

CRS Activity 510
Annual Progress Report on Implementation of Credited Plan

Date this Report was prepared: April 11, 2022

Name of Community: City of Port Orange, Florida CID 120313

Name of Plan: Volusia County Multi-Jurisdictional Local Mitigation Strategy

Date of Adoption of Plan: June 16, 2020

5 Year CRS Expiration Date: June 16, 2025

1. How can a copy of the credited plan be obtained:

The 2020 Volusia County Multi-Jurisdictional Local Mitigation Strategy, the LMS-embedded Volusia County Integrated Floodplain Management Plan (Appendix I), and this report can be obtained from the City of Port Orange Community Development Department or on the City of Port Orange website (www.port-orange.org) by searching "Flood Information" on the home page.

2. Describe how this annual progress report was prepared and how it was submitted to the governing body, released to the media, and made available to the public:

This progress report was prepared by the City's Community Development Engineer and CRS Coordinator with support from Public Works. The progress report was submitted to the Port Orange City Council and was released to the media and made available to the public through a press release and posting on the City of Port Orange website (www.port-orange.org) by searching "Flood Information" on the home page.

3. Provide a description of the implementation of each recommendation of action item in the action plan or area analysis report, including statement on how the project was implemented during the previous year:

See attached Evaluation Table.

4. Discuss why any objectives were not reached or why implementation is behind schedule:

Progress with surveying Phase 2 of the City's 5 Phase Stormwater Management Plan was not completed last year as originally planned due to the pandemic. The surveying work is scheduled for the upcoming year.

5. What are the recommendations for new projects or revised recommendations?

Continue to add projects to the LMS and pursue Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program (HMGP) grants to fund drainage and flooding alleviation projects. Secure funding to implement installation of tidal check valves on river outfalls. Secure funding to implement the recommendations of the Shoreline Habitat Restoration & Management Plan along publicly owned shoreline.

Evaluation Table

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>Countywide Goal 3: Provide advice and assistance to property owners concerning the protection of their properties from flooding, local drainage and sewer back-up problems.</p>	<p>Accomplished through the City’s mapping information provided on the website. Flood protection reference materials available in the Port Orange Community Development Department and in the City Island Library. (On-going)</p> <p>The City updated the Program for Public Information (PPI) with eleven other Volusia County CRS communities. The PPI plan is a countywide public outreach program to promote awareness of flood issues. On January 19, 2021 the City Council adopted the Volusia Multi-Jurisdictional Program for Public Information Plan. The adopted plan is a 5-year update to the outreach projects and measurable outcomes through a detailed analysis. On February 24, 2022, the Multi-Jurisdictional PPI Committee held its annual evaluation meeting regarding the Plan and any need for revisions. A data analysis was conducted and no new recommendations were made to modify the outreach objective and measurements (see attached Program for Public Information Annual Report). (On-going)</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 Homeowner Associations. In 2021, staff provided outreach to the community during Family Days.</p> <p>Outreach via Social Media through the City’s Public Information Officer on Facebook and Twitter. (Quarterly)</p> <p>A color print flood protection informational brochure is distributed with each new residence building permit. (On-going)</p> <p>A color print flood protection informational brochure specific to properties in the Special Flood Hazard Area mailed to all properties within the Special Flood Hazard Area. (Annually, mailed on April 8, 2022)</p> <p>The City participated in Flood Awareness Week. Flood Awareness Week Proclamation at the March 1, 2022 City Council meeting. Facebook and Twitter messages posted daily from March 7-13, 2022.</p>
<p>Countywide Goal 4: Reduce the number of repetitive loss properties within Volusia County;</p>	<p>Outreach letters to repetitive loss area property owners. Currently, there are 60 repetitive loss properties in the City and 478 properties have been identified by GIS mapping as located in repetitive loss areas. In accordance with the PPI, letters to all repetitive loss area properties must be mailed each year by May 1.</p>

Evaluation Table

Goal	Status
	<p>(Annually, mailed on April 8, 2022)</p> <p>Provide professional consultation services to interested owners during the qualification process. (On-going)</p> <p>Virginia-Monroe Project: Virginia Avenue and Monroe Street is a corridor with a mix of residential and some small commercial properties ranging in size from 0.2-1-acre, located between the Halifax River and the FEC Railroad, from Dunlawton to White Place. This project is in a Repetitive Loss Area. The area was served by an older stormwater system needing improvement because there has been flooding and standing water. Construction was partially funded by a Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program (HMGP) grant. The project was completed in October 2021 and is operational and functioning as designed. (Completed August 31, 2021)</p>
<p>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 Drainage Element of the Comprehensive Plan was last updated in 2010 and will be updated with the upcoming Comprehensive Plan amendment that will be adopted in 2023 for the planning horizon through 2045.</p> <p>In 2015 and 2016, 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. Phase 1 of the 5 phase Stormwater Management Plan is complete. In 2022, the City will begin field survey work related to Phase 2.</p>
<p>Countywide Goal 6: Develop Floodplain Management Plans for participating CRS municipalities in Volusia County (and others as desired); and</p>	<p>The City adopted the 2020 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 20-25 on January 16, 2020. (Complete)</p>
<p>Countywide Goal 7: Develop a Countywide Flood Warning System.</p>	<p>The City adopted the 2020 Volusia County Multi-Jurisdictional Local Mitigation Strategy which 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 – In-service)</p> <p>City staff participates in countywide multi-agency emergency preparedness and post disaster recovery training to minimize unnecessary disruption. The City participated in the April 12, 2021 Flood Warning and Response Exercise provided by Volusia County and Tetra Tech.</p>
<p>PPI Outreach Project 1: Consolidated Flood Fact brochure on all messages and handouts distributed in all community permitting offices (Year Round)</p>	<p>Consolidated Flood Fact brochures are available at the Community Development and Public Utilities counters. They are also provided with all new Single-Family Home Certificates of Occupancy issued by the City. The brochures are also handed out at Family Days events. (On-going)</p>
<p>PPI Outreach Project 3: Consolidated</p>	<p>Consolidated Flood Fact brochures are available at the Port Orange Chamber of Commerce. (On-going)</p>

Evaluation Table

Goal	Status
Flood Fact brochure on all messages and handouts to Chamber of Commerce for display (Year Round)	
PPI Outreach Project 6: Annual Flood Guide – Updated information on flood hazard preparedness that includes information on property protection – sent to all households in floodplain and distributed in County offices, regional library branches and all community building departments (Mailed out by 5/1)	Consolidated Flood Fact brochures were sent to all households in the floodplain in April 2022. The brochure is available at the Community Development counter for distribution. (On-going)
PPI Outreach Project 7: Annual letters to all repetitive loss area properties (Mailed out by 5/1)	Currently, there are 60 repetitive loss properties in the City and 478 properties have been identified by GIS mapping as located in repetitive loss areas. The annual letters were sent to all repetitive loss area properties on April 8, 2022 and included the letter and the Flood Fact brochure.
PPI Coverage Improvement Plan 1: Mayor letters to floodplain and repetitive loss properties from each jurisdiction.	The Flood Information letter from the Mayor was sent via email on April 1, 2022. The Mayor Flood Information letter was delivered to 13,432 email addresses, opened by 7,007 people. 664 people clicked the msc.fema.gov link, 225 opened the PDF attachment, and 219 clicked on the floodsmart.gov link.
PPI Flood Response Projects 2: Door hangers in English and Spanish will be distributed by affected community local building department	The door hangers have been printed and available for use after a flood event.
City Goal 1 [Comprehensive Plan Public Facilities Element]: 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>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 Menzi Muck M22 ditch cleaning machine was procured in August 2020. It allows Public Works to maintain difficult access channels and waterbodies. The Menzi Muck, along with a Kaiser walking excavator in service since 2019, provide the City the capability to clean all terrains. (On-going)</p>
	Howes Street and Orange Avenue Drainage Improvement: Howes Street is located north of Commonwealth Boulevard and west of Ridgewood Avenue in the Allendale area of Port Orange. The area surrounding the Howes Street and Orange Avenue intersection periodically experiences roadway ponding

Evaluation Table

Goal	Status
	<p>and some flooding. There are limited stormwater management facilities in the area. Engineering design was finalized in 2020. The project is fully funded and permitted. The project was bid in late 2020, began in April 2021 and scheduled to be completed in April 2022.</p> <p><u>Canal View Bank Hardening:</u> The southerly bank of the Halifax Canal along Canal View Boulevard from Jackson Street to Spruce Creek Road will be stabilized to stop erosion. Over the years, the bank slope has changed significantly due to natural erosion and mowing. The slope has eroded as evidenced by the lack of shoulder next to Canal View Boulevard and the length of exposed guard rail posts. The bank stabilization approach includes installation of an “F” type curb and flumes to channelize the stormwater to the canal. The guardrail will be repaired or replaced in the areas where the slope has eroded. Construction began in February 2022 and is scheduled to be completed by December 2022.</p> <p><u>2021-2022 Rehabilitation Projects</u> The City continues to replace aging corrugated metal stormwater pipe with reinforced concrete pipe (RCP) and High-Density Polyethylene (HDPE) pipe to improve stormwater conveyance and reduce the potential for flooding.</p> <p>Citywide stormwater improvement project completed in October 2021 by Gregori Construction (ITB 20-01) at the following locations: Alexander Dr., Powers Ave. & Canal View Blvd., Willow Run Blvd. & Tracy Dr., Melissa Dr. & Pagano Ct., Hidden Lake Dr. & Dexter Dr., and Devon St. & London Pl.</p> <p>In Fiscal Year 2021, the city’s contractor installed Cured in Place Pipe Lining (CIPP) in a total of 2,015 linear feet of pipe ranging from 18” to 36” on the following streets: Peppermint Way, Merrimac Dr. Brandy Hills Dr. Chickadee Dr. and Dexter Dr.</p> <p>In Fiscal Year 2022 the city’s contractor will install Cured in Place Pipe Lining (CIPP) in a total of 1,500 linear feet of pipe ranging from 14” to 36” on the following streets: Lafayette St., Church St., W. Bayshore Dr., Whippoorwill Dr., Hamlet Dr., Hillville Dr., Robbin Dr., and Jeffery Dr.</p>
<p><u>City Goal 2 [Comprehensive Plan Coastal Zone Management Element]:</u> Lessen the impact of destructive storms on human life, property, public facilities and natural resources;</p>	<p>The City participates in Volusia County’s Multi-Jurisdictional Local Mitigation Strategy (LMS) program and implements the LMS, as necessary and appropriate through capital improvements programming. The LMS provides a mitigation action plan that identifies areas within the City that have drainage issues that would benefit from engineered improvements. (On-going)</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. (On-going)</p>

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	<p><u>Amendment of Floodplain Management Regulations for Accessory Structures, Manufactured Homes, and Equipment Servicing Buildings in the Special Flood Hazard Area (SFHA)</u> On March 2, 2021, the City Council adopted Land Development Code (LDC) amendments to make the Land Development Code consistent with the State Floodplain Management Office’s prerequisite guidance to qualify as a National Flood Insurance Program (NFIP) Community Rating System (CRS) Class 8 community and its Model Ordinance language based on FEMA Policy #104-008-03 Floodplain Management Requirements for Agricultural Structures and Accessory Structures and a 2021 Addendum to the 2017 CRS Coordinator’s Manual to increase the Class 8 Freeboard Prerequisites effective January 1, 2021. The amendments modified the LDC, Chapter 2, Definitions to delete obsolete terms and definitions related to new and existing mobile home and manufactured home parks or subdivisions and Chapter 8, Article III related to the City’s existing floodplain management regulations for accessory structures, manufactured homes, and equipment servicing buildings in flood hazard areas.</p> <p><u>Elevation Certificates</u> As part of the City’s implementation of the 2021 Addendum to the 2017 CRS Coordinator’s Manual, the City has revised its process of collecting Elevation Certificates for properties in the Special Flood Hazard Area (SFHA). After adoption of the LDC Amendments for Accessory Structures and Manufactured Homes on March 2, 2021, Community Development began collection of Elevation Certificates for Accessory Structures which previously were not collected. Elevation Certificates for Construction Drawings, Under-Construction, and Finished Construction are required for all new permits for new residences, commercial buildings, additions, accessory structures and any other structures with three walls and a roof in the SHFA. For accessory structures that do not have slabs poured onsite, the Under-Construction Elevation Certificate is not required.</p>
<p><u>City Goal 3 [Comprehensive Plan Conservation Element]:</u> Conserve, protect, manage, restore, and enhance the City’s air, water, and soil resources in order to maintain a living environment that supports a healthy population and does not cause illness; and</p>	<p>To protect, enhance and improve the ambient water quality of surface waters within the City; Policy: On-site waste treatment system facilities and drain fields shall not be located within 75 feet of the 100-year floodplain; within 75 feet of an upland/wetland interface; or within 120 feet of the mean high water mark of any surface water body, whichever is greater. On-site waste treatment systems should be located as far inland from a water body or wetland as possible. (On-going)</p>
<p><u>City Goal 4 [Comprehensive Plan Conservation Element]:</u> 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>To protect the natural function of the 100-year floodplains of Spruce Creek, the Halifax River, and their tributaries. In accordance with the provisions of the Comprehensive Plan, the City shall enforce development regulations, to maintain the capability of floodplains to carry, store and filter flood waters; Policy: Continue the use of the Conservation land use designation, as well as the Floodplain-Conservation (F-C) Zoning District, to protect the natural functions of floodplains and shorelines; Policy: Floodplains whose functional values have been degraded or destroyed through human intervention should be restored, if possible, through the public acquisition of historic floodplain lands. Various state, regional, and</p>

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	<p>local acquisition programs shall be used for this purpose; Policy: No fill will be allowed in the Floodplain-Conservation (F-C) Zoning District that will decrease the flood carrying capacity of the riverine floodplain; Policy: No fill will be allowed in isolated floodplain pockets that will decrease the flood storage capacity of depressional wetlands; Policy: If any filling of land occurs during site design such that the volume of floodplain storage would be reduced, an equal volume of soil shall be excavated within the same floodplain to provide compensatory storage; Policy: Ensure that fill material or other structures do not adversely obstruct the natural movement of floodwater overland sheet flow or pose a threat to the public health, safety, and welfare; Policy: Encourage the development of a strict floodplain management program by state, regional, and local governments designed to preserve hydrologically significant wetlands and other natural floodplain features. Achieved through the Tree, Wetland and Shoreline Protection regulations in the City's Land Development Code. (On-going)</p>