city of PALM COAST

Community Development Department
Planning Division

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City of Palm Coast
Floodplain Management Annual Progress Report
August 2020

Executive Summary

The purpose of this document is to provide an annual account of activities associated with the City of Palm Coast ("City") Floodplain Management Program. This document facilitates information that can benefit public officials, businesses, and the Citizens of Palm Coast.

The Flagler County Local Mitigation Strategy (LMS) serves as the City's Floodplain Management Plan under the Community Rating System (CRS) of the National Flood Insurance Program (NFIP).

Under CRS Activity 510, the City is required to complete a Floodplain Management Plan annual progress report. This document serves as that report.

Annual Progress Report Development and Staff Roles

This document was prepared by one (1) of the City Certified Floodplain Managers (CFM), Denise Bevan, and subsequently reviewed by the five (5) remaining City CFM staff, Patrick Buckley, Kendra Iannotti, Jordan Myers, Michael Brennan and Mike Peel. A brief description of these CFM staff are provided in the following section(s). The referenced staff and the remaining Floodplain, Outreach, Awareness & Management (FOAM) Workgroup members, routinely conduct meetings to ensure that CRS program activities are managed and processed throughout the year. Additional discussion of the Team's role and responsibilities are discussed in the following sections.

Mr. Patrick Buckley is the Chief Building Official for Palm Coast and a CFM.

Ms. Denise Bevan serves as the primary CFM / CRS Coordinator for the City of Palm Coast since April 2016. She manages the City's CRS program and facilitates updates throughout all City Departments. Ms. Bevan currently serves as the Leader of the FOAM (Floodplain Outreach, Awareness & Management) Workgroup comprised of staff from various City divisions. Further, Ms. Bevan serves as the primary City Liaison for the Flagler County Local Mitigation Strategy (LMS) Working Group; however, many other staff contribute and do attend meetings.

Mr. Mike Peel,CFM serves as the City's Engineer and achieved CFM certification in June 2017. He has also held a professional license in civil engineering since July 1985. He is responsible for the overall management of the City's stormwater system. Mr. Peel and Mr. Carmelo Morales, Stormwater Design and Construction Engineer, consult on application requests for FEMA map revisions.

Ms. Jordan Myers, CFM is the primary reviewer of elevation certificates during the building permit stage of development. Her core responsibility revolves around the development process and reviews land use changes, development agreements, plats, and site development applications.

Mrs. Kendra Iannotti, CFM actively participates in all CRS program activities and CFM meetings. Mrs. Iannotti's primary responsibility is within the City Manager's Office. She provides support for public information that includes website updates, brochures and library resources.

Mr. Michael Brennan, CFM secured the CFM designation in March 2013 and has dually served as a City Liaison to the LMS Working Group. Mr. Brennan is the Stormwater Manager and oversees a multitude of flood hazard mitigation projects. His role and knowledge will continue to serve the CRS program and has proved to be a tremendous asset.

FOAM (Floodplain Outreach, Awareness & Management) Workgroup Mission Statement:
To support and educate our citizens about flood hazards and the National Flood Insurance Program, while ensuring a safe community through steadfast stewardship of floodplain management, hazard mitigation, open space protection, and comprehensive stormwater management.

The Team's priority is to ensure the City's esteemed reputation in the floodplain community is maintained while providing a safe environment for our citizens.

Members, Titles and CRS Activity Focus:

- Patrick Buckley, CFM

Chief Building Official; Role: Florida Building Code regulations

- Denise Bevan, CFM

City Administration Coordinator; Role: CRS Coordinator & City Floodplain Manager (All Activities)

- Mike Peel, CFM

Engineer; Role: Activities 360, 450, 540

- Carmelo Morales

Stormwater Design and Construction Engineer; Role: Activities 360, 450, 540

- Jordan Myers, CFM

Environmental Planning Technician; Role: All Activities

- Kendra Iannotti, CFM

Executive Assistant to the City Manager; Role: Activities 330, 350, 360

- Mike Brennan, CFM

Stormwater Manager; Role: Activities 360, 450, 540

- Damaris Ramirez

Planner; Role: All Activities

- Conrad Troha

Stormwater Specialist Coordinator; Role: Activities 360, 450, 540

- Cathy Almberg

GIS Specialist; Role: Activities 420, 440, 501

To learn more, the following link will provide more detail. https://crsresources.org/manual/

Adoption of the LMS / Updates

The Flagler County Local Mitigation Strategy (LMS) was adopted by *Resolution No. 2016-49* by the City Council on May 17, 2016. The LMS is required to be updated every five years and is due for an update by May 2021. This report respects the effective LMS that gives Flagler County and its municipalities the opportunity to determine what all-hazards mitigation actions need to be taken to minimize damage before the next disaster strikes.

City staff continues to work with County staff and other LMS stakeholders quarterly to enhance floodplain management activities across the entire County.

As part of this annual report, the City of Palm Coast reviews the LMS project list. Concurrently, the 5-year Capital Improvement Plan (CIP) has been evaluated for qualifying projects; fiscal year 2020 projects have been approved via adoption of the budget. Please see Attachment A for the City mitigation projects submitted to the Florida Division of Emergency Management for consideration. Detailed information about each project can be found in the following sections. Please see "Attachment A List of Mitigation Initiatives".

Purpose and Objectives of the LMS

The purpose of the Local Mitigation Strategy (LMS) is to develop a unified approach among County and municipal governments for dealing with an identified hazard and hazard management problems, including flooding, in the Flagler County area. It established an ongoing process that makes hazard mitigation part of the daily routine for the entire community. The LMS also helps establish funding priorities for current proposed mitigation projects and develop priority mitigation projects to be completed with such disaster assistance funds as may be available after a disaster. Implementation of planned, pre-identified, and cost-effective mitigation measures not only helps reduce loss of life, destruction of property, and damage to the environment, but also aids in the decision making process during the recovery and reconstruction following a disaster.

The primary hazard mitigation goals, objectives, and guiding principles of the LMS are to:

Goal 1.0 Minimize impacts from hazards to infrastructure, critical facilities, and property.

Goal 2.0 Minimize the impact to natural resources (including water resources, wetlands, and coastal habitats).

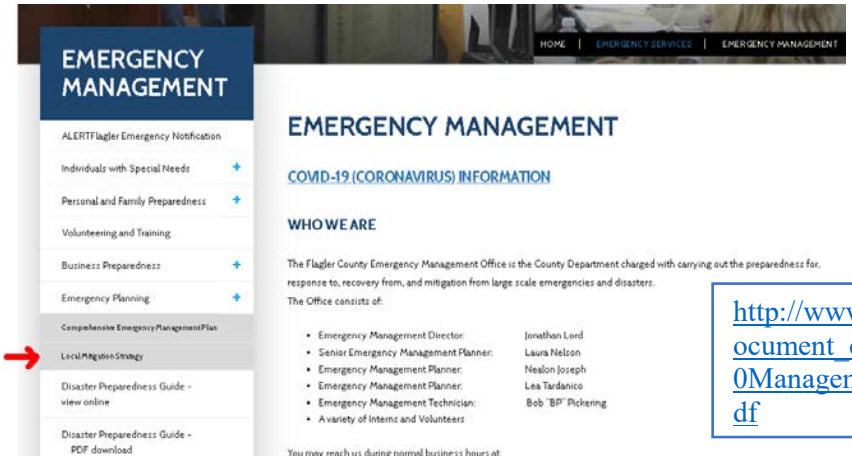
Goal 3.0 Promote community awareness of vulnerability and mitigation options.

Goal 4.0 Reduce potential hazard related economic losses to businesses.

Goal 5.0 Strengthen regional relationships in regards to mitigation among municipalities, agencies, and other organizations.

Goal 6.0 Promote methods of funding mitigation projects, including innovative methods.

The plan is available for download and viewing by visiting Flagler County Emergency Management website.



http://www.flaglercounty.org/document_center/Emergency%20Management/LMS%202016.pdf

Flagler County Local Mitigation Strategy Working Group

As noted in the LMS, "the Working Group acts as a local coordination committee to support and recommend projects for various grant programs; recommends to other regulating agencies or organizations ideas on how to better mitigate the community against natural disasters; and provides educational outreach to the general public about ways to prepare for disaster and mitigation opportunities for their homes and businesses." The Group's core consists of representatives of local municipalities, local organizations and County departments, and is coordinated by staff of the County Emergency Management Division. The LMS Working Group meetings are scheduled quarterly with supplemental topic-based meetings (i.e. floodplain managers, infrastructure, wildfire mitigation, etc.). The Working Group will continue to regularly review and revise its Prioritized Project List that are eligible for federal and state funding, i.e. Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA) Program, Building Resilient Infrastructure and Communities (BRIC), Community Development Block Grant (CDBG), etc. Over the course of the last year, one meeting was conducted on November 19th; however, due to COVID-19, meeting frequency has been reduced for emergency management to focus on the pandemic along with preparing for a potentially active wildfire and hurricane season(s).

List of Mitigation Initiatives

The LMS Working Group has established a list of mitigation projects. The list contains projects that are eligible for HMGP, FMA, and other federal and state funding. Many of the projects listed help to mitigate the potential of flood hazards.

See Attachment A to this report for the complete Prioritized Project List. Of those listed, the following projects were submitted to the Florida Division of Emergency Management for eligibility and were awarded Hurricane Matthew and Irma HMGP funding.

Project #PC-10: 15 PEP Area Pump Station Generators (completed in 2020)
Project #PC-11: 15 Wastewater Collection System Lift Station Generators (8 of 15 installed to date)
Project #PC-12: City Hall generator (completed in 2020)
Project #PC-14: Manhole Dish Project to reduce inflow and infiltration (underway)
Project #PC-15: 5 Lift Station Generators (underway)

Federal Share	=	$ 1,557,373.73
City Share	=	$ 519,124.58
Total Cost	=	$ 2,076,498.30

As referenced in the previous section, the list is a living document and routinely updated. Staff is currently working to incorporate other projects discussed in this report onto the list to reflect the City's effort to mitigate risk. Additional consideration by the Working Group is anticipated due to the ranking process also being modified through the LMS rewrite and updated processing conducted at the state level.

Of the originally listed projects, most have been completed since being placed on the list. The following section provides sample photographs of projects on the LMS list that are completed or underway during this reporting cycle.

Palm Coast City Hall Generator Installation May 2020

Sample image of a Pump Station Generator Project

Beyond the current list of LMS projects, the City maintains a well-structured and rigid maintenance schedule of the stormwater drainage network that reduces the risk of flooding hazards. The following section inventories maintenance activities conducted since the last report in August 2019. The City is also pursuing service contracts from consultants and contractors to help perform maintenance that is outside of current staff and equipment capabilities. Staff has performed several ditch clearing projects that have resulted in positive improvements to neighborhood drainage systems. These and other projects are being incorporated into a Geographic Information System (GIS) Mapping Viewer to manage projects along with sharing updates with the public.

- Swale maintenance and rehabilitation (32 miles)
- Valley gutters (2 pipes; 45 linear feet)
- Culvert pipe replacement (162 pipes; 3,295 linear feet)
- Culvert pipe cleaning (2,811 pipes; 78,651 linear feet)
- Freshwater canal weed control (493 acres continual maintenance)
- Drainage ditch maintenance (376 miles 2x per year is the regular maintenance goal, actual mileage is 178 miles through current date due to lack of inmate crews because of COVID - 19)
- Catch basins and control structures cleaned out (355)

Swale Maintenance – Woodfair Lane

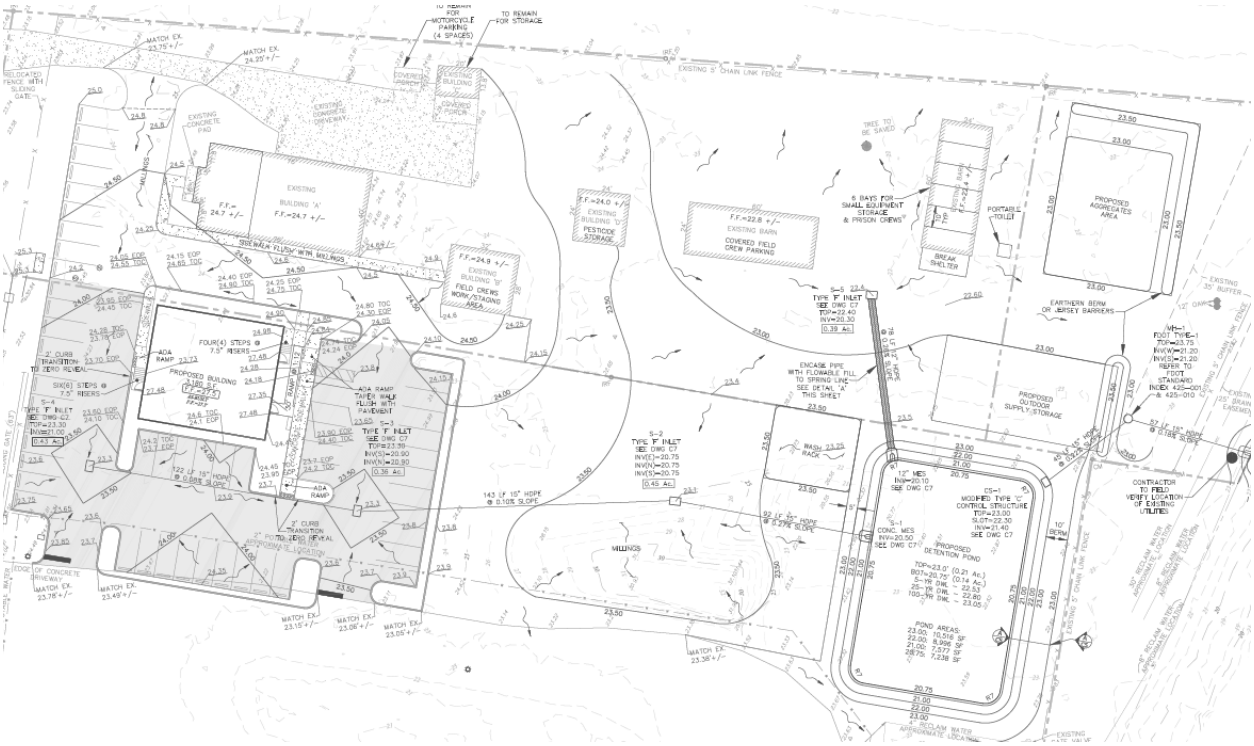
Vac Con Culvert Maintenance –Woodhaven Drive

Pipe Lining Activity

Ditch Dredging – Reidsville Drive

Enhanced Stormwater Management Program

Beginning in October 2018, the City implemented a new enhanced stormwater program. This program includes improvements to level of service and a greater emphasis on maintenance of major waterways, pipe crossings, ditches, inspection programs, and an accelerated Capital Improvement Program. This enhanced program is focused on a more proactive approach to maintenance and improvements. Recent improvements to the maintenance program have included full Geographic Information System (GIS) mapping and documentation of all swale issues and work performed. As noted previously, staff is currently working on the inclusion of ditch maintenance and pipe replacements to a GIS mapping program. The infrastructure assets are being field verified with a new inspection program concurrently commencing. As noted in the last report, a new Stormwater & Engineering Department was established that consolidated functions of Community Development, Construction Management & Engineering, and Public Works departments to address aging infrastructure as well as drainage issues across Palm Coast. The Stormwater Division personnel and specialized equipment is now centralized at the Fuel Depot, 22 Utility Drive; the construction and renovation of the campus that now includes seven (7) buildings, parking and infrastructure; the project is currently deemed substantially complete.



Main Administration building

Equipment staging area

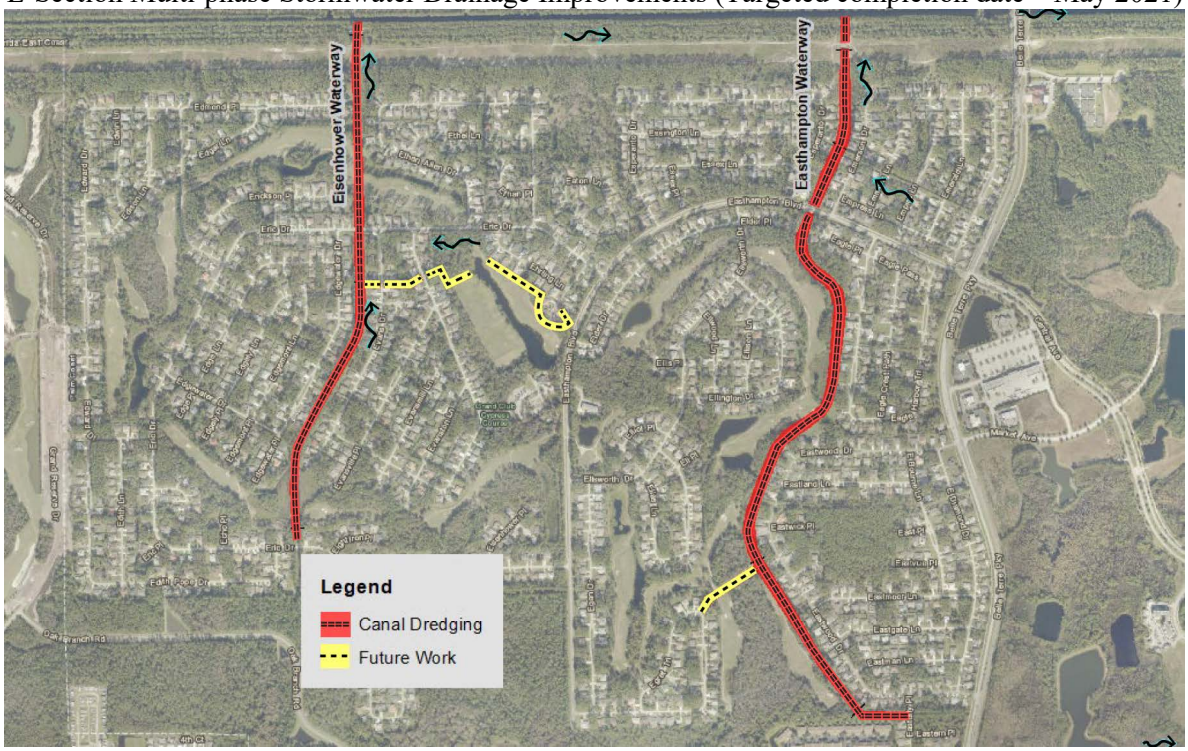
Operations

Through the Citywide Stormwater Master Plan, areas are identified that are susceptible to potential flooding. Project targets include infrastructure that requires improvements, enhancements or additional maintenance. With this approach, the City develops a Capital Improvements Program that addresses areas of concern and identifies projects that will provide the greatest benefit to the citizens of Palm Coast. The Master Plan modeling has identified potential impacts from new development and aided the development community in providing the most efficient lowest impact stormwater management facilities.

The actions taken within the section(s) above are part of the City of Palm Coast Stormwater Utility enterprise fund budget process. F-Section Concrete Ditch Replacement, an identified maintenance project, and E-Section Multi-phase drainage project, a Capital Improvement Plan project, are two projects identified and commenced in this reporting cycle. See Attachment B for the existing approved budget.

F-Section (Faith Lane to Farragut Drive – 1,200') Concrete Ditch Replacement Completed

E-Section Multi-phase Stormwater Drainage Improvements (Targeted completion date – May 2021)



CRS Program Participation

The Local Mitigation Strategy (LMS) references the importance and benefit of the City's participation in the Community Rating System (CRS) of the National Flood Insurance Program (NFIP). Under the CRS, the City undertakes flood protection measures beyond the minimum requirements of the NFIP. By doing so, the City achieved a "Class 4" certification, resulting in a 30% discount of flood insurance premiums issued within the Special Flood Hazard Area (SFHA) in the City effective on May 1, 2017. For properties outside SFHA, 10% discount will remain the same. No discounts are applicable to those holders of preferred risk policies that are already significantly discounted. At time of achieving the Class 4, it was estimated that approximately 5,500 Palm Coast citizens and businesses currently have active flood insurance policies. As a result of Palm Coast's CRS participation, policy holders realize an annual savings of approximately $100,000.

The City achieves CRS points by undertaking various activities that promote flood protection. These activities are conducted by Floodplain Managers and various City departments. The following section is a summary of certain ongoing activities:

Activity	Departments	CRS Activity #
Collect, review, and maintain elevation certificates. Provide copies to the public.	Floodplain Managers/ Planning/ Zoning/ Stormwater and Engineering	310
Provide Flood Insurance Rate Map (FIRM) information. Provide Flood Zone Determination Letters to the public. Review, maintain and update FEMA Letters of Map Amendments or Revisions. Provide flood insurance information.	Floodplain Managers	320
Provide outreach to the community. Provide flood protection information.	Floodplain Managers	330
Provide flood protection information at the library and on City website	Floodplain Managers/ Information Technology/ Flagler County Public Library	350
Provide technical advice and assistance to public with flooding conditions. Annually publicize the service.	Floodplain Managers/ Stormwater and Engineering	360
Encourage residents and businesses to purchase flood insurance coverage	Floodplain Managers	370
Preserve floodplain in open space and public acquisition.	Planning	420
Maintaining higher regulatory standards. Provide low density areas for floodplain properties. Review new development for compliance. Enforcement of regulations.	Floodplain Managers/ Planning/ Stormwater and Engineering/ Building Division/ Code Enforcement	430
Maintain and use digitized maps. Day to day management of the floodplain. Maintenance of elevation reference marks.	Floodplain Managers/ Information Technology/ Stormwater and Engineering	440

Activity	Departments	CRS Activity #
Stormwater management, soil and erosion control, and water quality. Review building elevation to meet floodplain regulations.	Stormwater and Engineering/ Building Division/Planning/ Floodplain Managers	450
Maintain repetitive loss records. Provide yearly notice of property protection.	Floodplain Managers	502
Implement and update Floodplain Management Plan.	Flagler County/ Planning/ Capital Improvements/ Floodplain Managers	510
Drainage system maintenance. Enforce and publicize stream dumping regulations.	Floodplain Managers/ Stormwater and Engineering	540
Emergency response program.	Stormwater and Engineering/ Fire Department /Flagler County EMS	610

These activities are now reviewed through a new centralized collection process for annual recertification purposes for all CRS communities. In 2019, the City of Palm Coast successfully secured the recertification status as a Class 4 community. In this reporting cycle, the Team has been preparing and submitting documentation for the 3-year cycle Community Assistance Visit (CAV) through Insurance Services Office (ISO). The results of the CAV will be provided in the next annual report.

Being a Class 4 designation, the City of Palm Coast must participate in this comprehensive review of all activities conducted through the community's floodplain management program; the process ensures that activities remain consistent with the CRS standard of a Class 4. Currently, there are only 17 other communities with this class designation or better across the United States which results in discounts for customers holding flood insurance policies. Within the State of Florida, Ocala, a Class 3, is the only community that ranks higher than the City of Palm Coast. See Attachment C for participating communities in Florida and FEMA Fact Sheet (Attachment D).

Certified Floodplain Manager Program

The Association of State Floodplain Managers (ASFPM) has established a national program for professional certification of floodplain managers. The program recognizes continuing education and professional development that enhances the knowledge and performance of local, state, federal, and private-sector floodplain managers. As referenced, two staff members in the City's Planning Division, one in the City Manager's Office, and two in the Stormwater & Engineering Department have achieved the status of Certified Floodplain Manager (CFM). These certifications reflect the City's commitment to professional development in implementing the City's Floodplain Management Plan. All CFM certified staff are in good standings with the required continuing education requirements.

Training

The City CFM staff have participated in many training sessions to maintain the required Continuing Education Units (CEU) and beyond. One staff member attended the Annual Florida Floodplain Managers Conference in April which was conducted virtually. Numerous other training activities were conducted amongst the remaining Certified Floodplain Managers to maintain their certifications.

Outreach

City staff targets opportunities to initiate and partner with external agencies to educate the general public regarding floodplain management and associated effects on insurance policies and safety matters. Each Spring, an informational brochure is released to the public via a utility bill insert. In addition, staff participates in various events to promote flood awareness, and the City's website serves as a resource for tips and other helpful information. Many planned outreach initiatives have been affected by COVID-19.

- Annual Intracoastal Waterway Cleanup (September 7, 2019)
- Flagler County Home Show (January 25-26, 2020)
- Annual Utility Bill Insert (March 2020)
- Annual Mailing to Insurance and Real Estate Brokers for flood insurance awareness (July 2020)
- Annual Mailing to owners of new single-family homes constructed in a Special Flood Hazard Area
- Emergency Preparedness Social Media Campaign

2020 Home Show

2020 Cleanup Volunteer Winners and Activities

Sample Facebook post of emergency preparedness campaign

Flood Insurance Rate Maps and Flood Insurance Study

On June 6, 2018, the updated Flood Insurance Rate Maps and Study took effect. Since the new FIRMs took effect, Team members have been busy with the increase volume of requests for flood zone determinations because of residents receiving lender letters notifying that flood zone(s) changed and resulting mandate to purchase flood insurance. During this reporting cycle, CFMs responded to 92 requests for a flood zone determination which does not include the 57 issued during the Flagler County Home Show.

Summary

The Flagler County Local Mitigation Strategy (LMS), which serves as the City's Floodplain Management Plan under the Community Rating System (CRS) of the National Flood Insurance Program (NFIP), was formally adopted by the City of Palm Coast City Council on May 17, 2016. As part of the LMS, the City accounts for Mitigation Initiative Projects and associated status. A strong element to these efforts is the maintenance and improvement of the overall performance of the master stormwater system. Many other improvements are being planned and under design for construction in future years as part of the Stormwater Master Plan. Lastly, the City has been very successful in securing grants to offset the cost of mitigating risk while ensuring continuum of services of water and wastewater utilities and at City-wide with the installation of a generator at City Hall. The awarded grant funding for these projects is $2.076 million.

As part of the CRS requirements, the City of Palm Coast participates in annual recertification and a comprehensive assessment every three years called a Community Assistance Visit (CAV) conducted by Insurance Services Office (ISO). Activities are undertaken by various City departments on an ongoing basis to retain the CRS certification, which results in substantial discounts to flood insurance premiums in the City of Palm Coast. In 2019, the City of Palm Coast successfully secured the recertification status as a Class 4 community which is provided in the attached fact sheet. See Attachment D. In this reporting cycle, the Team has been preparing and submitting documentation for the 3-year cycle CAV. The results of the CAV will be provided in the next annual report. Currently, there are only 17 other communities with this class designation or better across the United States which results in discounts for customers holding flood insurance policies. Within the State of Florida, Ocala, a Class 3, is the only Florida community that ranks higher than the City of Palm Coast. See Attachment C.

For insurance holders located within a special flood hazard area (A and AE zones), a 30% reduction is applied at renewal which is an average savings of $120 per policy. For properties outside the Special Flood Hazard Area, 10% discount remains the same.

City staff have steadily improved educational outreach activities; however, COVID-19 has inhibited some planned activities to be implemented. City staff recognizes that these activities are critical to expand awareness regarding the importance of infrastructure maintenance, flood insurance, emergency preparedness and City services. The City website content, publications, utility bill inserts, and annual event venue elements have been enhanced to include information on the Flood Insurance Rate Map changes that took effect on June 6, 2018 and the City's Enhanced Stormwater Management Program.

Attachment A

File #	Rank	Score	Project Name	Project Description	Hazard Mitigated*/ Jurisdiction	Agency Representative	Time frame	Possible Funding Source(s)	New or Existing Buildings/ Infrastructure	2016 Goal/ Objective	Status**	Last Updated	Notes
PC-6		80	**PEP Panel Replacement**	Retrofit PEP Panel with current upgraded panel with new power receptacle to allow operation be portable generator during extended FPL power loss.	All Hazards/ Palm Coast	City of Palm Coast	7 yrs	HMGP, Ad Valorem Tax	Existing Infrastructure	Goal 1 Minimize Impacts	ongoing	2/17/2016	Input from Danny Ashburn (July 6th): All new installations are panels with side mounted receptacles. When staff is performing pep maintenance and they find the old style aluminum panels they are replaced with the newer panels. In the future as staffing and workload allows the plan is to go into each individual section and change out all panels without receptacles. The program is still in progress but the five year timeline needs to be increased.
MJD-1		77	**Backup Generator @ Government Services Complex Lift Station**	Purchase & install 75kw backup generator for the utility lift station at the Flagler Co. Gov. Services Complex. Complex has backup but sewer does not.	Wind, Flood/City of Bunnell & Flagler Co.	Flagler County	<12 months	HMGP, PDM	Existing Infrastructure	Obj 1.6 Improve resiliency of water/sewer facilities	Submitted under DR-4337	5/7/2020	generator would operate bunnell infrastructure but services a Flagler county building; in procurement as of 5/7/2020
MJD-2		75	**Backup Generator @ Inmate Admin Facility**	Purchase & install 200kw backup generator for the utility lift station and the admin center at the Flagler Co. inmate facility.	Wind/ City of Bunnell/ Flagler County	Flagler County	<12 months	HMGP, PDM	Existing Infrastructure	Obj 1.6 Improve resiliency of water/sewer facilities	in progress	11/26/2019	generator delivered.
BNL-9		74	**Hardening of Bunnell City Hall**	Harden Bunnell City Hall	Wind/ City of Bunnell	City of Bunnell	2015	HMGP, PDM, capital funds	Existing Buildings	1.3; 1.7	in progress	5/1/2019	Procurement came back significantly higher than grant award; city considering withdrawing at this time
MJD-23		70	**Stormwater Analysis along 100 near Airport and FPC**	Engineering study to plan for mitigation of longstanding stormwater drainage issues along SR 100 in front of Target and FPC	Floods/ Palm Coast/ All Jurisdictions	School Board, COPC, DOT, Flagler Co.	2 yrs	HMGP, CDBG, School Board Tax; FDOT	New &Existing Infrastructure and Bldgs	Obj. 1.2 Identify mitigation projects	Updated	2/27/2016	rough estimate of $200,000 in planning funds
FHF-2		70	**Increase Emergency Back Up Generation Power**	Add an additional generator to be able to run chillers and keep hospital operational during power outages. Currently they can only operate emergency lights and some power with their generators	Wind, Power Failure/ All Jurisdictions	Florida Hospital Flagler	<2 years	HMGP, PDM, hospital funds	Existing Buildings	Goal 1; Obj 4.3	in progress	11/19/2019	
FHF-1		70	**FHF Windstorm Resistance Mitigation Retrofit**	Retrofit the portions of the building to new critical facility standards which would include new impact windows and hardening of walls	Wind/ All Jurisdictions	Florida Hospital Flagler	<1 year	HMGP, PDM, hospital funds	Existing Buildings	Goal 1; Obj 4.3	submitted under DR-4337	11/15/2018	under application review with FDEM
MJD-8		70	**Harden Flagler County Fire Station #71**	Install impact resistant windows and doors and add a generator	Wind/ Flagler County	Flagler County BOCC	<12 months	HMGP, PDM, capital funds	Existing Buildings	Obj 1.7 Retrofit structures	in progress	11/26/2019	ready for closeout
PC-12		70	**City Hall Generator**	Install a generator at COPC City Hall so that it can continue to provide essential governmental services during power failure situations	Power Failure/City of Palm Coast	City of Palm Coast	<2	HMGP, PDM, Capital program funds, R&R	Existing Buildings	Obj 1.1; Obj. 6.2	in progress	11/19/2019	In progress
FLG-11		70	**Generator @ Hidden Trails Community Center**	Add a 125kw generator to the Hidden Trails Community Center	Power Failure/ Flagler County	Flagler County	<1 yr	HMGP, PDM, Capital funds	Existing Infrastructure	Obj 1.2 and 3.1	in progress	11/26/2019	will receive generator from courthouse when new one is installed
MDJ-25		70	**Inmate Facility Generator**	Install a 750 KW Generator to fully power the jail and repurpose the existing generator	Power Failure/ All Jurisdictions	Flagler County	<1 yr	HMGP, PDM, Capital funds	Existing buildings	Obj 1.2 and 1.7	in progress	11/26/2019	generator delivered.
PC-10		69	**PEP Area Pump Station Generators**	Provide stationary generator at each of the 15 Pump Station Locations with an automatic transfer switch	Power Failure, Flooding/ City of Palm Coast	City of Palm Coast	<1 yr	HMGP, PDM, Capital program funds, R&R	Existing Infrastructure	1.6; 1.7	contract issued	11/18/2019	notice to proceed being issued to contractors 11/18/19
PC-11		69	**PC Wastewater Collection System Lift Station Generators**	Provide a stationary generator and automatic transfer station at each of the 15 lift station locations	Power Failure/City of Palm Coast	City of Palm Coast	<1	HMGP, PDM, Capital program funds, R&R	Existing Infrastructure	1.6; 1.7	contract issued	11/18/2019	In progress
FLG-10		69	**Individual Lift Station Generators**	Add 5 generators to certain lift stations throughout the county	Power Failure/ Flagler County	Flagler County	<1 yr	HMGP, PDM, Capital funds	Existing Infrastructure	Obj 1.6	in progress	11/26/2019	1/2 of generators installed but all have been delivered
FLG-2		64	**Malacompra Drainage System- Phase 2**	Construction of the main trunk line	Flood/ Flagler County	Flagler County BOCC	<24 months	HMGP, PDM, FMA, legislative funds	New & Existing Infrastructure	Obj. 1.6 Improve resiliency of water/sewer facilities	in progress	11/25/2019	FDOT agreement in place. Work estimated to begin in April/May 2020
FLG-3		64	**Malacompra Drainage System- Phase 3**	Construction of side street lateral collectors in the Marineland Acres subdivision	Flood/ Flagler County	Flagler County BOCC	<24 months	HMGP, PDM, FMA, legislative funds	New & Existing Infrastructure	Obj. 1.6 Improve resiliency of water/sewer facilities	Planning complete	11/25/2019	$6 million?
MJD-6		62	**Harden Flagler County Fire Station #31**	Install impact resistant windows and doors	Wind/ Flagler County	Flagler County BOCC	<12 months	HMGP, PDM, capital funds	Existing Buildings	Obj 1.7 Retrofit structures	deferred	11/26/2019	rough estimate for FDEM of $150,000; county would ideally like to demo rebuild.

File #	Rank	Score	Project Name	Project Description	Hazard Mitigated*/ Jurisdiction	Agency Representative	Time frame	Possible Funding Source(s)	New or Existing Buildings/ Infrastructure	2016 Goal/ Objective	Status**	Last Updated	Notes
BNL-7		70	**Hardening of Bunnell Fire Station**	Flagler County will apply on behalf of the City of Bunnell to Harden the Bunnell Fire Station and add generator	Wind/ City of Bunnell	Flagler County	2018	HMGP, PDM, capital funds	Existing Buildings	Obj 1.7 Retrofit structures	Submitted under DR-4337	11/26/2019	contract awaiting County signature.
FLG-6		62	**Replace and Repurpose Generator at Justice Center**	Replace existing 300 KW generator at the County's Justice Center with a 600 KW generator so that the entire building will have backup power and move existing generator to a fire station	Wind/Flagler County	Flagler County BOCC	1 year	HMGP, PDM, Capital Funds	Existing Buildings	Goal 1 Minimize Impacts	in progress	11/1/2019	generator delivered.
FLB-3		60	**Rebuild/Enhance Wastewater Pump Station #2**	Above-ground pump is rusting away rapidly. Brand new pumps need to be installed below-ground, with a complete rebuild and upgrade of connecting infrastructure.	Floods/Winds/ Flagler Beach	City of Flagler Beach	7 months	CIP Fund, HMGP PDM	Existing Infrastructure	Obj. 1.7	Application Materials Complete	2/17/2016	requested upated from COPC around 11/20/2019
FLG-7		60	**Bay Drive Park Drainage Project**	Bay Drive Park routinely floods due to heavy rains. Drainage improvements are needed so that homeowners can access their properties	Severe Storms, Flood, Trop Cyclones/Flagler County	Flagler County BOCC (Engineering)	9 months	Capital Funds, park grant	Existing Buildings	Goal 1 Minimize Impacts	In Progress	11/25/2019	Almost complete. Restroom construction starting soon; estimated completion date of June 2020
BNL-8		58	**Hardening of Bunnell Public Works Facility**	Harden the Bunnell Public Works Facility	Wind/ City of Bunnell	City of Bunnell	2017	HMGP, PDM, capital funds	Existing Buildings	Obj 1.7 Retrofit structures	Updated	12/9/2016	rough estimate for FDEM of $200,000
PC-13		56	**Community Center Generator**	Install a generator at the COPC community center so that it can serve as a comfort and information station during power outages	Power Failure/City of Palm Coast	City of Palm Coast	2018	HMGP, PDM, Capital program funds, R&R	Existing Buildings	Obj. 6.2; 5.2	in progress	1/2/2019	not cost effective using FEMA's BCA toolkit- being funded using city funds
FLB-6		56	**Alleviate Nuisance Ponding on A1A in Flagler Beach**	During normal rainfall events, A1A in Flagler Beach becomes littered with larges, deep puddles.	Flood/ Flagler Beach	City of Flagler Beach	3 years	FDOT, FDEP, PDM, FMA	Existing Infrastructure	Goal 1 Minimize Impacts; Goal 2; Goal 4	New	11/26/2019	DOT has jurisdiction of A1A roadway in Flagler Beach. In certain areas this will be addressed by A1A
MJD-11		66	**Harden the Flagler County Health Department Building**	Install impact resistant windows and doors	Wind/All Municipalities	Flagler County BOCC	<12 months	HMGP, PDM, capital funds	Existing Buildings	Obj 1.7 Retrofit structures	Submitted under DR-4337 & PDM	11/19/2019	Withdrawn under PDM due to needing a PE certification that windload transferred to roof from adding shutters will not cause damage to structure
FLG-4		52	**Restoration of Shoreline in Styles Creek at Princess Place Preserve in Flagler County**	Restore enhanced erosion areas along the meanders of Styles Creek from Pellicer Creek to the Island House at the Preserve	Erosion/Flagler County	Flagler County BOCC Land Management	TBD	USFWS, NERT	Existing Infrastructure	Objs. 2.4 Enhance coastal ecosystems; 2.5 ID long term erosion solutions	Still current	11/20/2019	
PC-4		54	**Drought Mitigation Pumps permanently installed at weirs**	Install high volume, low pressure water pumps at the sites of the Cities Surface Water Control Structures (SWCS) to pump stormwater upstream to recharge upstream aquifers and control water levels. A co-located SCADA System would provide automatic recharge during drought conditions, replenishing the ground water table and maintaining the proper head pressure to reduce possible saltwater intrusion.	Drought, Saltwater Intrusion/Palm Coast	City of Palm Coast	5 years	HMGP, Ad Valorem Tax, PDM, SJRWMD	New equipment at Existing Infrastructure	Goal 1 Minimize Impacts	Feasibility Study in Progress	2/17/2016	Feasibility study in progress by SJWMD; next step would be modeling and then implementation
PC-5		54	**Water Resource weir installed on St Joe Canal at corner of US-1 and Palm Coast Parkway**	Constructing a Water Resource Control Structure (WRCS) on St Joe Canal at the corner of US-1 and Palm Coast Parkway to hold back ground water to replenish and rehydrate the well fields west of US-1	Drought, saltwater intrusion /Palm Coast	City of Palm Coast	5 years	HMGP, PDM, Ad Valorem Tax	New Infrastructure	Goal 1 Minimize Impacts	Being Studied	2/17/2016	Being Studied for feasibility by SJWMD
FLB-5		52	**Ocean Palm Subdivision Stormwater Improvement**	New swales, pipes, outfall, retention ponds and improvements to an existing outfall to help mitigate flooding to homes in the surrounding area	Flood/ Flagler Beach	City of Flagler Beach	6 months	CIP Fund, HMGP PDM, Legislative	New & Existing Infrastructure	Goal 1 Minimize Impacts	In Progress	2/18/2016	money received and study in progress
MJD-9		62	**Harden Flagler County Public Library and add Generator**	Install impact resistant windows and doors and generator	Wind, Power failure / Flagler County	Flagler County BOCC	<12 months	HMGP, PDM, capital funds	Existing Buildings	Obj 1.7 Retrofit structures	Submitted under DR-4337	11/15/2018	
MJD-13		52	**Westside Drainage System Planning & Permitting (Phase 1)**	Conduct a conceptual study of major drainage systems to improve the efficiency of drainage and improve water quality in Western Flagler Co.	Flood/ Flagler County	Flagler County BOCC	<12 months	HMGP, PDM, FMA, legislative funds	New & Existing Infrastructure	Objs. 1.2, 1.6, 1.7, 1.9	in progress	11/18/2019	study has been awarded to a firm

File #	Rank	Score	Project Name	Project Description	Hazard Mitigated*/ Jurisdiction	Agency Representative	Time frame	Possible Funding Source(s)	New or Existing Buildings/ Infrastructure	2016 Goal/ Objective	Status**	Last Updated	Notes
MJD-14		48	**Demo Rebuild of Fire Station 92 & FireFlight hanger**	Construct a new Fire Station #92 outside the floodprone area and build a bigger station to house fire admin.	Flood/ Flagler County	Flagler County BOCC	<36 months	HMGP, PDM, FMA, capital funds, taxes	New & Existing Buildings	Objs. 1.8, 2.2	Submitted under CDBG-DR Irma Infrastructure	1/2/2019	Fireflight relocated across airport campus. Station 92 flooded during Irma and was cleaned after. Design is occurring for a new fire station
MJD-16		48	**Elevation/reconstruction of Fire Station #81**	Elevate the current station in the floodprone area and harden the facility to withstand 150mph winds	Wind & Flood/ Flagler County	Flagler County BOCC	<36 months	HMGP, PDM, capital funds, taxes	New & Existing Buildings	Objs. 1.1, 1.7	deferred	1/2/2019	preference would be for a new station.
MJD-19		48	**Emergency Preparedness and Local Mitigation Strategy Educational Pamphlet**	All hazard/ all jurisdiction flip page guidebook on all hazard preparedness for the residents of Flagler County as well as education on benefits of joining LMS Taskforce	All Hazard/ All Jurisdictions	Flagler County Emergency Management	1-1.5 yrs	Ad Valorem Tax, EMPA, HMGP	New Infrastructure	Goal 3 Promote community awareness of mitigation	ongoing	11/19/2019	brochures created and handed out throughout the year
FFS-1		47	**County Hazardous Vegetation Wildfire Mitigation**	Create defensible space, reduce fuel loads throughout county property	Wildfire/All Jurisdictions	Florida Forest Service	1 year	HMGP, General Fund	Existing Buildings and Infrastructure	Goal 2	deferred	3/13/2017	FFS is continually doing wildfire mitigation. More specific locations will be identified during final stages of CWPP. Current project is not specific.
MJD-10		36	**Harden the UF/IFAS Extension Office**	Install impact resistant windows and doors	Wind/ Flagler County	Flagler County BOCC	<12 months	HMGP, PDM, capital funds	Existing Buildings	Obj 1.7 Retrofit structures	New	9/18/2014	unsure if this is actually a feasible hardening project.
FLG-12		69	**County Hazardous Vegetation Wildfire Mitigation**	Create defensible space, reduce fuel loads throughout county property	Wildfire/Flagler County	Flagler County BOCC Land Management	1 year	HMGP, General Fund	Existing Buildings and Infrastructure	Goal 2	under contract DR-4283	11/25/2019	undergoing SOW change.
FLG-13		69	**Portable Generators**	Purchase 4 portable generators to take around to lift stations throughout the county	Power Failure/ Flagler County	Flagler County General Services	<1 yr	HMGP, General Fund	Existing Buildings	1.6; 1.7	under contract DR-4283	9/15/2019	HMGP application revised to include 4 generators instead of the 1 originally submitted.
FLG-14		69	**Haw Creek Community Center Generator**	Purchase a permanent generator so the community center can function as a comfort station and POD post disaster	Power Failure/ Flagler County	Flagler County General Services	<1 yr	HMGP, General Fund	Existing Buildings	1.6; 1.7	under contract DR-4283	9/15/2019	hardening complete
FLG-15		69	**Espanola Community Center**	Purchase a permanent generator so the community center can function as a comfort station and POD post disaster	Power Failure/ Flagler County	Flagler County General Services	<1 yr	HMGP, General Fund	Existing Buildings	1.6; 1.7	under contract DR-4283	9/15/2019	hardening complete
MDJ-26		68	**Humane Society Generator**	Add a generator to the humane society	Power Failure/ All Jurisdictions	Humane Society	<1 year	HMGP, donations	Existing Building	Goal 1; 4.2; 6.2	in progress	11/19/2019	some shutters installed, generator in progress along with fundraising
SB-5		68	**Matanzas High School Generator**	Add a generator to Matanzas High so it can serve as a shelter	Power Failure/ All Jurisdictions	School Board	<1 year	HMGP, capital funds	Existing Building	Goal 1; Obj 1.1 & 1.2	Submitted under DR-4337 & Tier 3 DR-4399	11/19/2019	also submitted under HMGP for Hurricane Michael DR-4399
PC-14		77	**Manhole Dish Project**	install flood prevention devices to reduce inflow and infiltration into central sewer system	Floods/ Palm Coast	City of Palm Coast	<1 year	Capital R & R	Existing Infrastructure	Goals 1 & 2	contract issued	11/18/2019	
FLG-17		52	**Alred House Mitigation Reconstruction**	Demo & rebuild the Alred house in Marineland Acres	Floods/ Flagler County	Flagler County	<2 years	HMGP, FMA	Existing Building	1.3; 1.7	submitted under 4337	5/7/2020	Federal cost share max is 150,000; being submitted as tier 2 for Irma- in queue
GH-1		58	**Grand Haven Village Center N. Retrofit**	Harden the Village Center North Bldg to serve as a comfort station and EOC for the community	All Hazards/ Palm Coast	Grand Haven CDD	<3 years	HMGP, GH CDD, PDM	Existing Building	1.0; 1.2; 1.7	deferred	11/15/2018	not cost effective using FEMA's BCA toolkit; construction planned on building may result in new, impact windows
MDJ-27		70	**Harden Fire Station #72 (Red Roof In)**	Harden building with impact windows, doors and bay doors, add a 200kw generator	Wind, Power Failure/ All Jurisdictions	Flagler County BOCC	<1 year	HMGP, capital funds, PDM	Existing Building	Goal 1; Obj 1.7	New	12/17/2018	building evaluation and project scoping still under way
FLG-18		62	**Harden Government Services Bldg #2**	Install impact glass and doors on entire building	Wind/ Flagler County	Flagler County BOCC	1 year	HMGP, capital funds, PDM	Existing Building	Goal 1; Obj 1.7	New	12/7/2017	estimate approx $500,000 for new windows but will be very disruptive to offices to install
FLG-16		77	**Fixed Generator at Well fields**	Purchase 2 (100KW) generators to power Plantation Bay and Eagle Lakes wellfields during power outage situations	Power failure/Flagler County	Flagler County BOCC	1 year	HMGP, PDM, Capital funds	Existing Infrastructure	Goal 1; obj 1.6;1.7	Submitted under DR-4337	11/15/2018	
FLG-19		52	**Guttmann House First Floor Removal**	Remove existing bathroom, 2 bedrooms and perhaps laundry room that is below BFE and convert to open space	Floods/ Flagler County	Flagler County BOCC	<1 year	HMGP, homeowner, NFIP (ICC), FMA	Existing Building	1.3; 1.7	in progress	11/20/2019	not cost effective under FEMA BCA- Homeowners to complete project on their own. Project to be complete by end of 2019.
PC-15		77	**5 Pump Station Generators**	Add 5 generators to certain lift stations throughout the city of Palm Coast	Power Failure/ Palm Coast	City of Palm Coast	<1 year	HMGP, capital funds	Existing Infrastructure	1.6; 1.7	contract issued	11/18/2019	
FLG-20		62	**Harden New Palm Coast Sheriff's Office Substation & add generator**	Harden New Palm Coast Sheriff's Office Substation & add generator	Power failure/All Jurisdictions	Flagler County BOCC	<1 year	HMGP, capital funds	Existing Infrastructure	1.6; 1.7	Submitted under DR-4337	11/15/2018	impact windows being installed as part of building remodel; may need to withdraw due to county likely selling building.

File #	Rank	Score	Project Name	Project Description	Hazard Mitigated*/ Jurisdiction	Agency Representative	Time frame	Possible Funding Source(s)	New or Existing Buildings/ Infrastructure	2016 Goal/ Objective	Status**	Last Updated	Notes
FLG-21		58	**Harden the Hammock Community Center & add generator**	Harden the Hammock Community Center and add a generator	Wind/Flagler County	Flagler County BOCC	<1 year	HMGP, capital funds	Existing Infrastructure	1.6; 1.7	deferred	11/15/2018	location not ideal for permanent generator and wind hardening
BNL-10		69	**2 Bunnel Lift Station Generators**	install generator, transfer switch and concrete pad at 2 lift stations in Bunnell	Power Failure/City of Bunnell	City of Bunnell	<1 year	HMGP, capital funds	Existing Infrastructure	Obj 1.6 Improve resiliency of water/sewer facilities	Submitted under DR-4337	11/15/2018	
FLG-22		59	**Malacompra Greenway Wildfire Mitigation**	Remove approximately 90 acres of dead vegetation posing a wildfire threat	Wildfire/ Flagler County	Flagler County BOCC	<1	HMGP	Existing Buildings	Goal 2	Submitted under DR-4337	11/15/2018	submitted again under HMGP for Hurricane Michael DR-4399
FLB-7		62	**S. Central Drainage Project**	Construct open swales on Central Ave and buy exfiltration pipes on Daytona Ave, collecting water for recharge and channeling the flow to the saltwater marsh and ICW W of Flagler Ave.	Flood/Flagler Beach	City of Flagler Beach	<1	HMGP	New & existing bldgs & infrastructure	1.5; 1.6	in progress	2/27/2019	funded under SJRWMD program. Project moving forward
FLB-8		62	**Lambert Ave Swales**	Construct retention swales and add culverts along the remaining 5,400 linear feet at the east and west side of Lambert Aveune	Flood/Flagler Beach	City of Flagler Beach	<2	HMGP	New & existing bldgs & infrastructure	1.5; 1.7	Submitted Tier III for Michael	9/20/2019	$1.3 million
FLG-23		62	**SRL Buyout (S. Flagler Ave)**	Acquire and demo SRL property; return to open space	Flood/ Flagler Beach	Flagler County BOCC	<1	FMA; CDBG-DR Irma Vol. Home Buyout	Existing bldg	1.8; 2.2	Submitted under CDBG-DR Irma & FMA	11/19/2019	$331,000 before duplication of benefits (approx $225,000 after)
FLG-24		58	**Condemned Home Buyout**	Acquire and demo property on 3171 N. Ocean Shore; return to open space	Flood/ Flagler County	Flagler County BOCC	<1	CDBG-DR Irma Vol. Home Buyout, HMGP	Existing bldg	1.8; 2.2	Submitted under CDBG-DR Irma Vol. Buyout	11/19/2019	approx $500,000 after DOB- Homeowner not interested in programs with 25% cost share at this time.
FLG-25		62	**EOC Roof Improvements**	Install new (mitigate existing) EOC Roof	Wind/Flagler County	Flagler County BOCC	<1	HMGP, CDBG-DR, Capital fund	Existing bldg	1.2; 1.7	Submitted under CDBG-DR Irma Infrastructure	11/19/2019	$750,000
FLG-26		49	**Bull Creek Drainage Improvements**	Enahnce drainage to portion of bull creek	Flood/ Flagler County	Flagler County BOCC	<2	HMGP, CDBG-DR, Capital fund	Existing Infrastructure	Goal 1; Goal 2	new	11/25/2019	75,000
PC-16		56	**Stormwater Conveyance Improvements**	Add three (3) culverts to existing cross-drains under Blare Drive. Replace existing cross-drain pipes under Colbert Lane box culverts & replace existing cross-drain pipes under Colbert Lane	Flood/ Palm Coast	City of Palm Coast	<2	HMGP, SJRWMD REDI	Existing Infrastructure	Goal 1; Goal 2	new	11/25/2019	$2.13 million

*Hazards mitigated do not necessarily match up to the hazards identified in Section 4 of the LMS Plan; hazards may be attributed to the impacts caused by the various hazards identified in Section 4. For example, "Power Outage" may appear in the hazard mitigated column which would equate to projects that have power failure as an impact such as tropical cyclones, tornadoes and severe storms.
If the hazard mitigated is listed as "Wind," it refers to hazards that contain high wind, such as tropical cyclones, severe storms, & tornadoes. The "Flood" hazard would mitigate hazards such as sea level rise, coastal flooding, storm surge & floods.
**Deferred projects are listed as such due to a lack of funding.

Attachment B

City of Palm Coast Next Year Budget Analysis

		2017 Actual	2018 Actual	2019 Original Budget	2019 Revised Budget	2019 YTD Actuals	2019 Projected Amount	2020 Requested Amount
							-55% (2,754,358)	55% 2,790,588
54205509	STORMWATER ENGINEERING	0	6,890	2,114,431	5,030,484	1,048,060	2,276,126	7,821,072
012000	SALARIES AND WAGES	0	0	555,848	660,608	382,325	555,848	553,207
	Existing Positions						555,848	493,207
	NEW SURVEY TECHNICIAN (Fully Burdened)						0	60,000
012010	CAR/CELL ALLOWANCE	0	0	4,840	5,880	2,375	4,840	3,800
014000	OVERTIME	0	0	10,000	10,000	5,237	10,000	10,000
021000	FICA TAXES	0	0	35,081	41,642	23,047	35,081	31,440
021100	MEDICARE	0	0	8,211	9,746	5,390	8,211	7,358
022000	RETIREMENT CONTRIBUTIONS	0	0	65,417	77,990	46,256	65,417	58,579
023000	HEALTH INSURANCE	0	0	102,214	121,670	68,365	102,214	87,693
023030	LIFE INSURANCE	0	0	2,486	2,964	731	2,486	2,225
023035	DISABILITY	0	0	2,457	2,929	1,254	2,457	2,201
024000	WORKERS COMPENSATION	0	0	14,730	19,008	9,038	14,730	7,710
	PERSONAL SERVICES	**0**	**0**	**801,284**	**952,437**	**544,019**	**801,284**	**764,213**
031000	PROFESSIONAL SERVICES	0	6,890	331,000	323,000	107,292	323,000	411,000
	MS4 PERMIT ANNUAL EXPENSES						63,000	71,000
	DESIGN SERVICES						50,000	100,000
	MASTER PLANNING SERVICES						210,000	50,000
	DESIGN SERVICES FOR CANAL DREDGING PROJECTS						0	150,000
	MISCELLANEOUS SERVICES						0	40,000
034000	OTHER CONTRACTUAL SVCS	0	0	568,200	501,200	237,016	490,840	10,000
	WEED CONTROL ON FRESHWATER CANALS						408,000	0
	WEED CONTROL COST SHARE RIBBON LAKE						600	0
	ALTERNATIVE TREATMENTS ON FRESHWATER CANALS						8,000	0
	CANAL BANK CLEARING						5,000	0
	ANNUAL TELEMETY SUBSCRIPTION						5,000	0
	SEDIMENT REMOVAL						5,000	0
	PUMP STATION MAINTENANCE & REPAIR						1,000	0
	WATER CONTROL EQUIPMENT REHAB & RENEWAL						46,000	0
	MISCELLANEOUS SERVICES						12,240	10,000
040000	TRAVEL & EXTERNAL TRAINING	0	0	15,173	15,173	6,552	13,957	14,250
	AMERICAN SOCIETY OF FLOODPLAIN MANAGERS (ASFM) FFMA CONFERENCE						3,150	3,150
	FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) MOT TRAINING						870	250
	FLORIDA LAKE MANAGEMENT SOCIETY ANNUAL SYMPOSIUM						1,600	0
	FLORIDA STORMWATER ASSOCIATION (FSA) CONFERENCE						1,700	1,700
	FLORIDA STORMWATER ASSOCIATION (FSA) TRAINING						1,763	2,000
	IMAGINIT TECHNOLOGIES AUTOCAD TRAINING						0	3,000
	ADDITIONAL TRAINING AND ITEMS TO MAINTAIN/RENEW LICENSES & CERTIFICATIONS						1,300	300
	ICPR TRAINING						2,484	2,600
	GIS Training						1,090	1,250

City of Palm Coast Next Year Budget Analysis

			2017 Actual	2018 Actual	2019 Original Budget	2019 Revised Budget	2019 YTD Actuals	2019 Projected Amount	2020 Requested Amount
								-55% (2,754,358)	55% 2,790,588
54205509	STORMWATER ENGINEERING		0	6,890	2,114,431	5,030,484	1,048,060	2,276,126	7,821,072
052000		OPERATING SUPP&EQUIPUNDER$5K	0	0	6,360	19,960	10,562	29,860	20,360
		TRUCK & HAND TOOLS, MISC. SUPPLIES						1,500	1,500
		UNIFORM SHIRTS 62 SHIRTS @ $30/SHIRT						1,860	1,860
		Boot Stipends - CM&E Staff						1,000	1,000
		CALIBRATION & REPLACEMENT OF MINOR/SMALL SURVEY EQUIPMENT						2,000	7,500
		4GB Surface for new Swale Specialist including 1 24" monitor & 1 30" monitor						0	2,500
		Surface and Monitors for Project Coordinator						2,800	0
		Surface and Monitors for Project Coordinator						2,800	0
		Computer for ICPR						8,000	0
		MISCELLANEOUS SUPPLIES						2,800	0
		Docking Station, 24" & 30" monitors (Carmelo)						1,350	0
		Docking Station & 30" monitors (5 Lead Positions)						5,750	0
		Wyse Station & 24" monitor (8 Training Computers)						0	6,000
052005		FUEL CHARGE	0	0	7,000	8,000	5,316	8,000	8,000
054000		BOOKS, PUB, SUBSCRIP, MEMBERSH	0	0	3,714	3,714	2,429	3,714	2,709
		ASSOCIATION OF STATE FLOODPLAIN MANAGERS (ASFPM) MEMBERSHIP						450	200
		FLORIDA FLOODPLAIN MANAGERS ASSOCIATION (FEMEA) MEMBERSHIP						180	180
		FLORIDA LAKE MANAGEMENT SOCIETY (FLMS) MEMBERSHIP						35	0
		FLORIDA STORMWATER ASSOCIATION (FSA) MEMBERSHIP						1,250	1,250
		FLORIDA SURVEYING & MAPPING SOCIETY (FSMS) MEMBERSHIP						279	279
		AMERICAN SOCIETY OF FLOODPLAIN MANAGERS (ASFM) LICENSE/CERTIFICATION						100	100
		AUTODESK CERTIFICATION						200	200
		FLORIDA BOARD OF PROFESSIONAL ENGINEERS (FBPE) LICENSE/CERTIFICATION						100	0
		FLORIDA DEPARTMENT OF AGRICULTURE & CONSUMER SERVICES (FDACHS) BUREAU OF LICENSING & ENFORCEMENT						200	0
		NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS (NSPS) LICENSE/CERTIFICATION						420	0
		ADDITIONAL MEMBERSHIPS, LICENSES & CERTIFICATIONS						250	250
		BOOKS, PUBLISHINGS & EDUCATIONAL						250	250
		OPERATING EXPENDITUR	0	6,890	931,447	871,047	369,165	869,371	466,319
061000		LAND	0	0	0	0	912	912	0
063000 55001		IMPR-CONTROL STRUCTURE REPL	0	0	20,000	712,000	7,626	27,626	0
		STRUCTURE REPAIRS						20,000	0
		W-1						7,626	0
063000 55232		MAJOR CANAL CROSSING	0	0	311,700	2,365,000	59,166	156,000	1,370,000
		PIPE LINIING						0	1,000,000
		EMERGENCY PIPELINING						75,000	250,000
		DOT CROSSING INSPECTIONS						21,000	0
		Major Crossings - W-1						23,000	0
		BELLE TERRE BLVD PIPELINING						37,000	0
		PIPE INSPECTIONS - 60 CROSSINGS @ $2,000/EA						0	120,000
063000 55236		BELLE TERRE BLVD PIPELINING	0	0	0	0	0	0	210,000

City of Palm Coast Next Year Budget Analysis

			2017 Actual	2018 Actual	2019 Original Budget	2019 Revised Budget	2019 YTD Actuals	2019 Projected Amount	2020 Requested Amount
								-55%	55%
								(2,754,358)	2,790,588
54205509	STORMWATER ENGINEERING		0	6,890	2,114,431	5,030,484	1,048,060	2,276,126	7,821,072
063000	55003	DITCH & PIPE REHAB & RENEWAL	0	0	0	0	0	35,000	450,000
		ENGINEERING (DRMP)						35,000	150,000
		CONSTRUCTION						0	300,000
063000	99012	K-6(SMITH TR) CTRL STR & MAJOR	0	0	0	0	0	102,000	965,000
063000	99013	L-4(ROYAL PALMS) CONTROL STR	0	0	0	0	0	0	180,000
063000	99014	DRAINAGE IMPR PROJECTS	0	0	0	0	0	0	200,000
		Design						0	200,000
063000	99015	DRAINAGE IMPR - R SECTION	0	0	0	0	0	50,000	291,000
		DRMP						50,000	291,000
063000	99016	CONCRETE LINED DITCH REP-F SEC	0	0	0	0	0	0	950,000
063000	99018	DRAINAGE IMPR - E SECTION	0	0	0	0	0	100,000	1,890,000
		DESIGN						100,000	140,000
		CONSTRUCTION - PHASE 1						0	1,700,000
		DESIGN - GOLF COURSE BYPASS						0	50,000
063000	55230	CANAL PIPE & SEAWALL REPLACEME	0	0	50,000	75,000	13,740	75,000	80,000
		Canal End Seawalls						65,000	70,000
		Pipes thru Seawalls						10,000	10,000
064000		EQUIPMENT	0	0	0	0	0	5,500	0
		Printer						5,500	0
		CAPITAL EXPENDITURES	0	0	381,700	3,152,000	81,444	552,038	6,586,000
091501		TRANSFER TO FLEET MANAGEMENT	0	0	0	55,000	53,433	53,433	0
		Frontier 4x4 for new CME position						26,000	0
		Chevy Silverado 4x4 for new Supervisor						27,433	0
091525		TRANSFER TO ITC FUND	0	0	0	0	0	0	4,540
		Surface for field/desk employee with (1) 24" monitor & (1) 30" monitor for new Survey Tech						0	3,390
		8GB Surface and docking station plus 24" monitor for MMajewski						0	1,150
		INTERFUND TRANSFER	0	0	0	55,000	53,433	53,433	4,540

City of Palm Coast
5 Year Capital Improvement Plan

STORMWATER MANAGEMENT FUND		FY 19 Amended	FY 19 Projected	FY 20	FY 21	FY 22	FY 23	FY 24
Starting Fund Balance		294,361	662,160	1,615,757	1,458,237	834,707	528,086	1,678,609
Revenues:								
Ad Valorem Taxes		520,000	520,000	521,556	523,121	524,690	526,264	527,843
Stormwater Fees		9,764,805	9,764,805	10,710,156	11,899,595	12,995,325	14,097,344	15,205,654
SJRWMD Grant - L-1, K-1 Weir Replacement	81027	-	57,699	-	-	-	-	-
New Debt - Loan #1		2,460,000	-	5,292,148	-	-	-	-
New Debt - Loan #2				-	3,060,000	-	-	-
New Debt - Loan #3				-	-	3,770,000	-	-
New Debt - Loan #4				-	-	-	3,660,000	-
New Debt - Loan #5				-	-	-	-	4,760,000
New Debt - SRF #1				1,700,000	-	-	-	-
New Debt - SRF #2				-	-	1,500,000	1,700,000	-
Interest on Investments		-	60,000	-	-	-	-	-
Total Revenues		12,744,805	10,402,504	18,223,860	15,482,716	18,790,015	19,983,608	20,493,497
Total Available Funds		13,039,166	11,064,664	19,839,617	16,940,953	19,624,722	20,511,694	22,172,106

City of Palm Coast
5 Year Capital Improvement Plan

STORMWATER MANAGEMENT FUND		FY 19 Amended	FY 19 Projected	FY 20	FY 21	FY 22	FY 23	FY 24
Operating Expenses:								
Operating Expenditures		**5,740,775**	**5,686,686**	**7,772,832**	**10,347,646**	**11,306,036**	**10,859,485**	**12,368,146**
- Stormwater Engineering		*991,284*	*856,815*	*814,072*	*855,000*	*898,000*	*943,000*	*990,000*
- Stormwater Maintenance		*1,646,671*	*1,729,134*	*2,371,981*	*2,490,580*	*2,615,109*	*2,745,865*	*2,883,158*
New Staff- Ditch Spray Program (4-man crew)				*-*	*240,000*	*252,000*	*265,000*	*278,000*
New Staff- Canal Spray Program (4-man crew + 1 Supervisor)				*-*	*75,000*	*315,000*	*331,000*	*348,000*
New Staff- Swale Crew #3 (1 Lead & 5 EO)				*-*	*-*	*-*	*-*	*360,000*
New Staff- Control Structure Maintenance (1 or 2 TBD)				*-*	*60,000*	*63,000*	*66,000*	*69,000*
- Stormwater Operations		*-*	*-*	*591,672*	*621,256*	*652,318*	*684,934*	*719,181*
- Non-Departmental		*1,727,145*	*1,744,683*	*2,309,822*	*2,550,313*	*2,677,829*	*2,811,720*	*2,952,306*
- Debt Service		*1,375,675*	*1,355,142*	*1,371,569*	*1,367,948*	*1,363,785*	*1,360,079*	*485,802*
- New Debt Service Loan 1		*-*	*-*	*222,400*	*460,609*	*460,334*	*460,878*	*461,126*
- New Debt Service Loan 2		*-*	*-*	*-*	*121,440*	*251,241*	*251,091*	*251,388*
- New Debt Service Loan 3		*-*	*-*	*-*	*-*	*161,920*	*334,998*	*334,788*
- New Debt Service Loan 4		*-*	*-*	*-*	*-*	*-*	*161,920*	*334,998*
- New Debt Service Loan 5				*-*	*-*	*-*	*-*	*202,400*
- New Debt Service Loan SRF 1				*91,316*	*183,000*	*183,000*	*183,000*	*183,000*
- New Debt Service Loan SRF 2				*-*	*-*	*90,000*	*260,000*	*350,000*
- Land Acquisition		*-*	*912*	*-*	*-*	*-*	*-*	*-*
- Transfer for Fleet Facility				*-*	*1,322,500*	*1,322,500*	*-*	*1,165,000*
Professional Services	**031000**	**331,000**	**323,000**	**411,000**	**225,000**	**227,000**	**254,000**	**231,000**
- LIDAR (cost share)		-	-	-	-	-	-	-
- Stormwater Rate Study (Consultant)		*-*	*-*	*-*	*-*	*-*	*25,000*	*-*
- City-Wide Infrastructure Stormwater Master Plan		*210,000*	*210,000*	*50,000*	*50,000*	*50,000*	*50,000*	*50,000*
- Stormwater Capital Projects Design Services		*50,000*	*50,000*	*100,000*	*100,000*	*100,000*	*100,000*	*100,000*
- MS4 Permitting Program		*71,000*	*63,000*	*71,000*	*75,000*	*77,000*	*79,000*	*81,000*
- Design Services for Canal Dredging Projects		*-*	*-*	*150,000*	*-*	*-*	*-*	*-*
- Miscellaneous Services		*-*	*-*	*40,000*	*-*	*-*	*-*	*-*

City of Palm Coast
5 Year Capital Improvement Plan

STORMWATER MANAGEMENT FUND		FY 19 Amended	FY 19 Projected	FY 20	FY 21	FY 22	FY 23	FY 24
Contractual Services	**034000**	**155,100**	**144,740**	**342,800**	**347,000**	**348,000**	**349,000**	**350,000**
- Mission Communication Unit Upgrades		*1,000*	*-*	*-*	*-*	*-*	*-*	*-*
- Water Control Equipment Replacement		*30,000*	*46,000*	*-*	*-*	*-*	*-*	*-*
- Miscellaneous Services		*-*	*12,240*	*10,000*	*10,000*	*10,000*	*10,000*	*10,000*
- Annual Telemetry Subscription - SCADA		*6,600*	*5,000*	*6,800*	*11,000*	*12,000*	*13,000*	*14,000*
- Pump Station Maintenance & Repair		*10,000*	*1,000*	*5,000*	*5,000*	*5,000*	*5,000*	*5,000*
- Water Control SCADA Support & Service		*15,000*	*-*	*46,000*	*46,000*	*46,000*	*46,000*	*46,000*
- Swale Dirt (Auction)		*-*	*-*	*10,000*	*10,000*	*10,000*	*10,000*	*10,000*
- Water Sampling		*-*	*-*	*10,000*	*10,000*	*10,000*	*10,000*	*10,000*
- Structure Repairs		*-*	*-*	*20,000*	*20,000*	*20,000*	*20,000*	*20,000*
- Freshwater Alternative Treatments		*20,000*	*8,000*	*20,000*	*20,000*	*20,000*	*20,000*	*20,000*
- Canal Clearing (Removal of Trees & Underbrush)		*5,000*	*5,000*	*5,000*	*5,000*	*5,000*	*5,000*	*5,000*
- Sediment Removal		*5,000*	*5,000*	*5,000*	*5,000*	*5,000*	*5,000*	*5,000*
- Temp Labor		*-*	*-*	*15,000*	*15,000*	*15,000*	*15,000*	*15,000*
- Tree Removal		*-*	*-*	*15,000*	*15,000*	*15,000*	*15,000*	*15,000*
- Stormwater Utility Site Maintenance		*-*	*-*	*50,000*	*50,000*	*50,000*	*50,000*	*50,000*
- Inmate Crew I		*62,500*	*62,500*	*62,500*	*62,500*	*62,500*	*62,500*	*62,500*
- Inmate Crew II		*-*	*-*	*62,500*	*62,500*	*62,500*	*62,500*	*62,500*

City of Palm Coast
5 Year Capital Improvement Plan

STORMWATER MANAGEMENT FUND		FY 19 Amended	FY 19 Projected	FY 20	FY 21	FY 22	FY 23	FY 24
Projects:								
Saltwater Canal System	**55230**	**75,000**	**75,000**	**80,000**	**85,000**	**90,000**	**95,000**	**100,000**
- Pipes Thru Seawalls		*10,000*	*10,000*	*10,000*	*10,000*	*10,000*	*10,000*	*10,000*
- Canal End Seawalls		*65,000*	*65,000*	*70,000*	*75,000*	*80,000*	*85,000*	*90,000*
Stormwater Storage/Detention:	**TBD**							
London Waterway Expansion		**-**	**-**	**-**	**-**	**350,000**	**1,700,000**	**-**
- Design		-	-	-	-	*350,000*	-	-
- Construction		-	-	-	-	-	*1,700,000*	-
Project(s) to be Determined		**-**	**-**	**-**	**-**	**-**	**-**	**450,000**
- Design		-	-	-	-	-	-	*450,000*
Control Structure Replacements:	**55001**							
W-1 Weir Replacement		**20,000**	**27,626**	**-**	**-**	**-**	**-**	**-**
- Construction		-	*7,626*	-	-	-	-	-
- Structure Repairs		*20,000*	*20,000*					
L-4 Weir Replacement (Royal Palm Parkway)	**99013**	**720,000**	**-**	**180,000**	**-**	**-**	**-**	**-**
- Design		*60,000*	-	*180,000*	-	-	-	-
- Construction		*660,000*	-	-	-	-	-	-
K-6 Weir Replacement (Smith Trail)	**99012**	**-**	**102,000**	**965,000**	**-**	**-**	**-**	**-**
- Design		-	*102,000*	-	-	-	-	-
- Construction		-	-	*965,000*	-	-	-	-
P-1 Weir Replacement (West BT south of Pine Grove)		**-**	**-**	**-**	**110,000**	**1,500,000**	**-**	**-**
- Design		-	-	-	*110,000*	-	-	-
- Construction		-	-	-	-	*1,500,000*	-	-
B-1, B-2, & B-3 (Pop offs for Bellaire Waterway)		**-**	**-**	**-**	**-**	**-**	**115,000**	**230,000**
- Design		-	-	-	-	-	*15,000*	*30,000*
- Construction		-	-	-	-	-	*100,000*	*200,000*

City of Palm Coast
5 Year Capital Improvement Plan

STORMWATER MANAGEMENT FUND		FY 19 Amended	FY 19 Projected	FY 20	FY 21	FY 22	FY 23	FY 24
Major Pipe & Canal Crossings (Replacements):	**55232**							
W-1 (Belle Terre @ BTMS)		**950,000**	**23,000**	**-**	**-**	**-**	**-**	**-**
- Design		*15,000*	*23,000*	-	-	-	-	-
- Construction		*935,000*	-	-	-	-	-	-
M-2 (OKR @ Big Mulberry Creek)		**750,000**	**-**	**-**	**-**	**-**	**-**	**-**
- Design		*35,000*	-	-	-	-	-	-
- Construction		*715,000*	-	-	-	-	-	-
L-2_Bridge 735504 (Sesame @ Citation)		**Part of CP**	**Part of CP**	**-**	**-**	**-**	**-**	**-**
R-1_Bridge 734076 (Belle Terre @ Royal Palms)		**-**	**-**	**Part of BT**	**-**	**-**	**-**	**-**
Pipe Inspections & Lining		**665,000**	**133,000**	**1,370,000**	**1,000,000**	**1,000,000**	**1,000,000**	**1,000,000**
- FDOT Bridge Inspection Program (22 Culverts)		*15,000*	*21,000*	-				
- Pipe Inspections (60 Crossings @ $2,000/EA)		-	-	*120,000*				
- Sesame @ Seminole Waterway Extension & Lining		*150,000*	-	-	-	-	-	-
- W-2 'Walker Waterway @ Pine Lakes Pkwy		*75,000*	-	-	-	-	-	-
- Belle Terre Blvd (south of Citation)		*150,000*	*37,000*	-	-	-	-	-
- Pipe Lining		-	-	*1,000,000*	*1,000,000*	*1,000,000*	*1,000,000*	*1,000,000*
- Contingency (Emergency Linings)		*275,000*	*75,000*	*250,000*	-	-	-	-
Belle Terre Blvd Pipe Replacement		**-**	**-**	**210,000**	**-**	**-**	**-**	**-**
- Construction		-	-	*210,000*	-	-	-	-
Projects to be Determined		**-**	**-**	**-**	**460,000**	**470,000**	**660,000**	**580,000**

City of Palm Coast
5 Year Capital Improvement Plan

STORMWATER MANAGEMENT FUND		FY 19 Amended	FY 19 Projected	FY 20	FY 21	FY 22	FY 23	FY 24
Capacity Improvements:								
Drainage Improvement Projects	**99014**	**-**	**-**	**200,000**	**500,000**	**500,000**	**500,000**	**500,000**
- Design		-	-	*200,000*	*200,000*	*200,000*	*200,000*	*200,000*
- Construction		-	-	-	*300,000*	*300,000*	*300,000*	*300,000*
Drainage Improvement - R Section	**99015**	**-**	**50,000**	**291,000**	**-**	**-**	**-**	**-**
- Design		-	*50,000*	-	-	-	-	-
- Construction		-	-	*291,000*	-	-	-	-
Drainage Improvement - E Section	**99015**	**-**	**100,000**	**1,890,000**	**-**	**-**	**-**	**-**
- Design		-	*100,000*	*140,000*	-	-	-	-
- Construction Phase 1		-	-	*1,700,000*	-	-	-	-
- Construction Phase 2		-	-	-	-	-	-	-
- Design - Golf Course Bypass		-	-	*50,000*	-	-	-	-
Ditch & Pipe Rehab & Renewal	**55003**		**35,000**	**450,000**	**450,000**	**450,000**	**450,000**	**450,000**
- Engineering (DRMP)		-	*35,000*	*150,000*	*150,000*	*150,000*	*150,000*	*150,000*
- Construction		-	-	*300,000*	*300,000*	*300,000*	*300,000*	*300,000*
Pipe Replacements:								
Pipe Replacements	**55003**	**1,145,000**	**700,000**	**745,000**	**800,000**	**875,000**	**930,000**	**1,010,000**
- Pipe & Miscellaneous Materials		720,000	425,000	150,000	160,000	170,000	180,000	190,000
- Pipe Linings		250,000	100,000	250,000	295,000	360,000	405,000	475,000
- Emergency Pipe Replacements		125,000	125,000	-	-	-	-	-
- Concrete Line Ditch (F-Section) Design		50,000	50,000	-	-	-	-	-
- Road Base & Aggregates		-	-	30,000	30,000	30,000	30,000	30,000
- Concrete for Spillways		-	-	40,000	40,000	40,000	40,000	40,000
- Contract Work		-	-	275,000	275,000	275,000	275,000	275,000
Concrete Lined Ditch (F-section)	**99016**	**-**	**-**	**950,000**	**-**	**-**	**-**	**-**
- Construction		-	-	*950,000*	-	-	-	-

City of Palm Coast
5 Year Capital Improvement Plan

STORMWATER MANAGEMENT FUND		FY 19 Amended	FY 19 Projected	FY 20	FY 21	FY 22	FY 23	FY 24
System Maintenance Rehab & Renewal:	**55105**							
Swale Maintenance Rehab & Renewal		**450,000**	**450,000**	**465,000**	**490,000**	**515,000**	**540,000**	**847,500**
- Swale Maintenance and Rehab.		400,000	430,000	-	-	-	-	-
- Driveway Replacements		50,000	20,000	20,000	20,000	20,000	20,000	30,000
- Sod				400,000	425,000	450,000	475,000	750,000
- Debris Removal				20,000	20,000	20,000	20,000	30,000
- Pipe				10,000	10,000	10,000	10,000	15,000
- Contract Work				5,000	5,000	5,000	5,000	7,500
- Equipment Rental				10,000	10,000	10,000	10,000	15,000
Ditch Maintenance and Rehab.		**450,000**	**160,000**	**220,000**	**220,000**	**200,000**	**170,000**	**170,000**
- Ditch Maintenance and Rehab.		450,000	160,000	-	-	-	-	-
- Sod				60,000	60,000	60,000	60,000	60,000
- Debris Removal				30,000	30,000	30,000	30,000	30,000
- Pipe				20,000	20,000	20,000	20,000	20,000
- Contract Work				100,000	100,000	80,000	50,000	50,000
- Equipment Rental				10,000	10,000	10,000	10,000	10,000
Weed Control		**708,600**	**690,816**	**612,600**	**506,600**	**180,600**	**190,600**	**200,600**
- Spray Equipment		*80,000*	*80,000*	-	-	-	-	-
- Spray Staffing and/or Contractor		*200,000*	*0*	-	-	-	-	-
- Spraying Chemicals		*20,000*	*2,216*	-	-	-	-	-
- Weed Control on Freshwater Canals		*408,000*	*408,000*	*432,000*	*456,000*	*125,000*	*130,000*	*135,000*
- Weed Control on Ditches		*-*	*200,000*	*180,000*	*50,000*	*55,000*	*60,000*	*65,000*
- Weed Control Cost Share Ribbon Lake		*600*	*600*	*600*	*600*	*600*	*600*	*600*

City of Palm Coast
5 Year Capital Improvement Plan

STORMWATER MANAGEMENT FUND		FY 19 Amended	FY 19 Projected	FY 20	FY 21	FY 22	FY 23	FY 24
Freshwater Canal Dredging	**034000**	**-**	**-**	**-**	**150,000**	**1,000,000**	**250,000**	**2,000,000**
- Design		-	-	-	*150,000*	-	*250,000*	-
- Construction		-	-	-	-	*1,000,000*	-	*2,000,000*
New Equipment		**724,130**	**748,039**	**1,226,148**	**415,000**	**85,000**	**770,000**	**185,000**
- Ditch Maintenance Equipment		*697,130*	*694,606*	*1,076,148*	-	-	-	-
- CM&E Personnel (New Proposed Vehicle)		*27,000*	*26,000*	-	-	-	-	-
- Public Works Personnel (Proposed Vehicle)		-	*27,433*	-	-	-	-	-
- Swale Crew Equipment (New 3rd Crew)				-	-	-	*685,000*	*100,000*
- Spray Equipment (Canals)				-	*310,000*	*45,000*	*45,000*	*45,000*
- Spray Equipment (Ditches)				*150,000*	*25,000*	*25,000*	*25,000*	*25,000*
- Control Structure Maintenance Equipment				-	*80,000*	*15,000*	*15,000*	*15,000*
TOTAL EXPENDITURES		**12,884,605**	**9,448,907**	**18,381,380**	**16,106,246**	**19,096,636**	**18,833,085**	**20,672,246**
Available Funds End of Year		**154,561**	**1,615,757**	**1,458,237**	**834,707**	**528,086**	**1,678,609**	**1,499,860**
Fund Balance (10%-20% of Operations & Maintenance)			19.69%	13.80%	6.18%	3.31%	10.65%	9.12%

Signature: **Email:** mmorton@palmcoastgov.com

Signature: **Email:** bfalgout@palmcoastgov.com

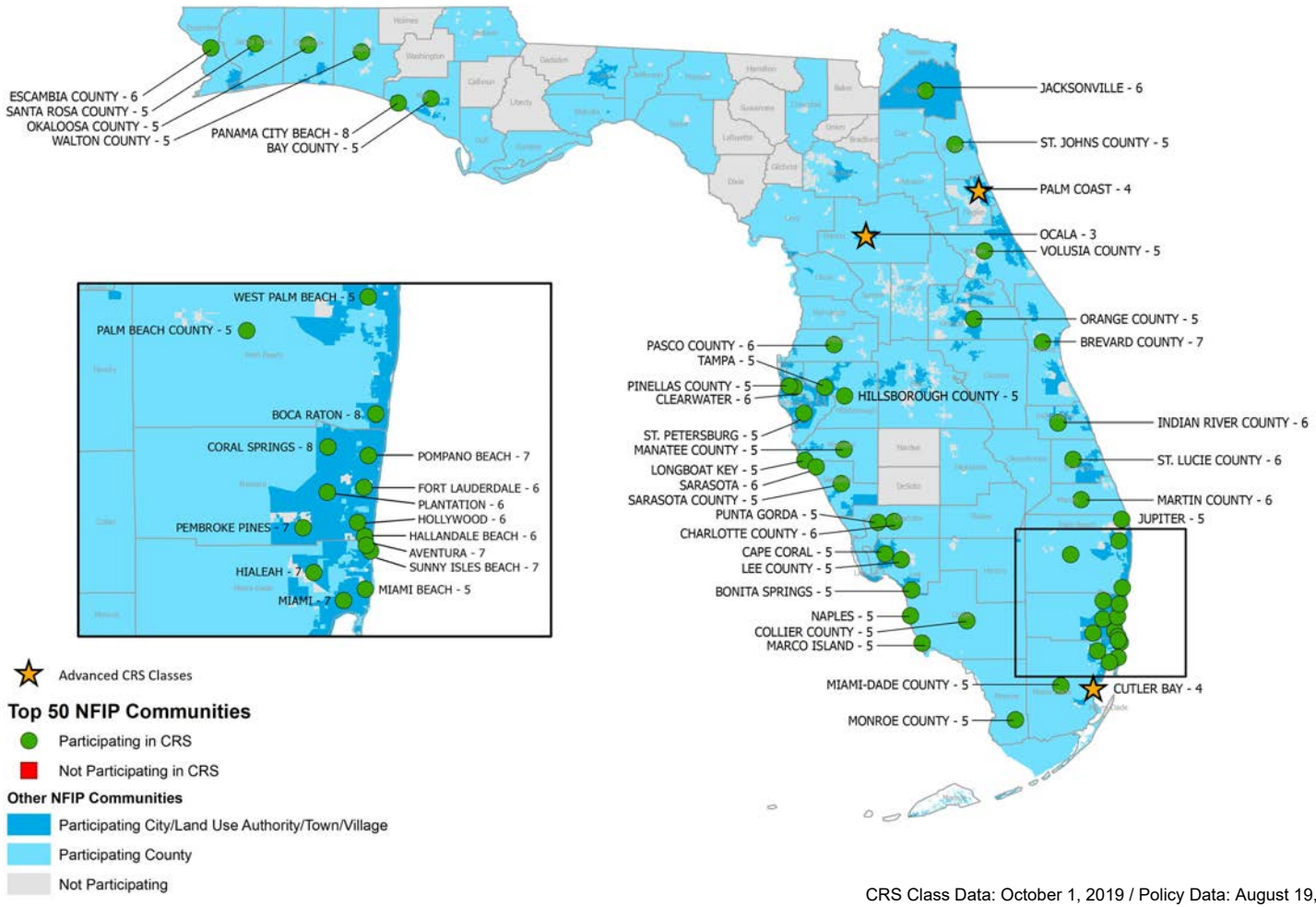
Attachment C

Florida

Top 50 National Flood Insurance Program (NFIP) Policy Count Communities* and Community Rating System (CRS) Participation

*Ranked by the total number of NFIP insurance policies-in-force

Rank	CID	Community Name	Policies	Class
1	120635	Miami-Dade County	122,414	5
2	120067	Collier County	70,860	5
3	125124	Lee County	67,097	5
4	120650	Miami	51,593	7
5	120192	Palm Beach County	45,671	5
6	120651	Miami Beach	45,278	5
7	125105	Fort Lauderdale	38,802	6
8	125144	Sarasota County	37,687	5
9	120112	Hillsborough County	36,247	5
10	125148	St. Petersburg	34,948	5
11	125095	Cape Coral	33,252	5
12	125139	Pinellas County	32,721	5
13	125147	St. Johns County	29,056	5
14	120061	Charlotte County	27,897	6
15	120114	Tampa	27,254	5
16	120077	Jacksonville	25,117	6
17	125092	Brevard County	23,093	7
18	120153	Manatee County	22,622	5
19	125113	Hollywood	21,957	6
20	120230	Pasco County	21,907	6
21	120676	Aventura	19,856	7
22	120317	Walton County	19,120	5
23	120055	Pompano Beach	18,156	7
24	125110	Hallandale Beach	17,628	6
25	120426	Marco Island	16,032	5
26	120195	Boca Raton	15,826	8
27	125130	Naples	15,310	5
28	120161	Martin County	15,210	6
29	120004	Bay County	14,384	5
30	120688	Sunny Isles Beach	14,151	7
31	125129	Monroe County	14,140	5
32	120080	Escambia County	14,057	6
33	120643	Hialeah	13,268	7
34	120119	Indian River County	13,251	6
35	120274	Santa Rosa County	13,181	5
36	120680	Bonita Springs	12,493	5
37	120013	Panama City Beach	12,335	8
38	125096	Clearwater	11,455	6
39	120173	Okaloosa County	10,348	5
40	120179	Orange County	10,105	5
41	125126	Longboat Key	9,917	5
42	120285	St. Lucie County	9,545	6
43	125155	Volusia County	8,976	5
44	125119	Jupiter	8,799	5
45	120054	Plantation	8,471	6
46	120062	Punta Gorda	8,361	5
47	125150	Sarasota	8,103	6
48	120053	Pembroke Pines	8,083	7
49	120229	West Palm Beach	8,055	5
50	120033	Coral Springs	7,955	8



CRS Class Data: October 1, 2019 / Policy Data: August 19, 2019

For a full list of all CRS Communities as of October 1, 2019, visit http://j.mp/CRS_FIM_Oct_2019

NOTES:

As of August 2019, 467 communities in Florida participate in the National Flood Insurance Program (NFIP).

Of these communities, 240 (or 51%) participate in the Community Rating System (CRS).

Of the top 50 Florida communities (in terms of flood insurance policies-in-force), 100% participate in CRS.

Benefits of Joining the CRS

* *Activities credited by the CRS provide direct benefits to the community, including enhanced public safety, reduction in flood damage and environmental protection.*
* *Residents are reminded that the community is working to protect them from flood losses.*
* *Public information activities will build a knowledgeable constituency interested in supporting and improving flood protection measures.*
* *Money stays in the community instead of being spent on insurance premiums.*

FEMA

NFIP/CRS

Attachment D

FEMA

Fact Sheet

Federal Insurance and Mitigation Administration

Community Rating System

2020

The National Flood Insurance Program (NFIP) Community Rating System (CRS) was implemented in 1990 as a voluntary program for recognizing and encouraging community floodplain management activities exceeding the minimum NFIP standards. Any community in full compliance with the minimum NFIP floodplain management requirements may apply to join the CRS.

Over 1,500 Communities Participate in the CRS

Over 3.6 million policyholders in 1,509 communities participate in the CRS by implementing local mitigation, floodplain management, and outreach activities that exceed the minimum NFIP requirements.

Under the CRS, flood insurance premium rates are discounted to reward community actions that meet the three goals of the CRS: (1) reduce flood damage to insurable property; (2) strengthen and support the insurance aspects of the NFIP; and (3) encourage a comprehensive approach to floodplain management.

Although CRS communities represent only 7 percent of the over 22,000 communities participating in the NFIP, over 70 percent of all flood insurance policies are written in CRS communities.

CRS Classes

The CRS uses a Class rating system that is similar to fire insurance rating to determine flood insurance premium reductions for residents. CRS Classes* are rated from 9 to 1. Today, most communities enter the program at a CRS Class 9 or Class 8 rating, which entitles residents in Special Flood Hazard Areas (SFHAs) to a 5 percent discount on their flood insurance premiums for a Class 9 or a 10 percent discount for Class 8. As a community engages in additional mitigation activities, its residents become eligible for increased NFIP policy premium discounts. Each CRS Class improvement produces a 5 percent greater discount on flood insurance premiums for properties in the SFHA.

* *CRS Class changes occur on May 1 and October 1 of each year. The data contained in this fact sheet were current through October 2019.*

Best of the Best

Nine communities occupy the highest levels of the CRS. Each tailored its floodplain management program to its own hazards, character, and goals. These programs comprise numerous activities, many of which are credited by the CRS. The average discount in policyholder premiums varies according to a community's CRS Class and the amount of insurance coverage in place.

- **Roseville, California,** was spurred by floods in 1995 to strengthen its floodplain management program. Today the City (Class 1) earns points for almost all CRS-creditable activities. The average premium discount for policies in the Special Flood Hazard Area (SFHA) is $925.
- **Sacramento County, California**, (Class 2) is diligent in its public outreach on protecting waterways, purchasing flood insurance, and preparing for floods. Average SFHA premium discount: $547.
- **Fort Collins, Colorado,** (Class 2) uses diverse approaches to keep its large student population informed. Identifying and protecting critical facilities and constant GIS improvements help the city maintain its exemplary program. Average SFHA premium discount: $676.
- Comprehensive planning has been a key to **Tulsa, Oklahoma,** in reducing flood damage from the dozens of creeks within its jurisdiction. The City (Class 2) has cleared more than 900 buildings from its floodplains. Average SFHA premium discount: $791.
- **King County, Washington,** (Class 2) has preserved more than 100,000 acres of floodplain open space and receives additional CRS credit for maintaining it in a natural state. Average SFHA premium discount: $783.
- **Pierce County, Washington,** (Class 2) maintains over 80 miles of river levees. The County mails informational brochures to all floodplain residents each year. Average SFHA premium discount: $784.
- **Thurston County, Washington,** has a history of planning for hazard mitigation, watershed protection, and open space. Strict development standards and stormwater management have helped the County reach Class 2. Average SFHA premium discount: $688.
- **Sacramento, California,** applies a range of higher regulatory standards, mitigates its repetitive loss properties, and manages a sizeable stormwater system to achieve its Class 2. Average SFHA premium discount: $457.
- **Ottawa, Illinois,** has combined buyouts, a flood warning and notification system, and continual public awareness initiatives to help it cope with periodic floods and also reach CRS Class 2. Average SFHA premium discount: $853.

CRS Credit

A community accrues points to improve its CRS Class rating and receive increasingly higher discounts. Points are awarded for engaging in any of 19 creditable activities, organized under four categories: (1) Public information, (2) Mapping and regulations, (3) Flood damage reduction, and (4) Warning and response.

Formulas and adjustment factors are used to calculate credit points for each activity.

The communities listed below are among those that have qualified for the greatest premium discounts:

Class 1: Roseville, California

Class 2: City of Sacramento, California
Sacramento County, California
Fort Collins, Colorado
Ottawa, Illinois
Tulsa, Oklahoma
King County, Washington
Pierce County, Washington
Thurston County, Washington

Class 3: Louisville–Jefferson County, Kentucky
Ocala, Florida
Sea Isle City, New Jersey

Class 4: Maricopa County, Arizona
Cutler Bay, Florida
Palm Coast, Florida
Charlotte, North Carolina
Charleston County, South Carolina
Folly Beach, South Carolina

Benefits of the CRS

Lower cost flood insurance rates are only one of the rewards a community receives from participating in the CRS. Other benefits include

- Citizens and property owners in CRS communities have increased opportunities to learn about risk, evaluate their individual vulnerabilities, and take action to protect themselves, as well as their homes and businesses.
- CRS floodplain management activities provide enhanced public safety, reduced damage to property and public infrastructure, and avoidance of economic disruption and loss.
- Communities can evaluate their flood programs against a nationally recognized benchmark.
- Technical assistance in designing and implementing some activities is available to community officials at no charge.
- CRS communities have incentives to maintain and improve their flood programs over time.

How to Apply

To apply for CRS participation, a community must initially inform the Federal Emergency Management Agency (FEMA) Regional Office of its interest in applying to the CRS and will eventually submit a CRS application, along with documentation that shows it is implementing the activities for which credit is requested. The application is submitted to the Insurance Services Office, Inc. (ISO)/CRS Specialist. ISO works on behalf of FEMA and insurance companies to review CRS applications, verify communities' credit points, and perform program improvement tasks.

A community's activities and performance are reviewed during a verification visit. FEMA establishes the credit to be granted and notifies the community, the State, insurance companies, and other appropriate parties.

Each year, the community must verify that it is continuing to perform the activities that are being credited by the CRS by submitting an annual recertification. In addition, a community can continue to improve its Class rating by undertaking new mitigation and floodplain management activities that earn even more points.

CRS Training

CRS Specialists are available to assist community officials in applying to the program and in designing, implementing, and documenting the activities that earn even greater premium discounts. A week-long CRS course for local officials is offered free at FEMA's Emergency Management Institute (EMI) on the National Emergency Training Center campus in Emmitsburg, Maryland, and can be field deployed in interested states. A series of webinars is offered throughout the year.

For More Information

A list of resources is available at the CRS page of the FEMA website. For more information about the CRS or to obtain the CRS application, contact Insurance Services Office, Inc. at nfipcrs@iso.com.