



## **Village of Key Biscayne Floodplain Management Plan (FMP) 2009 Update**

For the purpose of this report, the concept of a Repetitive Loss Plan, as used in this Community Rating Services (CRS) recertification document, is synonymous with Key Biscayne's Floodplain Management Plan (FMP). Progress on FMP implementation, as required in Section X of the FMP, falls within the context of CRS compliance Action Plans followed by the Village.

In order to reduce and minimize the repetitive loss properties the implementation of three projects is ongoing:

### **1. Comprehensive Review of Local Laws and Regulations** Recommendations issued by the Village's Floodplain Manager

This project was completed in September 1998 as part of the Village's participation in the preparation of a County-wide Local Mitigation Strategy. An examination of the Village's flood ordinance is underway to determine the feasibility of bringing this document in closer alignment with Federal Emergency Management Agency (FEMA) criteria.

The Administration is considering the following recommendations to the Village Council:

- a. Update the Village's Stormwater Management Master Plan (SMMP).
- b. Increase the requirement that the lowest floor of all new construction be above the BFE elevations shown in the most recent Flood Insurance Rate Map (FIRM). In the future, the lowest floor of all new construction would be 12 inches above BFE elevations.
- c. Increase from 1 to 5 years the waiting period from the time a Certificate of Completion is issued to apply for new building permits for all construction work in existing properties with a lowest level below the BFE elevations shown in the most recent FIRM. This change applies to construction in the A zone within the definition of *Substantial Improvement* in Chapter 10 of the Code of Ordinances of the Village of Key Biscayne, Florida.

## 2. Storm Drainage Upgrade

Information provided by the Department of Public Works

In May 2009, the Village completed an upgrade of the East Heather Drive pumping station, part of the 1997 storm drain project, to its original intake capacity. The pump collects roadway drainage that overflows from 56 single-family properties along four streets located in one of the lowest areas in the Village. A reimbursement package for a matching grant to the Florida Department of Environmental Protection (DEP) has been submitted.

The Village is currently implementing a Water, Sewer and Reclaimed Water (WSR) Project that will provide approximately 710 new sanitary sewer connections to approximately single-family homes, duplexes, the Key Biscayne branch library and the Key Biscayne Community Church. Five areas that required additional enhanced storm drainage have been completed as specified in last year's CRS report. The new catch basins installed as part of the WSR project connect to the existing deep drainage well installed during the Village's 1997 storm water project. Additional areas requiring improvement are being identified as the WSR project progresses.

In addition, the following stormwater projects are part of the Village's Five Year Capital improvement Plan. The Village has applied for grants from the South Florida Water Management District.

### 1. Rehabilitation of Stormwater Injection Wells

Fifteen years ago the Village developed a series of stormwater drainage collection systems connected to 40 deep gravity injection wells. The Village has routinely cleaned and maintained the collection system pipes and structures; however, the wells have not been cleaned since their initial installation and are increasingly problematic. The wells are in need of rehabilitation in order to function properly and efficiently.

### 2. Ocean Lane Drive Stormwater Pump Station Upgrade

In 1995, the Village constructed a stormwater pumping station at the east end of Ocean Lane Drive. The roadway takes in drainage overflows from large condominium projects on either side of the road. The station's twin 4000 gpm vertical propeller pumps have been in service since 1995 and need to be replaced. Work includes the installation of temporary bypass pumping equipment during the pump station upgrade process.

These projects will enhance the Village storm water system and provide significant safety and quality of life improvements for residents.

### **3. Beach Renourishment Project and Beach Maintenance Programs**

Information provided by the Department of Public Works

The FMP includes a number of ongoing tasks that are significant in the mitigation of flood hazards. These tasks extend beyond continued management of “normal” ongoing CRS-mandated activities such as Drainage System Maintenance, Flood Warning, Map Information, Outreach Projects and Library.

The Village’s Beach Renourishment Project and Dune and Beach Maintenance are ongoing tasks. They are particularly significant in that the beach-dune system represents a barrier island’s first line of defense against storm surges. The Village maintains a capital outlay expenditure item for these efforts as part of the Activity #420.

As stated in the 2008 update, the Village completed a Dune Restoration Program by bringing in approximately 5,000 tons of sand to restore and enhance two specific problem areas along the municipal beachfront, removing all exotic species in the dune area and replacing them with native ones.

The Village expects to complete the Beach Renourishment Project in FY 2010-2011. Implementation of Seagrass Restoration and Mitigation Plan is currently underway to fulfill requirements set by the DEP prior to the next beach renourishment. The Village is working closely with the DEP and the Miami-Dade County Department of Environmental Resources Management (DERM) in all restoration efforts that include sediment placement, bird staking, and baseline monitoring. The expected completion date for these efforts is by the end of 2009. Further required planting and replanting will be done at the onset of the seagrass growing season in 2010. Upon completion of this task, the Village will be able to proceed with the Beach Restoration Project.

The FMP update report was prepared by the Village Floodplain Manager, the Department of Public Works, the Web Manager and the CRS Coordinator

The Village issued a press release to local newspapers

A copy of this report can be obtained in the Village’s website

[www.keybiscayne.fl.gov](http://www.keybiscayne.fl.gov)