

12. **CITY MANAGER**

a. Informational Items

viii. Annual Progress Report on the 2005 Comprehensive
Floodplain Management Plan



City of Sanibel

Planning Department

MEMORANDUM

DATE: September 24, 2008

TO: Judie Zimomra, City Manager

FROM: Robert J. Duffy, Planning Director
R. Harold Law, Building Official

SUBJECT: **ANNUAL PROGRESS REPORT ON THE 2005 COMPREHENSIVE FLOODPLAIN MANAGEMENT PLAN**

The basic minimum standard for participation in the National Flood Insurance Program (NFIP) is compliance with the Base Flood Elevations (BFEs) of the Flood Insurance Rate Map (FIRM). However, the City conducts regulatory, flood damage reduction, surface water management, public information, communication and flood warning activities that exceed minimum standards of the National Flood Insurance Program.

The City Council adopted an update to the City's *Floodplain Management Plan*, on September 10, 2005, in order to retain the City's current rating in the Community Rating System (CRS).

The Building Department is currently preparing this year's report to the Insurance Office Services, Inc. (IOS) for rating of the City's Floodplain Management Program in the Community Ratings System of the National Flood Insurance Program. This rating, which affects the rates of flood insurance, recognizes the features of the City's Floodplain Management Program that exceed minimum standards.

Provided with this memorandum is the 2008 Annual Progress Report on the 2005 Floodplain Management Plan, which has been prepared by the Planning and Building Departments for submission to IOS for its review of the City's rating in the Community Rating System.

**ANNUAL PROGRESS REPORT
ON THE
2005 COMPREHENSIVE
FLOODPLAIN MANAGEMENT PLAN**



**CITY OF SANIBEL
LEE COUNTY, FLORIDA**

Prepared by:
Planning and Building Departments

September 2008

It is important to note that the Comprehensive Floodplain Management Plan for the City of Sanibel has been in effect for over 13 years and the implementation of the capital projects in the Plan have been completed.

It is also important to note that all of the City of Sanibel is located in a Special Flood Hazard Area and as such, all surface water management activities and permitting functions implement the Floodplain Management Plan.

The *2005 Floodplain Management Plan* includes an **Action Plan** based upon the analysis of hazard and risk assessment, current goals, current flood hazard mitigation activities and alternative considerations, as well as input from outside agencies, the public, and the Sanibel City Council.

The Action Plan is provided to meet the goals of the *2005 Floodplain Management Plan*.

The Action Plan specifies the responsible departments for each activity, timeframe for implementation, and budget for the activity, if appropriate. Many activities are on-going and continuous. Many activities are undertaken in-house by City staff and resources and have no itemized budget entry.

STATUS OF THE ACTION PLAN

1. REGULATORY ACTIVITIES

a. Continued Land Use Regulation and Enforcement

Status – Implemented and on-going

The City continues to regulate land use in strict accordance with current city, state and federal standards and policies. Such standards and policies include the following:

Federal Regulations

Flood Insurance Rate Map (FIRM) Base Flood Elevation and Velocity Zone Requirements; National Flood Insurance Program (NFIP) Construction Standards.

The City of Sanibel has adopted Ord. No. 08-013 amending the Sanibel Code, Chapter 94 Floods, by incorporating the revised Flood Insurance Study and FIRM that satisfy 44 Code of Federal Regulations (CFR), Section 60.3 (E) of the NFIP.

In addition, the Planning Department has prepared GIS based maps to help property owners interpret the recently adopted FIRM.

State Regulations

Coastal Construction Program and the Florida Building Code

The Planning Department has also prepared guides and reports to help property owners understand coastal construction programs.

City Regulations

- Land development regulations prohibiting development and vehicles in the Gulf Beach Zone and permitting only limited development in the Bay Beach, Lowland Wetlands and Mangrove Forest Zoning Districts,
- Regulations designed to preserve and enhance the land in all of these zones in their natural state to protect their beneficial floodplain functions;
- Building and development regulations and standards including on-site storm water retention, sediment control policies, foundation protection, floodproofing and break away construction requirements;
- Surface Water Management Plan weir control policies and stream dumping prohibitions;
- NFIP-based flood and storm-proofing land development regulations, ensuring compliance for new development, including improvements to pre-FIRM buildings and buildings made nonconforming by a new FIRM (post-FIRM).

Building, Planning, Public Works, Natural Resources and Police Departments are responsible for these activities.

The annual budget for these in-house activities is conservatively estimated at \$250,000.

CRS Credit: Continuing enforcement of existing city, state and local land use regulations is recognized under Activity 410 (Additional Flood Data), 420 (Open Space Preservation), 430 (Higher Regulatory Standards), 450 (Stormwater Management) and 540 (Drainage System Maintenance).

b. Higher Regulatory Standards

Status – Amended the level of service standard for stormwater drainage systems and continued review of standards.

As part of the Evaluation and Appraisal Report-based Amendment to the *Sanibel Plan*, adopted September 18, 2007, the level of service standard for stormwater drainage systems was amended to clarify that developments shall provide stormwater drainage systems in accordance with the requirements of the South Florida Water Management District, typically designed for **the 25-year storm event of 3-day duration**. (Section 3.3.6 Storm Drainage Element; Policy 1.2).

Additional considerations

The City currently requires the lowest habitable floor of all new buildings or substantial improvements to nonconforming buildings to be elevated to or above the base flood elevation. For nonresidential buildings, the City allows buildings to be flood-proofed and requires those buildings to be flood-proofed to or above and elevation that is 1-foot higher than the base flood elevation.

In order to increase flood protection for new and substantially improved buildings, the City may consider adoption of flood regulations requiring an additional one-foot, two-foot or three-foot elevation above the elevation required by the FIRM for all new structures within the City.

The City currently enforces a standard regarding substantial improvements to buildings that counts all repairs, additions and improvements cumulatively for five years. If the total cumulative cost of those improvements ever equals or exceeds 50% of the value of the structure over that five year period, the structure is required to be brought into full compliance with all local, state and federal development regulations at that time.

In order to bring more existing nonconforming buildings into compliance with flood regulations, the City may consider

- adoption of flood regulations extending the period for accumulation of costs for improvements to nonconforming structures from a five year to a ten year period; and
- adoption of City regulations that lower the threshold for a substantial improvement from 50% to 40% of the market value of the nonconforming building.

The Building Department is responsible for this in-house activity.

CRS Credit: A higher cumulative improvement standard is recognized under activity 430 (Higher Regulatory Standards).

2. FLOOD DAMAGE REDUCTION ACTIVITIES

a. Flood Vulnerable Property Identification

Status: On-going. There have been no repetitive loss claims this fiscal year. No properties are currently identified for acquisition.

The City has identified properties on the Island that are the most vulnerable or susceptible to flooding and flood damage. These properties will include one or more of the following characteristics:

- Structures built prior to April 1979 (pre-FIRM buildings) which were constructed below the Base Flood Elevation (BFE).
- Structures elevated to the BFE but which have appurtenances (i.e., elevator shafts, entry ways, etc.) below the BFE.
- Structures located in areas of coastal erosion.
- Structures located seaward of the City's Coastal Construction Line (the 1974 State Coastal Construction Control Line).
- Structures located seaward of the State of Florida's 1991 Coastal Construction Control Line.
- Structures located along Sanibel's Gulf or Bay Coast.
- Structures located in a FIRM Velocity Zones (VE).
- FEMA Repetitive Loss properties.

The City can use this information to help target those flood prone properties for potential acquisition, relocation, retrofitting, mitigation and educational efforts.

An Interdepartmental City team will be responsible for these activities.

CRS Credit: The identification of flood vulnerable properties on the Island is recognized under Activity 501 (Repetitive Loss Plan).

b. Acquisition, Relocation and/or Retrofitting of Flood Vulnerable Property

Status: On-going. The City of Sanibel continues to insure through the Development and Building permitting process that non-conforming single family homes are replaced with flood-compliant units.

The City has acquired 2 repetitive loss properties identified since 1978. Two at-grade Gulf front single family dwellings have relocated back from the Gulf and were elevated to the base flood elevation. More than 30 at-grade Gulf front single family dwellings have been demolished and replaced with flood-complaint units.

Due to the high value of property on Sanibel, it is unlikely that the City could feasibly afford to acquire many flood vulnerable structures. Nevertheless, the City monitors existing or potential flood vulnerable properties, in particular, existing or potential repetitive loss properties, with the goal of acquiring, relocating and/or retrofitting those properties wherever economically feasible.

The City is knowledgeable of federal and state financial programs to achieve this objective, and predominantly relies on these programs for financial assistance.

The Building Department is responsible for these activities

CRS Credit: Acquiring, relocating and retrofitting existing or potential flood prone property is recognized under Activity 520 (Acquisition and Relocation) and 530 (Flood Protection).

c. Environmentally Sensitive Lands Acquisition, Restoration and Protection

Status: Land acquisitions are on-going.

The City has expended about \$6,000,000 since the Flood Plain Management Plan was first developed for the acquisition of environmentally sensitive lands. Including restoration efforts, these expenditures reach \$7,000,000.

The City has nearly completed its existing program to acquire environmentally sensitive lands on the Island. The City and the Sanibel Captiva Conservation Foundation have purchased and managed the majority of sensitive and flood prone property in the Island's interior wetlands and along the coast. Now, over 65% (7200 acres) of the land area in the City of Sanibel is owned and managed for conservation purposes.

The City puts all lands purchased under this program in the Environmentally Sensitive Lands Conservation Zoning District, which prohibits development and protects these lands in their natural state and preserves the beneficial floodplain functions of those lands. Where necessary, the City is developing plans to restore these sensitive lands to their natural states.

The Natural Resources Department is responsible for this activity.

CRS Credit: Environmentally sensitive lands acquisition, restoration and protection are recognized under Activity 420 (Open Space Preservation).

3. FLOOD WARNING PROGRAM ACTIVITIES

a. Flood/Storm Warning Program

Status: On-going In-house activities (estimated expenditures exceed \$100,000).
\$8000 is budgeted in fiscal year 2007/8 for the City's professional weather consultant.

The City of Sanibel and Lee County, Florida, together, have one of the premier flood forecasting, warning, and emergency response programs in the state. The City cooperates with the County in its planning efforts, including the local Post Emergency Recovery Plan.

The City also reviews and improves its own local Sanibel Emergency Management Plan (SEMP) on an annual basis. Elements of the plan include the City's Hurricane Hotline (1-800-933-6093) Alert Radio Program, a reverse 911 communications system, posting storm advisories on the City's web site, a subscription service for automatic e-mail notification of storm advisories, as well as door-to-door evacuation notice. The City retains the services of a professional weather consultant to be available to the City on an as-needed basis.

The Police Department is responsible for this activity.

CRS Credit: A Comprehensive Flood and Hurricane Warning Program is recognized under Activity 610 (Flood Warning Program).

4. Structural Components of Surface Water Management

a. Surface Water Management Plan Implementation and Operation

Status: Improvements completed.
The operation of the system is on-going according to policy.

The City has completed implementation of the Sanibel Surface Water Management Plan. The two weirs that control the entire system have been rebuilt and are complete, as well as all of the river culverts.

The City operates the system in accordance with the adopted weir control policy, which helps alleviate flooding on the Island, but also helps restore and preserve the natural and beneficial floodplain functions of these lands. Maintenance and operation system is included in the City's annual operating budget for Drainage System Maintenance.

The City is currently enhancing the efficiency of this system with the installation of remote monitoring equipment.

The Public Works Department is responsible for this activity.

CRS Credit: Surface Water Management Plan implementation and operation is recognized under Activity 450 (Stormwater Management) and 510 (Floodplain Management Planning).

b. Drainage System Maintenance

Status: Implemented and on-going

The City inspects, maintains, and repairs the City's drainage system yearly to ensure the operation and reliability of the system. The system is also checked after any major storm to ensure the system is operational.

This program includes: swale and ditch mowing and vegetation management (i.e., cattail removal, etc.); Catch basin and culvert inspections, cleaning and repair when necessary; Weir testing and inspections, and lake, canal and river inspections and maintenance.

The fiscal year 2008/9 budget for this program is \$334,740.

The Public Works Department is responsible for these activities.

CRS Credit: Maintaining the Island's stormwater drainage system is recognized under Activity 540 (Drainage System Maintenance).

c. Beach Management Plan Adoption and Implementation

Beach and dune enhancement projects and the erosion monitoring programs are on-going.

During fiscal year 2007/8 beach renourishment was completed west of Blind Pass.

During the first quarter of the fiscal year 2008/9 as part of the Blind Pass project, over 120,000 yards of sand will be installed along the Gulf beach front in the vicinity of Bowman's Beach.

The City's beaches are one of the most important lines of protection against coastal flooding. It is vital to maintain a healthy beach and dune system for the natural and beneficial floodplain functions they provide.

The Island-wide Beach Management Plan was adopted on May 16, 1995, which addresses the Island's beach related issues, including erosion and beach and dune restoration efforts. The goals, objectives and policies identified in that plan include erosion control and annual monitoring programs and beach and dune protection and restoration policies.

The Natural Resources and Public Works Departments are responsible for these activities.

CRS Credit: Beach Management Plan adoption and implementation is recognized under Activity 410 (Additional Flood Data), Activity 510 (Floodplain Management Planning), and Activity 540 (Drainage System Maintenance).

5. PUBLIC INFORMATION, COMMUNICATION AND ASSISTANCE PROGRAM

a. Information and Assistance Provision

Status: Service on-going. Service was advertised.

The Planning Department conducted workshops, open houses and public information programs to help property owners understand the National Flood Insurance Program and the City's participation in that Program. In addition, the Planning Department has prepared guides, information and reports on the following topics:

- ✓ the Federal Flood Insurance Program
- ✓ the Flood Insurance Rate Map
- ✓ the Community's Role in Floodplain Management
- ✓ Flood Insurance information for prospective buyers
- ✓ Coverage
- ✓ Filing a Flood Insurance Claim

The Planning Department has also compiled a set of GIS maps to assist property owners with interpretation of the recently adopted FIRM. Internet access to the finalized new Flood Insurance Rate Map will be posted on the City's website. The City provides flood related information and assistance to the public upon request to help identify the flood threat and reduce flood damage on the Island. This includes the provision and assistance of the following:

- Information regarding the City's Flood Insurance Rate Maps and Flood Insurance Purchase Requirements;
- Site specific flood data and information on the Island's flood history and threat;
- Names of contractors or consultants knowledgeable in flood retrofitting and flood proofing techniques and advice on selection qualified contractors to perform such work;
- Professional advice, review and critique of flood retrofitting and flood proofing plans;

- On-site visits to review and advise owners of flood and drainage problems;
- Development constraints and property protection measures;
- Information on financial disaster assistance and retrofitting and relocation programs; and
- Data on the Island's erosion patterns and problems.

The City maintains records of who has utilized this service, and also advertises this service once a year on a community wide basis.

The Building, Planning and MIS Departments are responsible for this in-house activity (estimate cost \$20,000).

CRS Credit: Information and assistance provision, computerized FIRM maps and maintenance of FIRM elevation reference marks are recognized under Activity 320 (Map Information), Activity 360 (Flood Protection Assistance), and Activity 440 (Flood Data Maintenance).

b. Community Outreach Flood Information Programs

Status: The Flood Information was provided, including 'Flood Facts' brochure and the City's Annual Hurricane Conference.

The City informs the community of Sanibel's flooding issues, problems and programs through a variety of community outreach programs. Those programs include the following:

- The City's 'Flood Facts' brochure which is mailed to every residence and business;
- The City's Annual Community Hurricane Preparedness Seminars;
- Information provided in annual hurricane season inserts or special sections of the Island's local newspapers (currently three in circulation), and;
- Information made available at the Sanibel Public Library.

The information provided and made available through these programs and sources includes:

- A description of the local flood hazard and a map of the area to illustrate that the entire Island is a Special Flood Hazard Area and subject to flooding;
- A description of the City's flood warning systems;
- A description of the City's development permit requirements, substantial improvement regulations and drainage system maintenance program and stream dumping restrictions;

- Measures property owners can take to protect their lives and property before, during and after a flood;
- Flood insurance requirements and information, and;
- The natural functions of the Island's floodplains and the benefits of restoring, preserving and protecting them in their natural state, particularly the Island's beach dune system and interior wetlands.

The City makes these programs and this information available to the public. The City also ensures that the information is accurate, up-to-date and easy to understand.

The Building Department is responsible for these activities.

CRS Credit: Community outreach flood information programs are recognized under Activity 330 (Outreach Projects) and Activity 350 (Flood Protection Library).

c. Flood Hazard Disclosures

Status: The first 2 items are implemented and on-going;
the last 2 items remain to be considered.

The City pursues opportunities to inform potential purchasers of property on the Island of the City's flood hazards and threats. This is accomplished through the following activities:

- The Sanibel City Council requires new subdivision plats and surveys required by the City to display the City's Special Flood Hazard Area status.
- The Sanibel and Captiva Islands Association of Realtors (SCIAR) disclose the Island's Special Flood Hazard Area classification and flood insurance purchase requirements to prospective property purchasers.
- The SCIAR Board has yet to consider the adoption of a policy to also disclose one of the City's greatest flood hazards, erosion, as applicable, and to distribute informational flood brochures to prospective purchasers.
- The Sanibel City Council has yet to consider the adoption of a local regulation to require "For Sale By Owner" sellers to disclose the Island's Special Flood Hazard Area classification and flood insurance purchase requirements.

The Planning Department is responsible for this in-house activity.

CRS Credit: Disclosing Sanibel's flood hazards through real estate transaction notifications and brochures, and requirements on City plats and surveys is recognized under Activity 340 (Hazard Disclosure).

d. Building Elevation Certificate Maintenance

Status: Implemented and on-going

The Sanibel Building Department continues to require FEMA Elevation Certificates for all new habitable structures on Sanibel, maintains these certificates on file where they currently exist, and makes this information available to the public when requested.

The Building Department continues to work from January 1, 1988 to earlier dates to complete elevation certificates in building permit files where they currently do not exist. This activity will continue until it becomes infeasible to do so.

The Building Department is responsible for this in-house activity.

CRS Credit: Maintaining Elevation Certificates is recognized under Activity 310 (Elevation Certificates). The City will continue to monitor eligible CRS credit under this activity as more historic elevation certificates are completed by the Building Department.

RECOMMENDATION

Continue the regulatory, flood damage reduction, surface water management, public information, communication, flood warning, and program assistance activities in the Floodplain Management Plan that have earned the City its Community Ratings Service (CRS) rating.

During this upcoming year, the City's efforts will focus on administration and enforcement of the recently adopted Flood Insurance Rate Map (FIRM).