

MEMORANDUM

TO: Reese Goad, City Manager
City of Tallahassee

THROUGH: Wayne Tedder, AICP Assistant City Manager
City of Tallahassee *W.T.*

THROUGH: Jennifer E.C. Porter P.E. CPM, Interim General Manager
Underground Utilities & Public Infrastructure *JEP*

FROM: John Buss, Assistant General Manager
Underground Utilities & Public Infrastructure *John Buss*

DATE: April 25, 2019

SUBJECT: FEMA COMMUNITY RATING SYSTEM
Local Mitigation Strategy Progress Report

APR 25 AM 9:24

Attached is a progress report on the City of Tallahassee/Leon County Local Mitigation Strategy Initiative. This report was prepared by the Water Resources Engineering Division to meet requirements of the Community Rating System (CRS) annual recertification. Because of the City participation in the CRS program, Tallahassee floodplain property owners receive up to 20% discount on their flood insurance premiums.

The report contains a review of each item in the Local Mitigation Strategy Initiatives including statements discussing how much has been accomplished to date as well as discussion of why any objectives have not been reached. To meet the annual recertification requirements, please forward this memorandum with the report to the City Commission. The attached report will be released to the media and made available to the public. No action is required by the Commission. This is for informational purposes only.

JMB/mf
Attachments

Table 3.3. Prioritized Mitigation Initiatives with Potential Funding Sources, 2019

Initiative	Summary/Status as of April 2019	Hazards	2015 Estimated Costs & Timeframe	Responsible Agencies	Jurisdiction	Potential Funding Sources
<p>(1) Continue to identify needs for improving the disaster resistance of critical facilities.</p>	<p>Critical facilities provide essential services in the event of an emergency but may be housed in structures that require improvements to weather the impacts of a disaster. Improvements may include, but not be limited to, installing storm shutters, moving utilities underground, and acquiring or retrofitting generators, pumps, and associated appurtenances and/or connections for traffic signals, sewage pump stations, water well pump stations, and emergency shelters.</p> <p>Status: The Local Mitigation Strategy Steering Committee continues to work to identify additional security measures to protect critical facilities within the community. The City has installed extra security measures at certain critical facilities throughout the City. The North Florida Regional Domestic Security Task Force is provided funding to address K-12, Universities, Court houses and communications towers, funding is still needed to protect utilities.</p> <p>There is increased emphasis on identifying needs for improving critical facilities and monitoring since Hurricane Hermine on September 2, 2016 and Hurricane Michael October 10, 2018. Several sewage pump stations (#12, #74) have been replaced, some backup generators have been obtained, other electrical lines to critical facilities have been moved underground, a new water well is on line (#32), and redundant force mains have been installed.</p> <p>Additional funding needs have been identified for generators to operate, traffic signals, sewage pump stations, water well pump stations and emergency shelters such as schools, public community centers and libraries. There are approximately 150 key overhead main circuit lines, and these frequently serve medical, public safety and other critical facilities.</p> <p>A local committee outlines certain items to be purchased, and some funding is coordinated through the Regional Domestic Security Task Force (RDSTF). However, available funding for this initiative is decreasing.</p>	<p>Flooding, Hurricanes & Tropical Storms, Storm Surge/ Tsunami, Energy Failures/ Disruptions</p>	<p>High/Continuing</p>	<p>City of Tallahassee and Leon County Emergency Management</p>	<p>City of Tallahassee & Leon County</p>	<p>HMGP (Florida Division of Emergency Management (EM)); Community Development Block Grant (Department of Economic Opportunity (DEO)); Regional Domestic Security Task Force (RDSTF) (Department of Homeland Security (DHS))</p>

Table 3.3. Prioritized Mitigation Initiatives with Potential Funding Sources, 2019

Initiative	Summary/Status as of April 2019	Hazards	2015 Estimated Costs & Timeframe	Responsible Agencies	Jurisdiction	Potential Funding Sources
(2) Increase intergovernmental coordination in the area of stormwater management.	<p>Stormwater does not follow jurisdictional boundaries. Land use activities in the City can affect drainage characteristics outside municipal boundaries and, to a lesser extent, vice versa. In the past, stormwater management opportunities have been constrained by fiscal concerns and the impacts of significant amounts of pre-code development. These factors necessitate strong intergovernmental coordination for stormwater management efforts to be effective.</p> <p><u>Status:</u> Intergovernmental Stormwater management coordination is currently accomplished through several initiatives including countywide land development ordinance, Blueprint 2000 intergovernmental agency Stormwater improvement projects and Local Mitigation Strategy Steering Committee meetings. In addition, the City and County are currently working with the Northwest Florida Water Management District to improve the accuracy of the Flood Insurance Rate Maps through the Risk Map program, which is funded by FEMA. The City has shared stormwater model data with the North West Florida Water Management District (NFWFMD) to assist in the county wide Special Flood Hazard Area remapping effort.</p>	Flooding	Low/ Continuing	City Underground Utilities & Public Infrastructure and County Public Works; City and County Commissions	City of Tallahassee & Leon County	Local
(3) Improve the disaster resistance of existing site built housing stock.	<p>Build upon current CDBG, HOME and SHIP programs to improve the disaster resistance of existing site built housing stock, including elevating structures where feasible.</p> <p><u>Status:</u> The Capital Area Chapter of the American Red Cross continues to provide educational programs to low income population on how they can be disaster resistant and be part of the Ready Rating Program. http://www.readyrating.org/</p>	All	High/ Continuing	Tallahassee Economic & Community Development, Leon County Housing and Human Services; Capital Area Red Cross	City of Tallahassee & Leon County	CDBG Program, SHIP, HOME, HMGP, and FMAP; Repair and Restoration of Disaster Damaged Historic Properties (FEMA); National Flood Mitigation Fund (FEMA); Emergency Advance Measures for Flood Prevention (U.S. COE)

Table 3.3. Prioritized Mitigation Initiatives with Potential Funding Sources, 2019

Initiative	Summary/Status as of April 2019	Hazards	2015 Estimated Costs & Timeframe	Responsible Agencies	Jurisdiction	Potential Funding Sources
<p>(4) Advocate that FEMA modify its policies to accommodate local floodplain management program requirements to avoid the frequent necessity for duplicate, and sometimes conflicting, modeling for NFIP purposes.</p>	<p>Tallahassee and Leon County have advanced stormwater regulations and require sophisticated digital modeling. FEMA is slow to review/approve new modeling software or even more current versions of previously approved software. As a result, local communities frequently are faced with having to do advanced modeling for design and local permitting and then duplicate modeling with the FEMA-approved software list for NFIP purposes.</p> <p><u>Status:</u> The City of Tallahassee and Leon County continue to cooperate with the Northwest Florida Water Management District through a Cooperating Technical Partnership with FEMA, which will be instrumental in accomplishing this goal. The City and County attended the Apalachee Bay Saint Mark River Watershed Discovery Meeting for updating the FEMA flood maps for the Saint Marks Basin. The City of Tallahassee has provided a map of areas to be reviewed to FEMA. The City of Tallahassee has worked with stormwater model providers to endorse modeling programs that have been added to the list of FEMA accepted stormwater models.</p>	<p>Flooding</p>	<p>Low/ Continuing</p>	<p>City of Tallahassee Underground Utilities & Public Infrastructure and Leon County Public Works; Leon County Development Support and Environmental Management (DSEM)</p>	<p>City of Tallahassee & Leon County</p>	<p>Local</p>

Table 3.3. Prioritized Mitigation Initiatives with Potential Funding Sources, 2019

Initiative	Summary/Status as of April 2019	Hazards	2015 Estimated Costs & Timeframe	Responsible Agencies	Jurisdiction	Potential Funding Sources
<p>(5) Improve floodplain boundary identification and implementation of the FEMA map amendment process.</p>	<p>Efforts would focus on correcting inaccuracies in FEMA flood hazard boundaries. These boundaries are used for insurance purposes and frequently increase rates for residents that are clearly not in the floodplain. Other citizens use this information to guide property purchases and find out they are susceptible to flooding despite lying outside the hazard areas of a FIRM. This initiative would require the hiring of sufficient personnel to identify and prepare map amendments and expand the existing floodplain database to include best available information, such as permitting models, for incorporation into a GIS. Besides providing better data that could reduce insurance rates and improve decisions regarding property purchases, this information could guide acquisition efforts.</p> <p><u>Status:</u> The City and County are currently working with the Northwest Florida Water Management District (NWFWM) to improve the accuracy of the Flood Insurance Rate Maps through the Risk Map program, which is funded by FEMA. Once complete, it is expected that FEMA will issue updates to the FIRM, which will improve the accuracy of the depiction of Special Flood Hazard Areas for the community. The City has provided several stormwater models and high-water elevations to NWFWM.</p>	<p>Flooding, Storm Surge/ Tsunami</p>	<p>Medium/ Continuing</p>	<p>City of Tallahassee Growth Management and Underground Utilities & Public Infrastructure, DSEM, Leon County Public Works; Tallahassee-Leon MIS/GIS</p>	<p>City of Tallahassee & Leon County</p>	<p>EMPA Trust Fund (DEM); Small Watershed Program (USDA); Emergency Advance Measures for Flood Prevention (Army Corps); Resource Conservation and Development Program (USDA); Soil and Water Conservation Program (USDA); National Flood Mitigation Fund (FEMA)</p>
<p>(6) Explore methods to eliminate additional development in the 25-year floodplain.</p>	<p>This initiative aims at keeping new buildings from the highest risk area of the floodplain, and might include an acquisition effort targeting undeveloped lots.</p> <p><u>Status:</u> The City of Tallahassee, Growth Management Department continues to consider new ordinance language to accomplish this goal.</p>	<p>Flooding</p>	<p>High/ Continuing</p>	<p>City of Tallahassee Growth Management and DSEM, Tallahassee-Leon County Planning</p>	<p>City of Tallahassee & Leon County</p>	<p>Local</p>

Table 3.3. Prioritized Mitigation Initiatives with Potential Funding Sources, 2019

Initiative	Summary/Status as of April 2019	Hazards	2015 Estimated Costs & Timeframe	Responsible Agencies	Jurisdiction	Potential Funding Sources
<p>(7) Create a public education campaign and community program that promotes awareness of vulnerability to hazards in our community and encourage disaster preparation.</p>	<p><u>Status:</u> : Capital Area Chapter of the American Red Cross has developed the “Ready Rating Program.” The program is designed to mitigate the impact of various disasters by educating residential and commercial property owners on personal actions they can take to reduce the effects of a disaster (such as removing dead limbs, putting up shutters / plywood, creating a safe room in your house/business, etc.).</p> <p>The City, Red Cross and County hosted an annual “Build a Bucket” disaster fair focusing on the community’s vulnerability to various disasters and possible mitigation techniques, including wildfire mitigation actions developed by the Florida Forest Service. The fair could be hosted annually as a stand-alone event and integrated into other community events throughout the year. This strategy would address creating a safe room within the home, general home protection procedures, etc.</p> <p>Leon County Emergency Management also supports NOAA’s Weather Ready Nation initiative. NOAA’s Weather-Ready Nation initiative is first and foremost to save more lives and livelihoods. By increasing the nation’s weather-readiness, the country will be prepared to protect, mitigate, respond to and recover from weather-related disasters.</p> <p>As part of the Weather-Ready Nation initiative, NOAA, along with partners, wants to motivate individuals and communities to take actions that will prepare them in the event of a weather disaster and to share their preparedness steps with others. These actions can save lives anywhere - at home, in schools, and in the workplace before tornados, hurricanes, and other extreme types of weather strike.</p>	<p>All Hazards</p>	<p>Low/ Continuing (for Repetitive Flood Loss Property Owners, Owners of Property in Floodplain, and Utility billing educational inserts)</p>	<p>City of Tallahassee and Leon County Emergency Management; Capital Area Red Cross</p>	<p>City of Tallahassee & Leon County</p>	<p>EMPA Trust Fund (DEM)</p>
<p>(8) Continue current efforts to remove dead, dying or diseased trees or branches next to roadways and power lines.</p>	<p>Debris from storm events poses a hazard to overhead power lines and roads.</p> <p><u>Status:</u> Existing City Electric utility tree trimming policy is to trim all vegetation back to 6 feet from existing power lines an 18-month cycle. Commission approved policy allows neighborhoods with high rates of outages due to vegetation to request additional clearance up to 10 feet from existing power lines. In 2017, the City started an enhanced tree trimming program cutting 12’ above the electric lines. The City has been designated as a “Tree City”</p>	<p>Hurricanes & Tropical Storms, Tornados, Thunderstorms, Exotic Pest Infestations, Drought</p>	<p>High/Continuing</p>	<p>City of Tallahassee Underground Utilities & Public Infrastructure and Leon County Public Works, City Electric Utilities and Talquin Electric</p>	<p>City of Tallahassee & Leon County</p>	<p>Local</p>

Table 3.3. Prioritized Mitigation Initiatives with Potential Funding Sources, 2019

Initiative	Summary/Status as of April 2019	Hazards	2015 Estimated Costs & Timeframe	Responsible Agencies	Jurisdiction	Potential Funding Sources
	USA and "Tree City Growth" USA for 2018. Significant tree clearing has been done before, during and after Hurricane Michael 10/10/18.					
(9) City of Tallahassee and Leon County flood-related capital improvement projects.	<u>Status:</u> Numerous stormwater projects have been identified as necessary to provide relief to existing flood problems. A complete list of projects for the City of Tallahassee are included in Table-1 & Table-2 attached.	Flooding/ Tsunami	High/Continuing	City of Tallahassee Underground Utilities & Public Infrastructure and Leon County Public Works	City of Tallahassee & Leon County	CDBG (DEO); HMGP (DEM); Emergency Bank Protection (Army Corps); STP (ISTEA); Sustainable Development Challenge Grants (EPA); National Flood Mitigation Fund (FEMA); Soil and Water Conservation (USDA); Resource Conservation and Development (USDA); Small Watershed Program (USDA)
(10) Acquire parcels subject to flooding in the 100-year floodplain.	This initiative builds on past City/County floodplain acquisition efforts and would be enhanced by improved information developed through Initiative #5. Acquisitions would target improved parcels with the most vulnerable structures. <u>Status:</u> The City and County continue to evaluate potential acquisition projects and possible funding sources for property acquisitions within the 100-year floodplain. Many parcels within the 100-year floodplain have been purchased by the City of Tallahassee and Leon County during previous years to provide flood relief to flood prone property owners. Some of these acquisition projects were entirely funded using local dollars. Others were funded through state and federal programs while also making use of local matching funds. Examples of these programs include the Flood Mitigation Assistance Program and the Hazard Mitigation Grant Program, both of which are FEMA programs administered by the Florida Division of Emergency Management. The City of Tallahassee has	Flooding, Hurricanes & Tropical Storms, Storm Surge/ Tsunami	High/Continuing	City of Tallahassee Underground Utilities & Public Infrastructure; Leon County Public Works; Tallahassee - Leon County Planning	City of Tallahassee & Leon County	Florida Communities Trust; HMGP

Table 3.3. Prioritized Mitigation Initiatives with Potential Funding Sources, 2019

Initiative	Summary/Status as of April 2019	Hazards	2015 Estimated Costs & Timeframe	Responsible Agencies	Jurisdiction	Potential Funding Sources
	recently purchased and exchanged floodplain property near Texas Street.					
<p>(11) Develop and maintain emergency notification systems for all hazards and critical facilities.</p>	<p>Emergency notifications and warnings are essential to protecting lives and property. Immediate notification to a specific area is critical during rapidly developing situations such as tornados, hazardous material releases, and flash and other flooding events. This system can also be used to inform residents of utilities issues such as boil water notices, power outages, sewer issues, Amber Alerts and more.</p> <p><u>Status:</u></p> <p>Both the City of Tallahassee and Leon County have developed communications departments that also regularly send out public notifications via press releases, social media, and institutional websites. In addition to these capabilities, there are several warning systems already in place within Leon County and the City of Tallahassee. For instance, the Federal Emergency Management Agency, Federal Communications Commission, and the Wireless Communications Industry launched the Wireless Emergency Alert (WEA) system in 2013. This system sends concise, text-like messages to WEA capable mobile devices. Wireless providers, representing 97% of subscribers, are participating in distributing Wireless Emergency Alerts. Mobile users will not be charged for receiving these text-like alerts and are automatically enrolled to receive them. Wireless Emergency Alerts are a point-to-multipoint system, which means alert messages will be sent to those within a targeted warning area, unlike text messages which are not location aware. Wireless Emergency Alerts distributed by the National Weather Service include: Tornado Warning, Extreme Wind Warning, Flash Flood Warning, and Hurricane Warning. There are several flood-warning networks in place throughout the City and County, including a telephone-based warning system at the Lake Talquin Dam, and the Capital Area Flood Warning Network and the City of Tallahassee’s Rainfall Data Telemetry System. The Capital Area Flood Warning Network and the City of Tallahassee Rainfall Data Telemetry System provide</p>	All Hazards	Medium/Continuing	Leon County, City of Tallahassee, Emergency Management; Law Enforcement, Fire and Health; FSU; FAMU; TCC	City of Tallahassee & Leon County	HMGP (DEM); National Flood Mitigation Fund (FEMA) U.S. Department of Homeland Security

Table 3.3. Prioritized Mitigation Initiatives with Potential Funding Sources, 2019

Initiative	Summary/Status as of April 2019	Hazards	2015 Estimated Costs & Timeframe	Responsible Agencies	Jurisdiction	Potential Funding Sources
	<p>real-time rainfall totals and water levels at key points within the community. Emergency Management Officials can then use this information during major storm events to identify potential areas of flooding.</p> <p><i>Leon County</i></p> <p>Leon County utilizes the internet website http://cms.leoncountyfl.gov/ei/ to post all-hazards emergency public information for use by citizens and the media during emergency events. They also utilize a subscription service (powered by GovDelivery) available at the Leon County website for citizens to sign up for all-hazards emergency notifications, traffic notifications, as well as general Leon County government announcements. Notifications are available via email and SMS.</p> <p>During an emergency, Leon County Emergency Management staff can broadcast live through an electronic link on WFSU-88.9 FM. This provides full radio coverage throughout Leon County and the surrounding area as a primary resource for emergency and public safety information. From local government’s experiences with Hurricane Hermine, County emergency management staff has recommended that WFSU be designated as a critical facility, that EOC personnel be tasked to report this information, and to review and upgrade if necessary the existing telecommunications link with WFSU (88.9 FM) located in the Public Safety Complex. An additional recommendation includes considering providing WFSU’s video production support (satellite uplink, etc .) to media partners in the Public Safety Complex in order to broadcast briefings and community updates.</p> <p><i>City of Tallahassee</i></p> <p>The City of Tallahassee’s Water Quality Administration has initiated a remote detection system to determine the status and condition of the potable well facilities. This system achieves the goal of an audible alarm system for our potable water system. The Thomas P. Smith wastewater treatment plant on Springhill Road has a separate monitoring system with audible alarms for all equipment. The SCADA system monitors for potential chemical and gas leaks with audio and visual alarms.</p>					

Table 3.3. Prioritized Mitigation Initiatives with Potential Funding Sources, 2019

Initiative	Summary/Status as of April 2019	Hazards	2015 Estimated Costs & Timeframe	Responsible Agencies	Jurisdiction	Potential Funding Sources
	<p>COT Electric Utility staff maintains a list of email and phone numbers for residents downstream of the Corn Hydro Facility (i.e., Lake Talquin Dam). This list enables automatic email and phone distribution of either early warning of flooding due to know events upstream or emergency notification of rapidly developing events. Additionally, an emergency siren exists at the dam for boaters and residents in the immediate downstream area. These systems are tested on a quarterly basis and worked well during Hurricane Hermine and Hurricane Michael.</p> <p><i>Tallahassee Community College</i></p> <p>Tallahassee Community College (TCC) utilizes an Emergency Notification System called TCC Alert. System components include:</p> <ul style="list-style-type: none"> • RAVE emergency reporting software sends messages to classroom phones, personal phones including text messages, E-mails and computer screen pop-ups for all campus computers. • Federal Signal Outdoor Siren System / Audible Messages • Captiveeyes T.V. monitors screen pop-ups located throughout the campus <p><i>Florida State University</i></p> <p>The Florida State University (FSU) Alert emergency notification and warning system (http://emergency.fsu.edu/services/FSUAlert) at provides 35+ methods of delivery, single-button activation, and end-user delivery in 5 minutes or less. The university continues to develop and improve the system with expanded coverage, new interoperable communications technologies, and redundancies to ensure operability at all times under all conditions.</p> <p>FSU recently added capabilities to issue emergency alerts and share response information through a new mobile app called SeminoleSAFE. The FSU ALERT EZ system allows for single-button activation and streamlines warning and notification to 3-5 minutes or less in the most extreme situations.</p> <p>FSU has identified locations on its campus prone to flooding with associated personal injury and property</p>					

Table 3.3. Prioritized Mitigation Initiatives with Potential Funding Sources, 2019

Initiative	Summary/Status as of April 2019	Hazards	2015 Estimated Costs & Timeframe	Responsible Agencies	Jurisdiction	Potential Funding Sources
	<p>damage. University emergency management staff has proposed to install flood detection equipment in several key locations on its campus and integrate these stations into the FSU ALERT emergency notification and warning system. This Flood Detection and Warning system will require additional funding to implement.</p> <p>FSU has proposed a regional lightning mapping array (LMA). This regional lightning detection and warning system would provide all public and non-profit entities in the region advanced warning of the potential of a lightning strike, followed by active monitoring capabilities once lightning is occurring. With advanced warning, detection and monitoring capabilities, the goal is to mitigate the risk to life and property from lightning strikes. FSU is exploring various possibilities for support.</p> <p>A local company, WeatherSTEM, has partnered with Florida State University, Tallahassee Community College, Florida A&M University, Leon County Schools and others to install forty-three weather stations throughout Tallahassee-Leon County. This regional weather MESONET of weather stations allows the general public and others the opportunity to enroll in personal notifications of a variety of weather conditions, including lightning. The system provides a Professional Lightning Advisor (PLA) feature which allows people to monitor an ongoing lightning threat and determine when it is safe to resume normal activities. Additional stations and system features are in continual development.</p> <p><i>Florida Agricultural and Mechanical University</i></p> <p>The Florida Agricultural and Mechanical University (FAMU) emergency notification system issues warnings through Blackboard Connect, the University's emergency notification system. This web-based system sends instant alerts to all students, faculty and staff cell phones, e-mail, and/or pagers. On the main campus (Tallahassee), when notification is necessary due to an immediate and serious threat to public safety, the campus community will also be alerted through its Emergency Siren System, which delivers an audible tone followed by a voice message to the community notifying them of the immediate threat.</p> <p>Overall, monitoring and communications equipment, especially for state of the art digitally-based systems that</p>					

Table 3.3. Prioritized Mitigation Initiatives with Potential Funding Sources, 2019

Initiative	Summary/Status as of April 2019	Hazards	2015 Estimated Costs & Timeframe	Responsible Agencies	Jurisdiction	Potential Funding Sources
	protect critical facilities, can often require significant startup and/or maintenance funding commitments.					
(12) Explore the feasibility of adding a full build-out component to the Leon County Master Stormwater Management Plan	<p><u>Status:</u> The master Stormwater management plan does not take into account Stormwater and flooding impacts given future build-out conditions for the entire County. This information could be used to revise existing floodplain regulations so that they reflect projected build-out conditions. Based on information from the Leon County Public Works Department, there are no plans to update the Master Plan at this time due to staffing limitations and current allocation of available resources.</p>	Flooding, Hurricanes & Tropical Storms, Storm Surge/ Tsunami	Medium/Continuing	DSEM, Tallahassee-Leon County Planning	Leon County	EMPA Trust Fund (DCA); Small Watershed Program (USDA); Emergency Advance Measures for Flood Prevention (Army Corps); Resource Conservation and Development Program (USDA); Soil and Water Conservation Program (USDA); National Flood Mitigation Fund (FEMA)
(13) City and County are to implement a program to acquire easement or fee simple land allowing access to maintain the major ditches/canals to reduce flooding.	<p>The program would consist of the acquisition of easements for ditches and the necessary land to access the ditches so normal maintenance can be performed. Currently the City of Tallahassee is responsible for the maintenance of over 23 miles of major ditches, and the County maintains over 28 miles of major ditches. About 15 miles have adequate access easements, are located within an easement or are located on public ROW. Approximately 30 acres are needed to have full public access to maintain the ditches.</p> <p><u>Status:</u> The County has no plans to acquire any additional easements or fee simple properties for maintenance access. The City continues to acquire properties and/or easements as needed in conjunction with stormwater management capital improvement projects. The most recent easement was obtained near Golf Terrace Drive.</p>	Flooding	High/Continuing	City of Tallahassee Underground Utilities & Public Infrastructure; Leon County Public Works	City of Tallahassee & Leon County	HMGP (DEM); National Flood Mitigation Fund (FEMA)

Table 3.3. Prioritized Mitigation Initiatives with Potential Funding Sources, 2019

Initiative	Summary/Status as of April 2019	Hazards	2015 Estimated Costs & Timeframe	Responsible Agencies	Jurisdiction	Potential Funding Sources
<p>(14) Secure funding source for identified shuttering and hardening needs for windows at Tallahassee Memorial Hospital (TMH).</p>	<p>Tallahassee Memorial Hospital is highly susceptible to wind damage from a tropical storm/hurricane. Currently neither hospital has storm shutters in place. As one of the primary hospitals serving the City of Tallahassee, Leon County and the region, local emergency management personnel should work with TMH to identify shutter options and hardening needs for windows, including costs. In addition, efforts should be undertaken to identify and harden essential support facilities (such as generators) at the hospital.</p> <p><u>Status:</u> Once a possible funding source is identified, the committee has discussed applying for window protection at TMH. TMH has developed an application for hazard mitigation and is ready to proceed when funding becomes available. The other Tallahassee community hospital, Capital Regional Medical Center has installed hardened windows.</p>	<p>Flooding, Hurricanes & Tropical Storms, Storm Surge/ Tsunami</p>	<p>High/Continuing</p>	<p>City of Tallahassee and Leon County Emergency Management</p>	<p>City of Tallahassee & Leon County</p>	<p>EMPA Trust Fund (DEM); HMGP (DEM); CDBG (DEO)</p>
<p>(15) Consider addressing the economic impact of different disaster scenarios, as information becomes available.</p>	<p><u>Status:</u> The Florida Division of Emergency Management (FDEM) has considered developing an economic impact model as part of their disaster modeling. Some data are already available through the TAOS and/or Hazus models.</p> <p>The City of Tallahassee, Leon County, and the Capital Area Chapter of the American Red Cross have programs in place to assess the impacts of disaster immediately following an event. Damage Assessment Teams are deployed following a disaster on a countywide basis to document disaster-related damages. This data is available to local, state, and federal governments, as well as local non-profits, universities, and other organizations.</p> <p>Tallahassee - Leon County GIS (TLCGIS) has developed HAZUS capabilities and training. This software program has been used to estimate direct economic loss from building damage and indirect losses such as business interruption. These data and their model result are also used in the previous Tallahassee – Leon County Post-Disaster Redevelopment Plan (PDRP). Updated HAZUS model and data will be utilized for the 2019 update of the PDRP which is in progress now. Additionally, HAZUS can estimate shelter needs based on population and socioeconomic information, as well as other impacts and mitigation needs. The Apalachee Regional Planning Council and</p>	<p>All Hazards</p>	<p>Low/Continuing</p>	<p>TLCGIS, City & County Offices of Management and Budget</p>	<p>City of Tallahassee & Leon County</p>	<p>Local</p>

Table 3.3. Prioritized Mitigation Initiatives with Potential Funding Sources, 2019

Initiative	Summary/Status as of April 2019	Hazards	2015 Estimated Costs & Timeframe	Responsible Agencies	Jurisdiction	Potential Funding Sources
	FDEM maintain and provide HAZUS information annually to the City and Leon County.					
<p>(16) Continue to improve and expand regional response capabilities for responding to hazardous materials and terrorism events.</p>	<p>The possibility of an incident involving a weapon of mass destruction or a hazardous materials release exists within Leon County. County EM is preparing a response plan and now needs to identify the equipment needed to respond to effectively to an incident. In addition, the City and County need to identify potential funding sources to acquire the highly specialized, and often expensive, equipment.</p> <p><u>Status:</u> Tallahassee Fire Department (TFD) has the only hazardous materials response unit in the region (between Alachua and Escambia Counties, and to a lesser extent, Bay County). Currently, TFD will respond to hazardous materials incidents outside of the County. TFD has also created a Regional Hazardous Materials Response Team.</p> <p>Our community emergency management officials have identified equipment needs and have purchased many of these items with funding from the federal Department of Homeland Security and the Federal Emergency Management Agency. A local committee outlines items to be purchased, and funding is coordinated through the Regional Domestic Security Task Force. However, available funding for this initiative is decreasing.</p>	<p>Hazardous Materials Storage and Transportation, Terrorism, Aviation Incidents</p>	<p>Medium/Continuing</p>	<p>City of Tallahassee and Leon County Emergency Management</p>	<p>City of Tallahassee & Leon County</p>	<p>DEO/FEMA and other federal agency grants Chemical Emergency Preparedness and Prevention Grants Program (EPA); Disposal of Federal Surplus Property (GSA); Hazardous Materials Training Program (FEMA)</p>
<p>(17) Maintain training programs for emergency responders, and continue to identify new training programs as needed.</p>	<p>In the event of a natural disaster, hazardous material release, or other catastrophic incident, numerous emergency responders, often with widely different roles, will be required to work as a single, integrated unit. Key to this effort is training. The City and County need to continually identify the different training needs for numerous responders, including, but not limited to dispatchers, initial responders, field responders, and incident commanders. Included as part of this is a continuous training program, involving classroom training, tabletop exercises and field exercises. The effort should also address the development and implement public awareness training programs.</p> <p><u>Status:</u> The Apalachee Regional Planning Council, Tallahassee, Gainesville, Thomasville, Valdosta and other surrounding communities have worked together on regional responses. In Florida, surrounding communities</p>	<p>All</p>	<p>Low/Continuing</p>	<p>City of Tallahassee and Leon County Emergency Management</p>	<p>City of Tallahassee & Leon County</p>	<p>Hazardous Materials Training Program (FEMA); Chemical Emergency Preparedness and Prevention Grants Program (EPA)</p>

Table 3.3. Prioritized Mitigation Initiatives with Potential Funding Sources, 2019

Initiative	Summary/Status as of April 2019	Hazards	2015 Estimated Costs & Timeframe	Responsible Agencies	Jurisdiction	Potential Funding Sources
	<p>have agreed to support each other through the Fire Chief's Association and the Regional Domestic Security Tasks Forces. There are seven of these in Florida, and they support each other as needed.</p>					

<p>(18) Identify populations at risk under different scenarios.</p>	<p>Determine the impact on housing, medical, evacuation, shelters, etc., for different populations such as those attending special events, student populations, and the elderly.</p> <p><u>Status:</u> Leon County has developed HAZUS capabilities and training. This software program has been used to estimate direct economic loss from building damage and indirect losses such as business interruption. Additionally, HAZUS can estimate shelter needs based on population and socioeconomic information. Leon County Geographical Information system (GIS) department has received HAZUS 4.2 and will use it to compare known damages from Hurricane Hermine. It will also be integrated into the 2020 LMS update.</p> <p>The Local Mitigation Strategy Steering Committee regularly meets to discuss these issues. Additional coordination has also taken place using the digital information available through the community’s Geographic Information System. In addition, the Florida Department of Health and the Florida Division of Emergency Management also considers this topic for hazardous materials.</p> <p>In addition, the Leon County and the City of Tallahassee in 2011-2012 collaboratively developed a Post-Disaster Redevelopment Plan (PDRP) to better prepare the community for long-term recovery and redevelopment after a disaster. This plan complements other planning efforts ongoing in the city and the county, including the Comprehensive Plan, Local Mitigation Strategy (LMS) and Comprehensive Emergency Management Plan (CEMP). The PDRP identifies policies, operational strategies and roles and responsibilities for implementation that will guide decisions that affect long-term recovery and redevelopment of the community after a disaster. The PDRP is required to be updated every five years. It is being updated at this time.</p> <p>Leon County now also requires a Temporary Uses, Construction Staging Areas and Special Events Permit for events intended to accommodate an attendance of 250 or more persons. The County’s Department of Development Support and Environmental Management processes this permit, which is reviewed by the County’s Development Services Division, Fire Safety Office, Emergency Medical Services, Sheriff’s Office and the Health Department.</p>	<p>All</p>	<p>Low/Continuing</p>	<p>TLCGIS, City of Tallahassee and Leon County Emergency Management, and City of Tallahassee - Leon County Planning</p>	<p>City of Tallahassee& Leon County</p>	<p>EMPA Trust Fund (DEM)</p>
<p>(19) Encourage the establishment of community-based emergency shelters.</p>	<p>Subdivisions, mobile home parks, etc. that have storm shelters incorporated into their designs would provide additional sheltering capacity and eliminate the need to evacuate residents. These buildings could double as community centers.</p>	<p>All</p>	<p>Low/ Continuing</p>	<p>City of Tallahassee and Leon County Emergency Management</p>	<p>City of Tallahassee& Leon County</p>	<p>Local</p>

Table 3.3. Prioritized Mitigation Initiatives with Potential Funding Sources, 2019

Initiative	Summary/Status as of April 2019	Hazards	2015 Estimated Costs & Timeframe	Responsible Agencies	Jurisdiction	Potential Funding Sources
	<p><u>Status:</u> The City of Tallahassee and Leon County have a total of 15 school campuses and 72 buildings, which meet the Red Cross standards and can be used as emergency shelters. In addition, the City of Tallahassee is now providing transportation to persons who regularly ride StarMetro seeking shelter. Six shelters were employed during Hurricane Michael on October 10, 2018 serving over 1,500 people.</p> <p>Through the successful completion of several structural hardening mitigation projects, Florida State University now maintains an inventory of four buildings with the capability to shelter 3,140 of its own students, faculty, staff and their immediate family members on campus, without burdening the community shelter system.</p>					
<p>(20) Identify major land-based transportation corridors and establish safe zones around those corridors based on the exposure pathway for different chemicals.</p>	<p>This would also include identification of all structures, facilities and special need populations in the corridors. Provide ready access to this information to hazardous material response personnel, preferably from deployed resources (such as a GIS capability on the hazardous response vehicle).</p> <p><u>Status:</u> The Apalachee Regional Planning Council has developed a commodity transportation study for hazardous materials. In addition, local Emergency Management officials have developed preliminary mapping of safe zones, 1-2 miles along the major routes through the community.</p>	<p>Hazardous Materials Storage and Transportation</p>	<p>Low/Continuing</p>	<p>City of Tallahassee and Leon County Emergency Management</p>	<p>City of Tallahassee & Leon County</p>	<p>Hazardous Materials training Program (FEMA); Chemical Emergency Preparedness and Prevention Program (EPA)</p>

City of Tallahassee/Leon County Local Mitigation Strategy
Hazard Mitigation Procedures Initiatives
2018 Progress Report - Attachment

Table 1: City of Tallahassee Drainage Improvement Projects

The City has identified the following 16 drainage improvement projects in its current Capital Improvement Program (FY2018-2022). The estimated cost of these projects totals \$94,739,630.

Project	Cost (\$)	Prior Year	Current Status
Downtown Stormwater Master Plan	850,000	Analysis	Analysis
Frenchtown Stormwater Master Plan ⁽¹⁾	12,145,400	(see note 1 below)	(see note 1 below)
Inglewood Stormwater Improvements	1,485,300	Construction	Construction
Lower Central Drainage Ditch ⁽²⁾	12,450,050	Design/ Construction	Design/ Construction
Madison-Gaines St. Stormwater Outfall	7,250,000	Construction	Complete
Maclay Boulevard Stormwater Facility ⁽²⁾	13,800,000	Design/ Construction	Design/ Construction
McCord Pond Drainage Ditch Improvements Project	5,500,000	n/a	Preliminary Engineering
Medium Stormwater System Imprv. ⁽³⁾	12,000,000	New	(see note 3 below)
Meginnis Arm LOMR	225,000	FEMA Review	Complete
Northeast Ditch Tributary 2 Flood Study	120,000	FEMA Review	FEMA Review
Pensacola Street Stormwater Outfall ⁽²⁾	1,200,000	n/a	Design
Rainfall and Stream Gauging	2,251,861	Data gathering	Data gathering
Royal Oaks Creek	5,650,000	Design	Design/ Construction
Small Projects Initiative (see below)	750,000	See Table 2 below	See Table 2 below
Stormwater Infrastructure Inventory and Mapping	3,360,000	Data gathering	Data gathering
South City – Country Club Creek & East Ditch LOMR	3,300,000	Preliminary Design	Final Design
Total	82,337,611		

Notes:

1. The Frenchtown Stormwater Project has been segmented into multiple phases. Nine phases have been constructed while other phases are in various stages of implementation.
2. These projects have been segmented into multiple Phases in various stages of implementation.
3. The Medium Stormwater System Improvement Project funds the construction of multiple small to medium sized projects, some of which are listed under the Small Projects Initiative (SPI) project list (Table 2).

City of Tallahassee/Leon County Local Mitigation Strategy
Hazard Mitigation Procedures Initiatives
2018 Progress Report - Attachment

**Table 2: City of Tallahassee Drainage Improvement Projects -
Small Projects Initiative – Current & Planned Projects**

Project	Prior Year Activity	Status
3244 Shannon Lakes	Completed	N/A
903 Beard Street	Completed	N/A
Limerick Drive Outfall	Shelved	N/A
1423 Devils Dip	Under Construction	Completed
1829 Ivan drive	Completed	N/A
3033 Shamrock South	Design	Under Construction
Gwen Street	Study	Study
Limerick Drive (near 2220 Limerick Drive)	Construction	Completed
Tory Sound	Construction	Completed
Arkansas Street	Design	Design
Lee Avenue	Shelved	N/A
Short Street	Design	Construction
Sauls Street	Completed	N/A
Glendale Drainage Improvements	Design	Design
1125 Seminole Drive	Shelved	N/A
Longstreet/Pickett Court	Shelved	N/A
Breckenridge on Park	Study	Design
Atchena Nene Drainage Improvements	Study	Design
Adams Street and College Avenue Drainage Improvements	Completed	N/A
2494 Elfinwing Lane & 3753 Swallowtail Trace	Study	Design
Brandon Hill Drive Drainage Improvements	Study	Study
University Park Drainage Improvements	Completed	N/A
Rosemary Terrace Flood Relief	Study	Study
Olson Road Stormwater Outfall Improvements	Design	Design
806 Ridge Road	Design	Completed
1121 and 1123 Clay Street	Design	Design

City of Tallahassee/Leon County Local Mitigation Strategy
Hazard Mitigation Procedures Initiatives
2018 Progress Report - Attachment

Project	Prior Year Activity	Status
Fermanagh Drive Curb Inlet Modifications	Study	Study
Chestwood Avenue	Study	Study
Pinewood Drive – Delta Office Park Stormwater Outfall	Study	Design
1528 and 1526 Blountstown Street	Future	Complete
Pine View / Pine Forest Drainage Improvements	Future	Study
227 Palmer Avenue East	Future	Future
2216 Tallahassee Drive	Future	Study
2280 & 2328 Sandpiper St	Future	Future
1930 E Indian Head Drive	Future	Future
1514 Chowkeebin Nene	Future	Future
3713 Sulton Court, 548 Maclay Road	Future	Future
2027 Holmes St, 2016 Warwick St	Future	Future
1312 Pepper Drive Land Acquisition		Complete
1327 Linda Ann Drive		Design
3701 Aksarben Street		Study

Note: All “Small Projects Initiative” projects that are listed as “On Hold” have been recommended for construction and are awaiting implementation. SPI projects listed as “Future” are planned in the SPI program and are planned to be implemented in the order listed. SPI projects listed as “Integrated” are included as a component or part of a major capital improvement project.