



Memorandum

Date: August 30, 2022
To: City or Bonita Springs Mayor and City Council
From: Carly Sanseverino, Staff Attorney
Subject: Floodplain Management Plan FY21-22 Annual Progress Report

One of the requirements for participation in the National Flood Insurance Program's Community Rating System (NFIP CRS) is that the City must provide an annual progress report on the City's Floodplain Management Plan. Per City of Bonita Springs Resolution No. 22-31, the City's Flood Management Plan is the adopted *Joint Local Mitigation Strategy* (LMS). This memorandum serves as the required annual progress report and will be published on the City's website for public viewing.

Background

The *Joint Local Mitigation Strategy* (LMS) is an extension of the *Hazard Identification and Risk Assessment* and a companion document to the *Lee County Comprehensive Emergency Management Plan* the City's *Emergency Operations Plan*. This strategy sets forth the mitigation framework throughout Lee County and establishes a vision, mission, and priorities for mitigation activities in the area. The strategy undergoes regular, annual maintenance through the Local Mitigation Strategy Working Group and quinquennial review and adoption by the governing bodies of each participating jurisdiction. As part of the five-year cycle, the strategy is reviewed by the State of Florida and by the Federal Emergency Management Agency. A copy of the Joint Local Mitigation Strategy (2022) is available at the Lee County website: www.leegov.com/publicsafety/emergencymanagement.

Since the adoption of the *Joint Unified Local Mitigation Strategy* in 2017, Lee County has added several public shelters, developed and improved stakeholder coordination, implemented ordinance and code enforcement for development in coastal areas, and engaged the public in hazard awareness campaigns. Lee County and its political subdivisions have developed and improved alert and warning capabilities, renewed its community hazard assessments, and incorporated short-term mitigation activities as part of response operations to tropical cyclone and pandemic events.

Attached hereto is a report containing a status update for each of the mitigation initiative action items located within the City of Bonita Springs that support the goals and objectives of the *Joint Local Mitigation Strategy*. The second attachment includes the goals and objectives.

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Annual Progress Report Preparation, Distribution and Availability

This report was prepared by Carly Sanseverino, the Staff Attorney, and Elly McKuen, Senior Project Manager for the City of Bonita Springs. The annual progress report is made available to the City Council, the media, and the public via the City of Bonita Springs website. A copy of the report is sent annually to the State of Florida NFIP Coordinator's office via email.

Strategy Monitoring and Evaluation

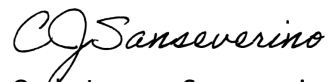
The Lee County Disaster Advisory Council is designated to guide pre-disaster hazard mitigation efforts and on-going mitigation efforts. This council, initially formed in 1990 as the Recovery Task Force, was established by the County's Post Disaster Ordinance and serves as the County's Local Mitigation Strategy Workgroup. The LMS Working Group oversees the development, implementation, and maintenance of the LMS, and it is their responsibility to identify community mitigation needs and to facilitate the development of projects to meet those needs.

The Local Mitigation Strategy Working group meets quarterly, as necessary. Meetings are advertised to the public and official minutes are kept and made available to a variety of agencies, as well as the public. The monitoring of the mitigation initiatives is done at these meetings by allowing the status of the LMS mitigation initiatives to be documented and updated in the plan.

Conclusion

This concludes the City of Bonita Springs FY21-22 Floodplain Management Plan Annual Progress Report. Should you have any questions regarding this document, please contact the undersigned.

Sincerely,



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**ATTACHMENT 1
MITIGATION ACTIONS STATUS REPORT
FY2021-22**

1. Logan Boulevard Drainage Improvements – Phase 1 (Tier 1)

- a. Scope: The proposed project will connect the Kiehl Canal to a drainage canal on the eastern boundary of Radio Tower Road, under Bonita Beach Road and along Logan Boulevard to an east/west spreader swale.
- b. Total project cost: \$2,350,000
 - i. HMGP request: \$1,762,500
 - ii. City match: \$587,500
- c. Phase 1 contract with FDEM awarded for design and construction plans on January 13, 2020.
 - i. City staff and Singhofen & Associates have completed the H&H study, flood modeling, cost estimates, benefit cost analysis, and construction plans
 - ii. City in process of packaging project deliverables to Florida Department of Emergency Management (FDEM) for final approval of Phase 1
 - iii. FDEM will review and as applicable will provide Phase 2 – Construction dollars to construct the project

2. Pine Lake Preserve Water Retention/Flood Improvement

- a. Scope: The project will redirect flows from a stormwater ditch on the northern boundary of the property along East Terry Street, south onto the property, via the construction of berms and overland flow-ways.
- b. Project Cost: \$950,000
 - i. U.S. Dept of Environmental Protection Agency (319-h funds – pass-through state funding agency is Florida Department of Environmental Protection funding: \$ 580,000
 - ii. City match: \$ 370,000
- c. Grant contract with FDEP executed on June 19, 2020
 - i. TSI Disaster Recovery, LLC awarded a contract on December 16, 2020 through the City’s solicitation process
 - ii. Construction began February 1, 2021 and was completed by May 2021
 - iii. City is in the 1-year monitoring phase currently

3. IBE/Quinn/Downs/Dean/West of Imperial Acquisition (Tier 2)

- a. Scope: The acquisition project will provide flexibility for the residents in various neighborhood throughout the City to eliminate/mitigate the possibility of encountering flood damage from high intensity rain events, tropical storms and hurricanes.
- b. Project Cost: \$11,455,535
 - i. Florida Department of Economic Opportunity (FDEO) – FDEO capped the request at \$5,000,000 for applicants

- ii. City match: No match required since it was Community Development Block Grant – Disaster Recovery (CDBG-DR)
- c. To date the City has acquired and demolished 3 single family homes. The properties will remain vacant in perpetuity with identified deed restrictions.
- d. The City is currently working with 8 more homeowners that have expressed interest in selling their property to the City.

4. IBE/Quinn/Downs/Dean/West of Imperial Drainage Improvements (Tier 2)

- a. Scope: The drainage improvement project would analyze existing conditions, survey, and map land elevations to determine how to improve the elimination of standing water in the neighborhoods.
- b. Project Cost: \$11,021,919
 - i. Florida Department of Economic Opportunity (FDEO)
 - 1. City’s request: \$11,021,919
 - 2. No match required since it was Community Development Block Grant - Mitigation (CDBG-MIT)
- c. FDEO awarded contract: July 8, 2020
- d. City procured for engineer to design project: American Structurepoint, Inc. hired December 1, 2021
- e. Hydraulic & Hydrology Study and stormwater modeling complete
- f. Engineer is working on construction plans and cost estimates

5. Spring Creek/Bonita Springs Golf Course Flood Improvement – Phase 1 (Tier 2)

- a. Scope: The acquisition of approximately 111 acres identified as the former Bonita Springs Golf Course will provide a receiving area to store and treat water flowing from the headwaters of Spring Creek.
- b. Project Cost: \$9,900,000
 - i. HMGP request: \$7,425,000
 - ii. City match: \$2,475,000
- c. Phase 1 contract with FDEM awarded for design and construction plans on December 12, 2019.
 - i. City has completed all tasks and deliverables for Phase 1. Working on deliverables packet to send to FDEM for evaluation and recommendation to fund Phase 2 construction funds

6. Citrus Park Drainage Improvements – Phase 1 (Tier 2)

- a. Scope: Acquisition of land in eastern Bonita Springs for flood control and water management systems.
- b. Project Cost: \$9,400,000
 - i. HMGP request: \$7,050,000
 - ii. City match: \$2,350,000
- c. Phase 1 contract with FDEM awarded for design and construction plans on July 22, 2021.

- i. City has completed all tasks and deliverables for Phase 1. Working on deliverables packet to send to FDEM for evaluation and recommendation to fund Phase 2 construction funds.

ATTACHMENT 2 LOCAL MITIGATION STRATEGY GOALS AND OBJECTIVES

Goal 1

Support prevention activities and projects that reduce the risk of life and damage to property from identified hazards.

Objective 1.1

Preventive activities that are addressed in various comprehensive planning and land development regulations shall be governed by the appropriate goals, objectives and policies contained in the following documents:

City of Bonita Springs: City of Bonita Springs Comprehensive Plan

Objective 1.2

Continue to support the efforts to purchase environmentally sensitive areas that promote the preservation of open space in specified hazard areas using Conservation 2020 funds, and to leverage other funding sources by working with state land acquisition and land management agencies.

Objective 1.3

Continue to enforce floodplain regulations that provide greater flood protection than required under current National Flood Insurance Program standards.

Objective 1.4

Continue to support the South Florida Water Management District's efforts to increase the storage capacity to retain stormwater in the Estero Watershed.

Objective 1.5

Give high priority to projects that improve the ability of current drainage systems to convey or divert stormwater flooding from areas of the county and municipalities that have suffered repeated flooding events.

Objective 1.6

Beach and dune maintenance projects designed to maintain and preserve the private and public investment of coastal areas shall be funded according to the County's, the component municipalities', Captiva Erosion Prevention District's beach erosion control plans and the Strategic State Beach Management Plan.

Objective 1.7

Continue programs supporting the Lee Plan and municipal comprehensive planning initiatives and land development regulations.

Objective 1.8

Continue enforcement of current land development and floodplain regulations.

Objective 1.9

Continue to support and seek funding for current surface water management program improvements.

Objective 1.10

Review developments falling below SFWMD review for water quantity requirements.

Objective 1.11

Continue current drainage system maintenance program of County canals & roadside ditches.

Objective 1.12

Evaluate and recommend changes to County and municipal codes and ordinances to assure sufficient protection of the public's safety and property to natural and human caused hazards.

Objective 1.13

Continue to implement Long Range Beach Erosion Control planning initiatives.

Objective 1.14

High hazard area developments within already approved development levels should prepare refuge space on site and/or still contribute to shelter space off site.

Goal 2

Support activities and projects that reduce or avert property damage on properties that have suffered repeated damage from identified hazards.

Objective 2.1

Consider projects to acquire and/or relocate repetitive loss properties, as defined by the Federal Emergency Management Agency that have a benefit to cost ratio of 1.0 or better.

Objective 2.2

Consider projects to elevate, or otherwise retrofit, repetitive loss properties, as defined by the Federal Emergency Management Agency, that have a benefit to cost ratio of 1.0 or better.

Objective 2.3

Examine the feasibility of enacting development standards in urban/wild land interface areas to mitigate future fire losses, which will include vegetative buffers, fire-resistant roofing materials, screened gable and roof openings, and minimum driveway width requirements for fire response vehicles.

Objective 2.4

Attempt to improve the county and the component municipalities Building Code Effectiveness Rating System ratings to reduce homeowner insurance policy rates on new construction.

Objective 2.5

Continue and/or enact freeboard requirement for new construction located in the B, C, and X Zones of the community's floodplain.

Objective 2.6

Incorporate hazard mitigation measures in any rehabilitation or reuse of existing public facilities, structures, buildings, and registered historic structures.

Objective 2.7

Hazard-proof existing and proposed critical facilities and registered historic structures, in regard to location and construction.

Goal 3

Support natural resource protection activities that preserve or maintain natural areas.

Objective 3.1

Continue current wetland coordinating/evaluation programs with state and water management agencies.

Objective 3.2

Continue enforcing erosion sedimentation and control regulations that reduce how much sediment enters natural areas when development takes place.

Objective 3.3

Support the continued purchase of lands through several local, state and federal programs that promote the preservation of natural areas.

Objective 3.4

Support the continued efforts to conserve, preserve, and restore forest, wetlands and coastal natural features, and to renourish the beach front and other natural resource areas.

Objective 3.5

Protect and restore the ecological functions of wetland systems to ensure their long-term environmental, economic, and recreational values, including hazard mitigation practices.

Objective 3.6

Promote the use of agricultural practices which are compatible with the protection of natural systems.

Objective 3.7

Reassess build-out population in the Coastal High Hazard area and determine how it can be reduced. Build-out population can be reduced via public acquisition of lands such as the Conservation 2020 program or other state programs, or through transfer of development rights programs.

Goal 4

Support the achievement of emergency services activities taken during a disaster incident to reduce the hazard's impact.

Objective 4.1

Continue efforts to gain a better understanding of the community's vulnerability to flood, wind, erosion, drought, and wildfire impacts through hazard identification and vulnerability assessment studies.

Objective 4.2

Continue the program to place additional water gauging stations equipped with telemetry access to monitor water/groundwater levels.

Objective 4.3

Continue to support projects that fund building or retrofit projects that reduce the community's hurricane shelter space deficit.

Objective 4.4

Support efforts to fund improvements to critical roadway links causing congestion on evacuation routes.

Objective 4.5

Continue efforts to identify and fund critical facilities that need mitigation protection due to their importance in helping the community respond to and recover from identified hazards.

Objective 4.6

Floodproofing of critical facilities within the defined Coastal High Hazard Area shall receive priority for grant funding requests.

Objective 4.7

Examine the feasibility of designing water, sewer, and power infrastructure facilities so that they can function during significant flooding events.

Objective 4.8

Each component municipality will either prepare a comprehensive emergency management plan (CEMP) or fall under the County's CEMP.

Objective 4.9

Identify and encourage incorporation of emergency power supplies to critical facilities and other public and private facilities integral to the operation, particularly with respect to health and safety support functions.

Objective 4.10

Evaluate the effectiveness of existing emergency power supplies to critical facilities and implement enhancements as needed to provide three to five days of functional operation.

Objective 4.11

Continue to refine the vulnerability assessment of residents and properties to natural and human caused hazards based on the latest scientific and technically based data.

Objective 4.12

Continue developing and refining plans for the safe evacuation of residents exposed to natural and human caused hazards, to include alternative modes of transportation to be used following a disaster.

Objective 4.13

Provide wind protection measures to public buildings that will serve critical roles in response recovery activities.

Objective 4.14

Continue funding current hazard warning program.

Objective 4.15

Identify suitable locations for temporary housing sites.

Objective 4.16

Continue to develop health and safety emergency plans supporting county and municipal comprehensive emergency management plans.

Objective 4.17

Continue to support Geographic Division operations after disasters.

Goal 5

Support efforts to obtain funding for engineered projects that help keep the hazard's impact away from identified vulnerable areas.

Objective 5.1

Seek funding to design and complete capital improvements to improve stormwater flow and water quality to include continuing maintenance of creeks and flow ways, the Clean and Snag program and the Neighborhood Improvement Program for certain communities.

Objective 5.2

Support the policy of using diversions to restore historical water flows and basin boundaries altered due to development, road construction or past agricultural practices and patterns when they pose no adverse impact to nearby properties or when the impact is adequately accommodated.

Objective 5.3

Support efforts to fund channel modifications contained in Lee County's Surface Water Management Plan.

Objective 5.4

Continue to work towards shuttering and floodproofing essential community buildings.

Objective 5.5

Support efforts to restore and maintain beaches that reduce the hazard's impact to vulnerable areas and protect infrastructure.

Goal 6

Encourage public support and commitment to local hazard mitigation efforts by showing its benefits through public information activities that advise property owners, potential property owners, and visitors about hazards, and ways to protect people and property from these hazards and the benefits of protecting our natural resources.

Objective 6.1

Develop and carry out public information programs for hazard mitigation that emphasize its direct benefits to citizens, including the public and private sector.

Objective 6.2

Maintain a comprehensive multi-media /multi-lingual public information strategy to disseminate information programs on hazard mitigation that uses several communication methods, including the public and private library system, the public and private school system, the Lee County All-Hazards Guide, community awareness seminars for citizens and business interests, the community's web sites, and other communication devices such as electronic message boards and social media.

Objective 6.3

Continue to work with community realty associations to improve participation in the voluntary real estate disclosure program for flood hazards.

Objective 6.4

Continue efforts to support funding programs that provide assistance to property owners on ways to mitigate property from identified hazards.

Objective 6.5

Continue current map information programs.

Objective 6.6

Annually send repetitive property loss owners information on ways to reduce flood losses.

Objective 6.7

Continue to distribute Lee County Flood Brochure to local real estate agencies.

Objective 6.8

Encourage participation in the Multijurisdictional Program for Public Information to promote county-wide floodplain management efforts.

Goal 7

Maintain current pre-and post-disaster redevelopment and mitigation policies and procedures designed to reduce or avert the community's future disaster potential.

Objective 7.1

Post disaster redevelopment and hazard mitigation policies and procedures shall be governed by goals, objectives and policies contained in Post Disaster Redevelopment Plans.

Objective 7.2

Objectives and policies contained in all existing and developing Post Disaster Redevelopment Plans shall be carried out through the appropriately adopted Post Disaster Ordinances following a major or catastrophic disaster.

Objective 7.3

In areas that have been severely devastated, establish a multi-agency team within the Recovery Task Force to undertake changes to plats or multiple parcel sites to provide for a better community reconstruction strategy, rather than just issuing emergency permits.

Objective 7.4

Consider amending community land development regulations to require eradication of exotic vegetation that poses a health and safety threat to the proposed development or potentially blocks access to response agencies.