

COMPREHENSIVE FLOODPLAIN MANAGEMENT PLAN

Adopted by City Council Resolution no. 17-029

ANNUAL PROGRESS REPORT APRIL 2019



CITY OF SANIBEL
LEE COUNTY,
FLORIDA

*The 2017 Comprehensive Floodplain Management Plan replaces
The 2005 Floodplain Management Plan of the National Flood Insurance Program Community
Rating System updates the Plan adopted by City Council (Resolution no. 95-89) on April 18,
1995. This updated Plan reflects changed conditions; the progress made in implementing
the Plan, and provides direction for future actions.*

National Flood Insurance
Program Community
Rating System
Activities 510 & 520

National Flood Insurance Program, Community Rating System

The City of Sanibel is currently designated a Class 5 community. The most recent verification visit was on May 16, 2017. In October of 2018, the City was notified that the Insurance Services Office, Inc. (ISO) verified 2,977 credit point. This results in a CRS Class 5. The current rating allows a 25% reduced flood insurance premium for residents of the City of Sanibel. The City Scored 282 Points in Activity 510 Floodplain Management Planning and 24 Points in Activity 520 Relocation and Acquisition.

Comprehensive Floodplain Management Plan

On May 3rd, 2016, City Council approved Resolution 16-032, establishing the City of Sanibel Floodplain Management Planning and Mitigation Advisory Committee to Sanibel City Council. The Committee included William Dalton, Former Chair, Sandy Larsen, Chair, Eric Pfeifer, Vice Chair, Chris Heidrick, Jim Jordan and Harold Law. Each member has expertise in one or more of the following categories of activities: preventative measures, property protection, natural resource protection, emergency services, structural flood control project, and public information. The purpose and function of the Committee was to study, plan for and advise the City Council on preparation of the Plan.

The Committee identified flood hazards that pose a risk; assessed the City's vulnerability to these hazards; and examined potential projects to mitigate them. Based on the risks for each of the flood hazards, the Committee validated the 6 goals identified in the 2005 Plan and added a 7th goal to allow for pre and post disaster redevelopment and mitigation policies and procedures designed to reduce or avert Sanibel's future disaster potential.

Based on the hazards and risk assessment, current goals, current flood hazard mitigation activities, input from outside agencies, the public and the City Council, 15 of the Existing Mitigation Activities from the previous plan are included and 20 New Mitigation Activities were added.

A Repetitive Loss Plan is required for communities that have 50 or more repetitive loss properties. A repetitive loss property is a property for which two or more claims of more than \$1,000 have been paid by the NFIP within any rolling 10-year period since 1978. The City of Sanibel has 64 repetitive loss properties and is required to have a Repetitive Loss Plan as part of its Comprehensive Floodplain Management Plan.

On April 4, 2017, City Council adopted Resolution 17-029 adopting the 2017 Comprehensive Floodplain Management Plan. The National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains. The Community Rating System (CRS) grades the various Community Floodplain Management Programs and reduces flood insurance premiums in those communities that meet certain requirements. Sanibel was the first City in Lee County to join the NFIP in 1979.

Risk Map Update

On August 28, 2018, Lee and Hendry Counties FEMA Flood Risk Review meeting was held at Lee County. The City was given copies of the Draft Work Maps. Staff reviewed the maps and there were many notable decreases in elevations and less V-Zone than the previous maps. The Preliminary Maps will be the next release. Since there are no riverines on Sanibel, it is anticipated there will be little change from the Draft Work Maps.

On 3/6/18, FEMA consultants had the Storm Surge Analysis Update Meeting (IDS#3). Overall, there was not a substantial difference in elevations from the last map relating to Storm Surge. Generally the elevations nearest the Gulf were slightly lower and areas landward were slightly higher.

The most current timeline for the new Risk Map are as follows:

IDS3 (Storm Surge) was finalized and IDS 4 & 5 is currently being finalized.

There will be an Open House Scheduled after the release of Preliminary Maps. Appeal process follows.

Florida Hurricane Irma (DR-4337)

Hurricane Irma hit southwest Florida on Sept 10, 2017. A Major Disaster was declared on the same day.

Current Florida FEMA assistance information:

Individual Assistance Applications Approved: 777,233

Total Individual & Households Program Dollars Approved: \$1,022,162,344.89

Total Public Assistance Grant Dollars Obligated: \$622,842,149.58

The largest expenditure for the City of Sanibel was in Debris Management. The City picked up and hauled over 170k cubic yards of debris to the Island Inn Road Debris Management Site (DMS). The DMS debris was then mulched and hauled off Island and also stored for City use. The City has estimated total expenditures from IRMA near 4 million dollars.

Joint Unified Local Mitigation Strategy (LMS)

On 6/5/17, the City of Sanibel adopted Resolution 17-026, adopting the Lee County Joint Unified Local Mitigation Strategy. The LMS details the hazards, both natural and man-made, that Lee County could experience and eliminated. The plan describes specific strategies and projects that could be funded should federal mitigation dollars be available after a declared disaster and the Federal Emergency Management Agency and the Florida Division of Emergency Management require Lee County and all six municipalities within the boundaries of Lee County to adopt the updated plan in order to be eligible for this funding.

A Major Disaster Declaration was declared for Florida Hurricane Irma (DR-4337) on September 10, 2017. On February 5, 2018, the Florida Division of Emergency Management (the Division) announced the availability of Hazard Mitigation Grant Program (HMGP) funds as a result of Irma. HMGP funding is available only to those counties that have a current FEMA-approved Local Mitigation Strategy. Lee County 12-month lock-in for as of 10/12/18 was \$32,201,965.74. The County and local Jurisdictions submitted applications based on the scoring of eligible projects to the State by 8/6/18.

Eligible Activities include mitigation projects that will result in protection of public or private property from natural hazards.

The City of Sanibel submitted 7 projects to be included in ranking for Lee County. The following projects were submitted. The LMS group will rank the projects in April and May. Once ranked, the City will need to submit completed applications to the State by 8/6/18.

Drainage Related:

- | | |
|--|--------------|
| 1. Enhancement of Sanibel Slough Drainage System and Beach Road Weir Upgrade to \$871,000. | Increased |
| 2. Tahiti-Jamaica Area Drainage Improvements \$400,000. | Increased to |
| 3. East Rocks Area Drainage Improvement | \$150,000 |

Critical Facilities:

- | | |
|--|-----------|
| 4. Floodproofing and Hardening of New Emergency Management Wing | \$ 50,000 |
| 5. Police Hurricane Shutters | \$ 65,000 |
| 6. Generator Sanctuary WWTP & Lee Co. Public Safety and Emergency Communications Tower | \$150,000 |
| 7. Generator Donax Wastewater Treatment Plant | \$950,000 |

There are three reviews done by the Florida Department of Emergency Management, programmatic, engineering and environmental. All 7 grants have programmatic review completed. Tahiti-Jamaica Area drainage is complete and has been forwarded to FEMA. East Rocks is in Environmental Review and City Hall shutters is in engineering review.

ADOPTION OF MODEL FLOODPLAIN ORDINANCE COMPLETED

On April 3rd, 2018, the Sanibel City Council adopted Ordinance 18-002 adopting the Model Floodplain Ordinance. City Staff worked with the Florida Division of Emergency Management on the development of a model floodplain ordinance blending the existing Sanibel flood regulations with the requirements and flood design standards of the Florida Building Code. The ordinance was adopted to serve two primary purposes – to ensure consistency with the FEMA-approved flood design standards referenced in the Florida Building Code, and to fulfill Sanibel’s commitment to, and continued participation in, the

National Flood Insurance Program and the Community Rating System. The existing higher standard of requiring V-zone construction within certain A-zones, and also earns CRS credits, was preserved by the adoption within the ordinance of an Expanded Coastal High Hazard Area Map. The Florida Building Code now requires a one foot freeboard.

NOTES TO USERS

This map is intended for use in the administration of City of Sanibel Floodplain Management Regulations provided in Sanibel Land Development Code, Chapter 94.

This map series is arranged by using FEMA FIRM Panels for map delineation purposes. No FIRM-derived flood zone boundaries or information is contained herein. For flood zone boundary information please refer to the official Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM). The FIRM is the official map of the community on which FEMA has delineated both special flood hazard areas and the risk premium zones applicable to the community.

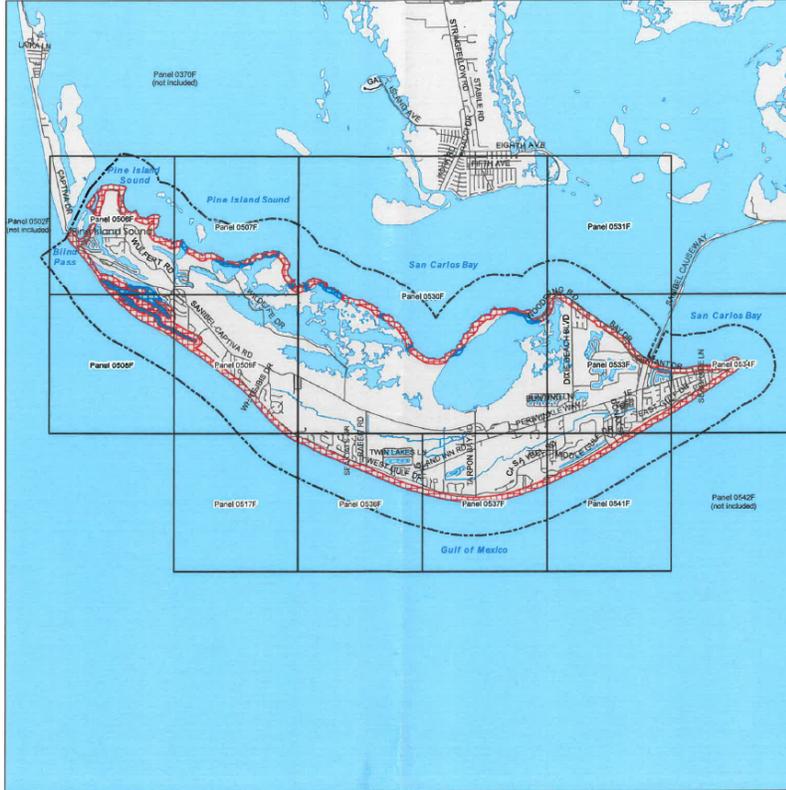
The cross-hatched symbology depicts those areas located within 500 feet of San Carlos Bay, Pine Island Sound, Blind Pass, or the Gulf of Mexico, measured from the mean high water line. These areas are defined and regulated as a Coastal High Hazard Area (CHHA), requiring that all new and substantially improved structures comply with V-Zone flood standards.

Section 94-124 of the Sanibel Land Development Code defines Coastal High Hazard Area as "A special flood hazard area extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources, and including those areas lying within 500' of the San Carlos Bay, Pine Island Sound, Blind Pass, or the Gulf of Mexico. Coastal high hazard areas are also referred to as "high hazard areas subject to high velocity wave action" or "V Zones" and are designated on Flood Insurance Rate Maps (FIRM) as Zone VI-V30, VE, or V.

This map is intended as a graphical depiction of the City's Additional Coastal High Hazard Area. There may be instances which require measurements between the structure in question and the mean high water line of the nearest coastal body of water for City review and confirmation.

Base map information provided in digital format by the Lee County GIS Department and the Lee County Property Appraisers Office. The road centerline information was constructed based on orthophotography produced at a scale of 1"=100' from aerial imagery flown in 1998 and updated using ortho-photography dated 2002 and 2005. The surface water features were also constructed based on orthophotography produced at a scale of 1"=100' from aerial imagery flown in 1998. The projection used in the preparation of this map was Florida State Plane west zone (FIPSZONE 902). The horizontal datum was NAD 83, GRS80 spheroid.

ADOPTED BY CITY COUNCIL, ORDINANCE 18-0003 ON ...



CITY OF SANIBEL

ADDITIONAL COASTAL HIGH HAZARD AREAS MAP

Areas Within 500-Feet of Coastal Bodies of Water

LEGEND

- CITY OF SANIBEL CORPORATE LIMITS
- ROAD CENTERLINE
- CITY OF SANIBEL FIRM PANELS
- CITY OF SANIBEL ADDITIONAL CHHA
- LAND AREAS WITHIN 500-FEET
- WATER AREAS WITHIN 500-FEET

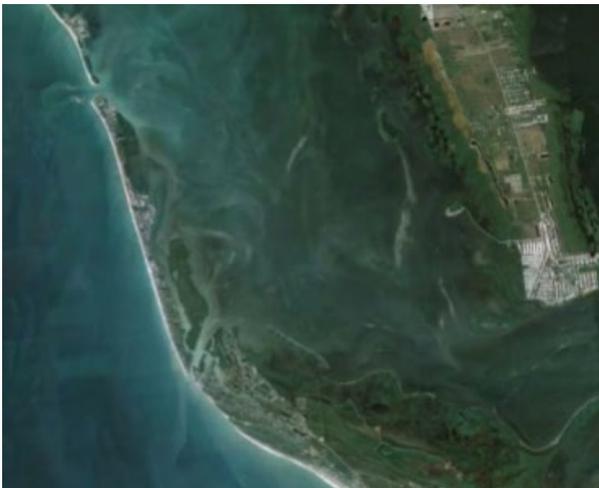
0 1,000 2,000 3,000 4,000 Feet

0 900 1,700 2,500 3,400 4,200 Meters

NOT TO SCALE

City of Sanibel,
Lee County, Florida,
Community No. 120402
Created February 21, 2018
by the Planning Department

BLIND PASS INLET MANAGEMENT STUDY UPDATE



On April 6, 2018, the Technical Advisory Committee held a webinar on the Blind Pass Inlet Management Study. The Production Run Phase has been completed utilizing 3 alternatives under both average conditions, and under the storm conditions of Hurricane Charley and 2016 Cold Fronts. The Study Findings are identified below.

STUDY FINDINGS

- Material dredged from Blind Pass inlet should be placed to the downdrift beach of Sanibel Island, i.e. bypassed, in an effort to balance the sediment budget.
- Bypassing does not completely offset the erosion on Sanibel Island based on the sediment budget.
- The truncated template partially maintains the natural bypassing bar, and reduces the disruption of sediment transport, and therefore reduces the negative effect on the downdrift beaches that occur after dredging.
- Bypassing the material that accumulates in the channel to the north end of Sanibel Island creates a buffer to absorb the inlet-induced dynamics at the north end of the island.
- Enhancing the connection between the Gulf of Mexico and Pine Island Sound increases the tidal flux, and therefore the inlet stability.
- The influence of a jetty structure on the north end of Sanibel Island has little effect on the channel stability. The structure would function as a revetment to protect the north end from erosion during channel migration and stabilize the north end of Sanibel in times of fluctuations in channel location.
- A spur at the end of the Blind Pass jetty enhances channel stability. The spur redirects some flow (and sediment transport) away from the inlet, thereby reducing channel migration to the south.
- The fill placement zone can be optimized based on erosion signature (R-110.5 to R-112).
- Storms can have a variety of effects on Blind Pass. Storms may cause infilling and/or scour.

The Draft Management Components are identified below:

DRAFT MANAGEMENT COMPONENTS

- Continue to dredge Blind Pass.
- Continue to bypass material dredged from Blind Pass to Sanibel Island.
- Truncate the seaward end of the current dredge template to maintain the natural bypassing pathway.
- Considering implementing new management strategies in a phased approach, and monitor.
- Shift the sand placement of the bypassed material to the north.
- Extend the current dredge template landward to Pine Island Sound.
- Establish connection to Sunset Bay, and continue the connection landward to Pine Island Sound.
- Install a spur at the end of Blind Pass jetty.
- Implement a monitoring plan.

A public meeting has been scheduled on April 27, 2018 at South Seas to present the modeling results and accept questions and answers.

The Study is complete and has been transmitted to the Florida Dept. Environmental Protection (FDEP). State adoption of an Inlet Management Plan, subject to review by their engineering staff, would follow FDEP rule making procedures.

IMPLEMENT, EVALUATE AND REVISE

The City has been implementing its Floodplain Management Plan since 1995. The implementation of this Plan is an important part of the City of Sanibel's continuing commitment to responsible growth management. Through the Action Plan, the City will move toward achieving the goal of reducing and eliminating flood hazards in the community.

The Committee that prepared this Annual Update of the plan will submit the report to City Council. This report will be submitted to the Federal Emergency Management Agency at the Annual Recertification. The report will also be released to the media and made available to the public.

The 2017 Floodplain Management Plan will be updated in 2022 or before as necessary. The Committee will meet annually to discuss the status, consider new items and funding and prioritize.

After consideration of the 2017 scoring, the City should re-examine the Repetitive Loss component of the Plan as a part of the 2022 update.