



## CITY OF FLAGLER BEACH

# Floodplain Management Annual Progress Report May 1, 2019

### EXECUTIVE SUMMARY

As part of its continuing participation in the Community Rating System (CRS) of the National Flood Insurance Program (NFIP), the City of Flagler Beach presents its ANNUAL PROGRESS REPORT ON FLOODPLAIN MANAGEMENT to the Insurance Services Office (ISO). This covers the reporting from April 1, 2018 thru March 31, 2019 and is due April 30, 2019.

### Hurricanes

During this 12 month reporting period, the City was still recovering from but two hurricanes the previous two years. Hurricane Matthew, which raged during the night of October 6-7, 2016, was notable for its 7- foot storm surge and severe erosion. Major chunks of SR A1A fell onto the beach, forcing a rerouting of traffic from South 9<sup>th</sup> to 22<sup>nd</sup> Streets, and from N 19<sup>th</sup> to 22<sup>nd</sup> Streets. Many city- owned buildings were damaged, including the library. Fortunately, the Water Treatment Plant and Wastewater Treatment Plant continued to operate under regular or generator power. Unfortunately, the lift and pump stations that control the flow of sewage to the Wastewater Treatment Plant lost power, and the City had to pay an outside contractor to pump down the waste.

Hurricane Irma, which struck on September 11, 2017, arrived in Flagler County right after a nor- easter dumped a heavy rain. The two systems together accounted for 10 to 14 inches of rainfall over a period of a few days, exacerbated by occurring during a King tide. Offshore winds kept the water stacked up along the Intracoastal Waterway, with no outlet. Flood levels exceeded the predicted 500-year flood. Many homeowners in the Intracoastal Waterway subdivisions of Palm Harbor, Ocean Palm, Venice Park, Palm Circle, and Palma Vista, and streets that bordered the ICW, such as North Daytona Avenue, South Flagler and South Daytona Avenues, and Lambert Avenue, were flooded.

FEMA/NFIP data on the number of homes and the amount of damage has not yet been made available to the City Floodplain Administrator.

Flagler County's Emergency Operations Center was active during all stages of both events: pre- storm, during, and post-storm. The City was represented at the EOC by its Floodplain Administrator for three days and two nights at both hurricane events.

## **FLAGLER COUNTY LOCAL MITIGATION STRATEGY**

The City manages many of its flood mitigation projects in cooperation with the Flagler County Local Mitigation Strategy (LMS) Workgroup. Flagler County's LMS was developed in 1999 by a multi-jurisdictional group representing the County, the Towns of Beverly Beach and Marineland, and the cities of Bunnell, Palm Coast, and Flagler Beach. The LMS document is in compliance with the Federal Disaster Mitigation Act of 2000 (44 CFR 201.6) and has been approved by FEMA and the Florida Department of Emergency Management (FDEM).

An update to the LMS occurred in 2016. The City of Flagler Beach provided input for that revision and adopted it on June 9, 2016, by passage of Resolution 2016-28. The Flagler County LMS Plan can be found at:

[http://www.flaglercounty.org/departments/emergency\\_services/local\\_mitigation\\_strategy.php](http://www.flaglercounty.org/departments/emergency_services/local_mitigation_strategy.php)  
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The City continues to coordinate with the LMS Working Group for grants to ensure the risk assessment includes updated impacts from Hurricane Matthew, which occurred October 7-8, 2016, and Hurricane Irma, on September 11, 2017.

### **Recently Completed Projects**

#### *LMS Potable generators for Pump and Lift Stations*

This grant was applied for through the LMS Group in May 2017, and awarded in March 2018. It includes up to \$270,000 to purchase portable generators for use at the 25 pump and lift stations throughout the City. Currently the City depends on Florida Power & Light to provide electricity, including to the waste stations that control the flow of raw sewage through the underground sewer system. In the event of a power outage, these portable diesel generators-on-trailers will provide the energy needed to maintain the proper flow rate of the system to the Wastewater Treatment Plant, thereby avoiding a sanitary sewer overflow. A Request for Proposal to provide the 10 generators through competitive bid will be advertised in May 2018.

This is an appropriate place to mention that following a city-wide power outage, while potable water may be available, it is still important to limit one's water use to what is truly necessary. Otherwise, the sewer system can be overwhelmed. Do not do laundry or take long showers for several days following a major storm event. It is best to wait until full power has been restored to everyone in the city before resuming normal water use.

#### *Hurricane Loss Mitigation Program*

In May 2017, the Florida Division of Emergency Management awarded 15 applicants a wind mitigation grant for homesteaded properties. Each of the 15 received a grant award of \$194,000 to protect individual homes against high wind damage. The City of Flagler Beach was ranked second among 32 jurisdictions that applied for funds.

Once the grant was awarded, it was advertised on the July 2017 utility bill to all Flagler Beach residents. Nine lucky homesteaders are currently receiving free upgrades, ranging from new roofs, to shutters, to high impact sliding glass doors. An unclaimed \$26,000 award was made available to the City in March 2018 for an additional tenth homeowner. Follow-up on this continued to occur during this reporting period.

#### *Ocean Palm Subdivision and Golf Course Stormwater Project*

Ocean Palm Subdivision has had flooding issues for decades. It was not until the City took ownership of the golf course surrounded by the subdivision that it had the authority to modify the golf course ponds to contain additional rainfall. This stormwater construction project depended on two city-initiated grants to proceed, and included the addition of both wet and dry storage ponds, and the enlargement of several other ponds. Construction began in June 2017 and was completed December 20, 2017.

Before construction could begin, the project had to be designed. On August 11, 2016, the City Commission approved a contract with Quentin L. Hampton Associates, Inc. for design, permitting, and construction contract oversight. A Legislative grant, managed by the Florida Department of Environmental Protection's Division of Water Restoration Assistance, provided \$200,000 for this purpose.

A second grant from St. Johns River Water Management District for \$875,000 was allocated for construction purposes only. This was a 77/23% cost-share grant. The District reimbursed the City up to 77% of the total cost. S. E. Cline Construction was awarded the construction contract on April 13, 2017. This project is now complete.

#### *Utility Mapping*

A contract for a city-wide mapping of water and sewer locations, awarded to Quentin L. Hampton Associates (now dba Mead & Hunt) in February 2017 for \$24,550, was amended in October 2017 to include mapping of previous stormwater projects. For an additional \$15,500, inlets, outlets, stormwater drains, swales, and contour elevations will be mapped. This project is now complete and maps are in use.

#### *Woman's Club Drainage Stormwater Project*

The higher elevation of The Woman's Club in the 1500 block of South Central Avenue, compared to the homes across the alley to the west, has created some rainfall runoff issues. Zahn Engineering was awarded an engineering contract in May of 2017 for \$10,480 to design a method to alleviate flooding. This construction project has now been completed and has quite successfully prevented any additional flooding impacts to the immediate area.

### **STORMWATER BUDGET**

Since 2005, the City has included a stormwater fee on its utility bill to residents and businesses. For Fiscal Year 2016/17 (October 1 – September 30), the monthly fee was \$5.25 per Equivalent Residential Unit (ERU). This earned an annual gross receipt of \$274,348. For Fiscal year 2017/18, the ERU was increased to \$6.83 per month. It is anticipated to generate \$362,401. Use of this fund is restricted to operations and capital projects related to stormwater improvements. The City has recently completed a design to improve retention of stormwater run-off within the Lambert Avenue area. It is currently anticipated that the City will be constructing the drainage improvements of Phase I near the end of 2019 when sufficient funds are made available.

## **SJRWMD SWALE GRANT PROJECT**

In order to subsidize the limited storm water budget the City applied for a SJRWMD Redi Grant during the spring of 2019 and has been awarded \$500,000 to construct roadside swales in areas of the city upstream of areas in the past which have had streets prone to flooding. This project is nearing design completion at this time and we are anticipating construction to commence in the late fall or winter of 2019.

It is also important to point out that the City has been extensively cooperating recently with the State of Florida in the reconstruction of State Route A1A through our City to reconstruct and protect the roadway by dune reinforcements. The A1A stormwater design has been reported to provide a retention volume with the roadway of up to 11" of rainfall. This will be a major plus to our community in alleviating the reoccurring inundation of our city streets located at lower elevations to the west every time we have any significant rainfall event.

## **RISK MAP**

FEMA Region 4 recently completed a multiyear coastal flood risk study for Flagler and Volusia Counties to identify, quantify, and communicate better the flood hazards and associated risks along our coast lines. Preliminary FIRMs dated March 2016 were provided to cities and counties for input, and were subjected to a rigorous public review process. These maps become effective June 8, 2018, and will replace the current FIRMs, in effect since July 17, 2006.

## **DISASTER PREPAREDNESS GUIDE**

Prior to 2015, the *Disaster Preparedness Guide* was a combined publication of Flagler County and the City of Palm Coast. Beginning in 2015, Flagler Beach joined this effort by helping to fund printing costs and including written material relative to our City. This full-color, photograph-rich magazine has a wealth of information for residents detailing how to prepare before, during, and after an emergency.

The result is a professional-grade magazine with a wide distribution, free to the public. We are all very proud of it.

## **REPORT DISTRIBUTION**

A requirement of Element 510 of the Flood Damage Reduction Activities of the NFIP Community Rating System is that this FLOODPLAIN MANAGEMENT ANNUAL PROGRESS REPORT be submitted to its governing body, made available to the public, and released to the media. Therefore, this report is now being sent to the City Manager, City Mayor and City Commission; posted on the City's website; and a notice of its availability sent to the *Daytona Beach News-Journal* and the *Palm Coast Observer*. It was prepared by Fred W. Griffith, City Engineer, Department of Public Works. Copies of this document are available for public view at Flagler Beach City Hall, 105 South 2nd Street, and the City Library, 315 South 7th Street.