



To: Michael H. Johansson, City Manager
Thru: Tim Burman, Community Development Director
From: Larry A. Roberts, Community Development Engineer
Subject: Floodplain Management Plan Annual Progress Report 2019
Date: June 17, 2019

Background

Staff has prepared this report for submittal for continued certification under the National Flood Insurance Program (NFIP) Community Rating System (CRS). The NFIP provides federally supported flood insurance in communities that regulate development in floodplains. Out of 22,000 communities in the USA, only 1,391 (6.3%) participate in the NFIP Community Rating System (CRS). The City of Port Orange voluntarily participates in the CRS which qualifies property owners in floodplains for reduced rates on flood insurance.

Sixty-nine percent of flood insurance policies are written in CRS Communities. Under the CRS, flood insurance premiums are discounted to reward community actions that: 1) reduce flood damage to insurable property through planning and outreach; 2) strengthen and support the insurance aspects of the NFIP; and 3) encourage a comprehensive approach to floodplain management.

FEMA recognizes Port Orange as a Class 5 CRS community. With this designation, Port Orange new and renewal policy holders in the Special Flood Hazard Area qualify for a 25% premium discount. New and renewal policy holders outside the Special Flood Hazard Area qualify for a 10% premium discount.

The City's Floodplain Management Plan

The City adopted the five-year update of the Volusia County Integrated Floodplain Management Plan by Resolution 18-52 on November 13, 2018. The plan is designed to encompass a snapshot of floodplain hazards throughout the county and provide individual jurisdictional plans. The Volusia County Integrated Floodplain Management Plan follows the format and outline of the Community Rating System Guidance and is integrated with the Volusia Local Mitigation Strategy (LMS).

The City has been a participant in the Volusia County Local Mitigation Strategy (LMS) initiative since 1998. The LMS was created and adopted to more effectively plan disaster related responses and provide mitigation initiatives designed to reduce hazards and/or to protect people and property when hazards do occur. The Volusia County Multi-Jurisdictional LMS recently was updated and found in compliance with the federal hazard mitigation planning standards. On August 18, 2015 through Resolution 15-48, the City Council formally adopted the five-year update of the Volusia County LMS which includes the Volusia County Integrated Floodplain Management Plan and the County's Flood Response Plan.

Availability

Copies of the 2015 Volusia County Multi-Jurisdictional Local Mitigation Strategy, 2018 Volusia County Integrated Floodplain Management Plan and this report can be obtained from the City of Port Orange Community Development Department or on the City Website (www.port-orange.org) by searching "Flood Information" on the home page. In addition, this report has been copied to local media and the State of Florida NFIP Coordinating Official.

Status of Plan Implementation

There are seven countywide goals adopted in the Integrated Floodplain Management Plan and separate goals established by the City to minimize the effects of flood events in the City of Port Orange, with the implementation and progress status of each provided in the following:

Goal	Status
<p>Countywide Goal 1: Prevent new development in the floodplain from increasing runoff and resulting in increases in flood volumes in the floodplain.</p>	<p>Achieved through City of Port Orange Floodplain Development Ordinance 2014-2, City Code of Ordinances, building permit process, and the provisions of the Land Development Code which require water quality treatment volume, runoff attenuation volume for the 25 & 100 year storms, and compensating storage volume for fill planned to be placed inside the Special Flood Hazard Area. (On-going)</p>
<p>Countywide Goal 2: Develop and maintain a proactive public awareness and outreach that informs and notifies property owners that they are located in a flood zone and provides assistance and information regarding flood zones, protection of property, local drainage and sewer back-up problems;</p>	<p>Accomplished through the City's flood information and mapping information provided on the website https://www.port-orange.org/289/Flood-Information and https://www.port-orange.org/227/Interactive-Maps ;</p> <p>Further accomplished by providing a user-friendly link to professional staff so that property owners can receive a complimentary Flood Zone Determination via email, US Mail, or phone. (On-going)</p> <p>The City provided professional services in developing a Program for Public Information (PPI) with nine other Volusia County CRS communities in accordance with guidance provided in the Community Rating System Coordinators Manual, 2013 edition. The PPI plan is now a countywide public outreach program to promote awareness of flood issues. The PPI Committee developed the plan between June 10, 2015 and January 19, 2016 which the City adopted with Resolution 16-7. Status: The 2019 NFIP/CRS Program for Public Information Committee Annual Meeting was held March 20, 2019.</p> <p>The City provides affirmative outreach services including manning booths at Public Events such as Preparedness Fair and Family Days and providing speakers to the City's many Homeowner Associations.</p> <p>Outreach was expanded in 2018-2019 via Social Media through the City's Public Information Officer. (Quarterly)</p> <p>Traditional color print flood protection information reference materials are available in the Port Orange Community Development Department and the Volusia County Regional Library. (On-going)</p> <p>The color print flood protection info brochure is distributed with each structural building permit. (On-going)</p>

Goal	Status
<p>Countywide Goal 3: Continue with the Hazard Mitigation Grant Program to identify and obtain funding for both pre- and-post disaster residential mitigation projects regarding flooding;</p>	<p>Outreach letters to repetitive loss property owners to educate them to the opportunity availed by the Hazard Mitigation Grant Program (75% grant for repetitive loss mitigation, 90% grant for severe repetitive loss mitigation). Provide professional consultation services to interested owners during the qualification process. (On-going)</p>
<p>Countywide Goal 4: Reduce the number of repetitive loss properties within Volusia County; and Countywide Goal 5: Review the locations and effects on areas that experience flooding and determine what steps, if any, the County and municipalities can take to alleviate future impacts.</p>	<p>The City moved four properties from repetitive loss status to mitigated status in 2008 by purchasing those properties and returning them to open space.</p> <p>The City earned FEMA, FDOT, and FDEP funding for a combination mitigation and reclamation project completed in 2014. The project provides partial mitigation from upland runoff to two of the City's repetitive loss properties and the main hurricane evacuation route. Vulnerability to coastal storm surge remains.</p> <p>The City actively updates the Drainage Element of its Comprehensive Plan to stay relevant to the Countywide and City Goals.</p> <p>The City's Public Works Department engaged the services of two consulting engineering firms to update the City's Stormwater Management Plan and identify and prioritize additional initiatives to alleviate flooding.</p>

Goal	Status
<p>Countywide Goal 6: Develop Floodplain Management Plans for participating CRS municipalities in Volusia County (and others as desired).</p>	<p>Completed. The City adopted the 2015 updated Volusia County Multi-Jurisdictional Local Mitigation Strategy which includes the Integrated Floodplain Management Plan. The Volusia County Integrated Floodplain Management Plan received a five-year update which the City adopted by Resolution 18-52 on November 13, 2018.</p>
<p>Countywide Goal 7: Develop a Countywide Flood Warning System.</p>	<p>The City adopted the 2015 Volusia County Multi-Jurisdictional Local Mitigation Strategy which now includes a Volusia County Flood Warning Program. This program is designed to assist residential and business owners to know when a potential flood threat is imminent and be able to take the necessary precautions to protect their property. (Flood Warning System – Completed and in-service) City staff participates in countywide multi-agency emergency preparedness and post disaster recovery training to minimize unnecessary disruption. (On-going, The 2019 Annual Hurricane Exercise was held May 8, 2019)</p>
<p>City Goal 1: Provide an efficient and effective drainage and stormwater management system which, to the maximum extent practical, protects persons and property from flooding, prevents negative impacts to the groundwater aquifer, and safeguards surface waters against erosion and degradation of quality.</p>	<p>New development must comply with erosion and sedimentation control during construction and new drainage and stormwater management systems must comply with requirements for water quality treatment volume, runoff attenuation volume for the 25 & 100-year storms, and compensating storage volume for fill planned to be placed inside the Special Flood Hazard Area. (On-going)</p> <p>The Public Works Department continues to perform proactive and reactive drainage maintenance cleaning, street sweepings and drainage system rehabilitation such as storm pipe replacements within the City throughout the year. Additional drainage maintenance activities have and will be performed prior to any natural disaster (hurricane/tropical storm). Public Works keeps a detailed log identifying areas within the City that are inspected and cleaned. This ensures that every City owned or maintained drain, ditch, and canal functions as efficient as possible. (On-going)</p> <p>A Kaiser walking excavator was placed in service in 2019 to replace an aging walking excavator. (On-going)</p> <p>2018-2019 Rehabilitation Projects are detailed under City Goal 2</p>
<p>City Goal 2 (Countywide Goal 5): Lessen the impact of destructive storms on human life, property, public facilities and natural resources.</p>	<p>The City's new and replacement infrastructure is designed to withstand floods and wind damage associated with major storms and hurricanes. Furthermore, the City requires, where necessary and appropriate, that electric, telephone, cable television, and other private utility infrastructure be designed to withstand flood and storm damage.</p> <p>The City participates in the county-wide Local Mitigation Strategy (LMS) program and implements the LMS, as necessary and appropriate through capital improvements programming. (On-going)</p>

Goal	Status
<p>City Goal 2 (Countywide Goal 5): Lessen the impact of destructive storms on human life, property, public facilities and natural resources.</p>	<p>The Public Works Department continues to perform proactive and reactive drainage maintenance cleaning, street sweepings and drainage system rehabilitation such as storm pipe linings within the City throughout the year. Additional drainage maintenance activities have and will be performed prior to any natural disaster (hurricane/tropical storm). Public Works keeps a detailed log identifying areas within the City that are inspected and cleaned. This ensures that every City owned or maintained drain, ditch, and canal functions as efficient as possible. (On-going)</p> <p>2018-2019 Drainage System Rehabilitation Projects:</p> <p><u>Tumblebrook Drive:</u> Construction of drainage improvements to connect a landlocked basin to the public stormwater conveyance system. Presently, Public Works staff must mobilize a pump during rain events to prevent flooding of residential properties. The pump is 12 years old and it is deployed a minimum of six times per year to maximum of 20 times per year. The project design began in 2017 and is beginning to emerge as a combination of open cut and directionally drilled options.</p> <p><u>Virginia-Monroe:</u> The project consists of construction of two, permanently mounted, 150 HP, diesel powered standby stormwater pumps, complete with 18" HDPE, directionally drilled force mains from lowest lying neighborhood locations to the Halifax River. The Monroe Street and Virginia Avenue area experiences significant and repeated flooding. The area is approximately 160 acres, with the majority of the area being comprised of residential units, ranging from 0.2 acres to 1 acre in size. Commercial units within the area are primarily located along Dunlawton Avenue and US1. The area is primarily served by an older stormwater system that collects and conveys stormwater runoff to the east until reaching the Halifax River. Due to low ground elevations the area experiences flooding as the overloaded and outdated gravity system is not capable of reducing flooding when the river is at high tide during storm events. Design commenced in 2017. Design and permitting are now complete. The City is seeking funding partners.</p> <p><u>Poinciana Avenue:</u> Heavy maintenance replacement of crushed storm drain completed in 2019.</p>
<p>City Goal 3: Conserve, protect, manage, restore, and enhance the functional, aesthetic, and qualitative value of the natural environment for the benefit of present and future generations.</p>	<p>Achieved through the Tree, Wetland and Shoreline Protection regulations in the City's Land Development Code. (On-going)</p>