Mary

Introduction

This section discusses the status of development and implementation of the Seminole County Local Mitigation and Resiliency Strategy in the City of Lake Mary, and the next steps that may be undertaken to continue the process of making the community less vulnerable to the potential effects of natural, technological and societal disasters or events. There are several aspects of plan implementation that need to be addressed:

- The status of promulgation or formal adoption of the plan by the participating jurisdiction
- Disaster events that may have affected the community and identified a vulnerable facility, system, or neighborhood
- Continuing examination of facilities and neighborhoods' vulnerability to disasters, including terrorism
- Review of existing policies, plans or programs to see if there are opportunities to make changes or enhancements that might further the efforts to mitigate potential disasters
- Previously proposed mitigation initiatives that have been implemented, completed, or terminated, and their effect on the community
- Future mitigation actions, priorities for implementation of approved mitigation initiatives now incorporated into the plan, and active pursuit of funding opportunities
- Activities of the jurisdiction to engage the private sector and the community at large in the mitigation planning process

Status of Plan Promulgation and Approval

Promulgation and approval of the plan is a very important step in assuring its implementation. This is an "Individual Jurisdictional Mitigation Plan" which contains all of the jurisdiction-specific information developed to date. Included here are numerous data sources developed or coordinated through the efforts of personnel representing the individual jurisdiction participating in the planning process.

It is the expectation of the Resiliency Working Group that the governing body of each participating jurisdiction will review, consider and act on their Individual Jurisdiction Mitigation Plan in a timely fashion. If the governing body acts in a positive manner, this acts as an approval or endorsement of the proposed mitigation initiatives contained in the corresponding section of the plan. This approval or endorsement, with or without modification by the governing body, represents both consent and commitment by the representatives of that organization or jurisdiction to seek the resources needed to implement the priority initiatives contained therein. Only through actual implementation of the proposed mitigation initiatives contained in this plan can Seminole County be made a more disaster-resistant community. Plan adoption is also important evidence that the City of Lake Mary is an active participant in the coordinated Local Mitigation and Resiliency Strategy effort of Seminole County, and therefore eligible for some types of state or federal funding not available to non-participants.

This action by the City of Lake Mary Council documents approval and endorsement of three fundamental aspects of the Seminole County Local Mitigation and Resiliency Strategy. First, the City Council has approved its own, jurisdiction-specific component of the Seminole County plan, and instructed the participating city agencies and organizations to implement the plan. Second, it documents the city's endorsement of the aspects of the countywide planning process that pertain to all participants, such as approving the mitigation goals and objectives established by the Seminole County Resiliency Working Group for the countywide plan. Third, it stipulates that, because of the multi-jurisdictional character of the Seminole County mitigation planning process, that the City of Lake Mary has reviewed the mitigation initiatives proposed by other jurisdictions for implementation and has found no reason to object to their implementation or to otherwise be concerned regarding mitigation actions planned by the other participating jurisdictions.

Hazard Events and Hazard Identification

Recent disaster events can be very helpful in highlighting the mitigation needs of the community based on the type, location or magnitude of the impacts experienced. In turn, this can be a major factor in the future progress of implementation of the plan, as the Resiliency Working Group considers and acts on actual disaster experience by the community. Such recommendations can be referred to a "lead" agency with the intention that that organization will use the information to propose additional mitigation initiatives for incorporation into the plan.

Although the City of Lake Mary is susceptible to some degree to all 24 hazards addressed in this plan; for the purpose of developing cost-effective and acceptable mitigation initiatives it considers these six (6) hazards as its most vulnerable:

Cyber Security
Disease/Pandemic Outbreak
Drought/Water Shortage
Floods
Tornadoes
Tropical Cyclones

Newly proposed initiatives, including a disaster preparedness public education project and a project to assess existing County and municipal codes for recommended mitigation improvements, address all of these hazards to some degree with the implementation of one or more initiatives. A Lift Station generator project has been initiated to reduce the losses caused by power loss from tornadoes and tropical cyclones has been added to the list of initiatives for the City of Lake Mary.

Currently, there are no repetitive flood loss properties within the jurisdiction, as defined pursuant to the National Flood Insurance Program.

Mitigation Policies and Plans

The City of Lake Mary has adopted a Land Use/Zoning Code, Fire or Life Safety Code, and the Florida Building Code.

An additional nine policies were identified addressing areas of urban and wildfire risk, fire sprinkler protection requirements for avoidance of all areas, building code addressing high winds and structural loads and flood resistant construction.

Efforts will be continued and expanded to identify any policies or plans that relate to the other high-ranking

hazards and document them.

Lake Mary mandates that new residential and non- residential construction or substantial improvements to existing ones should have their lowest finished floor including basement elevated to at a foot and a half above the base flood elevation (BFE).

Per City of Lake Mary's latest Flood Ordinance, for applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the Floodplain Administrator, in coordination with the Building Official, shall:

(1) Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work. In the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made;

(2) Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure;

(3) Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage. The determination requires evaluation of previous permits issued for improvements and repairs as specified in the definition of "substantial improvement"; and

(4) Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant provisions of the Florida Building Code and this chapter is required.

The City of Lake Mary is the agency with authority to implement and enforce local floodplain management regulations to regulate and permit development of Special Flood Hazard Areas (SFHAs). The City of Lake Mary Public Works Department is designated to implement the addressed commitments and requirements to the NFIP.

The city is a participant in the NFIP Program with nearly 250 flood insurance policies in force totaling over $74 million dollars. Lake Mary will continue to evaluate the need to lower insurance premiums for its residents by investigating mitigation measures and programs and their benefits to the community.

The city is a participant in the NFIP Program and the Community Rating System, with a current rating of 5. Determination of a particular property's coverage need is based on the most recent Flood Insurance Rate Map (FIRM). This served to set specific flood elevations for certain areas within the city. This provides a higher level of accuracy when determining applicability to a specific property area. The FIRM is to be used as a reference only - individual lot determinations should be made only with the assistance of a registered land surveyor.

Status of Previous Initiatives

The implementation of the mitigation initiatives proposed as a result of the Resiliency Working Group's planning process is an important measure of the progress in implementation of the Seminole County Local Mitigation and Resiliency Strategy. The true measure of progress in the implementation of mitigation initiatives is their effectiveness in saving lives, avoiding property damage and protecting valuable or irreplaceable resources in the community. As the mitigation initiatives that have been incorporated into the Seminole County's Local Mitigation and Resiliency Strategy, there will be more opportunities to measure the "success" of the Resiliency Working Group's mitigation efforts, and the facilities, systems and neighborhoods

of Seminole County can become more and more resistant to the impacts of future disasters.

Future Mitigation Actions

As a part of its future planning process, the Resiliency Working Group also will periodically review the proposed mitigation initiatives approved for incorporation into the plan to determine their priority for implementation during the next planning period. This assessment will provide guidance to the individual jurisdictions and organizations proposing the initiatives to encourage them to focus on those designated as priority. However, because each participating jurisdiction or organization has independent authority and responsibility for implementation of their proposed mitigation initiatives under the mitigation planning approach used by the Resiliency Working Group, the jurisdictions and organizations retain the prerogative to act in their own interests, using their own priorities for mitigation initiative implementation.

In many ways, the priority for implementation assigned to proposed mitigation initiatives could be considered a suggestion or recommendation to the proposal sponsors to seek the resources for implementation. These resources may range from the normal budgeting process for the jurisdiction or organization, to seeking state or federal financial or technical support for implementation of the initiative. (The designation "priority for implementation" means that the Resiliency Working Group recommends that sponsors of those initiatives so classified focus on their implementation as soon as feasible.)

Public Information and Participation

The city provides a mechanism for public Information on its extensive website, **http://www.lakemaryfl.com**. The Community Development Department is responsible for Planning & Zoning, Development Review Coordination, Code Compliance, Geographic Information Systems, and all of which have implications for mitigation. In addition, the city has a number of written materials available for citizens regarding preparedness/mitigation, available at city hall. Community Development Department has flood information available, and the Police Department offers a number of programs to combat crime, which is an identified hazard, including a Neighborhood Watch effort.

As with other planning efforts, the city will take the opportunity to explain the mitigation planning process to the community and to solicit their input and involvement in the planning process, as well as to provide mitigation awareness and educational information. This may be done through the mechanism of a public meeting or hearing, or through media releases, as well as inclusion of information about other types of hazards on the city website.

Lake Mary will continue to provide information to the public and provide outreach activities to the community in conjunction with area businesses and other private or non-profit entities, particularly during the hurricane season.

Summary

The City of Lake Mary has been an active participant in the planning process, conducting additional assessments, implementing many initiatives, and proposing further actions to mitigate known hazards to facilities and neighborhoods. The Resiliency Working Group recognizes that it will take a long period of time and implementation of many if not all of the proposed initiatives approved for this plan, to make Seminole County a truly disaster-resistant community. However, the continuing dedication to the safety and welfare of the community shown by the participants from the City of Lake Mary in this planning process will make this ambitious goal possible.

City of Longwood

Introduction

This section discusses the current status of development and implementation of the Seminole County Local Mitigation and Resiliency Strategy in the City of Longwood, and the next steps that may be undertaken to continue the process of making the community less vulnerable to the potential effects of natural, technological and societal disasters or events. There are several aspects of plan implementation that need to be addressed:

- The status of promulgation or formal adoption of the plan by the participating jurisdiction
- Disaster events that may have affected the community and identified a vulnerable facility, system, or neighborhood
- Continuing examination of facilities and neighborhoods' vulnerability to disasters, including terrorism
- Review of existing policies, plans or programs to see if there are opportunities to make changes or enhancements that might further the efforts to mitigate potential disasters
- Previously proposed mitigation initiatives that have been implemented, completed, or terminated, and their effect on the community
- Future mitigation actions, priorities for implementation of approved mitigation initiatives now incorporated into the plan, and active pursuit of funding opportunities
- Activities of the jurisdiction to engage the private sector and the community at large in the mitigation planning process

Status of Plan Promulgation and Approval

Promulgation and approval of the plan is a very important step in assuring its implementation. This is an "Individual Jurisdictional Mitigation Plan" which contains all of the jurisdiction-specific information developed to date. Included here are numerous data sources developed or coordinated through the efforts of personnel representing the individual jurisdiction participating in the planning process.

It is the expectation of the Resiliency Working Group that the governing body of each participating jurisdiction will review, consider and act on their Individual Jurisdiction Mitigation Plan in a timely fashion. If the governing body acts in a positive manner, this is basically an approval or endorsement of the proposed mitigation initiatives contained in the corresponding section of the plan. This approval or endorsement, with or without modification by the governing body, represents both consent and commitment by the representatives of that organization or jurisdiction to seek the resources needed to implement the priority initiatives contained therein. Only through actual implementation of the proposed mitigation initiatives contained in this plan can Seminole County be made a more disaster-resistant community. Plan adoption is also important evidence that the City of Longwood is an active participant in the coordinated Local Mitigation and Resiliency Strategy effort of Seminole County, and therefore eligible for some types of state or federal funding not available to non-participants.

This action by the City of Longwood Council documents approval and endorsement of three fundamental aspects of the Seminole County Local Mitigation Plan. First, the City Council has approved its own, jurisdiction-specific component of the Seminole County plan, and instructed the participating city agencies and organizations to implement the plan. Second, it documents the city's endorsement of the aspects of the countywide planning process that pertain to all participants, such as approving the mitigation goals and objectives established by the Seminole County Resiliency Working Group for the countywide plan. Third, it stipulates that, because of the multi-jurisdictional character of the Seminole County mitigation planning process, that the City of Longwood has reviewed the mitigation initiatives proposed by other jurisdictions for implementation and has found no reason to object to their implementation or to otherwise be concerned regarding mitigation actions planned by the other participating jurisdictions.

Hazard Events and Hazard Identification

Recent disaster events can be very helpful in highlighting the mitigation needs of the community based on the type, location or magnitude of the impacts experienced. In turn, this can be a major factor in the future progress of implementation of the plan, as the Resiliency Working Group considers and acts on actual disaster experience by the community. Such recommendations can be referred to a "lead" agency with the intention that that organization will use the information to propose additional mitigation initiatives for incorporation into the plan.

Although the City of Longwood is susceptible to some degree to all 24 hazards addressed in this plan, for the purpose of developing cost-effective and acceptable mitigation initiatives it considers these six (6) hazards as its most vulnerable:

Cyber Security
Disease/Pandemic Outbreak
Drought/Water Shortage
Floods
Tornadoes
Tropical Cyclones

Proposed initiatives, including a disaster preparedness public education project and a project to assess existing County and municipal codes for recommended mitigation improvements, address all of these hazards to some degree with the implementation of one or more initiatives.

Currently, there are no repetitive flood loss properties within the jurisdiction, as defined pursuant to the National Flood Insurance Program.

Mitigation Policies and Plans

The City of Longwood has adopted a Land Use/Zoning Code, Fire or Life Safety Code, and the Florida Building Code.

An additional fourteen policies were identified addressing areas of standards for special flood zones based on the flood insurance rate maps, hazardous materials storage, tree protection, design standards for streets, storm water systems and subdivisions, signage code, and land development code exemptions for emergency activity. Efforts will be continued and expanded to identify any policies or plans that relate to the other high-ranking hazards and document them.

Per the City of Longwood's latest Floodplain Ordinance, for applications for building permits to improve

buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the floodplain administrator, in coordination with the building official, shall:
(1) Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work; in the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made;
(2) Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure;
(3) Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; for proposed work to repair damage caused by flooding, the determination requires evaluation of previous permits issued to repair flood-related damage as specified in the definition of "substantial damage"; the determination requires evaluation of previous permits issued for improvements and repairs as specified in the definition of "substantial improvement"; and
(4) Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant construction requirements of the Florida Building Code and this ordinance is required.

The City of Longwood is the agency with authority to implement and enforce local floodplain management regulations to regulate and permit development of Special Flood Hazard Areas (SFHAs). The City of Longwood Engineering and Public Works Department is designated to implement the addressed commitments and requirements to the NFIP.

The city is a participant in the NFIP Program with over 200 flood insurance policies in force totaling over $56 million dollars. Longwood will continue to evaluate the need to lower insurance premiums for its residents by investigating mitigation measures and programs and their benefits to the community.

Status of Previous Initiatives

The implementation of the mitigation initiatives proposed as a result of the Resiliency Working Group's planning process is an important measure of the progress in implementation of the Seminole County Local Mitigation and Resiliency Strategy. The true measure of progress in the implementation of mitigation initiatives is their effectiveness in saving lives, avoiding property damage and protecting valuable or irreplaceable resources in the community. As the mitigation initiatives that have been incorporated into the Seminole County's Local Mitigation and Resiliency Strategy, there will be more opportunities to measure the "success" of the Resiliency Working Group's mitigation efforts, and the facilities, systems and neighborhoods of Seminole County can become more and more resistant to the impacts of future disasters.

Future Mitigation Actions

As a part of its future planning process, the Resiliency Working Group also will periodically review the proposed mitigation initiatives approved for incorporation into the plan to determine their priority for implementation during the next planning period. This assessment will provide guidance to the individual jurisdictions and organizations proposing the initiatives to encourage them to focus on those designated as priority. However, because each participating jurisdiction or organization has independent authority and responsibility for implementation of their proposed mitigation initiatives under the mitigation planning approach used by the Resiliency Working Group, the jurisdictions and organizations retain the prerogative to act in their own interests, using their own priorities for mitigation initiative implementation.

In many ways, the priority for implementation assigned to proposed mitigation initiatives could be considered a suggestion or recommendation to the proposal sponsors to seek the resources for implementation. These resources may range from the normal budgeting process for the jurisdiction or organization, to seeking state or federal financial or technical support for implementation of the initiative. (The designation "priority for implementation" means that the Resiliency Working Group recommends that sponsors of those initiatives so classified focus on their implementation as soon as feasible.)

Public Information and Participation

The city provides a mechanism for public Information on its extensive website, **http://www.longwoodfl.org.** The Community Development Department is responsible for Planning & Zoning, Development Review Coordination, Code Compliance, Geographic Information Systems, and Economic Development, all of which have implications for mitigation. The Longwood Development Code and Longwood City Code are available online, as are zoning, building and fire safety information, the latter of which is an identified hazard. In addition, the city has a number of written materials available for citizens regarding preparedness/mitigation, available at city hall. The Building Division has flood information available, and the Police Department offers a number of programs to combat crime, which is an identified hazard, including a Neighborhood Watch effort.

As with other planning efforts, the city will take the opportunity to explain the mitigation planning process to the community and to solicit their input and involvement in the planning process, as well as to provide mitigation awareness and educational information. This may be done through the mechanism of a public meeting or hearing, or through media releases, as well as inclusion of information about other types of hazards on the city website.

Longwood will continue to provide information to the public and provide outreach activities to the community in conjunction with area businesses and other private or non-profit entities, particularly during the hurricane season.

Summary

The City of Longwood has been an active participant in the planning process, conducting additional assessments, implementing many initiatives, and proposing further actions to mitigate known hazards to facilities and neighborhoods. The Resiliency Working Group recognizes that it will take a long period of time and implementation of many if not all of the proposed initiatives approved for this plan, to make Seminole County a truly disaster-resistant community. However, the continuing dedication to the safety and welfare of the community shown by the participants from the City of Longwood in this planning process will make this ambitious goal possible.

City of Oviedo

Introduction

This section discusses the current status of development and implementation of the Seminole County Local Mitigation Resiliency Strategy, in the City of Oviedo, and the next steps that may be undertaken to continue the process of making the community less vulnerable to the potential effects of natural, technological and societal disasters or events. There are several aspects of plan implementation that need to be addressed:

- The status of promulgation or formal adoption of the plan by the participating jurisdiction
- Disaster events that may have affected the community and identified a vulnerable facility, system, or neighborhood
- Continuing examination of facilities and neighborhoods' vulnerability to disasters, including terrorism
- Review of existing policies, plans or programs to see if there are opportunities to make changes or enhancements that might further the efforts to mitigate potential disasters
- Previously proposed mitigation initiatives that have been implemented, completed, or terminated, and their effect on the community
- Future mitigation actions, priorities for implementation of approved mitigation initiatives now incorporated into the plan, and active pursuit of funding opportunities
- Activities of the jurisdiction to engage the private sector and the community at large in the mitigation planning process

Status of Plan Promulgation and Approval

Promulgation and approval of the plan is a very important step in assuring its implementation. This is an "Individual Jurisdictional Mitigation Plan" which contains all of the jurisdiction-specific information developed to date. Included here are numerous data sources developed or coordinated through the efforts of personnel representing the individual jurisdiction participating in the planning process.

It is the expectation of the Resiliency Working Group that the governing body of each participating jurisdiction will review, consider, and act on their Individual Jurisdiction Mitigation Plan in a timely fashion. If the governing body acts in a positive manner, this is basically an approval or endorsement of the proposed mitigation initiatives contained in the corresponding section of the plan. This approval or endorsement, with or without modification by the governing body, represents both consent and commitment by the representatives of that organization or jurisdiction to seek the resources needed to implement the priority initiatives contained therein. Only through actual implementation of the proposed mitigation initiatives contained in this plan can Seminole County be made a more disaster-resistant community. Plan adoption is also important evidence that the City of Oviedo is an active participant in the coordinated Local Mitigation and Resiliency Strategy effort of Seminole County, and therefore eligible for some types of state of federal funding not available to non-participants.

This action by the City of Oviedo Council documents approval and endorsement of three fundamental aspects of the Seminole County Local Mitigation and Resiliency Strategy. First, the City Council has approved its own, jurisdiction-specific component of the Seminole County plan, and instructed the participating city agencies and organizations to implement the plan. Second, it documents the city's endorsement of the aspects of the countywide planning process that pertain to all participants, such as approving the mitigation goals and objectives established by the Seminole County Resiliency Working Group for the countywide plan. Third, it stipulates that, because of the multi-jurisdictional character of the Seminole County mitigation planning process, that the City of Oviedo has reviewed the mitigation initiatives proposed by other jurisdictions for implementation and has found no reason to object to their implementation or to otherwise be concerned regarding mitigation actions planned by the other participating jurisdictions.

Hazard Events and Hazard Identification

Recent disaster events can be very helpful in highlighting the mitigation needs of the community based on the type, location or magnitude of the impacts experienced. In turn, this can be a major factor in the future progress of implementation of the plan, as the Resiliency Working Group considers and acts on actual disaster experience by the community. Such recommendations can be referred to a "lead" agency with the intention that that organization will use the information to propose additional mitigation initiatives for incorporation into the plan.

Although the City of Oviedo is susceptible to some degree to all 24hazards24 addressed in this plan, for the purpose of developing cost-effective and acceptable mitigation initiatives it considers these seven (7) hazards as its most vulnerable:

Cyber Security
Disease/Pandemic Outbreak
Drought/Water Shortage
Floods
Tornadoes
Tropical Cyclones
Wildfires

Proposed initiatives, including a disaster preparedness public education project and a project to assess existing County and municipal codes for recommended mitigation improvements, address all these hazards to some degree with the implementation of one or more initiatives.

Currently, there are zero repetitive flood losses within the jurisdiction, as defined by the National Flood Insurance Program.

Mitigation Policies and Plans

The City of Oviedo has adopted a Land Use/Zoning Code, Fire or Life Safety Code, and the Florida Building Code.

An additional five policies were identified addressing areas of urban and wildfire risk, land use code, Florida building code, ordinances prohibiting hazardous materials pollution of water systems, and discharge of firearms. Efforts will be continued and expanded to identify any policies or plans that relate to the other high-ranking hazards and document them.

In the City of Oviedo, no new construction is permitted in the floodway. Construction in the floodplain also

mandates that no new construction or substantial improvements, damage improvements take place unless the lowest floor is elevated to no lower than two foot above the base flood elevation (BFE).

Per City of Oviedo's latest Flood Ordinance, for applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the floodplain administrator, in coordination with the building official, shall:

(1) Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work; in the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made;

(2) Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure;

(3) Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; the determination requires evaluation of previous permits issued for improvements and repairs as specified in the definition of "substantial improvement"; for proposed work to repair damage caused by flooding, the determination requires evaluation of previous permits issued to repair flood-related damage as specified in the definition of "substantial damage"; and

(4) Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant construction requirements of the Florida Building Code and this chapter is required.

The City of Oviedo is the agency with authority to implement and enforce local floodplain management regulations to regulate and permit development of Special Flood Hazard Areas (SFHAs). The City of Oviedo Public Works Department is designated to implement the addressed commitments and requirements to the NFIP.

The city is a participant in the NFIP Program with over 743 flood insurance policies in force totaling over $218 million dollars. Oviedo will continue to evaluate the need to lower insurance premiums for its residents by investigating mitigation measures and programs and their benefits to the community.

The city is a participant in the NFIP Program and the Community Rating System, with a current rating of 6. Determination of a particular property's coverage need is based on the most recent Flood Insurance Rate Map (FIRM). This served to set specific flood elevations for certain areas within the city. This provides a higher level of accuracy when determining applicability to a specific property area. The FIRM is to be used as a reference only, individual lot determinations should be made only with the assistance of a registered land surveyor. In 2024 the city conducted a study to support a citywide Letter of Map Revision (LOMR); this identified most developable areas published on the FIRM as a Zone A (without an established base flood elevation). The LOMR was approved by FEMA changing those Zone A areas to Zone AE (with a base flood elevation).

Status of Previous Initiatives

The implementation of the mitigation initiatives proposed as a result of the Resiliency Working Group's planning process is an important measure of the progress in implementation of the Seminole County Local Mitigation and Resiliency Strategy. The true measure of progress in the implementation of mitigation initiatives is their effectiveness in saving lives, avoiding property damage, and protecting valuable or irreplaceable resources in the community. As the mitigation initiatives that have been incorporated into the Seminole County's Local Mitigation and Resiliency Strategy, there will be more opportunities to measure the "success" of the Resiliency Working Group's mitigation efforts, and the facilities, systems and neighborhoods of Seminole County can become more and more resistant to the impacts of future disasters.

Future Mitigation Actions

As a part of its future planning process, the Resiliency Working Group also will periodically review the proposed mitigation initiatives approved for incorporation into the plan to determine their priority for implementation during the next planning period. This assessment will provide guidance to the individual jurisdictions and organizations proposing the initiatives to encourage them to focus on those designated as priority. However, because each participating jurisdiction or organization has independent authority and responsibility for implementation of their proposed mitigation initiatives under the mitigation planning approach used by the Resiliency Working Group, the jurisdictions and organizations retain the prerogative to act in their own interests, using their own priorities for mitigation initiative implementation.

In many ways, the priority for implementation assigned to proposed mitigation initiatives could be considered a suggestion or recommendation to the proposal sponsors to seek the resources for implementation. These resources may range from the normal budgeting process for the jurisdiction or organization, to seeking state or federal financial or technical support for implementation of the initiative. (The designation "priority for implementation" means that the Resiliency Working Group recommends that sponsors of those initiatives so classified focus on their implementation as soon as feasible.)

Public Information and Participation

The city provides a mechanism for public Information on its extensive website, **http://www.cityofoviedo.net** The Development Services Department is responsible for Planning & Zoning, Development Review Coordination, Code Compliance, and Economic Development, all of which have implications for mitigation. The Comprehensive Plan is available online, as are zoning, building and fire safety information, the latter of which is an identified hazard. In addition, the city has several written materials available for citizens regarding preparedness/mitigation, available at city hall. The Engineering Department has flood information available, with a public interactive map showing available materials for those properties in a special flood hazard area, The Police Department offers a number of programs to combat crime, which is an identified hazard, including a House Watch program.

As with other planning efforts, the city will take the opportunity to explain the mitigation planning process to the community and to solicit their input and involvement in the planning process, as well as to provide mitigation awareness and educational information. This may be done through the mechanism of a public meeting or hearing, or through media releases, as well as inclusion of information about other types of hazards on the city website.

Oviedo will continue to provide information to the public and provide outreach activities to the community in conjunction with area businesses and other private or non-profit entities, particularly during the hurricane season.

Summary

The City of Oviedo has been an active participant in the planning process, conducting additional assessments, implementing many initiatives, and proposing further actions to mitigate known hazards to facilities and neighborhoods. The Resiliency Working Group recognizes that it will take a long period of time and implementation of many if not all of the proposed initiatives approved for this plan, to make Seminole County a truly disaster-resistant community. However, the continuing dedication to the safety and welfare of the community shown by the participants from the City of Oviedo in this planning process will make this ambitious goal possible.

City of Sanford

Introduction

This section discusses the current status of development and implementation of the Seminole County Local Mitigation and Resiliency Strategy in the City of Sanford, and the next steps that may be undertaken to continue the process of making the community less vulnerable to the potential effects of natural, technological and societal disasters or events. There are several aspects of plan implementation that need to be addressed:

- The status of promulgation or formal adoption of the plan by the participating jurisdiction
- Disaster events that may have affected the community and identified a vulnerable facility, system, or neighborhood
- Continuing examination of facilities and neighborhoods' vulnerability to disasters, including terrorism
- Review of existing policies, plans or programs to see if there are opportunities to make changes or enhancements that might further the efforts to mitigate potential disasters
- Previously proposed mitigation initiatives that have been implemented, completed, or terminated, and their effect on the community
- Future mitigation actions, priorities for implementation of approved mitigation initiatives now incorporated into the plan, and active pursuit of funding opportunities
- Activities of the jurisdiction to engage the private sector and the community at large in the mitigation planning process

Status of Plan Promulgation and Approval

Promulgation and approval of the plan is a very important step in assuring its implementation. This is an "Individual Jurisdictional Mitigation Plan" which contains all of the jurisdiction-specific information developed to date. Included here are numerous data sources developed or coordinated through the efforts of personnel representing the individual jurisdiction participating in the planning process.

It is the expectation of the Resiliency Working Group that the governing body of each participating jurisdiction will review, consider and act on their Individual Jurisdiction Mitigation Plan in a timely fashion. If the governing body acts in a positive manner, this is basically an approval or endorsement of the proposed mitigation initiatives contained in the corresponding section of the plan. This approval or endorsement, with or without modification by the governing body, represents both consent and commitment by the representatives of that organization or jurisdiction to seek the resources needed to implement the priority initiatives contained therein. Only through actual implementation of the proposed mitigation initiatives contained in this plan can Seminole County be made a more disaster-resistant community. Plan adoption is also important evidence that the City of Sanford is an active participant in the coordinated Local Mitigation and Resiliency Strategy effort of Seminole County, and therefore eligible for some types of state or federal funding not available to non-participants.

This action by the City of Sanford Council documents approval and endorsement of three fundamental aspects of the Seminole County Local Mitigation Plan. First, the City Council has approved its own, jurisdiction-specific component of the Seminole County plan, and instructed the participating city agencies and organizations to implement the plan. Second, it documents the city's endorsement of the aspects of the countywide planning process that pertain to all participants, such as approving the mitigation goals and objectives established by the Seminole County Resiliency Working Group for the countywide plan. Third, it stipulates that, because of the multi-jurisdictional character of the Seminole County mitigation planning process, that the City of Sanford has reviewed the mitigation initiatives proposed by other jurisdictions for implementation and has found no reason to object to their implementation or to otherwise be concerned regarding mitigation actions planned by the other participating jurisdictions.

Hazard Events and Hazard Identification

Recent disaster events can be very helpful in highlighting the mitigation needs of the community based on the type, location or magnitude of the impacts experienced. In turn, this can be a major factor in the future progress of implementation of the plan, as the Resiliency Working Group considers and acts on actual disaster experience by the community. Such recommendations can be referred to a "lead" agency with the intention that that organization will use the information to propose additional mitigation initiatives for incorporation into the plan.

Although the City of Sanford is susceptible to some degree to all 24 hazards addressed in this plan, for the purpose of developing cost-effective and acceptable mitigation initiatives it considers these six (6) hazards as its most vulnerable:

Cyber Security
Disease/Pandemic Outbreak
Drought/Water Shortage
Floods
Tornadoes
Tropical Cyclones

Newly proposed initiatives, including a disaster preparedness public education project and a project to assess existing County and municipal codes for recommended mitigation improvements, address all of these hazards to some degree with the implementation of one or more initiatives.

Currently, there are nine repetitive flood loss properties within the jurisdiction, as defined pursuant to the National Flood Insurance Program.

Mitigation Policies and Plans

The City of Sanford has adopted a Land Use/Zoning Code, Fire or Life Safety Code, and the Florida Building Code.

An additional fourteen policies were identified addressing areas of controlling hazardous materials, flood control, wellfield protection, erosion control, lake shore protection and manufactured home construction. Efforts will be continued and expanded to identify any policies or plans that relate to the other high-ranking hazards and document them.

Sanford uses the current Florida Building Code, with some modifications and higher standards. One of the

higher standards dictates that the lowest floor level of any new structure, substantial improvement, or substantial damage, including the basement, shall be a minimum of 2-feet above the base flood elevation.

The City of Sanford is the agency with authority to implement and enforce local floodplain management regulations to regulate and permit development of Special Flood Hazard Areas (SFHAs). The City of Sanford is designated to implement the addressed commitments and requirements to the NFIP.

The city is a participant in the NFIP Program with over 570 flood insurance policies in force totaling over $149 million dollars. Sanford will continue to evaluate the need to lower insurance premiums for its residents by investigating mitigation measures and programs and their benefits to the community.

The city is a participant in the NFIP Program and the Community Rating System, with a current rating of 7. Determination of a particular property's coverage need is based on the most recent Flood Insurance Rate Map (FIRM). This served to set specific flood elevations for certain areas within the city. This provides a higher level of accuracy when determining applicability to a specific property area. The FIRM is to be used as a reference only - individual lot determinations should be made only with the assistance of a registered land surveyor.

The City of Sanford actively enforces flood hazard mitigation policies through its Land Development Regulations (LDRs) and adherence to the Florida Building Code. Key provisions include managing development within Special Flood Hazard Areas (SFHAs) as designated on Flood Insurance Rate Maps (FIRMs) and implementing substantial improvement and substantial damage regulations after significant events. Additionally, the City has adopted more stringent floodplain management regulations to exceed minimum federal standards, further protecting residents and infrastructure.

1. As the local authority for floodplain management, the City of Sanford Public Works and Utilities Department regulates and permits development in SFHAs to comply with the National Flood Insurance Program (NFIP). Sanford is also an active participant in FEMA's Community Rating System (CRS) program, which recognizes and incentivizes communities that implement effective floodplain management practices. Through its participation in CRS, the City strives to lower flood insurance premiums for its residents while enhancing resilience to flood hazards.
2. Sanford is proud to maintain numerous flood insurance policies to safeguard its residents and businesses. The City remains committed to exploring additional mitigation measures and programs to further reduce flood risks and promote sustainable, safe development.

Per the City of Sanford's latest Floodplain Ordinance, for applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the floodplain administrator, in coordination with the building official, shall:

(1) Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work; in the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made;
(2) Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure;
(3) Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; provided, however, that, for proposed work to repair damage caused by flooding, the determination requires evaluation of previous permits issued to repair flood-related damage as

specified in the definition of substantial damage; and

(4) Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood-resistant construction requirements of the Florida Building Code and this chapter is required.

Status of Previous Initiatives

The implementation of the mitigation initiatives proposed as a result of the Resiliency Working Group's planning process is an important measure of the progress in implementation of the Seminole County Local Mitigation and Resiliency Strategy. The true measure of progress in the implementation of mitigation initiatives is their effectiveness in saving lives, avoiding property damage and protecting valuable or irreplaceable resources in the community. As the mitigation initiatives that have been incorporated into the Seminole County's Local Mitigation and Resiliency Strategy, there will be more opportunities to measure the "success" of the Resiliency Working Group's mitigation efforts, and the facilities, systems and neighborhoods of Seminole County can become more and more resistant to the impacts of future disasters.

Future Mitigation Actions

As a part of its future planning process, the Resiliency Working Group also will periodically review the proposed mitigation initiatives approved for incorporation into the plan to determine their priority for implementation during the next planning period. This assessment will provide guidance to the individual jurisdictions and organizations proposing the initiatives to encourage them to focus on those designated as priority. However, because each participating jurisdiction or organization has independent authority and responsibility for implementation of their proposed mitigation initiatives under the mitigation planning approach used by the Resiliency Working Group, the jurisdictions and organizations retain the prerogative to act in their own interests, using their own priorities for mitigation initiative implementation.

In many ways, the priority for implementation assigned to proposed mitigation initiatives could be considered a suggestion or recommendation to the proposal sponsors to seek the resources for implementation. These resources may range from the normal budgeting process for the jurisdiction or organization, to seeking state or federal financial or technical support for implementation of the initiative. (The designation "priority for implementation" means that the Resiliency Working Group recommends that sponsors of those initiatives so classified focus on their implementation as soon as feasible.)

Public Information and Participation

The city provides a mechanism for public Information on its extensive website, **http://www.sanfordfl.gov.** The Development Services Department is responsible for Planning & Zoning, Development Review Coordination, Code Compliance, and Building Permitting, all of which have implications for mitigation. The Comprehensive Plan is available online, as are zoning, building and fire safety information, the latter of which is an identified hazard. In addition, the city has a number of written materials available for citizens regarding preparedness/mitigation, available at city hall. The Building Division has flood information available, and the Police Department offers a number of programs to combat crime, which is an identified hazard, including a Neighborhood Watch effort. A Flood Information page is displayed on the Planning and Development Services page with NFIP information.

As with other planning efforts, the city will take the opportunity to explain the mitigation planning process to the community and to solicit their input and involvement in the planning process, as well as to provide mitigation awareness and educational information. This may be done through the mechanism of a public meeting or hearing, or through media releases, as well as inclusion of information about other types of hazards on the city website.

Sanford will continue to provide information to the public and provide outreach activities to the community in conjunction with area businesses and other private or non-profit entities, particularly during the hurricane season.

Summary

The City of Sanford has been an active participant in the planning process, conducting additional assessments, implementing many initiatives, and proposing further actions to mitigate known hazards to facilities and neighborhoods. The Resiliency Working Group recognizes that it will take a long period of time and implementation of many if not all of the proposed initiatives approved for this plan, to make Seminole County a truly disaster-resistant community. However, the continuing dedication to the safety and welfare of the community shown by the participants from the City of Sanford in this planning process will make this ambitious goal possible.

City of Winter Springs

Introduction

This section discusses the current status of development and implementation of the Seminole County Local Mitigation and resiliency Strategy in the City of Winter Springs, and the next steps that may be undertaken to continue the process of making the community less vulnerable to the potential effects of natural, technological and societal disasters or events. There are several aspects of plan implementation that need to be addressed:

- The status of promulgation or formal adoption of the plan by the participating jurisdiction
- Disaster events that may have affected the community and identified a vulnerable facility, system, or neighborhood
- Continuing examination of facilities and neighborhoods' vulnerability to disasters, including terrorism
- Review of existing policies, plans or programs to see if there are opportunities to make changes or enhancements that might further the efforts to mitigate potential disasters
- Previously proposed mitigation initiatives that have been implemented, completed, or terminated, and their effect on the community
- Future mitigation actions, priorities for implementation of approved mitigation initiatives now incorporated into the plan, and active pursuit of funding opportunities
- Activities of the jurisdiction to engage the private sector and the community at large in the mitigation planning process

Status of Plan Promulgation and Approval

Promulgation and approval of the plan is a very important step in assuring its implementation. This is an "Individual Jurisdictional Mitigation Plan" which contains all of the jurisdiction-specific information developed to date. Included here are numerous data sources developed or coordinated through the efforts of personnel representing the individual jurisdiction participating in the planning process.

It is the expectation of the Resiliency Working Group that the governing body of each participating jurisdiction will review, consider and act on their Individual Jurisdiction Mitigation Plan in a timely fashion. If the governing body acts in a positive manner, this is basically an approval or endorsement of the proposed mitigation initiatives contained in the corresponding section of the plan. This approval or endorsement, with or without modification by the governing body, represents both consent and commitment by the representatives of that organization or jurisdiction to seek the resources needed to implement the priority initiatives contained therein. Only through actual implementation of the proposed mitigation initiatives contained in this plan can Seminole County be made a more disaster-resistant community. Plan adoption is also important evidence that the City of Winter Springs is an active participant in the coordinated Local Mitigation and Resiliency Strategy effort of Seminole County, and therefore eligible for some types of state or federal funding not available to non-participants.

This action by the City of Winter Springs Council documents approval and endorsement of three fundamental aspects of the Seminole County Local Mitigation and Resiliency Strategy. First, the City Council has approved its own, jurisdiction-specific component of the Seminole County plan, and instructed the participating city agencies and organizations to implement the plan. Second, it documents the city's endorsement of the aspects of the countywide planning process that pertain to all participants, such as approving the mitigation goals and objectives established by the Seminole County Resiliency Working Group for the countywide plan. Third, it stipulates that, because of the multi-jurisdictional character of the Seminole County mitigation planning process, that the City of Winter Springs has reviewed the mitigation initiatives proposed by other jurisdictions for implementation and has found no reason to object to their implementation or to otherwise be concerned regarding mitigation actions planned by the other participating jurisdictions.

Hazard Events and Hazard Identification

Recent disaster events can be very helpful in highlighting the mitigation needs of the community based on the type, location or magnitude of the impacts experienced. In turn, this can be a major factor in the future progress of implementation of the plan, as the Resiliency Working Group considers and acts on actual disaster experience by the community. Such recommendations can be referred to a "lead" agency with the intention that that organization will use the information to propose additional mitigation initiatives for incorporation into the plan.

Although the City of Winter Springs is susceptible to some degree to all 24 hazards addressed in this plan, for the purpose of developing cost-effective and acceptable mitigation initiatives it considers these six (6) hazards as its most vulnerable:

Cyber Security
Disease/Pandemic Outbreak
Drought/Water Shortage
Floods
Tornadoes
Tropical Cyclones

Newly proposed initiatives, including a disaster preparedness public education project, address all of these hazards to some degree with the implementation of one or more initiatives. Other proposed initiatives include new flood control system, which addresses flooding, and a weather notification system, which addresses tornadoes and tropical cyclones.

Currently, there are three repetitive flood loss properties within the jurisdiction, as defined pursuant to the National Flood Insurance Program.

Mitigation Policies and Plans

The City of Winter Springs has adopted a Land Use/Zoning Code, Fire or Life Safety Code, and the Florida Building Code.

An additional fifteen policies were identified addressing areas of flooding, ordinance on signage, open burning, criminal activity, and future construction. Efforts will be continued and expanded to identify any policies or plans that relate to the other high-ranking hazards and document them.

The City of Winter Springs Public Works and Utilities Department requires all new construction or substantial improvement, and damage repair must fall into the standards of the National Flood Insurance Program (NFIP). The lowest floor of a structure must be eighteen inches above the Base Flood Elevation (BFE) established in the 100-year plain. The Florida Building Code mandates the BFE plus one-foot free board requirement.

The City of Winter Springs is the agency with authority to implement and enforce local floodplain management regulations to regulate and permit development of Special Flood Hazard Areas (SFHAs). The City of Winter Springs is designated to implement the addressed commitments and requirements to the NFIP.

The city is a participant in the NFIP Program with over 670 flood insurance policies in force totaling over $195 million dollars. Winter Springs will continue to evaluate the need to lower insurance premiums for its residents by investigating mitigation measures and programs and their benefits to the community.

The city is a participant in the NFIP Program and the Community Rating System, with a current rating of 6. Determination of a particular property's coverage need is based on the most recent Flood Insurance Rate Map (FIRM). This served to set specific flood elevations for certain areas within the city. This provides a higher level of accuracy when determining applicability to a specific property area. The FIRM is to be used as a reference only - individual lot determinations should be made only with the assistance of a registered land surveyor.

Per the City of Winter Spring's Floodplain Ordinance, for applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the floodplain administrator, in coordination with the building official, shall:
(1) Require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser or present evidence of the market value by another acceptable method as defined in this chapter, of the building or structure before the start of construction of the proposed work; in the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made;
(2) Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure;
(3) Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; and
(4) Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant construction requirements of the Florida Building Code and this chapter is required.

Status of Previous Initiatives

The implementation of the mitigation initiatives proposed as a result of the Resiliency Working Group's planning process is an important measure of the progress in implementation of the Seminole County Local Mitigation and Resiliency Strategy. The true measure of progress in the implementation of mitigation initiatives is their effectiveness in saving lives, avoiding property damage and protecting valuable or irreplaceable resources in the community. As the mitigation initiatives that have been incorporated into the Seminole County's Local Mitigation and Resiliency Strategy, there will be more opportunities to measure the "success" of the Resiliency Working Group's mitigation efforts, and the facilities, systems and neighborhoods of Seminole County can become more and

more resistant to the impacts of future disasters.

Future Mitigation Actions

As a part of its future planning process, the Resiliency Working Group also will periodically review the proposed mitigation initiatives approved for incorporation into the plan to determine their priority for implementation during the next planning period. This assessment will provide guidance to the individual jurisdictions and organizations proposing the initiatives to encourage them to focus on those designated as priority. However, because each participating jurisdiction or organization has independent authority and responsibility for implementation of their proposed mitigation initiatives under the mitigation planning approach used by the Resiliency Working Group, the jurisdictions and organizations retain the prerogative to act in their own interests, using their own priorities for mitigation initiative implementation.

In many ways, the priority for implementation assigned to proposed mitigation initiatives could be considered a suggestion or recommendation to the proposal sponsors to seek the resources for implementation. These resources may range from the normal budgeting process for the jurisdiction or organization, to seeking state or federal financial or technical support for implementation of the initiative. (The designation "priority for implementation" means that the Resiliency Working Group recommends that sponsors of those initiatives so classified focus on their implementation as soon as feasible.)

Public Information and Participation

The city provides a mechanism for public Information on its extensive website, **http://www.winterspringsfl.org/.** The Community Development Department is responsible for Planning & Zoning, Development Review Coordination, and Code Compliance, all of which have implications for mitigation. The Comprehensive Plan is available online, as are zoning, building and fire safety information, the latter of which is an identified hazard. In addition, the city has a number of written materials available for citizens regarding preparedness/mitigation, available at city hall. The Community Development Department has flood information available, and the Police Department offers a number of programs to combat crime, which is an identified hazard, including a House Check program.

As with other planning efforts, the city will take the opportunity to explain the mitigation planning process to the community and to solicit their input and involvement in the planning process, as well as to provide mitigation awareness and educational information. This may be done through the mechanism of a public meeting or hearing, or through media releases, as well as inclusion of information about other types of hazards on the city website.

Winter Springs will continue to provide information to the public and provide outreach activities to the community in conjunction with area businesses and other private or non-profit entities, particularly during the hurricane season.

Summary

The City of Winter Springs has been an active participant in the planning process, conducting additional assessments, implementing many initiatives, and proposing further actions to mitigate known hazards to facilities and neighborhoods. The Resiliency Working Group recognizes that it will take a long period of time and implementation of many if not all of the proposed initiatives approved for this plan, to make Seminole County a truly disaster-resistant community. However, the continuing dedication to the safety and welfare of the community shown by the participants from the City of Winter Springs in this planning process will make this ambitious goal possible.

Appendix B: Project Priority List

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

Mitigation Project Scoring Sheet (2023)

Seminole County Resiliency Working Group

**This ranking form is independent from the Cost-Benefit Analysis Form*

PROJECT INFORMATION	
Project Name:	
Jurisdiction/Applicant:	
Today's Date:	

#	CATEGORIES	MAXIMUM POINTS	AWARDED POINTS
	PROJECT IMPLEMENTATION		
1	Consistent with Existing Legislation and/or Policies	5	
2	Consistency with Existing Plans and Priorities	5	
3	Consistency with planned and complimentary projects within the area	5	
4	Consistency with Local Mitigation Strategy Goals	10	
	TOTAL POINTS	**25**	
	SOCIAL/GEOGRAPHIC IMPACT		
5	Population directly benefitted	10	
6	Approx. % Within a Low-to-Moderate Income (LMI) Area	10	
7	Public Support	10	
8	Environmental Impact	5	
9	Timeframe for Accomplishing Objectives	5	
	TOTAL POINTS	**40**	
	MITIGATION OF POTENTIAL IMPACTS		
10	Protection of Critical Facilities/ Essential Services	10	
11	Minimizes Damage to Residential Structures	5	
12	Mitigates Repetitive Damages/Losses	10	
13	Protects Cultural or Historic value	5	
14	Mitigates Stormwater System Flooding	5	
15	Provides Flood Mitigation to arterial or connector roadways	5	
16	Lifespan of mitigation measure and consideration of future risk	5	
17	Project positively impacts Community Rating System and/ or ISO Rating	5	
	TOTAL POINTS	**50**	

	FINANCIAL VIABILITY		
18	Financing Availability (to Complete)	5	
19	Average Annual Maintenance/ Sustainment Costs	5	
20	Leveraging Regional Partnerships	10	
21	Project's Potential to Improve the Economic Resilience of the Community	5	
	TOTAL POINTS	**25**	

TABULATION OF POINTS AWARDED (for online submittal)		
CATEGORIES	**POINTS AVALABLE**	**POINTS AWARDED**
Project Implementation	25	
Social/Geographic Impact	40	
Mitigation of Potential Impacts	50	
Financial Viability	25	
TOTAL POINTS	**140**	

LEGEND

PROJECT IMPLEMENTATION: Maximum of 25 points

1. **Consistent with Existing Legislation and/or Policies – [max: 5 pts]**
   - If "no" award 0 pts; if "yes" then award 5 pts. If project or initiative is consistent with recommended changes proposed but not yet adopted to the Comprehensive Growth Management Plan, award 5 pts.
     Law/ Ordinance Number_____
     _____
2. **Consistency with Existing Plans and Priorities – [max: 5 pts]**
   - Not in any other documents or is in conflict – 0 pts. May have inconsistencies; Needs study – 1 pt. Is in at least 1 document and not inconsistent – 2 pts. Is in at least 2 documents or consistent – 3 pts. In at least 3 documents or highly consistent – 5 pts.
     (Example: Local Mitigation Strategy, Comprehensive Emergency Management Plan
     Plan(s)_____
     _____
3. **Consistency with planned or on-going projects within the area – [max: 5 pts]**
   - Not consistent with projects – 0 points. Consistent with projects – 5 points.
4. **Consistency with Local Mitigation Strategy Goals*(At the time of project scoring) – [max: 10 pts]**
   - **a.** Meets no goals - 0 points. Meets 1 goal - 2 points. Meet 2 goals - 4 points. Meets 3 goals – 6 points. Meets 4 goals - 8 points. Meet 5 or more goals - 10 points.

SOCIAL/GEOGRAPHIC IMPACT: Maximum of 40 points

5. **Population directly benefitted – [max: 10 pts]**
   - Less than 10,000 people – 2 points. Less than 50,000 – 4 points. Less than 100,000 people – 6 points. Less than 500,000 people – 8 points. Above 500,000 – 10 points.
6. **Approx. % Within a Low-to-Moderate Income (LMI) Area – [max: 10 pts]**
   - 0-49% - 0 points. 50-99% - 5 points. 100% - 10 points.
7. **Public Support – [max: 10 pts]**

- Publicly approved at an advertised elected leaders board/ commission meeting – 5 points, Written evidence of public support from other entity - 5 points

8. **Environmental Impact – [max: 5 pts]**
   - Adverse effect – 0 points. No effect – 3 pts. Positive effect – 5 points.
9. **Timeframe for Accomplishing Objectives (From Grant Execution Date) – [max: 5 pts]**
   - 5+ years - 0 points. 4 years – 1 point. 3 years - 3 points. 2 years - 4 points, 1 year or less - 5 points.

MITIGATION OF POTENTIAL IMPACTS: Maximum of 50 points

10. **Protection of Critical Facilities/ Essential Services – [max: 10 pts]**
    - Does not protect either – 0 points. Protects critical infrastructure – 10 points.
11. **Minimizes Damage to Residential Structures – [max: 5 pts]**
    - Does not minimize damage to residential structures – 0 points. Mitigates an occupied residential structure – 5 points.
12. **Mitigates Repetitive Damages/Losses (NOT the same as CRS' Repetitive Loss Structures) – [max: 10 pts]**
    - Repetitive loss – 5 points. Severe repetitive loss* – 10 points.
13. **Protects Cultural or Historic value – [max: 5 pts]**
    - Does not protect any – 0 points. Protects 1 or more – 5 points.
14. **Mitigates Stormwater System Flooding – [max: 5 pts]**
    - Does not minimize stormwater flooding – 0 points. Mitigates stormwater system flooding – 5 points.
15. **Provides Flood Mitigation to arterial or connector roadways – [max: 5 pts]**
    - Provides to 0 identified roadways – 0 points. Provides mitigation to 1 or more identified roadways – 5 points.
16. **Lifespan of mitigation measure and consideration of future risk – [max: 5 pts]**
    - 0 points – less than 20 years. 3 points – 20-39 years. 5 points – expected to mitigate hazard for 40+ years.
17. **Project positively impacts Community Rating System and/ or ISO rating – [max: 5 pts]**
    - No impact – 0 points. Positively impacts points – 5 points. (Example: Acquisition/Demolition expands floodplain.)

FINANCIAL VIABILITY: Maximum of 25 points

18. **Financing Availability (to Complete) – [max: 5 pts]**
    - No funding or matching funds secured – 0 points. Matching funds available – 5 points.
19. **Average Annual Maintenance/ Sustainment Costs – [max: 5 pts]**
    - $10,000+ – 0 points. $5,000-$9,999 – 3 points. $0-$4,999 – 5 points.
20. **Leveraging Regional Partnerships – [max: 10 pts]**
    - 0 community partnerships – 0 points. 2 – 4 jurisdictions – 5 points. 5 or more jurisdictions – 10 points.
21. **Project's Potential to Improve the Economic Resilience of the Community – [max: 5 pts]**
    - Award 5 pts for those measures providing increased economic resilience

*Reference Sheet: Local Mitigation Strategy Goals

Goal 1 – Local government shall make every reasonable effort to identify, develop, implement, and reduce hazard vulnerability through effective mitigation programs.

Goal 2 – All sectors of the community will work together to create a disaster resilient community.

Goal 3 – Reduce the vulnerability of critical infrastructures and public facilities from the effects of all hazards.

Goal 4 – Develop policies and regulation to support effective hazard mitigation programming throughout the community.

Goal 5 - Encourage economic vitality of the community by promoting business continuity education, disaster planning, and supporting the socially vulnerable.

Seminole County LMS
Cost Benefit Analysis Summary

Request Information

Priority (High/Med/Low)		Submitter's Name:	
Project Name:		Responsible Agency:	
		Date:	
Hazard Mitigated:		LMS Goal:	
Funding Source:		Timeline:	
Project Description:			

Benefits and Impacts

Feasibility

Alternatives

Cost and Benefit Summary

Project Costs	Implementation Cost			All values in this section are rounded to 2 significant digits
	Market Implementation Cost	-		
	Total Implementation Cost		-	
	Ongoing Cost	-		
	Maintenance / Materials	-		
	Total Ongoing Cost		-	
			$ -	**Total Cost**
Project Benefit	Estimated Benefit			
	Market Benefit	-		
			$ -	**Total Benefit**
		Net (Cost) - Benefit	$ -	
		Benefit Cost Ratio	#DIV/0!	

Appendix C: Goals & Objectives Tracking Sheet

Local Mitigation and Resiliency Strategy - Goals & Objectives		
Statuses: Not Started / In Progress / Completed		
Goal 1: Local government shall make every reasonable effort to identify, develop, implement, and reduce hazard vulnerability through effective mitigation programs.		
1.1	The Seminole County Resiliency Working Group will develop a mechanism for local jurisdictions, community partners, and residents to report hazard and risk data by the end of FY 2025.	
	Status	
	Notes	
1.2	Annually use historic and scientific data to identify hazards, risk areas and vulnerabilities in the community and evaluate the need for updates to the hazard profiles of the Local Mitigation and Resiliency Strategy and/ or annexes of the LMRS.	
	Status	
	Notes	
1.3	Measure the effectiveness of completed mitigation projects through the review of after action/ improvement items and public comments gathered during and after a disaster and provide to the Florida Division of Emergency Management and Seminole County Resiliency Working Group.	
	Status	
	Notes	
1.4	Seminole County Resiliency Working Group shall annually review to the Seminole County Mitigation and Resiliency Strategy Goals and Objectives. A status report will be produced annually.	
	Status	
	Notes	
Goal 2: All sectors of the community will work together to create a disaster resilient community.		
2.1	Local jurisdictions will review existing interagency agreements on an annual basis for updates or necessary changes.	
	Status	
	Notes	

2.2	Quarterly invite public and private sector organizations to Seminole County Resiliency Working Group meetings to promote hazard mitigation programming throughout the community.	
	Status	
	Notes	
2.3	Encourage all participating agencies to conduct outreach programs including mitigation at least once annually with businesses, institutions, and community groups.	
	Status	
	Notes	
2.4	Encourage local elected governing bodies to adopt the Local Mitigation and Resiliency Strategy and support community mitigation programming through annual communication with city and county management and elected officials.	
	Status	
	Notes	
2.5	Encourage participation of each jurisdiction in training and exercise through an annual review of training and exercise documentation.	
	Status	
	Notes	
2.6	Distribute any relevant open statewide or national mitigation planning efforts or policy changes to the Seminole County Resiliency Working Group for comment or review.	
	Status	
	Notes	
Goal 3: Reduce the vulnerability of critical infrastructures and public facilities from the effects of all hazards.		
3.1	Annually identify possible critical infrastructure or facilities which could be retrofitted or relocated using mitigation funding.	
	Status	
	Notes	
3.2	Evaluate utility, telecommunications, and information technology systems with external agency partners to determine potential mitigation opportunities.	
	Status	
	Notes	
3.3	Annually assess transportation and access routes, systems, and infrastructure to identify potential relocation, retrofit or modification opportunities to ensure safe passage before, during and after disaster events.	
	Status	
	Notes	
3.4	Annually assess opportunity for shelter retrofit funding for current or future evacuation shelters and apply for funding as applicable.	

	Status	
	Notes	
3.5	Participate in the annual assessment of health and safety needs in the community and propose mitigation or other initiatives based on assessment findings.	
	Status	
	Notes	
3.6	Annually invite private sector organizations who own or operate key community resources to the Seminole County Resiliency Working Group meetings to encourage hazard mitigation programs.	
	Status	
	Notes	
3.7	Assess and implement physical and cyber protective measures on critical infrastructure and identify opportunities for relocation or retrofit to withstand the impacts of disasters.	
	Status	
	Notes	
Goal 4: Develop policies and regulation to support effective hazard mitigation programming throughout the community.		
4.1	Review, develop and enforce policies, plans and regulations to discourage or prohibit inappropriate location of structures or infrastructure components in the special flood hazard area or wildland urban interface.	
	Status	
	Notes	
4.2	Address current building, fire, and land development regulations to ensure consideration of identified hazards in the LMRS.	
	Status	
	Notes	
4.3	Encourage all jurisdictions to participate in the Building Code Effectiveness Rating Schedule, Fire Suppression Rating Schedule, National Flood Insurance Program, and the associated Community Rating System.	
	Status	
	Notes	
4.4	Conduct an assessment of potential mitigation or improvement measures during post-disaster reconstruction to reduce the vulnerability to all hazards.	
	Status	
	Notes	
4.5	Encourage participating agencies to conduct outreach to include encouraging the development and enforcement of energy conservation, green development, and resource sustainability best practices.	
	Status	
	Notes	

4.6	Local Mitigation and Resiliency Strategy goals and objectives should be added to Comprehensive Plans of all participating jurisdictions within two years of plan adoption.	
	Status	
	Notes	
4.7	Participating agencies will annually assess and identify gaps in resources associated with each hazard identified in the LMRS. Identified critical resource deficiencies shall be documented and presented to the Seminole County Resiliency Working Group and considered for future mitigation projects.	
	Status	
	Notes	
Goal 5: Encourage economic vitality of the community by promoting business continuity education, disaster planning, and supporting the socially vulnerable.		
5.1	Review needs of key employers in the community and establish programs, facilities, or resources to support business resumption activities.	
	Status	
	Notes	
5.2	Identify socially vulnerable communities and foster community participation in resiliency planning and projects.	
	Status	
	Notes	

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