

**BOARD OF COUNTY
COMMISSIONERS**

Dave Eggers
Pat Gerard
Charlie Justice
Janet C. Long
John Morroni
Karen Williams Seel
Kenneth T. Welch



May 8, 2018

Miles E. Anderson, Chief, Bureau of Mitigation
Florida Division of Emergency Management
ATTENTION: Mitigation Planning Section
2555 Shumard Oaks Boulevard
Tallahassee, FL 32399-2100

RE: Pinellas County Endorsement Letter for FEMA 4337-DR-FL, Hurricane Irma and Local Mitigation Strategy - Appendix 9 Mitigation Project List Update

Dear Mr. Anderson:

This letter is to inform you that the Pinellas County Local Mitigation Strategy (LMS) Working Group approved by vote the prioritized list of projects found in Attachment 1 of this letter for HMGP funding from this disaster. These projects align with our LMS goals and objectives as noted and with the State's mitigation goals and objectives (in accordance with the Code of Federal Regulations 44 §201.6). The Pinellas County LMS Working Group therefore presents the projects in Attachment 1 in the order they are to be considered for funding. Correspondingly, Attachment 2 contains an updated Table 9-1 of Appendix 9 in Pinellas County's LMS, which contains the list of all of planned mitigation initiatives for the participating jurisdictions and nonprofit partners in the County's Working Group.

If you have any questions, please feel to contact me at 727-464-8219 or via email at cdmoore@pinellascounty.org.

Sincerely,

Christopher D. Moore, LMS Chair
Pinellas County LMS

Attachments:

1. Pinellas County HMGP Funding Priority List

Pinellas County Planning
310 Court St.
Clearwater, FL 33756
Main Office: (727) 464-8210
FAX: (727) 464-8201
V/TDD: (727) 464-4062

www.pinellascounty.org



2. Updated Pinellas County LMS Project List

Cc:

Commissioner Kenneth T. Welch, Chairman
Pinellas County Board of County Commissioners

Sally Bishop, Director
Pinellas County Emergency Management Department

Renea Vincent, Director
Pinellas County Planning Department

Attachment 1

Pinellas County HMGP Funding Priority List:

FEMA 4337-DR-FL

Pinellas County Hazard Mitigation Grant Program Priority Funding List: FEMA 4337-DR-FL

Project Ranking	Applicant	Project Name	LMS Goal Project Addresses	LMS Objective Project Addresses	Estimated Total Project Cost	Estimated Federal Share
1	St. Petersburg	Generator for St. Petersburg Fire Rescue Headquarters	Become a More Disaster Resilient Community	Property Protection	\$185,100	\$138,825
2	Pinellas County	Mast Arm Upgrades	Become a More Disaster Resilient Community	Structural Projects	\$6,000,000	\$3,906,317
3	Gulfport	Generator for Alternate City EOC	Become a More Disaster Resilient Community	Property Protection	\$72,900	\$54,675
4	Pinellas Suncoast Fire & Rescue	Generator power for interim EOC	Become a More Disaster Resilient Community	Structural Projects	\$200,000	\$150,000
5	St. Pete Beach	Generator for Fire Station 22	Become a More Disaster Resilient Community	Property Protection	\$150,000	\$112,500
6	Gulfport	Lift Station 1, Generator	Become a More Disaster Resilient Community	Property Protection	\$64,000	\$48,000
7	St. Petersburg	James Weldon Johnson Library Generator	Become a More Disaster Resilient Community	Property Protection	\$250,000	\$187,000
8	Town of North Redington Shores	Stormwater Backflow Valve	Minimize Coastal Flooding Losses in the CHHA, Coastal Storm Area and	Property Protection	\$24,000	\$18,000
9	South Pasadena	Generator and Transfer Swith Upgrade at Fire Station 20	Become a More Disaster Resilient Community	Property Protection	\$94,500	\$70,875
10	St. Petersburg	Southwest Water Reclamation Facility Resiliency Wall	Become a More Disaster Resilient Community	Structural Projects	\$6,000,000	\$3,400,470
11	Clearwater	Purchase 7 mounted generators	Minimize Losses from Hazardous Material Incidents	Prevention	\$490,000	\$350,000
12	Pinellas Park	Installation of Shutters at City Buildings	Minimize Storm Wind Losses in the County	Property Protection	\$677,000	\$507,750
13	Town of Belleair	Town Hall/Police Department security measure for critical facility	Minimize Losses from Security Attacks	Property Protection	\$6,000	\$4,500
14	Clearwater	Elevate 9 Clearwater Beach lift stations	Minimize Losses from Hazardous Material Incidents	Prevention	\$693,000	\$515,000
15	Clearwater	Purchase and install Stamford Baffles in 4 clarifiers at Marshall Street Facility	Minimize Losses from Hazardous Material Incidents	Prevention	\$550,000	\$410,000
16	Clearwater	Purchase and install Stamford Baffles in 2 clarifiers at East Facility	Minimize Losses from Hazardous Material Incidents	Prevention	\$275,000	\$205,000
17	ARC Tampa Bay	The Arc Tampa Bay Long Center Generator	Become a More Disaster Resilient Community	Prevention	\$142,000	\$106,000
18	Largo	WWRF Lift Station Flood Mitigation	Minimize Storm Wind Losses in the County	Structural Projects	\$3,150,000	\$1,157,947
19	Dunedin	Lift Station #32 Rehabilitation	Become a More Disaster Resilient Community	Prevention	\$750,000	\$512,322
20	Gulfport	Generators for City's EOC	Become a More Disaster Resilient Community	Property Protection	\$334,000	\$250,500
21	Madeira Beach	Generator	Minimize Storm Wind Losses in the County	Property Protection	\$268,000	\$201,000
22	St. Pete Beach	Boca Ciega Isle Stormwater Improvements	Become a More Disaster Resilient Community	Structural Projects	\$350,000	\$262,500
23	Town of North Redington Shores	Harden/Elevate Town Hall/EOC	Become a More Disaster Resilient Community	Property Protection	\$2,500,000	\$1,875,000
24	Clearwater	Purchase and install manhole pans	Minimize Losses from Hazardous Material Incidents	Prevention	\$2,625,000	\$1,968,750
25	Town of Belleair	Town Hall/Police Department facility hardening, critical facility	Minimize Storm Wind Losses in the County	Property Protection	\$150,000	\$112,500
26	Pinellas Park	Park Station Hardening and Generator	Become a More Disaster Resilient Community	Property Protection	\$825,000	\$618,750

Pinellas County Hazard Mitigation Grant Program Priority Funding List: FEMA 4337-DR-FL

27	Pinellas County	Back up Power and Pumping Equipment for Sewer Pumping Stations	Become a More Disaster Resilient Community	Prevention	\$2,500,000	\$1,875,000
28	Clearwater	Purchase 2 mounted power stations	Minimize Losses from Hazardous Material Incidents	Prevention	\$300,000	\$225,000
29	Town of Belleair	Bridge scour protection for island bridges	Minimize Storm Wind Losses in the County	Structural Projects	\$85,000	\$63,750
30	Pinellas Park	Barbara S. Ponce Library Hardening and Generator	Minimize Storm Wind Losses in the County	Property Protection	\$1,075,000	\$806,250
31	Pinellas County	Cross Bayou Floodplain Restoration and Mitigation	Minimize Riverine or Inland Flooding Losses in the 25, 50, and 100-year	Property Protection	\$5,000,000	\$3,750,000
32	Pinellas County	Lower Bee Branch Drainage Improvements and Caladesi Repetitive Loss Area Acquisition	Minimize Riverine or Inland Flooding Losses in the 25, 50, and 100-year	Structural Projects	\$8,700,000	\$6,525,000
33	Clearwater	Design and install automatic transfer bypass switches	Minimize Losses from Hazardous Material Incidents	Prevention	\$2,300,000	\$1,725,000
34	Town of North Redington Shores	Harden Lift Stations	Become a More Disaster Resilient Community	Property Protection	\$550,000	\$412,500
35	St. Petersburg	Central Yacht Basin Seawall Project	Become a More Disaster Resilient Community	Structural Projects	\$6,300,000	\$4,725,000
36	St. Petersburg	North Yacht Basin Seawall Project	Become a More Disaster Resilient Community	Structural Projects	\$4,300,000	\$3,225,000
37	Clearwater	Manhole and gravity sewer rehabilitation on Clearwater Beach	Minimize Losses from Hazardous Material Incidents	Prevention	\$4,420,000	\$3,315,000
38	Town of North Redington Shores	Underground Utilities (Gulf Blvd.)	Become a More Disaster Resilient Community	Property Protection	\$7,000,000	\$5,250,000
39	Town of Belleair	Emergency employee shelter, life support services retrofit	Minimize Storm Wind Losses in the County	Prevention	\$21,000	\$15,750
40	Dunedin	Lift Station #20 rehabilitation	Become a More Disaster Resilient Community	Prevention	\$1,300,000	\$975,000
41	St. Petersburg	Leisure Services Complex Wind Retrofit	Minimize Storm Wind Losses in the County	Property Protection	\$500,000	\$375,000
42	Pinellas County	Cross Bayou Improvements	Minimize Riverine or Inland Flooding Losses in the 25, 50, and 100-year	Structural Projects	\$6,770,000	\$5,077,500
43	Town of Belleair	Water Wells back up power generator	Minimize Storm Wind Losses in the County	Prevention	\$114,000	\$85,500
44	Pinellas County	Roll-n-Pole Portable Sign Holder Kit	Become a More Disaster Resilient Community	Prevention	\$59,835	\$44,876
45	Pinellas County	Inverter Kits	Become a More Disaster Resilient Community	Prevention	\$62,000	\$46,500
46	Pinellas County	Stock Generators	Become a More Disaster Resilient Community	Prevention	\$116,498	\$87,373
47	Pinellas County	Solar Traffic Signal - Test Bed	Become a More Disaster Resilient Community	Prevention	\$300,000	\$225,000
48	Pinellas County	Re-establish Coastal Benchmarks in Pinellas County	Become a More Disaster Resilient Community	Property Protection	\$150,000	\$112,500
49	Town of North Redington Shores	LED Warning Sign	Become a More Disaster Resilient Community	Public Education and Awareness	\$40,000	\$30,000
50	Pinellas County	Rebuilding of Public Works Buildings #20 and 4	Become a More Disaster Resilient Community	Structural Projects	\$3,000,000	\$2,250,000
51	Pinellas County	Drinking Water Facility Security Equipment	Minimize Losses from Security Attacks	Property Protection	\$250,000	\$187,500
52	Pinellas County	Force Main Sampling Equipment to Improve Sanitary Sewage Collection Process	Minimize Losses from Hazardous Material Incidents	Prevention	\$450,000	\$337,500
53	Clearwater	Telemetry installation at critical and essential lift stations	Minimize Losses from Hazardous Material Incidents	Prevention	\$416,000	\$312,000
54	Town of Belleair	Water Plant Hazardous materials mitigate response kits	Minimize Losses from Hazardous Material Incidents	Property Protection	\$31,500	\$23,625

Pinellas County Hazard Mitigation Grant Program Priority Funding List: FEMA 4337-DR-FL

55	Largo	WWRF Operations Center Reconstruction	Minimize Storm Wind Losses in the County	Structural Projects	\$4,000,000	\$3,000,000
56	Town of Belleair	Town of Belleair's Water plant , Secure facilities	Minimize Losses from Security Attacks	Prevention	\$15,786	\$11,840

Attachment 2

Pinellas County LMS Appendix 9 Project List Update

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
	1029 ARC Tampa Bay	The Arc Tampa Bay Long Center Generator	Purchase and installation of a natural gas based 125 kw generator to support approximately 7000 square feet, to support the critical health and safety needs of our residents during a hurricane.	\$142,000	Currently Unfunded	HMGP	5/8/2018			
	1025 Baycare, Inc. / St. Petersburg	Hospital EOC	Construct new EOC. Estimated completion time: more than 12 months. / 4	\$1,100,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	1150 Bayfront Medical Center / St. Petersburg	Harden Window Openings - Building A	Harden the exterior of Building A and install new hurricane-rated windows. Estimated completion time: more than 12 months. / 2	\$1,217,370	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	1150 Bayfront Medical Center / St. Petersburg	Harden Window and Roof - Building C Center	Harden the exterior including hurricane-rated windows and roofing system to protect against high wind velocity events. Estimated completion time: more than 12 months. / 2	\$2,789,889	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	1150 Bayfront Medical Center / St. Petersburg	Harden Window and Roof - Building C South	Harden the exterior including hurricane-rated windows and roofing system to protect against high wind velocity events. Estimated completion time: more than 12 months. / 2	\$4,575,295	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	1150 Bayfront Medical Center / St. Petersburg	Harden Window and Roof - Building C North	Harden the exterior including hurricane-rated windows and roofing system to protect against high wind velocity events. Estimated completion time: more than 12 months. / 2	\$4,646,281	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	1090 Bayfront Medical Center / St. Petersburg	Harden Cancer Care Center	Harden the exterior including the roof, windows and walls to ensure continuity of operations. Estimated completion time: more than 12 months. / 2	\$430,003	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	1070 Bayfront Medical Center / St. Petersburg	Harden West Lobby	Harden the roof and curtainwall window assembly to protect against high wind velocity events. Estimated completion time: more than 12 months. / 2	\$1,250,200	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	1000 Bayfront Medical Center / St. Petersburg	Harden Mechanical Room & Medical Gas Enclosure - Building B/C	The Mechanical Room and a fenced lean to will be hardened. Estimated completion time: more than 12 months. / 2	\$1,000,000	Currently Unfunded	Emergency Management, Preparedness and Assistance Trust Fund, HMGP; PDM Program	1/10/2018			
	995 Bayfront Medical Center / St. Petersburg	Building C Boiler / Chiller Plant Hardening & Rooftop Equipment Mitigation	The hospital's boiler & chiller plant needs hardening for severe weather mitigation. Estimated completion time; More than 12 months. / 2	\$1,000,000	Currently Unfunded	Emergency Management, Preparedness and Assistance Trust Fund, HMGP; PDM Program	1/10/2018			
	995 Bayfront Medical Center / St. Petersburg	Tank Farm Enclosure	On the South side of Building C, the Oxygen Tank Farm will be hardened. Estimated completion time; more than 12 months. / 2	\$1,000,000	Currently Unfunded	Emergency Management, Preparedness and Assistance Trust Fund, HMGP; PDM Program	1/10/2018			
	995 Bayfront Medical Center / St. Petersburg	Life Services Building Window, Door & Wall Hardening	The Life Services Building needs windows, doors and walls hardened for protection against high wind velocity and severe weather events. Estimated completion time; more than 12 months. / 2	\$1,000,000	Currently Unfunded	Emergency Management, Preparedness and Assistance Trust Fund, HMGP; PDM Program	1/10/2018			
	990 Bayfront Medical Center / St. Petersburg	Child Development Center Wind, Door & Roof Hardening	Harden windows, doors and roof for hurricane and severe weather mitigation. Estimated completion time: more than 12 months. / 2	\$1,000,000	Currently Unfunded	Emergency Management, Preparedness and Assistance Trust Fund, HMGP; PDM Program	1/10/2018			
	980 Bayfront Medical Center / St. Petersburg	Family Health Center Structural Hardening	Harden walls and roof to mitigate high wind velocity. Estimated time of completion: 12 months. / 2	\$1,000,000	Currently Unfunded	Emergency Management, Preparedness and Assistance Trust Fund, HMGP; PDM Program	1/10/2018			
	980 Bayfront Medical Center / St. Petersburg	Haden Exterior - Building C East - Area 4	Harden the exterior of Building C East - including hurricane-rated windows, walls, doors and roofing system to protect against high wind velocity events. / 2	\$3,070,827	Currently Unfunded	Emergency Management, Preparedness and Assistance Trust Fund, HMGP; PDM Program	1/10/2018			
	903 Town of Belleair	Water Wells back up power generator	Supply back up power generation and new pumps to RTW water supply wells for potable water generation.	\$114,000	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
	971 Town of Belleair	Emergency employee shelter, life support services retrofit	During preparation for hurricane Irma in the fall of 2017, it was noted that several key life support functions were not connected to back up generator or functioning properly, LMS funds are needed to connect/repair these key elements in the town's employee emergency shelter	\$21,000	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
	1083 Town of Belleair	Town Hall/Police Department facility hardening, critical facility	Upgrade to town hall/PD critical facility roof for more secure facility during hurricane or other disasters.	\$150,000	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
	1083 Town of Belleair	Bridge scour protection for island bridges	Install scour protection at 2 bridges in town. (North Pine Circle, and Winston Drive)	\$85,000	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
	1065 Town of Belleair	Water Plant Hazardous materials mitigate response kits	Buy new breathing apparatus, chemical spill kits, and chemical starter for security measures.	\$31,500	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
	926 Town of Belleair	Town of Belleair's Water plant, Secure facilities	Install 10 cameras and install 4 door locks to protect facility from attacks	\$15,786	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
	1119 Town of Belleair	Town Hall/Police Department security measure for critical facility	Install 2 pull down shutters for door ways to secure town hall and police department	\$6,000	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
	929 Belleair Beach	Harbor Drive & 1st Street	Drainage Improvement Plan – to prevent high tides from flooding the street 1	\$381,000	2018	Local	1/10/2018	8/17/2017		Nancy Gonzalez
	925 Belleair Beach / Public Works	Traffic Light Mitigation	Replace traffic control light at the corner of Causeway Blvd and Gulf Blvd with a mast arm. Estimated completion time: / 4	\$447,000	Funded through Gulf Blvd. Beautification Project	EMPATF, HMGP; PDM Program Penny for Pinellas	1/10/2018	8/16/2016		Nancy Gonzalez
	910 Belleair Beach / Public Works	Stormwater Management	Stormwater repairs, improvements, and replacing curb work. Replace valley curbs Estimated completion time: more than 12 months. / 1	\$55,000	Currently Underway	Local Funds and SWFWMD Cooperative Funding Grant	1/10/2018	8/16/2016		Nancy Gonzalez
	910 Belleair Beach / Public Works	Master Drainage Plan	Addresses issues with street flooding, drainage hydraulics problems, water quality and community drainage / 1	\$50,000	Currently Underway	Local Funds	1/10/2018	8/16/2016		Nancy Gonzalez
	980 Belleair Beach / Support Services	Town Hall Storm Mitigation	Mitigate town hall (901 Ponce de Leon Blvd.). Estimated completion time: more than 12 months. / 2	\$40,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	970 Belleair Bluffs	City Hall Storm Shutters	Install commercial roll-down storm shutters to protect city hall and the fire department. Estimated completion time: more than 12 months. / 1	\$45,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	960 Clearwater / General Services	Install Communications at Fire Training 48	Install radio tower at the new fire training building, install wireless comms, and install backup radio communications. Estimated completion time: more than 12 months. / 4	\$200,000	Currently unfunded	EMPATF, HMGP; PDM Program	1/10/2018	10/4/2016		Sarah Kessler
	850 Clearwater / General Services	Hardened Countryside Recreation Center	Harden windows and doors, increase roof attachments and install emergency generator. Estimated completion time: more than 12 months. / 2	\$300,000	Currently unfunded	EMPATF, HMGP; PDM Program	1/10/2018	10/4/2016		Sarah Kessler

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
	900 Clearwater / Public Utilities	Purchase trailer mounted antenna	Purchase antenna for citywide telemetry system for monitoring lift stations, water and wastewater plants. Estimated completion time: less than 12 months. / 1	\$75,000	Currently unfunded	EMPATF, HMGP; PDM Program	1/10/2018	10/4/2016		Sarah Kessler
	900 Clearwater / Public Utilities	Northeast Water Pollution Control Plant generators	Procure seven backup generators to maintain the generator reliability. Estimated completion time: less than 12 months. / 4	\$950,000	Currently unfunded	EMPATF, HMGP; PDM Program	1/10/2018	10/4/2016		Sarah Kessler
	900 Clearwater/ Engineering	Intermodal Facility	Construction of a new terminal in downtown. Added 2016 /2	\$2,425,000	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
	1070 Clearwater/ Engineering	Public Works Complex – Phase 2 Public Utilities and Stormwater Warehouse Facility	New warehouse facility will be built to Category 5 standards. Added 2016 /4	\$4,248,134	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
	1095 Clearwater	Purchase and install manhole pans	This project is to purchase and install 17,614 manhole pans. These manhole pans are designed to limit rainwater from entering the waste water collection system when a manhole is submerged. This can help with storms that cause standing water or storm surge that has pushed tides onto roadways. Preventing water from entering the water collection system is important because if the pipe or the water reclamation facility cannot keep up with the amount of water entering the system, then a sanitary sewer overflow occurs. This can occur at either the manhole or at the reclamation facility. The Public Utilities Department has selected Rain stopper as their preferred manhole pan. Installation is basic: lift up the manhole, place on the rim of the manhole frame, then lower the manhole lid. Any water entering from the lid is stopped from entering the waste water collection system. The device only weighs ten pounds and is low maintenance since there are no moving parts. The cost of this preventative measure is less than \$150 per manhole. The estimated construction length is one year.	\$2,625,000	Currently unfunded	HMGP	5/8/2018	5/8/2018		
	1118 Clearwater	Elevate 9 Clearwater Beach lift stations	This project includes elevating nine (9) lift stations on Clearwater Beach. The lift station telemetry, control, and power connections would be elevated at least two feet above the base flood elevation and storm surge height. Elevating the lift stations reduces the likelihood that they would be damaged by a storm and prevents sanitary sewer overflows. This cost of preventative measure is \$77,000 per elevated lift station. The estimated construction length would be 6 months.	\$693,000	Currently unfunded	HMGP	5/8/2018	5/8/2018		
	1110 Clearwater	Purchase and install Stamford Baffles in 4 clarifiers at Marshall Street Facility	There are currently four (4) clarifiers at the Marshall Street Water Reclamation Facility. The project is the purchase and installation of Stamford Baffords on each of those clarifiers. The Baffles will increase performance by reducing the Total Suspended Solids (TSS) entering the effluent trough and adding the hydraulic capacity of the clarifier. The overall performance of the clarifiers will increase by reducing the velocity in the tanks. The baffles will allow clarifiers to handle peak flows associated with large rainfalls and storm surges and reduce the chance of sanitary sewer overflows. The baffles will be installed around the weir and attached to the concrete. The cost of this preventative measure is less than \$138,000 per Stamford Baffle. The estimated construction length is one year.	\$550,000	Currently unfunded	HMGP	5/8/2018	5/8/2018		
	1110 Clearwater	Purchase and install Stamford Baffles in 2 clarifiers at East Facility	There are currently two (2) clarifiers at the East Water Reclamation Facility. The project is the purchase and installation of Stamford Baffords on each of those clarifiers. The Baffles will increase performance by reducing the Total Suspended Solids (TSS) entering the effluent trough and adding the hydraulic capacity of the clarifier. The overall performance of the clarifiers will increase by reducing the velocity in the tanks. The baffles will allow clarifiers to handle peak flows associated with large rainfalls and storm surges and reduce the chance of sanitary sewer overflows. The baffles will be installed around the weir and attached to the concrete. The cost of this preventative measure is less than \$138,000 per Stamford Baffle. The estimated construction length is one year.	\$275,000	Currently unfunded	HMGP	5/8/2018	5/8/2018		
	1088 Clearwater	Purchase 2 mounted power stations	This project is for the purchase of two (2) portable 419KW trailer mounted power stations. Although the City's reclamation and water production facilities are on Duke Energy's critical facilities list, power outages due to storm damage can occur at Public Utilities facilities. The trailer mounted power stations allow for flexibility of redundant power supply that can be transported to any of the City's three (3) reclamation facilities. Having emergency power at facilities can prevent a sanitary sewer overflow. The cost of this preventative measure is \$150,000 per power station. The estimated length of time to acquire equipment is 90 days.	\$300,000	Currently unfunded	HMGP	5/8/2018	5/8/2018	70875	
	1080 Clearwater	Telemetry installation at critical and essential lift stations	This project involves outfitting 23 critical and essential lift stations with telemetry which enable remote monitoring. Allowing real time monitoring of lift stations enables faster responses to issues. This would reduce the likelihood of sanitary sewer overflows. The cost of this preventative measure is less than \$18,100 to add monitoring equipment to lift stations. The estimated construction length is 90 days.	\$416,000	Currently unfunded	HMGP	5/8/2018	5/8/2018		
	1043 Clearwater	Design and install automatic transfer bypass switches	This project includes the design and installation of 23 automatic transfer bypass switches at lift stations, water reclamation facilities, and water treatment facilities. The bypass switch has the ability transfer the electrical load from the electric utility to the back-up generator and switch back when the power is back on. By having an automatic process, there is a reduction in the likelihood that a sanitary sewer overflow will occur. The cost of this preventative measures is \$100,000 per bypass switch. The estimated construction length is 6 months.	\$2,300,000	Currently unfunded	HMGP	5/8/2018	5/8/2018		

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
1227	Clearwater	Purchase 7 mounted generators	This project is the purchase of seven (7) portable 90kW trailer mounted generators. These generators would only be used to maintain lift stations operations during power outages, often associated with extreme weather. The generators would allow lift station without power to temporarily pump the waste water collection system. Maintaining power at a lift station prevents sanitary sewer overflows. The cost of this preventative measure is \$70,000 per generator. The estimated length of time to acquire equipment is 90 days.	\$490,000		HMGP	5/8/2018	5/8/2018		
					Currently unfunded					
996	Clearwater	Manhole and gravity sewer rehabilitation on Clearwater Beach	This project includes complete coating of structures, replacement of frame and cover of manholes and gravity piping. Through surveys, 333 manholes and 30,245 linear feet of gravity piping were identified as having the potential to allow the inflow and infiltration of stormwater. These corrections are designed to limit rainwater from entering the waste water collection system when a manhole is submerged. This can help with storms that cause standing water or storm surge that has pushed tides onto roadways. Preventing water from entering the water collection system is important because if the pipe or the water reclamation facility cannot keep up with the amount of water entering the system, then a sanitary sewer overflow occurs. This can occur at either the manhole or at the reclamation facility. The estimated construction length is one year.	\$4,420,000		HMGP	5/8/2018	5/8/2018		
					Currently unfunded					
1080	Clearwater/ Engineering	Public Works Complex – Phase 3 Administration Building with IT Server	New administration building and secure storage of IT servers will be built to Category 5 standards. Added 2016 /4	\$10,191,909	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
960	Clearwater/ Engineering	Public Works Complex – Phase 4 Meter Shop/ Utilities Mechanical Shop/ Survey Office	New facility for meter shop, utilities mechanical shop, and survey office will be built to Category 5 standards. Added 2016 /4	\$1,449,586	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
1150	Clearwater/ Engineering	Public Works Complex – Phase 5 Traffic Operations Facility	New facility for traffic operations will be built to Category 5 standards. Added 2016 /4	\$2,626,580	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
900	Clearwater/ Engineering	Public Works Complex – Phase 6 Urban Forestry/ Parks & Beautification and Infrastructure	New facility for urban forestry and P&B will be built to Category 5 standards. Added 2016 /4	\$3,902,806	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
1010	Clearwater/ Engineering	Acquisition of Repetitive Loss Properties	Several repetitive loss properties have been identified for acquisition Added 2016 /1	\$16,000,000	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
1030	Clearwater/ Engineering	Sunshine Towers Stormwater Pipe Realignment	The realignment of the stormwater pipe under the Sunshine Towers will alleviate flooding from the collapsed pipes under the building. Added 2016 /1	\$588,000	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
1150	Clearwater/ Fire & Rescue	Fire Station 46 – Mandalay	Construction of a new fire station to meet current building standards. Added 2016 /4	\$4,305,560	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
1150	Clearwater/ Fire & Rescue	Fire Station 47	Construction of a new fire station in an alternate location. Added 2016 /4	\$200,000	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
1210	Clearwater/ Gas	Gas Complex	Construction of a new Clearwater Gas building built to Category 5 building standard. Added 2016 /4	\$13,000,000	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
850	Clearwater/ Marine & Aviation	Airpark Hanger	Replace airplane hangar. Added 2016 /2	\$700,000	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
830	Clearwater/ Marine & Aviation	Stormwater Management	Construct a stormwater management system at the Marina Added 2016 /1	\$7,000,000	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
800	Clearwater/ Marine & Aviation	Marina Walkway	Repair walkway at Marina and protect utilities located under the surface. Added 2016 /1	\$1,450,000	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
1190	Clearwater/ Police	District 3 Headquarters	Rebuild Police Station to be resilient and address site flooding Added 2016 /4	\$3,505,000	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
710	Clearwater/ Public Utilities	Groundwater Replenishment	Construction of a new hardened facility. Added 2016 /2	\$500,000	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
970	Clearwater/ Public Utilities	Water Treatment Plant #3	The expansion of the water treatment plant will make is possible for the City to produce 100% of the necessary water supply for residents. Added 2016 /4	\$13,400,000	Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	12/16/2016		Sarah Kessler
966	Dunedin	Lift Station #20 rehabilitation	Lift station #20 is adjacent to Jerry Branch, a tributary of Curlew Creek. The Florida Department of Environmental Protection (FDEP) along with the Environmental Protection Agency (EPA) listed Curlew Creek on the 303(d) list of impaired waterbodies for a bacteria Total Maximum Daily Load (TMDL). This lift station basin area suffers from Inflow and Infiltration (I&I), is currently undersized, and can experience significant sanitary sewer overflows (SSO's) during periods of heavy rains. This project's intent is to relocate the lift station to a location further from Jerry Branch, to increase the wet well size and capacity, and to mitigate the issues with I&I. These improvements will help mitigate impacts on waterways and residents.	\$1,300,000		HMGP	5/8/2018	5/8/2018		
					Currently Unfunded					
988	Dunedin	Lift Station #32 Rehabilitation	Lift station #32 is adjacent to Jerry Branch, a tributary of Curlew Creek. The Florida Department of Environmental Protection (FDEP) along with the Environmental Protection Agency (EPA) listed Curlew Creek on the 303(d) list of impaired waterbodies for a bacteria Total Maximum Daily Load (TMDL). This lift station basin area suffers from Inflow and Infiltration (I&I), is currently undersized, and can experience significant sanitary sewer overflows (SSO's) during periods of heavy rains. This project's intent is to increase the wet well size and capacity, to mitigate the issues with I&I, and to address issues in the system related to undersized interceptor sewer mains in the system. These improvements will help mitigate impacts on waterways and residents.	\$750,000		HMGP	5/8/2018	5/8/2018		
					Currently Unfunded					

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
970	Dunedin / Public Works	City Hall Shutters	Install hurricane shutters on City Hall (542 Main Street). Estimated completion time: less than 12 months. / 2	\$7,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
970	Dunedin / Public Works	Lift Station Elevation & Retrofit	Harden & upgrade 12 lift stations for waste water. Estimated completion time: more than 12 months. / 1	\$300,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
920	Dunedin / Public Works	Library Retrofit	Install hurricane shutters on Library Facility (223 Douglas). Estimated completion time: more than 12 months. / 2	\$95,000	Currently funded with HMGP	EMPATF, HMGP; PDM Program	1/10/2018			
970	Eckerd College / St. Petersburg	Building Flood/Wind Retrofit	Retrofit priority support building to address vulnerabilities to high winds and/or flooding based on engineering evaluation. Estimated completion time: more than 12 months. / 1, 2	\$50,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	10/24/2016		Lisa Mets
940	Eckerd College / St. Petersburg	Building Flood/Wind Retrofit	Retrofit academic building to address vulnerabilities to high winds and/or flooding based on engineering evaluation. Estimated completion time: more than 12 months. / 1, 2	\$250,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	10/24/2016		Lisa Mets
1090	Gulfport	Stormwater Project	Enlarge drainage pipes and construct retention ponds citywide to reduce street and yard flooding to improve drainage in low lying areas of the City. Estimated completion time: more than 12 months. / 1	\$500,000	Currently Unfunded	Capitalization Grants for Clean Water State Revolving Funds; CDBG; FMAP; HMGP; Nonpoint Source Implementation Grants	1/10/2018			
1035	Gulfport	Flood Mitigation in Waterfront Redevelopment District	Construct storm doors for commercial businesses within the 100-year floodplain of the Waterfront Redevelopment District. Estimated completion time: more than 12 months. / 1	\$60,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
1030	Gulfport	Land Acquisition	Public purchase of properties that are flood prone or at high risk/exposure to being flooded or experience wave action/erosion. Estimated completion time: more than 12 months. / 1	\$500,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
1015	Gulfport	Municipal EOC	Build a new City EOC, 1617 - 49th Street South. Estimated completion time: more than 12 months. / 4	\$3,500,000	Currently Unfunded	HMGP; PDM Program	1/10/2018			
1,247	Gulfport	City Hall Complex – EOC Generators Installation	Hurricane Irma left 85% of Gulfport without power for more than one week, destroying 17 transformers and downing many power lines. City Hall complex was without electricity for one week. City Hall complex is the city's EOC and consists of three buildings: City Hall/Police Department, Fire Department, and Public Services. No power at the EOC complex compromised the City's emergency services and ability to respond and recover from Irma due to the lack of communications within and outside of the City, the use of computers, telephones, radios, and the equipment for damage assessment and monitoring of critical facilities such as water and lift stations. Install 3 generators. / 4	\$334,000	Currently Unfunded	HMGP, CDBG, EMPA, Local	1/10/2018	10/31/2017		
1,260	Gulfport	Critical Facility Generator Retrofit	Install one generator. Lift Station 1 is the City's facility that collects 80% of the wastewater generated in the City and pumps it to St Petersburg for treatment. Of the 19 collection basins within the City, Lift Station 1 directly collects 63% of the basins wastewater. The remaining 37% is collected at Lift Station 2 and is pumped directly to Lift Station 1. The City has hardened the lift stations. The current generator has passed its estimated useful life. / 4	\$64,000	Currently Unfunded	EMPA, HMGP, Local	1/10/2018	10/31/2017		
1,284	Gulfport	Generator Installation at Alternate EOC	Hurricane Irma left 85% of Gulfport without power for more than one week, destroying 17 transformers and downing many power lines. City Hall complex and the Public Works building was without electricity for one week. City Hall complex is the city's EOC but lies within Evacuation D Zone. Therefore, the Public Works building is the alternate EOC since it is not in a flood zone or evacuation zone. No power for the EOC complex and Public Works building compromised the City's emergency services and ability to respond and recover from Irma due to the lack of communications within and outside of the City, the use of computers, telephones, radios, and equipment for damage assessment and monitoring of critical facilities such as water and lift stations. /4	\$72,900	Currently Unfunded	HMGP, CDBG, EMPA, Local	1/10/2018	10/31/2017		
1050	Indian Rocks Beach / Building Dept.	Flood Mitigation Buyout	Provide a grant of up to \$15,000 per structure for the removal of noncompliant repetitive loss properties and pre-FIRM structures that are floodprone or at high risk/exposure to being flooded or experience wave action/erosion. / 1	\$150,000	Currently Unfunded	FMAP; HMGP; PDM Program, Penny for Pinellas, CDBG, Nonpoint Source Implementation Grants, Residential Construction Mitigation Program	1/10/2018	10/9/2017		Dean Scharmen
1250	Indian Rocks Beach / Public Services	Stormwater Drainage	Reconstruction of small basin stormwater collection and discharge facilities as required by NPDES. /4	\$450,000.00	2020 SWFWMD	City of Indian Rocks Beach Capital Improvement Plan; Capitalization Grants for Clean Water State Revolving Funds; CDBG; FMAP; HMGP; Nonpoint Source Implementation Grants; Penny for Pinellas;	1/10/2018	10/9/2017	Currently underway	Dean Scharmen
870	Indian Rocks Beach / Public Services	Gulf Blvd Utility Undergrounding	To make aesthetic and safety improvements along Gulf Blvd, including the undergrounding of the Gulf Blvd overhead utilities and to elevate transformers and other equipment above the base flood elevation. Phase 1 of the project, about \$4 million in cost would start at the southern boundary of the City (Whitehurst) and continue north through the Gulf Blvd/Walsingham Rd intersection to at least 6th Ave. /4	4,120,180	Design work has begun. Construction should commence in the fall of 2017	Pinellas County, City of Indian Rocks Beach Capital Improvement Plan	1/10/2018	110/9/2017		Dean Scharmen
860	Indian Rocks Beach / Public Services	Road Milling, Resurfacing and curbing	Road deterioration causes safety hazards and negatively impacts the attractiveness of the neighborhood. This project includes continuation of street milling, resurfacing, and curb replacement and includes updating the drainage system in the areas resurfaced. This project also includes concrete curb and gutter replacement and asphalt milling and resurfacing at selected locations in Fiscal Years 2018-2022 / 3	\$2,100,000	In CIP for the next five years	; City of Indian Rocks Beach Capital Improvement Plan; SWFMD	1/10/2018	10/9/2017		Dean Scharmen
1030	Indian Shores / Town Administrator	Critical Facility Rebuild	Build new town hall, police department and annex buildings. Estimated completion time: more than 12 months. / 2	\$3,500,000	Currently Unfunded	FMAP; HMGP; PDM Program	1/10/2018			
915	Indian Shores / Town Administrator	Seawall Erosion Control	Reconstruct seawall with tiebacks at Intra Coastal Waterway and Town Street. Estimated completion time: more than 12 months. / 3	\$160,000	Currently Unfunded	Capitalization Grants for Clean Water State Revolving Funds; CDBG; FMAP; HMGP; Nonpoint Source Implementation Grants	1/10/2018			

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
	865 Indian Shores / Town Administrator	Detention Pond	Create a detention pond and storm water drainage system in the community redevelopment area. Estimated completion time: more than 12 months. / 1	\$100,000	Currently Unfunded	Capitalization Grants for Clean Water State Revolving Funds; CDBG; FMAP; HMGP; Nonpoint Source Implementation Grants	1/10/2018			
	910 Kenneth City	Stormwater Management	Repair, rework, and replace components in the Kenneth City storm drain system. Estimated completion time: more than 12 months. / 1	\$300,000	Currently Unfunded	Capitalization Grants for Clean Water State Revolving Funds; CDBG; FMAP; HMGP; Nonpoint Source Implementation Grants	1/10/2018			
	910 Kenneth City	Stormwater Management	Repair, rework, and replace components in the Kenneth City storm drain system. Estimated completion time: more than 12 months. / 1	\$500,000	Currently Unfunded	Capitalization Grants for Clean Water State Revolving Funds; CDBG; FMAP; HMGP; Nonpoint Source Implementation Grants	1/10/2018			
	1240 Largo	Fire Station Renovation Program	The City of Largo operates six fire stations, 38, 39, 40, 41, 42 and 43. The stations are in need of significant repair, maintenance, and upgrade in order to remain operational. An outside consultant completed a needs analysis in 2015 to determine the following: space needs analysis, analysis of all current and immediate repair and maintenance needs and costs, and estimates on the remaining useful life of the buildings. The 2015 Needs Assessment indicated extensive repairs and upgrades for Largo Fire Rescue stations. The Largo Fire Rescue Department is looking ahead to replacing stations that have reached the end of their useful life, including fire stations 38, 39, 42, and 43. The replacement of Station 43 was initiated in FY 16 and will be completed in FY 17. Station 38 would be next, station 42 would be after station 38 and station 39 would be the last, in coordination with the county project to rebuild Rainbow Village. Fire Station 38: Apparatus bay floor resurfacing, interior painting, and drop ceiling replacement. Station 38 is slated to be the first station to be replaced if the penny is re-approved. (Station was built in 1987.) Fire Station 39: Roof replacement, apparatus bay floor resurfacing, and interior painting. Station 39 is scheduled to be replaced in coordination with the county project to rebuild Rainbow Village. (Station was built in 1980.) Fire Station 40: Major roof repair, apparatus bay floor resurfacing, and interior painting. (Station was built in 1990.) Fire Station 42: Roof replacement, apparatus bay floor resurfacing, and interior painting. Station 42 is slated to be the second station replaced if the penny re-approved. (Station was built in 1978.) /4	\$692,000	FY 17-FY 21	General (Local Fund)	1/10/2018	10/19/2017		Matthew DiFiore
	1150 Largo	Fire Station 38 Reconstruction	This is the youngest of the three proposed stations however still has many of the same issues. The roof and HVAC systems will need replacing, the building will need to be brought up to ADA and NFPA standards and living quarters will need redesign and reconfiguration. This building has gone through many changes due to personnel additions and changes over the last ten years. The current building is 6,500 square feet and was constructed in 1986. /4	\$3,750,000	N/A	Unfunded	1/10/2018	10/19/2017		Matthew DiFiore
	1016 Largo	WWRF Lift Station Flood Mitigation	This project meets the goals and objectives for structural mitigation projects that include strengthening of vulnerable structures and public facilities to withstand wind, fire and other forces, and elevation of structures to protect them from flood damage. A number of the Wastewater Reclamation Facility (WWRF) sanitary sewer lift stations are in the flood plain. Continuity of operations of these lift stations is at risk during high rain and/or flooding events. The purpose of this project is to reconstruct the lift stations to raise the critical infrastructure above the flood plain at existing Lift Station Nos. 19, 26, 41 and 47.	\$3,150,000	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
	1150 Largo	Fire Station 39 Reconstruction	This building has exceeded its useful life and currently is in need of a roof replacement and internal renovations. The building has no separated living quarters and has inadequate storage space for the needs of the department. This project is intended to work in coordination with the county project to rebuild Rainbow Village. The current building is 5,300 square feet and was constructed in 1979. /4	\$3,500,000	N/A	Unfunded	1/10/2018	10/19/2017		Matthew DiFiore
	1150 Largo	Fire Station 42 Reconstruction	On top of issues regarding access and the age of the facility, the building has had multiple roof replacements, renovations, and updates throughout its life. It is recommended that a new building be built with better access for apparatus and better separation of living quarters for firefighters. The current building is 5,300 square feet and was constructed in 1978. /4	\$3,500,000	N/A	Unfunded	1/10/2018	10/19/2017		Matthew DiFiore
	990 Largo	WWRF - Biosolids Building Hardening	The Biosolids building is a large industrial, pre-engineered metal building. It houses most of the operating components used to convert wastewater solid into a Class AA Biosolid product, used for fertilization. Due to the essential nature of the facility and the potential for the facility to sustain significant damage during a hurricane, a study was conducted to evaluate the structural performance of the building under the effects of a Category 3 hurricane. Based on the results of the contracted study, scope for this project includes either 1) structural modifications to the existing building, including roofing work, wall work, all structural bracing and stiffening, replacement of doors, windows, louvers (framed openings), and fans, and painting or 2) replacement of the entire building. /1, 2	\$1,600,000	FY 18 -FY19	Wastewater (Local Fund)	1/10/2018	12/22/2016		Matthew DiFiore
	1190 Largo	WWRF – Operations Center Reconstruction	The existing WWRF control building and laboratory, both of which are approximately 40 years of age, are not hurricane hardened. As these structures are essential to treatment plant operations, the Department would like to construct a new facility so that staff could continue to operate the plant after a storm event. This would entail design and construction of a new two-story building overlooking the process trains, which would be hurricane hardened for safe quartering during a storm. It would contain the main control room for SCADA workstations, a server room, a full laboratory for permit required lab analysis, storage for chemicals & supplies, a bunker/lounge area, a records room, and a variety of other needs to be determined during the design process. /1, 2	\$4,570,000	FY 18-FY19	Wastewater (Local Fund)	1/10/2018	12/22/2016		Matthew DiFiore

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
970	Largo	City Hall Reconstruction	The City Hall facility has a number of issues. First, it is not rated for hurricane winds and is in a flood plain. It has electrical and plumbing systems that are original to the building and are repeatedly needing repair. The HVAC system needs to be redesigned as it is not efficient and does not service employees there appropriately. The building is not hardened and has significant space utilization issues. This estimate would construct a new building with the same square footage of the current City Hall and does not include land acquisition or design costs at this time. Policy direction is needed to determine the needs for inside a new City Hall building. The current building is 57,740 square feet and was constructed in 1973. /1, 2	\$18,000,000	N/A	Unfunded	1/10/2018	12/22/2016		Matthew DiFiore
1000	Largo	Public Works Complex Reconstruction	Due to the complex being built on a former closed landfill, the soil underneath the complex is giving way to considerable damage to both the pavement used around the building and the buildings themselves. The Administration building is showing settling in both the facilities workshop and the fleet central stores area and while currently not a structure issue, may be in the near future. The building does not currently meet some ADA requirements for facilities of this nature and size and the building has had multiple issues with water intrusion over the past ten years. It is in the intention that through this project Public Works administrative and management functions can be reviewed, centralized, and coordinated more efficiently. This project scope and cost is based upon engineering estimates and a space needs analysis done in 2013. Costs include the environmental remediation, the moving of the fuel island, the consolidation of the divisions into one building, and associated vehicle storage areas. Total square footage of existing buildings is 44,528, Public Works Administration and Fleet building was constructed in 1976 and the Solid Waste facility was constructed in 1990. /3	\$20,000,000	N/A	Unfunded	1/10/2018	12/22/2016		Matthew DiFiore
1210	Largo	Regional Watershed Management Planning	The Regional Watershed Management Planning project was initiated in the FY2012-2016 CIP and identified the need for the development of a City-wide Watershed Management Plan for the various drainage basins (Starkey, Longbranch, Allen's Creek, McKay Creek) and sub-basins located in the City of Largo. This project included joint funding and participation with the South West Florida Water Management District, Pinellas County, City of Clearwater and other entities that share jurisdiction within the watersheds. The watershed management plans for McKay Creek, Allen's Creek, Long Branch Creek, Starkey Road Basin, and the Clearwater-Largo Road Drainage District Study were completed by FY14. The purpose of this project is to begin planning and designing stormwater system improvements based on the Best Management Practices (BMPs) identified in the Watershed Plans to address flooding, water quality, infrastructure rehabilitation, and meet regulatory requirements. This project will contribute to compliance with the City's National Pollutant Discharge Elimination System (NPDES) stormwater permit and pending Total Maximum Daily Loads (TMDL's) regulations which are administered by the Florida Department of Environmental Protection. /1	\$14,800,000	N/A	Unfunded	1/10/2018	12/22/2016		Matthew DiFiore
1090	Largo	WWRF Master Plan Improvements – Biological Treatment Systems	A portion of the overall project is intended raise critical components of the Largo Wastewater Reclamation Facility (WWRF) above the floodplain. This includes elevating the structure that contains the filter feed pump station and the new disk filters. It also includes four (4) new Motor Control Center (MCC) Buildings that are hardened and elevated. /1	\$2,375,000	FY 18	Wastewater (Local Fund)	1/10/2018	12/22/2016		Matthew DiFiore
944	Largo/ Engineering Services	126 Ave Church Creek Storm Drainage Improvements	Project will construct large conveyance piping to eliminate repeat property flooding and damage/1	\$1,500,000	Unfunded	Local Funding	1/10/2018	10/25/2017		Jerald Woloszynski
1060	Lealman SFCD / Emergency Management	Fire Station #18 EOC Hardening	Harden by installing roll down shutters, 5 double doors, 3 single doors and 16 windows. Estimated completion time: more than 12 months. / 2	\$36,500	Currently Unfunded		1/10/2018			
980	Lealman SFCD / Emergency Management	Fire Station #19 Secondary EOC Hardening	Harden by adding roll down shutters, 4 single doors and 5 windows. Estimated completion time: more than 12 months. / 2	\$12,700	Currently Unfunded		1/10/2018			
860	Lealman SFCD / Emergency Management	Fleet Building Hardening	Harden with roll down shutters, 2 single doors and 1 window. Estimated completion time: less than 12 months. / 2	\$3,900	Currently unfunded		1/10/2018			
840	Lealman SFCD / Emergency Management	Fleet Building Emergency Power	Evaluate and install quick connect and power transfer switch. Estimated completion time: less than 12 months. / 4	\$35,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
1304	Madeira Beach	Emergency Operations Generator	Emergency Operations Generator to allow operations during state of emergency, power outages or other events of power loss.	\$268,000	Currently Unfunded	HMGP	1/10/2018	11/28/2017		Karen Paulson
	Madeira Beach	13001 Boca Avenue	Mitigation of SRL Property 13001 Boca Avenue	\$200,000	Unfunded	HMGP & Private	1/10/2018	10/5/2016		Michelle Orton
	Madeira Beach	847 Bay Point	Mitigation of SRL Property 847 Bay Point	\$200,000	Unfunded	HMGP & Private	1/10/2018	10/5/2016		Michelle Orton
	Madeira Beach	14196 W Parsley	Mitigation of SRL Property 14196 W Parsley	\$200,000	Unfunded	HMGP & Private	1/10/2018	10/5/2016		Michelle Orton
	Madeira Beach	911 Bay Point	Mitigation of SRL Property 911 Bay Point	\$200,000	Unfunded	HMGP & Private	1/10/2018	10/5/2016		Michelle Orton
	Madeira Beach	577 Crystal Drive	Mitigation of SRL Property 577 Crystal Drive	\$200,000	Unfunded	HMGP & Private	1/10/2018	10/5/2016		Michelle Orton
	Madeira Beach	Drainage Basin A – As depicted in the Stormwater Master Plan	Stormwater system upgrades to address flooding and tide control devices	\$2,142,000	Unfunded	EMPATF; HMGP; PDM Program	1/10/2018	10/5/2016		Michelle Orton

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
	Madeira Beach	Drainage Basin C – As depicted in the Stormwater Master Plan	Stormwater system upgrades to address flooding and tide control devices	\$8,100,000	Unfunded	EMPATF; HMGP; PDM Program	1/10/2018	10/5/2016		Michelle Orton
	Madeira Beach	Drainage Basin D – As depicted in the Stormwater Master Plan	Stormwater system upgrades to address flooding and tide control devices	\$4,360,000	Unfunded	EMPATF; HMGP; PDM Program	1/10/2018	10/5/2016		Michelle Orton
	Madeira Beach	Drainage Basin E- As depicted in the Stormwater Master Plan	Stormwater system upgrades to address flooding and tide control devices	\$3,500,000	Unfunded	EMPATF; HMGP; PDM Program	1/10/2018	10/5/2016		Michelle Orton
	Madeira Beach	Drainage Basin F – as depicted in the Stormwater Master Plan	Stormwater system upgrades to address flooding and tide control devices	\$2,200,000	Unfunded	EMPATF; HMGP; PDM Program	1/10/2018	10/5/2016		Michelle Orton
	Madeira Beach	Underground Utilities	Underground utilities – East and West side streets	\$3,000,000	Unfunded	Local	1/10/2018	10/5/2016		Michelle Orton
	Madeira Beach	Drainage Basin B – As depicted in the Stormwater Master Plan	Stormwater system upgrades to address flooding and tide control devices	\$3,166,000	Unfunded	EMPATF; HMGP; PDM Program	1/10/2018	10/5/2016		Michelle Orton
	890 Morton Plant Hospital / Clearwater	Hospital Retrofit	Replace windows at Morton Plant Hospital's Adler/ Women's Center Estimated completion time: more than 12 months. / 2	\$680,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	890 Morton Plant Hospital / Clearwater	Hospital Retrofit	Replace the lower roof of Witt South building at Morton Plant Hospital. Estimated completion time: more than 12 months. / 2	\$400,000	Currently Unfunded	FMAP; HMGP; PDM Program	1/10/2018			
	840 North Redington Beach / Public Works	Stormwater Management #1	Install storm water sewer valve to prevent storm water/tidal backup into the streets. Estimated completion time: less than 12 months. / 1	\$25,000	Currently Unfunded	FMAP; HMGP; PDM Program	1/10/2018			
	830 North Redington Beach / Public Works	Stormwater Management #2	Implement retrofit of the remaining 14 storm water valves. Estimated completion time: more than 12 months. / 1	\$210,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	810 North Redington Beach / Public Works	Underground Utilities	Place underground utilities along Gulf Boulevard (NRB). Estimated completion time: more than 12 months. / 2	\$7,000,000	Currently Unfunded	EMPATF; HMGP; PDM Program	1/10/2018			
	950 Oldsmar / City Clerk; IT	COOP Document Imaging	Document management program utilizing scanning and digitization of vital records for off-site storage and retrieval. / 4	\$75,000	Currently Unfunded	EMPATF; HMGP; PDM Program	1/10/2018	12/15/2017		Steven Everitt
	Oldsmar / Planning and Redevelopment; 880 Communications	Public Education and Information	Provide education and information to property and business owners about storm damage and ways to properly protect structures. Estimated completion time: more than 12 months. / 4	\$25,000	Currently Unfunded	EMPATF; HMGP; PDM Program	1/10/2018	12/15/2017		Steven Everitt
	940 Oldsmar / Public Works; Engineering	Storm Water Management Plan	Prepare a citywide drainage plan to minimize flooding throughout the City. Estimated completion time: more than 12 months. / 1	\$100,000	Currently Unfunded	FMAP; HMGP; PDM Program	1/10/2018	12/15/2017	In-progress	Steven Everitt
	970 Oldsmar / Public Works; Facilities	Critical Facility Generator Retrofit	Replace electrical generating equipment at Water Reclamation Facility. Estimated completion time: less than 12 months. / 4	\$1,200,000	Currently Unfunded	State Revolving Funds, CDBGs; FMAP; HMGP; HMGP Planning	1/10/2018	12/15/2017		Steven Everitt
	995 Oldsmar / Public Works; Storm Water	Mitigation/ Response/ Recovery Equipment	Purchase vacuum excavation system for the maintenance and recovery of all storm water inlets and structures. Estimated completion time: less than 12 months. / 1	\$50,000	Currently Unfunded	EMPATF; HMGP; PDM Program	1/10/2018	12/15/2017		Steven Everitt
	950 Oldsmar / Public Works; TECO	Bury Utilities Underground	Bury the overhead electric, telephone and cable TV utility lines in the Community Redevelopment District. Estimated completion time: more than 12 months. / 2	\$2,000,000	Currently Unfunded		1/10/2018	12/15/2017		Steven Everitt
	Oldsmar / Public Works; Water 1160 Reclamation	Flood Proofing and Hardening of Sanitary Sewer Lift Stations	Storm proof and retrofit eight existing sanitary sewer lift stations within the flood plain. Estimated completion time: more than 12 months. / 1, 2	\$400,000	Currently Unfunded	EMPATF; HMGP; PDM Program	1/10/2018	12/15/2017		Steven Everitt
	930 PARC	Disabilities Registration	Provide computerized pre-registration for individuals with severe developmental disabilities. Estimated completion time: less than 12 months. / 4	\$25,000	Currently Unfunded		1/10/2018			
	920 PARC / St. Petersburg	Special Needs Shelter Retrofit	Harden PARC building to serve as a safe multi-hazard shelter including an emergency operation center. Estimated completion time: more than 12 months. / 2	\$4,000,000	Currently Unfunded		1/10/2018			
	920 PC Parks & Conservation Resources	Alligator Lake Habitat Restoration (845)	Comprehensive ecosystem restoration project for wetland and upland creation and enhancement and stormwater polishing. / 2	\$1,300,000	FY2012 - FY2018	Grant; Local funds; SWFWMD	1/10/2018	10/30/2017	Project on schedule in monitoring/maintenance phase	Steve Harper
	680 PC Parks & Conservation Resources	Mobbly Bay Habitat Restoration (656)	Comprehensive ecosystem restoration project for wetland and upland creation and enhancement and stormwater polishing. / 2	\$1,100,000	FY2012 - FY2018	Grant; Local funds; SWFWMD	1/10/2018	10/30/2017	Project to be completed by SWFWMD	Steve Harper
	PC Planning and Development Review 1255 Services	Sea Level Rise Vulnerability Assessment	Pinellas County Sea Level Rise and Storm Surge Vulnerability Assessment / 3	\$450,000	FY18-FY20	U.S. Treasury	1/10/2018	10/27/2017	Grant application approved	Chris Moore
	1200 PC Public Safety	County-wide	Replace seven (7) existing radio shelters housing the infrastructure of Pinellas County's 800 MHz Intergovernmental Public Safety Radio System serving over 10,000 responders to meet national standards and practices as defined by the Association of Public Safety Communication Officials (APCO) and local building codes. Shelter structures must be constructed to eliminate the threat of flooding with elevated platforms and drainage, while protecting against hurricane force winds. The hardening of sites is one of the most critical elements in the construction of a reliable communications system to prevent radio communication failure and better serve public safety responders and the public during routine incidents and major disasters. Public safety grade shelters are imperative to ensure the ability of public safety users to communicate at all times.	\$15,130,000	FY16-18	Penny for Pinellas	1/10/2018	10/27/2016		
	1340 PC Public Works	Joes Creek Watershed Management Plan	Evaluate drainage patterns within Joes Creek watershed; identify flooding locations; develop BMPs to address the issues	\$500,000	FY2014 - FY2016	Surface Water Assessment and SWFWMD Grant	1/10/2018	10/27/2017	Plan development in progress	Rahim Harji

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
1150	PC Public Works	Span Wire Intersection Replacement Program	Replacement of 24 existing span wire intersections with mast arms. Intersections are along major evacuation routes throughout Pinellas County. Approx. \$240k per intersection. Estimated completion time: more than 12 months. / 4	5,800,000	Unfunded	Seeking Pre-Disaster Mitigation Program grant funds	1/10/2018	11/17/2016		Gina Harvey
1130	PC Public Works	Stormwater Conveyance System Improvement Program (921321)	Replace/reline inadequate or deteriorating stormwater conveyance systems county wide. Estimated completion time: more than 12 months. / 1	\$44,025,000	FY2016 - FY2026 In Progress	Penny for Pinellas	1/10/2018	10/27/2017	Added additional funding. Projects in progress	David Talhouk/Rahim Harji
1120	PC Public Works	Cross Bayou Improvements	Improve conveyance through Cross Bayou Canal and reduce duration of flooding. Removed material should be tested to account for pollutant removal. Estimated completion time: more than 12 months	\$6,770,000	FY2014 - FY2019	Penny for Pinellas	1/10/2018	10/27/2017	Project in progress	David Talhouk/Rahim Harji
1020	PC Public Works	Roosevelt Channel 5 improvements	Various BMPs from the 1981 Watershed Master Plans, Removal of salinity barrier. 1, 3. Increase box culvert size; water treatment ponds.	\$4,679,200	FY2015 - FY2019 In Progress	Penny for Pinellas	1/10/2018	10/27/2017	Increase box culvert size; water treatment ponds. Project in progress	David Talhouk/Rahim Harji
1020	PC Public Works	Pinellas County Stormwater Facilities (Countywide)	1, 3	\$1,170,000	FY2016-2019	Penny for Pinellas	1/10/2018	10/27/2017	No Change; Project in progress	David Talhouk/Rahim Harji
1020	PC Public Works	McKay Creek Drainage/Hickory	1, 3	\$1,000,000	FY2015-2017	Penny for Pinellas/FDOT	1/10/2018	10/27/2017	Project in progress	David Talhouk/Rahim Harji
870	PC Public Works	Drainage Pond Compliance Program (1629)	Improve existing ponds for permit compliance. Estimated completion time: more than 12 months. / 1	\$4,509,500	FY2016-FY2026 In Progress	Penny for Pinellas	1/10/2018	10/27/2017	Revised est. cost and timeframe	David Talhouk/Rahim Harji
1362	Pinellas County	Inverter Kits	A countywide benefit: During the event of Hurricane Irma in September 2017, Pinellas County sustained considerable damage to the power grid resulting in heavy power loss to traffic control lights and warning systems throughout most of the county. To supplement the available power options, an initial assessment was made along with the decision to implement the use of recently designed field inverters countywide. These inverters were specifically developed to provide a quick, temporary power source to traffic signals during power outages. A coordinated effort was organized by the Public Works' Transportation Division with the Pinellas County Sheriff's Office and local municipal law enforcement agencies to address these traffic signal outages, especially those at major intersections. The installation of inverters not only provided a temporary power source to the intersection's affected traffic signal, but also allowed law enforcement, who would normally direct traffic flow under these circumstances, to remain safely out of the flow of traffic. Inverters require only one officer and patrol vehicle to be at each location to run the inverter, versus 3-4 officers per location to manually direct traffic. Below is the list of materials and associated costs for the purchase of 100 inverter kits. 25% match funding could be acquired from Pinellas County Gas Tax. Hazards Addressed: All Hazards Inverter Kits: KISAE SW1220 2000W, 12V Pure Sine Wave Inverter: #3/0 AWG 10ft cable set: http://www.donrowe.com/product-p/awg30-10.htm 300A ANL Fuse: http://www.donrowe.com/ANL300-300A-ANL-Fuse-p/anl300.htm	\$62,000	Currently Unfunded\	HMGP	5/8/2018	5/8/2018		
1392	Pinellas County	Roll-n-Pole Portable Sign Holder Kit	A countywide benefit: The roll-n-poll stop signs are easily accessible and portable. If traffic signals are to lose power in the event of a storm, these stop signs can be used in coordination with the Pinellas County Sheriff's Office and local municipal law enforcement agencies to assist with traffic control at roadways and intersections countywide. This will provide safer travel for drivers, while also enabling law enforcement to tend to other matters that occur during or after a major event. During the event of Hurricane Irma in September 2017, Pinellas County did sustained considerable damage to the power grid resulting in heavy power losses to traffic control lights and warning systems throughout most of the county. This included loss of power to a minimum of 148 of the 365 traffic signals maintained by the Pinellas County Public Works' Transportation Division. The Pinellas County Sheriff's Office provided traffic control manually at 75 intersections the day after the storm. For larger signal locations, as many as four deputies and four police cruisers were required at a single intersection to safely control traffic. One of the methods used to control traffic was the use of stop signs that were constructed on bulky wooden pallets making them portable. However, there were not enough stop signs to provide necessary coverage at all of the intersections. The Roll-n-Pole stop signs will provide an easy to use method to assist with traffic flow and coordination during future emergency events. 25% match funding could be acquired from Pinellas County Gas Tax. Hazards Addressed: All Hazards 500 Roll-n-Pole Portable Sign Holders: 24" sign with 46" pole & 18" diameter base: https://www.roadtrafficsigns.com/stop-46in-portable-sign-holder-kit/sku-k-roll-1097	\$59,835	Currently Unfunded\	HMGP	5/8/2018	5/8/2018		

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
1332	Pinellas County	Mast Arm Upgrades	A countywide benefit: Installation and/or upgrade of Mast Arms at 16 locations throughout the county located on hurricane evacuation routes (see chart LMS Mast Arm Upgrade List and Mast Arm Map - located below). This will help improve the safe, efficient flow of traffic countywide in the event of an emergency event or hurricane. During Hurricane Irma in September 2017, traffic signals hung by span wire fell or became damaged from storm force winds. An example is the span wire located on Belleair Road and Gulf Boulevard which fell during Irma and has since been replaced with a mast arm. The fall of span wire could result in traffic signals becoming inoperable, potentially blocking access on the roadway and creating what could be a dangerous situation; even more so when located on an evacuation route that is used by hundreds of thousands of citizens seeking safety. Mast Arm signals in place of span wire at these evacuation route locations will ensure that these evacuation routes remain open and emergency personnel have access to the main roadways post-storm. 25% Match funding could be acquired from Penny for Pinellas tax. Hazards Addressed: 4. All Hazard	\$6,000,000	Currently Unfunded\	HMGP	5/8/2018	5/8/2018		
1335	Pinellas County	Stock Generators	A countywide benefit: To assist with the safety and welfare of citizens, the stock generators will provide a temporary, long-term power source to traffic signals throughout the county in the event of a natural disaster or emergency where there is power loss. Generators are utilized for long-term relief for larger intersections that require more power. Additionally, generators will be used as a temporary source of power supply for public works crews who are responding post-storm. 25% match funding could be acquired from Pinellas County Gas Tax. Hazards Addressed: All Hazards 50 Honda EU3000is Super Quiet Light Weight Inverter 3000W 120V Fuel Efficient Generator: http://www.electricgeneratordepot.com/honda-super-quiet-light-weight-inverter-3000w-120v-fuel-efficient-generator-with-parallel-capability-and-oil-alert-5880	\$116,498	Currently Unfunded\	HMGP	5/8/2018	5/8/2018		
1158	Pinellas County	Rebuilding of Public Works Buildings #20 and 4	A countywide benefit: Buildings 20 and 4, located at 22211 U.S. Highway 19 N., Clearwater, are far past their useful life. One building has been deemed uninhabitable, and the first floor of the other building has never been repaired from damage due to Tropical Storm Debby in 2012. Both buildings were reviewed for hardening in the past and it was determined that the majority of the structure would need to be rebuilt. Requested funding would be used to elevate and reconstruct the buildings as Category 5 facilities that can provide emergency operations countywide and also be habitable by staff. The elevating of the buildings and reconstructing will alleviate future repetitive loss.	\$3,000,000	Currently Unfunded\	HMGP	5/8/2018	5/8/2018		
1053	Pinellas County	Cross Bayou Floodplain Restoration and Mitigation	The Cross Bayou Floodplain Restoration and Mitigation Project includes the acquisition of two properties; the removal of 94 manufactured homes, an office building, and two commercial structures; the removal of all infrastructure associated with the mobile home park and commercial property; and the restoration of over 10 acres into a green space that will provide for floodplain, stormwater, and other ecosystem services, and recreational opportunity. The PreFIRM mobile home park and commercial business to the south were developed in a low lying area along Cross Bayou, a tidally influenced creek in the Cross Bayou watershed. There are 95 structures in the park, including the manufactured homes and office. Over 85% of the mobile home park and the entire commercial lot flood with a mean annual rain event. Over 95% of the park becomes inundated with a 10 year event with depths in areas of the park reaching 3 ft and over 4 ft, respectively. The entire property is inundated with a 100 year storm with depths up to 6 feet in areas. This project will remove 97 structures from the 25, 50, and, 100 year floodplains and restoration of the property will provide areas for natural floodplain functions, including additional floodplain storage, water quality treatment, addition of habitat, and recreational features.	\$5,000,000	Currently Unfunded\	HMGP	5/8/2018	5/8/2018		
1245	Pinellas County	Solar Traffic Signal - Test Bed	A countywide benefit: To develop a battery/solar powered traffic signal equipment to provide power outage protection for traffic control devices at test locations throughout the county. A solar traffic signal will support the efficient flow of motorists in the event that a traffic signal may lose electricity during a storm or related event. The technology developed and used for the solar traffic test beds could be utilized throughout the entire county maintained signal system. This would help Pinellas County reduce its dependence on utility power as much as possible and could lead to a substantial power and money savings in the future. 25% match funding could be acquired from Pinellas County Gas Tax. Hazards Addressed: All Hazards	\$300,000	Currently Unfunded\	HMGP	5/8/2018	5/8/2018		

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
1053	Pinellas County	Lower Bee Branch Drainage Improvements and Caladesi Repetitive Loss Area Acquisition	The Lower Bee Branch Bypass Drainage Improvements and Caladesi Repetitive Loss Area Acquisition project mitigates hazards from both Inland and Coastal flooding. The project is comprised of structural drainage improvement / stream restoration component (Alternative 3) and a repetitive loss acquisition / water quality pond / natural wetland creation components (Alternative 5) of the attached Drainage Study for Lower bee Branch Bypass. The Lower Bee Branch Bypass structural drainage improvements / stream restoration component reduces flooding by as much as 2.6 feet for the 100-year/24-hour freshwater flood event. This is a capital improvement project for a double box culvert structure to bypass flood flows from Bee Branch near the north end of Hidden Brook Drive to downstream of the existing culverts under Pennsylvania Avenue. The box culvert would run under Virginia Avenue and Pennsylvania Avenue staying within existing rights-of-way where possible. The existing stream bed is ecologically restored and will continue to carry normal low-flows. Collectively, drainage system capacity is greatly increased. The estimated cost of the Lower Bee Branch Bypass Drainage Improvements is \$6.5M based on estimate for Alternative 3. The Caladesi Repetitive Loss Area Acquisition component acquires the 5.5 acre Caladesi RV Park property, vacates 6 buildings and approximately 90 mobile home / recreational vehicle from the 100-floodplain and constructs an ecologically enhanced regional retention / water quality treatment pond facility in its place. The pond system will enhance water quality in the estuary through biological nutrient uptake in created wetlands and also capture sediments. The estimated cost of this repetitive loss property acquisition component is estimated as approximately \$2.2M based on estimate for Alternative 5.	\$8,700,000	Currently Unfunded\	HMGP	5/8/2018	5/8/2018		
1179	Pinellas County	Re-establish Coastal Benchmarks in Pinellas County	There is approximately 23 miles of coastal beach from Pass-a-grille to Sand Key Bridge where most coastal benchmarks with elevations have been destroyed. Estimate approximately \$4,500 per mile to re-establish coastal benchmarks for all 23 miles for a total of approximately \$104,000 (for the survey bench run and bluebooking) plus approximately \$28,000 for the monuments plus project management time. Total estimate \$150k. Funding requested is to start re-establishing benchmarks for 5 to 10 miles along the coast for \$40,000. Further funding would be sought to complete the project over the next several years.	\$150,000	Currently Unfunded\	HMGP	5/8/2018	5/8/2018		
870	PC Public Works	Bee Branch Drainage Improvements (922333)	Bank stabilization, erosion control, and drainage structure replacement. Estimated completion time: more than 12 months. / 3	\$2,990,000	FY2012 - FY2018; Phase 2 complete, phase1 in progress	Penny for Pinellas; SWFWMD	1/10/2018	10/27/2017	Revised est. cost and timeframe. Phase 1 in progress. Other phases complete.	David Talhouk/ Rahim Harji
860	PC Public Works	Pinellas Trail - 54th Ave. Drainage Improvements (1823)	Alleviate flooding on 54th Ave. N, Pinellas Trail, and 97th Way. Estimated completion time: more than 12 months. / 1	\$1,975,000	FY2015 - FY2018 In Progress	Penny for Pinellas	1/10/2018	10/27/2017	Revised est. cost. Project in progress	Rahim Harji
1000	PC Public Works	Acquisition of Repetitive Loss Properties	Purchase repetitive loss properties in unincorporated Pinellas County to mitigate losses. Estimated completion time: more than 12 months. / 1	\$36,100,000	Currently Unfunded	HMGP, PDM, FMA	1/10/2018	10/25/2017		Lisa Foster
830	PC Public Works	Cross Bayou Channel 2 - Rena Dr. (1821)	Improve Cross Bayou Channel 2 from 66th St. to Pinecrest Subdivision. Estimated completion time: more than 12 months. / 1	\$1,150,000	FY2015-FY2018 In Progress	Penny for Pinellas	1/10/2018	10/27/2017	Revised est. cost and timeframe. Project in progress	David Talhouk/ Rahim Harji
960	PC Public Works	Repetitive Loss Area Analysis and Mitigation Projects Evaluation	Develop a detailed mitigation plan for repetitive loss areas and identify potential mitigation projects, develop scopes of work, budgets, and cost-benefit analyses for each. Estimated completion time: less than one year	\$25,000	Currently Unfunded	Surface Water Assessment and HMGP	1/10/2018	10/25/2017	New	Lisa Foster
1205	PC Public Works	Floodplain models for extreme events	Develop a simplified rain-on-grid family of storms flood models to see predicted inundation from severe rain events (exceeding standard 100 year event) for improved flood warning and response.	\$225,000	Currently Unfunded	Surface Water Assessment and HMGP	1/10/2018	10/25/2017	New	Lisa Foster
1197	PC Public Works	Real-time flood forecasting	Develop a real-time flood forecasting model to predict flooding from NWS rainfall and NOAA tide predictions for improved flood warning and response.	\$500,000	Currently Unfunded	Surface Water Assessment and HMGP	1/10/2018	10/25/2017	New	Lisa Foster
1205	PC Public Works	Rain and stream gage data correlation with flooding	Develop rain and stream gage data correlation to predict flooding in vicinity of existing stream gages and develop response procedures for gage levels at each location for improved flood warning and response.	\$150,000	Currently Unfunded	Surface Water Assessment and HMGP	1/10/2018	10/25/2017	New	Lisa Foster
1161	PC Utilities	Back Up Power and Pumping Equipment for Sewer Pumping Stations	Improve infrastructure resiliency to natural hazards by installing back up power and/or permanent bypass pumping at sewer pumping stations to maintain sewer transmission during emergency events. /4	\$2,500,000	FY18 – FY20 / Unfunded	HMGP, PDM	1/10/2018	12/15/2017		Ivy Drexler
978	PC Utilities	Force Main Sampling Equipment to Improve Sanitary Sewage Collection Process	The South Cross Bayou Water Reclamation Facility (SCBWRf) treats sanitary sewage collected from (4) different and independent collection system basins located in southern Pinellas County. There have been occurrences of monitored parameters exceeding the allowable limits in the influent ('hits'). Most recently these have included lead and copper, and other unknown compounds that have caused upsets in the treatment process. Although the County's IPP group is notified, there is no effective mechanism in-place that can quickly help identify the source(s) of these 'hits'. This equipment will help track those sources and potentially prevent them from causing a negative effect on the quality of the treatment process, reclaimed water and surface water discharge. /1	\$450,000	FY19 – FY20 / Unfunded	HMGP	1/10/2018	12/15/2017		Ivy Drexler

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
	1118 PC Utilities	Drinking Water Facility Security Equipment	Installing additional pan and zoom cameras at drinking water facilities to cover blank areas. Provide remote gate control and install perimeter fencing. /1, 2	\$250,000	FY19 – FY20 / Unfunded	HMGP	1/10/2018	12/15/2017		Ivy Drexler
	1000 Pinellas Park	Replace Generator at Technical Services Building	Emergency Generator Installation to Maintain Service / 4	\$225,000	6 months / FY 2017-2018	Unfunded	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
	1180 Pinellas Park	Boardwalk and Restoration of Wetlands - Performing Arts Center/England Brothers Park	Design work to improve drainage and natural functions of floodplain / 1	\$100,000	12 months / FY 2017-2018	Local funding	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
	1270 Pinellas Park	Fire Station 35 Fuel Tank Replacement	Convault Tank Installation for Emergency Generator to Maintain Service / 4	\$35,000	6 months / FY 2019-2020	Infrastructure Sales Tax	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
	1090 Pinellas Park	98th Avenue Pond Improvements	Improvement of wet pond to increase drainage capability for several single family subdivisions and a 60 acre park / 1	\$200,000	12 months / FY 2016-2017	FDEP Grant and Pinellas Park Utility fees	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
	1090 Pinellas Park	Technical Services Pond Improvements	Restoration of a 9,095 s.f. dry pond, to improve environmental conditions (pond now wet) and increase drainage capability of an area serving mobile home parks and industrial uses / 1	\$200,000	12 months / FY 2016-2017	FDEP Grant and Pinellas Park Utility fees	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
	1050 Pinellas Park	England Brothers Park Drainage and Water Quality Improvements	Improvements to increase drainage capability and water quality for a 42.5 acre drainage area that flows through Channel One into Cross Bayou / 1	\$768, 125	18 months	SWFWMD Grant and Pinellas Park Utility fees	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
	933 Pinellas Park	60th St Roadway, utilities & drainage improvements	Improvements of drainage and related infrastructure along 60th St. from 102nd Ave to 110th Ave., including culverting existing ditches, installing sidewalks, replacement of existing asbestos concrete waterman with new 6" PVC, and reconstruction of existing roadway. /4	\$1,936,497	FY 17-19	IST	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
	1199 Pinellas Park	Fire Station 16	Relocation or construction of fire station /4	\$4,000,000	Unfunded	IST, Pinellas County, HMGP, FEMA Grant, Local coffers	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
	1199 Pinellas Park	Fire Station 35	Relocation or construction of fire station /4	\$4,000,000	Unfunded	IST, Pinellas County, HMGP, FEMA Grant, Local coffers	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
	1199 Pinellas Park	Fire Station 36	Construction of new Mainlands/Gateway Fire Station at 4050 80th Ave. /4	\$4,000,000	Unfunded	IST, Pinellas County, HMGP, FEMA Grant, Local coffers	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
	1218 Pinellas Park	Citywide Analysis of Special Flood Hazard Area	Hire a stormwater / drainage consultant to determine effect of storm drains, cemented culverts, and ditches with special flood hazard areas within the City. /1	\$50,000	FY 18-19	Utility Fee	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
	1068 Pinellas Park	Park Station Hardening and Generator	Park Station is a multi-use community building owned and operated by the City of Pinellas Park and located within the City's Community Redevelopment Area (CRA). The building is home to the Pinellas Park Gateway Chamber of Commerce, Pinellas Park Art Society, Pinellas Park Historical Society, Roe's Delicatessen, and the City's Communications and Marketing Department. Area businesses and non-profits are able to rent space at Park Station for meetings and events. In the days leading up to Hurricane Irma, city workers making storm preparations were provided hot meals at Park Station prepared by Roe's Deli. Following Hurricane Irma, FEMA representatives established a Disaster Recovery Center at Park Station where city and county residents could obtain recovery information and file an application for federal disaster assistance. Park Station is a critical asset to the community and is need of certain modifications to ensure its ability to provide continued services to city and county citizens after a disaster. In an effort to protect property and become a more disaster resilient community, the proposed project includes hardening of Park Station to include roof, walls, opening protection and installation of a permanent generator.	\$825,000	Currently Unfunded	HMGP	5/8/18	5/8/18		
	1061 Pinellas Park	Barbara S. Ponce Library Hardening and Generator	Throughout history, public libraries have served communities during times of crisis and have played a critical role in helping create a sense of normalcy amid chaos. In the wake of Hurricane Irma, the Barbara S. Ponce (BSP) Library in Pinellas Park became an anchor for the community by providing a safe place for citizens to gather and find out the latest post-storm information. Irma had weakened to a tropical storm by the time it passed east of Pinellas County, yet it left over 430,000 customers in the county without power – some for over a week. Many of those customers were able to take refuge in the library after the storm to cool off, recharge their devices and use the library's bank of computers to check email and apply for disaster assistance. Irma's impact was minimal which allowed the library to open quickly after the storm. However, the library's structure is not equipped or designed to withstand hurricane-force winds. The BSP Library is a critical asset to the community and needs certain modifications to ensure its ability to provide continued services to city and county citizens after a disaster. In an effort to protect property and become a more disaster resilient community, the proposed project includes hardening of Barbara S. Ponce Library to include roof, walls, opening protection and installation of a permanent generator.	\$1,075,000	Currently Unfunded	HMGP	5/8/18	5/8/18		
	1124 Pinellas Park	Installation of Shutters at City Buildings	Prior to a major wind event such as a tropical storm or hurricane, the City of Pinellas Park enacts measures to protect 16 city-owned critical facilities from wind and storm damage by manually installing storm shutter panels to the door and window openings of each building. These buildings include a school, library, performing arts center, three fire stations, four recreation centers, three city service centers and a document storage facility. Preceding Hurricane Irma, the protection of these buildings required 20-30 personnel from Public Works, Utilities, and Parks and Recreation working for 3 days to manually install storm shutter panels on these facilities. In an effort to protect property and become a more disaster resilient community, the proposed project involves providing opening protection to include pre-installed hand-crank storm shutters for City facilities. These hand-crank storm shutters allow for personnel to better utilize their time and effort for emergency protective measures by filling sand bags and distributing food and water to shelters.	\$677,000	Currently Unfunded	HMGP	5/8/18	5/8/18		

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
890	Pinellas Park / Fire Dept.	Community Emergency Response Team (CERT).	Supply CERT Training to 60 trainees. Estimated completion time: less than 12 months. / 4	\$30,000	Currently Unfunded	EMPATF, HMGP; PDM Program, and local funds (i.e., Penny for Pinellas)	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
970	Pinellas Park / Public Works	Structure Hardening - Forbes Recreation Center	Harden the recreation center to be used for sheltering and operations during and after a storm event. Estimated completion time: more than 12 months. / 2	\$775,000	Currently Unfunded	EMPATF, HMGP; PDM Program; & local funds	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
940	Pinellas Park / Public Works	Hardening - Public Works / Technical Services Building	Harden the Public Works/Technical Services Building for sheltering and operations. Estimated completion time: more than 12 months. / 2	\$950,000	Currently Unfunded	HMGP, EMPATF, and local funds (i.e. Penny for Pinellas)	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
780	Pinellas Park / Public Works	Municipal EOC	Design, engineer, construct and equip an Emergency Operations and Command Center. Estimated completion time: more than 12 months. / 4	\$15,000,000	Currently Unfunded	Funding for the current phase is from local coffers. Funding for implementation could include: Local Funds, SWFWMD Grant, EMPATF, HMGP; PDM Program.	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
1300	Pinellas Park/ Public Works	Generator for Public Works Facility	The Public Works facility is hardened for a Category 3 storm and is the central location for all storm and stormwater equipment and personnel that are activated before, during and after the storm. The generator is necessary to ensure protection from flooding by providing continuity of operations./1	\$225,000	FY 2018-2019 / Grant Pending.	The funding will be a combination of HGMP grant and local funds.	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
1060	Pinellas Park/ Public Works	72nd Ave. Channel Culverting	Install a stormwater culvert at the headwaters of Pinellas Park Water Mgt. District Channel 3A to eliminate localized flooding. Additionally, this improvement would remove a hazard which when over t's banks can totally submerge a car and eliminate the opportunity for people and children to be caught up in moving waters. /1	\$5,500,000	Currently Unfunded	Funding for the current phase is from local coffers. Funding for implementation could include: Local Funds, SWFWMD Grant, EMPATF, HMGP; PDM Program	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
1020	Pinellas Park/ Public Works	Fairlawn Subdivision Drainage	Install a stormwater collection and conveyance system in a subdivision originally developed in the County in the 1960s and 70s. This would eliminate issues of localized flooding and dangerous stormwater inlets. /1	\$1,500,000	Currently Unfunded	Funding for the current phase is from local coffers. Funding for implementation could include: Local Funds, SWFWMD Grant, EMPATF, HMGP; PDM Program	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
980	Pinellas Park/ Public Works	Relocation or Construction of FS 34	Fire Station #34 at its present location cannot effectively service the geographic area which it originally serviced due to unanticipated growth and expansion. It is necessary to either relocate FS 34 or construct another station to serve the western third of the community. /4	\$7,000,000	Currently Unfunded	EMPATF, HMGP; PDM Program; & local funds	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
905	Pinellas Park/ Public Works	Primary EOC and Storm Safe Parking Facility	Develop a storm safe multi-level parking garage with the City's Primary EOC atop of the structure. The EOC would be situated above both storm surge and 100 year floodplain hazards and be constructed to be wind resistant. The elevated status would provide for self-sufficiency by utilizing solar and wind energy to supplement the local power company source when power failure occurs. Additionally the structure would be constructed to protect response vehicles of personnel that are housed at the City Shelter next door. The structure would also be able to serve as a support feature for downtown development and support a future rail or BRT stop since the proposed site is near Park Station. /4	\$4,500,000	Currently Unfunded	HMGP, EMPATF, and local funds (i.e. Penny for Pinellas)	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
835	Pinellas Park/ Public Works	78th Ave. and 78th St. Stormwater Improvements	Install a stormwater system to eliminate localized flooding. /1	\$750,000	Currently Unfunded	Funding for the current phase is from local coffers. Funding for implementation could include: Local Funds, SWFWMD Grant, EMPATF, HMGP; PDM Program	1/10/2018	10/24/2017		S. Boisvert / K. Gademer
1322	Pinellas Suncoast Fire & Rescue District	Generator power for interim EOC	Two of the District's three fire stations are in a Level A evacuation zone in Pinellas County. The fire district does not have an Emergency Operations Center (EOC) and evacuations of fire stations and fire department administration requires all district operations move to a remote site located at the Indian Rocks Christian School. While this site is rated for Category 5 hurricane winds, the site does not have back-up power. The above project will place a generator and automatic power switch will enable uninterrupted emergency operations during and after a storm, making the fire district more disaster resilient.	\$200,000	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
1223	Pinellas Suncoast Fire & Rescue District	Construction of new fire station to meet current building standards in alternate location	Current fire station does not meet building standards. Natural disasters, such as hurricanes require district personnel, i.e. firefighters and paramedics to evacuate to a safer location. Evacuation of personnel and equipment significantly delays response to emergencies during and after storms or other disasters. Construction of a fire station meeting current building standards will allow emergency personnel to remain in the fire station during and after a storm, thereby improving response times and service to four barrier island communities and unincorporated mainland area.	\$4,000,000	Currently Unfunded	PDM	5/8/2018	5/8/2018		
Redington Shores / Emergency Management	1110	Impact Windows for Town Hall EOC (Critical Facility)	Town Hall /EOC updates to existing for expedited response to emergency by reducing labor commitment and with revised Wind & Impact loads per current codes, located at 17425 Gulf Blvd. Estimated completion time: less than 12 months.	\$15,000	Town Funded	EMPATF, HMGP; PDM Program	1/10/2018	8/30/2016		Steve Andrews
Redington Shores / Emergency Management	1050	Flood proofing, Tie -Down or Re-elevation of Town Hall EOC (Critical Facility)	Town Hall /EOC updates to existing for Coastal High Hazard AE zone located at 17425 Gulf Blvd. Estimated completion time: more than 24 months.	\$2,150,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	8/30/2016		Steve Andrews
Redington Shores / Emergency Management	880	TV-Media Upgrades	CATV broadcasting equipment replacement for public education & awareness to provide up to date info re: Evacuation & shelters, flood mitigation programs & projects prior to emergencies. Estimated completion time: less than 12 months. / 1	\$35,000	Town Funded	Town annual budget for EM.	1/10/2018	8/30/2016		Steve Andrews
Redington Shores / Flood Stormwater Planning	1240	Create a Revised CRS program for the Town	Consultant to review/recommend program upgrades to flood management planning / 1 / 2	\$8,000	Town Funded	Local	1/10/2018	8/30/2016		Steve Andrews
Redington Shores / Preservation / Parks area	870	Create a Beach (Erosion) Management plan.	Provide for plans and specifications to expand existing Dune System and Walkover use. Estimated completion time: more than 12 months. / 2	\$150,000	Currently Unfunded	CDBG; FMAP; HMGP; Nonpoint Source Implementation Grants; HMGP Planning	1/10/2018	8/30/2016		Steve Andrews

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
	850 Redington Shores / Public Works	Stormwater Management	Rebuild stormwater drainage system in the last three (3) phases. Two phases were completed early 2006. Estimated completion time: more than 12 months. / 1	\$3,100,000	Funding by SWFWMD Grant and Town C.I.P. 2008-2009.	CDBG; FMAP; HMGP; Nonpoint Source Implementation Grants	1/10/2018	8/30/2016		Steve Andrews
	830 Redington Shores / Public Works	Flood proofing, Structural Hardening of Town Maintenance Garage (Essential Facility)	Wet Flood Proofing and bracing the Town's existing Maintenance facility located at 155 174th Ave. E. Located in FEMA Zone AE-11. Estimated completion time: more than 12 months. / 1	\$150,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	8/30/2016		Steve Andrews
	820 Redington Shores / Public Works	Underground Utilities	Place underground electrical, telephone and cable utilities to all properties along Gulf Boulevard from 175th Avenue to 83rd Terrace West. Estimated completion time: more than 12 months. / 2	\$7,500,000	Currently Unfunded	CDBG; FMAP; HMGP; Nonpoint Source Implementation Grants; HMGP Planning	1/10/2018	8/30/2016		Steve Andrews
	960 Redington Shores / Sewer Department	Flood and wind retrofit of lift stations	Storm proof sanitary sewer lift stations (3). Estimated completion time: less than 12 months. / 1	\$550,000	Funding by SWFWMD Grant and Town C.I.P. 2008-2009.	Capitalization Grants for Clean Water State Revolving Funds; CDBG; FMAP; HMGP; Nonpoint Source Implementation Grants; HMGP Planning	1/10/2018	8/30/2016		Steve Andrews
	1248 Redington Shores	Stormwater Backflow Valve	Minimize flooding in the town's lowest lying areas in town. These areas flood during major rain events and high tide.	\$24,000	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
	1169 Redington Shores	LED Warning Sign	The goal of the LED sign is to notify visitors and residents of important messages before, during and after storm. This includes evacuation orders, warnings, hazards, etc.	\$40,000	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
	1320 Safety Harbor	Baytowne West Lift Station	Complete Renovation of Sanitary Sewer Lift Station. / 1,2	\$60,000	FY21/22	Local	1/10/2018	10/21/2016		Michael Schoderbock
	1320 Safety Harbor	Highlands Lift Station	Complete Renovation of Sanitary Sewer Lift Station. / 1,2	\$60,000	FY18/19	Local	1/10/2018	10/21/2016		Michael Schoderbock
	1320 Safety Harbor	North Bayshore Lift Station	Complete Renovation of Sanitary Sewer Lift Station. / 1,2	\$60,000	FY17/18	Local	1/10/2018	10/21/2016		Michael Schoderbock
	1270 Safety Harbor	Cypress Hollow Lift Station Repair	Complete Renovation of Sanitary Sewer Lift Station. / 1,2	\$60,000	FY19/20	Local	1/10/2018	10/21/2016		Michael Schoderbock
	1270 Safety Harbor	Harbor Woods Lift Station Repair	Complete Renovation of Sanitary Sewer Lift Station. / 1,2	\$75,000	FY20/21	Local	1/10/2018	10/21/2016		Michael Schoderbock
	1240 Safety Harbor	South Bayshore Lift Station and Generator	Complete Renovation of Sanitary Sewer Lift Station. / 1,2	\$125,000	FY16/17	Local	1/10/2018	10/21/2016		Michael Schoderbock
	1180 Safety Harbor	City Hall Window Replacement	Replace City Hall windows with wind resistant / impact resistant product. /2	\$150,000	FY16/17	Local	1/10/2018	10/21/2016		Michael Schoderbock
	1030 Safety Harbor	Lower Mullet Creek Project	Design of the Lower Mullet Creek project. Water Quality and Flooding. /1,3,4	\$300,000	12-18 months	Unfunded-- pending joint project with Pinellas County	1/10/2018	10/21/2016		Michael Schoderbock
	1030 South Pasadena / Public Works	City Hall Window Protection	Install protective window film on all windows in City Hall. Estimated completion time: less than 12 months. / 2	\$50,000	Currently Unfunded	Residential Construction Mitigation Program; EMPATF, HMGP; PDM Program	1/10/2018			
	1010 South Pasadena / Public Works	Finish Mast Arms on Evac Route	Install mast arms at 3 remaining locations on Pasadena Avenue. Estimated completion time: less than 12 months. / 2	\$1,500,000	Currently Unfunded	FDOT; EMPATF, Hazard Mitigation Grant Program; PDM Program.	1/10/2018			
	950 South Pasadena / Public Works	Generators	Install emergency generator at city hall. Estimated completion time: less than 12 months. / 4	\$60,000	Currently Unfunded	Residential Construction Mitigation Program; EMPATF, HMGP; PDM Program; Penny for Pinellas	1/10/2018			
	915 South Pasadena / Public Works	Bury Utilities	Bury utilities on all streets. Phase I - main roads \$1,500,000. Phase II - \$2,000,000. Estimated completion time: more than 12 months. / 2	\$3,500,000	Currently Unfunded	CDBG; FMAP; HMGP; Nonpoint Source Implementation Grants; HMGP Planning	1/10/2018			
	1352 South Pasadena/Fire Department	Portable Generator and Transfer Switch Upgrade at Fire Station 20	Purchase and installation of new portable 175kW diesel generator and applicable electronic transfer switch at Fire Station #20 in South Pasadena, FL. Post Hurricane Irma, Fire Station 20 lost electrical power for four (4) days. During this time frame, Station 20 relied on an older generator configuration that was unable to supply sufficient electricity to run the air conditioning system or sufficient electrical outlets throughout the fire station. The City of South Pasadena is seeking funds that will provide an alternate electrical power source capable of running the fire station's AC system as well as sufficient outlets to run station computers, dispatch printer(s), and communications equipment. Natural Hazards addressed include 1-Flooding, 2 - Strom Wind, and 4 - All Hazard.	\$94,500	Currently Unfunded; Project for FY 2020	Pre-Disaster Mitigation (PDM), Hurricane Program, Penny Sales Tax	1/10/2018	10/10/2017	New Project	David Mixson

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
	1284 South Pasadena/Fire Department	Fire Station #20	The City of South Pasadena will construct a new fire station designed to withstand hazards posed by hurricanes, to include wind, storm surge and flooding, as well as threats posed by future sea-level rise. The City of South Pasadena is located in a FEMA AE-12 Flood Zone. The City of South Pasadena per city ordinance has increase the B.F.E. by 2 feet and as such the new fire station shall be constructed at 14 feet above sea level. The new fire station will house apparatus and personnel assigned to both fire suppression and emergency medical response activities. Part of the station design and scope will include an Emergency Operations Center (EOC) for the City of South Pasadena. Natural Hazards Addressed include: 1 - Flooding, 2 - Storm Wind, 4 - All Hazards.	\$4,500,000	Currently Unfunded; Project for FY 2021	Pre-Disaster Mitigation (PDM), Hurricane Program, Penny Sales Tax	1/10/2018	10/10/2017	New Project	David Mixson
	780 St. Anthony's Hospital / St. Petersburg	Public Education	Develop a community education program to provide a better interface between the City and its stakeholders. Estimated completion time: less than 12 months. / 4	\$10,000	Currently Unfunded	Residential Construction Mitigation Program; EMPATF, HMGP; PDM Program	1/10/2018			
	780 St. Anthony's Hospital / St. Petersburg	ER Retrofit to provide surge capacity for emergencies	Build surge capacity for St. Anthony's Hospital including a new Emergency Dept. Estimated completion time: more than 12 months. / 4	\$2,000,000	Currently Unfunded	Residential Construction Mitigation Program; EMPATF, HMGP; PDM Program	1/10/2018			
	1330 St. Pete Beach	City EOC Retrofit	Provide shutters for the city EOC. Estimated completion time: less than 12 months. / 2	\$40,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	10/3/2017		C.W. Porter
	890 St. Pete Beach	Flood Proof Recreation Building	Flood-proof recreation building. Estimated completion time: more than 12 months. / 1	\$350,000	Currently Unfunded	FMAP; HMGP; PDM Program; EMPATF	1/10/2018	10/3/2017		C.W. Porter
	1000 St. Pete Beach	Acquisition of Repetitive Loss Properties	Purchase repetitive loss properties to mitigate losses. Estimated completion time: more than 12 months. / 1	\$1,000,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	10/3/2017		C.W. Porter
	1220 St. Pete Beach	Dune Creation	Create dunes where there are gaps in the system and restore those which do not meet current FDEP dune standards. This will protect the entire city against the impacts of storms and damage to lives and property. /1,3	\$500,000	Currently Unfunded		1/10/2018	10/3/2017		C.W. Porter
	1060 St. Pete Beach	Sea Level Rise Study	Identify areas which are particularly vulnerable to sea level rise and which experience frequent flooding and develop an action plan to mitigate future damages. Many areas of the city become inundated with water during storms and greatly affect the welfare of the community. By developing strategies to prevent this, the city will reduce the threat level of flooding and erosion./ 1	\$40,000	Currently Unfunded		1/10/2018	10/3/2017		C.W. Porter
	1313 St. Pete Beach	Stormwater Improvements	Ongoing improvements to the City's stormwater infrastructure. Repair locations are prioritized based on stormwater flooding throughout the City./1	\$3,000,000	\$ 600,000 annually 2018-2022	Stormwater Fund, HGMP, SWFWMD.	1/10/2018	10/3/2017		C.W. Porter
	1262 St. Pete Beach	Seawall Rehabilitation	Seawall repair and replacement in accordance with established level of service. City staff review inventory and prioritize project locations annually./3	\$500,000	\$ 100,000 annually 2018-2022	Capital Projects Fund	1/10/2018	10/3/2017		C.W. Porter
	1029 St. Pete Beach	Sub-Aqueous Condition Assessment	Condition assessment of all force mains to plan future maintenance and replacement in order to prevent sanitary sewer overflows (SSOs) into bodies of water that surround the island. Project includes a highly detailed assessment of the force main leading from pump station no. 1./1	\$175,000	Less than 12 months	Wastewater Fund	1/10/2018	10/3/2017		C.W. Porter
	1073 St. Pete Beach	Gulf Boulevard Electric Undergrounding	Undergrounding of electric utility lines adjacent to Gulf Boulevard./2	\$4,500,000	More than 12 months	Penny for Pinellas, Interlocal Agreement with Pinellas County	1/10/2018	10/3/2017		C.W. Porter
	1091 St. Pete Beach	Dune Walkover Replacement	Dune walkover replacement at 12th Avenue and 16th Avenue to meet FDEP requirements and increase resiliency by increasing the height of the walkover to permit the dunes to grow./1,3	\$120,000	Less than 12 months	Grant from Pinellas County	1/10/2018	10/3/2017		C.W. Porter
	1142 St. Pete Beach	Alley Improvements	Replacement of the existing eastern north-south shell alley between 21st and 22nd Avenue in Pass-a-Grille with a new concrete alley, designed to convey stormwater to the newly installed stormwater collection system on Pass-a-Grille Way./1	\$100,000	18 months	Capital Projects Fund	1/10/2018	10/3/2017		C.W. Porter
	1169 St. Pete Beach	Blind Pass Stormwater Basin Connections	The Blind Pass Road stormwater system is designed to connect 7 flood control basins. This project will connect the first basin to the new twin 60' stormwater pipes. Anticipated project schedule includes one basin per year for the next 7 years until the project is complete. /1	\$1,400,000	7 years	Stormwater Fund, SWFWMD	1/10/2018	10/3/2017		C.W. Porter
	1080 St. Pete Beach	Boca Ciega Isle Stormwater Improvements	Improvements in stormwater basin 6F identified in the Stormwater Master Plan. This basin contains 5.8 acres in a residential zone and comprises the east end of Boca Ciega Isle./1	\$350,000	18 months	Stormwater Fund	1/10/2018	10/3/2017		C.W. Porter
	1227 St. Pete Beach	Fire Department Dock	Infrastructure improvements to the City-owned area across from Station 22 to facilitate the operation of Fire Boat 22 (100% County-funded vessel). Improvements include a dock, boat lift, and all required electrical equipment./4	\$35,000	Less than 12 months	Capital Projects Fund	1/10/2018	10/3/2017		C.W. Porter
	1152 St. Pete Beach	GIS Integration System	Camera system integrated with GIS mapping for exact pipe and infrastructure location. Software system integrates with the Work Order Management System for mapping maintenance./1	\$80,000	18 months	Stormwater Fund	1/10/2018	10/3/2017		C.W. Porter
	1047 St. Pete Beach	Pump Replacement Stock	"Change out" pumps reduce service interruption, the likelihood of SSOs, and the associated emergency maintenance cost. One surplus pump for each of the five different types currently in service will be acquired. /4	\$120,000	Less than 12 months	Wastewater Fund	1/10/2018	10/3/2017		C.W. Porter
	1101 St. Pete Beach	Valve Vault Repair	The combined valve vault where the outflow from the Cities of Treasure Island and St. Pete Beach enter the City of St. Petersburg's wastewater system are frozen in the open position. This project will install a new 20-inch valve to help reduce the possibility of SSOs./4	\$310,000	24 months	Wastewater Fund	1/10/2018	10/3/2017		C.W. Porter
	1065 St. Pete Beach	Wastewater Inflow and Infiltration Repairs	Priority-based improvements to wastewater system infrastructure to help reduce the possibility of SSOs. The City received a system-wide inflow and infiltration study in fiscal year 2017, which prioritizes manhole, lining, and pipe point repairs./4	\$4,900,000	5 years	Wastewater Fund	1/10/2018	10/3/2017		C.W. Porter
	1299 St. Pete Beach	Generator at Station 22	Provide and install 40-kilowatt natural gas-fired generator to be located on the roof in order to meet FEMA regulations at Fire Station 22, including roof engineering and construction as well as running TECO natural gas line to the building in order to ensure Continuity of Operations./4	\$150,000	2 years	Currently Unfunded	1/10/2018	10/23/2017		C.W. Porter

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
	1230 St. Petersburg	Southwest Water Reclamation Facility Resiliency Wall	The City of St. Petersburg Engineering Department proposes to use FEMA Hazard Mitigation Grant Program (HMGP) funds to design and construct a hydrostatic wall surrounding the Southwest Water Reclamation Facility (SWWRF). The SWWRF is located less than a mile from the Gulf of Mexico and currently resides in Zone AE, equivalent to a 1 percent annual chance inundation area, with a Base Flood Elevation (BFE) of 11 to 12 throughout the site. The site is at medium to high exposure risk of flooding, and if the facility is inundated and rendered out of service, there is the potential that untreated wastewater would discharge into the Gulf of Mexico and the facility could be out of service for a significant duration of time. Most assets at the site are elevated to similar heights (between 11 and 12 feet NAVD), which leaves limited capacity to respond to current and future conditions such as sea level rise. The Tampa Bay Climate Science Advisory Panel (CSAP) has found that the Tampa Bay region may experience sea level rise somewhere between 6 inches to 2.5 feet by 2050, which could increase the BFE at the SWRRF site by as much. The proposed flood wall will protect the facility during present-day and future storm surge events, benefitting the structural longevity of the SWWRF and allowing the facility to continue operation and provide wastewater service to a large service population that extends beyond City boundaries. The flood wall will provide further benefit to the surrounding wetland habitats and neighboring properties by preventing any sanitary sewer overflows that may occur during heavy events from exfiltration the site. Implementation of the floodwall would accomplish not one but two Pinellas County LMS Goals: 1. Become a more disaster resilient community; and 2. Minimize coastal flooding losses in the coastal high hazard area, coastal storm area, and hurricane vulnerability zone. The proposed project also meets multiple objectives under these goals, including: Objective 1.6 (Property Protection): Identify, assess, prioritize, and harden critical facilities and key critical infrastructure.	\$6,000,000	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
	1289 St. Petersburg	James Weldon Johnson Library Generator	The aim of this project is to strengthen this building's infrastructure where the Library systems technological hub is located. It will fortify the building's ability to serve as a Disaster Recovery Center as well as an alternate Emergency Operations Center. This will also ensure the Libraries ability to serve the public system wide provided there aren't any extenuating circumstances with the local power company. This project will also protect the Libraries collections from damage from humidity as well as component damage to servers due to partial power.	\$250,000	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
	1370 St. Petersburg	Generator for St. Petersburg Fire Rescue Headquarters	This project would fund the replacement of the current generator at Fire Headquarters. The funding would provide for a new 200kw diesel generator as well as a fuel tank, generator enclosure and ATS with freight to the location, a crane to off load new equipment, removal of the old generator and start up. Funds would also provide for a rental generator for the duration of the installation. The St. Petersburg Fire Rescue headquarters building is a critical facility at all times and especially during disasters and emergency events as it is home to the sub-Emergency Operations Center for the City. During Hurricane Irma, headquarters had to utilize the current generator to fully power the building for over two weeks. During this time, power constantly flickered to the building as the generator was overloaded. A review of the current generator was recently completed by Paramount Power which stated that "with the unit being so heavily loaded and having been in service for so long, it is only a matter of time before this condition causes damage and possible catastrophic failure to the tail section or whole unit." Replacement of the current generator would ensure that the building is fully powered and able to function as normal during any hazard that would cause a potential loss of power.	\$185,100	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
	1002 St. Petersburg	Central Yacht Basin Seawall Project	The City of St. Petersburg proposes to use FEMA Hazard Mitigation Grant Program (HMGP) funds to design and implement a seawall mitigation program in the Central Yacht Basin of the City's Municipal Marina. The Marina is the largest in the state, with more than 600 rental boat slips, and is integral to the City's Downtown Waterfront. The seawalls within the Central Basin of the Marina currently protect key cultural landmarks of the Downtown Waterfront, including Demens Landing Park, Pioneer Park, and several restaurants and shops adjacent to Bayshore Drive. These structures are all located within Flood Zone AE, with a Base Flood Elevation (BFE) of 8 feet, and are exposed to flood hazards. However, the original Central Basin seawalls were only designed to 2.5 feet NAVD, less than a 10-year level of protection. The seawalls are prone to overtopping during surge events often impacting the use of Bayshore Drive, a multi-use scenic byway that provides visual and physical access to Tampa Bay and is often the location of local gatherings such as farmer's markets. To further support economic growth and investment in Downtown and to protect residential, commercial, cultural, and public assets, the City proposes to increase the level of protection of the existing seawalls to mitigate future conditions associated with sea level rise. The Tampa Bay Climate Science Advisory Panel (CSAP) has found that the Tampa Bay region may experience sea level rise somewhere between 6 inches and 2.5 feet by 2050, which could increase the BFE at the Marina and hurricane surge driven flooding. The enhanced seawalls will be designed to compliment future plans for a new Pier District to the north and a waterfront promenade along Bayshore Drive, which will enhance existing green space and improve pedestrian accessibility and connectivity across the Marina. Increasing the level of protection of the seawalls in the Central Yacht Basin will not only provide protection to surrounding cultural assets in the long term in the face of sea level rise, but also tie into a comprehensive plan for the Downtown Waterfront that will provide co-benefits such as improved open	\$6,300,000	Currently Unfunded	HMGP	5/8/2018	5/8/2018		

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
	1002 St. Petersburg	North Yacht Basin Seawall Project	The City of St. Petersburg proposes to use FEMA Hazard Mitigation Grant Program (HMGP) funds to design and implement a seawall mitigation program in the North Yacht Basin of the City's Municipal Marina. The Marina is the largest in the state, with more than 600 rental boat slips, and is integral to the City's Downtown Waterfront. The seawalls within the North Basin of the Marina currently protect key cultural landmarks of the Downtown Waterfront, including the Vinoy Renaissance hotel, Straub Park, the Museum of Fine Arts, and the Museum of History. These structures are all located within Flood Zone AE, with a Base Flood Elevation (BFE) of 8 feet, and are exposed to flood hazards. However, the original North Basin seawalls were only designed to 4 feet NAVD, a 10-year level of protection. The seawalls are prone to overtopping during surge events often impacting the use of Bayshore Drive, a multi-use scenic byway that provides visual and physical access to Tampa Bay and is often the location of local gatherings such as farmer's markets. To further support economic growth and investment in Downtown and to protect residential, commercial, cultural, and public assets, the City proposes to increase the level of protection of the existing seawalls to mitigate future conditions associated with sea level rise. The Tampa Bay Climate Science Advisory Panel (CSAP) has found that the Tampa Bay region may experience sea level rise somewhere between 6 inches and 2.5 feet by 2050, which could increase the BFE at the Marina and hurricane surge driven flooding. The enhanced seawalls will be designed to compliment future plans for a new Pier District to the north and a waterfront promenade along Bayshore Drive, which will enhance existing green space and improve pedestrian accessibility and connectivity across the Marina. Increasing the level of protection of the seawalls in the North Yacht Basin will not only provide protection to surrounding cultural assets in the long term in the face of sea level rise, but also tie into a comprehensive plan for the Downtown Waterfront that will provide co-benefits such as improved open	\$4,300,000	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
	941 St. Petersburg	Leisure Services Complex Wind Retrofit	The City of St. Petersburg Parks and Recreation Leisure Services Complex requires a wind retrofit to withstand a Category 3-5 Rating. This building serves as the primary administrative building for the Parks and Recreation Department and a command center and shelter for department staff during hurricane events. Currently, the building cannot withstand high category hurricanes or fulfill its purpose as a command center and shelter safely. This project will replace the existing roof and retrofit the roof and building envelope to mitigate the impacts of winds. This project directly addresses the LMS goal of "Minimize Storm Wind Losses in the County" through protecting a facility which benefits the general public.	\$500,000	Currently Unfunded	HMGP	5/8/2018	5/8/2018		
	1025 St. Petersburg / Baycare, Inc.	Hospital EOC	Construct new EOC. Estimated completion time: more than 12 months. / 4	\$1,100,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	1150 St. Petersburg / Bayfront Medical Center	Harden Window and Roof - Building C Center	Harden the exterior including hurricane-rated windows and roofing system to protect against high wind velocity events. Estimated completion time: more than 12 months. / 2	\$2,789,889	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	1150 St. Petersburg / Bayfront Medical Center	Harden Window and Roof - Building C South	Harden the exterior including hurricane-rated windows and roofing system to protect against high wind velocity events. Estimated completion time: more than 12 months. / 2	\$4,575,295	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	1150 St. Petersburg / Bayfront Medical Center	Harden Window and Roof - Building C North	Harden the exterior including hurricane-rated windows and roofing system to protect against high wind velocity events. Estimated completion time: more than 12 months. / 2	\$4,646,281	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	1090 St. Petersburg / Bayfront Medical Center	Harden Cancer Care Center	Harden the exterior including the roof, windows and walls to ensure continuity of operations. Estimated completion time: more than 12 months. / 2	\$430,003	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	1070 St. Petersburg / Bayfront Medical Center	Harden West Lobby	Harden the roof and curtainwall window assembly to protect against high wind velocity events. Estimated completion time: more than 12 months. / 2	\$1,250,200	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	1000 St. Petersburg / Bayfront Medical Center	Harden Mechanical Room & Medical Gas Enclosure - Building B/C	The Mechanical Room and a fenced lean to will be hardened. Estimated completion time: more than 12 months. / 2	\$1,000,000	Currently Unfunded	Emergency Management, Preparedness and Assistance Trust Fund, HMGP; PDM Program	1/10/2018			
	995 St. Petersburg / Bayfront Medical Center	Building C Boiler / Chiller Plant Hardening & Rooftop Equipment Mitigation	The hospital's boiler & chiller plant needs hardening for severe weather mitigation. Estimated completion time; More than 12 months. / 2	\$1,000,000	Currently Unfunded	Emergency Management, Preparedness and Assistance Trust Fund, HMGP; PDM Program	1/10/2018			
	995 St. Petersburg / Bayfront Medical Center	Tank Farm Enclosure	On the South side of Building C, the Oxygen Tank Farm will be hardened. Estimated completion time; more than 12 months. / 2	\$1,000,000	Currently Unfunded	Emergency Management, Preparedness and Assistance Trust Fund, HMGP; PDM Program	1/10/2018			
	995 St. Petersburg / Bayfront Medical Center	Life Services Building Window, Door & Wall Hardening	The Life Services Building needs windows, doors and walls hardened for protection against high wind velocity and severe weather events. Estimated completion time; more than 12 months. / 2	\$1,000,000	Currently Unfunded	Emergency Management, Preparedness and Assistance Trust Fund, HMGP; PDM Program	1/10/2018			
	990 St. Petersburg / Bayfront Medical Center	Child Development Center Wind, Door & Roof Hardening	Harden windows, doors and roof for hurricane and severe weather mitigation. Estimated completion time: more than 12 months. / 2	\$1,000,000	Currently Unfunded	Emergency Management, Preparedness and Assistance Trust Fund, HMGP; PDM Program	1/10/2018			
	980 St. Petersburg / Bayfront Medical Center	Family Health Center Structural Hardening	Harden walls and roof to mitigate high wind velocity. Estimated time of completion: 12 months. / 2	\$1,000,000	Currently Unfunded	Emergency Management, Preparedness and Assistance Trust Fund, HMGP; PDM Program	1/10/2018			
	980 St. Petersburg / Bayfront Medical Center	Haden Exterior - Building C East - Area 4	Harden the exterior of Building C East - including hurricane-rated windows, walls, doors and roofing system to protect against high wind velocity events. / 2	\$3,070,827	Currently Unfunded	Emergency Management, Preparedness and Assistance Trust Fund, HMGP; PDM Program	1/10/2018			
	1150 St. Petersburg / Bayfront Medical Center	Harden Window Openings - Building A	Harden the exterior of Building A and install new hurricane-rated windows. Estimated completion time: more than 12 months. / 2	\$1,217,370	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	St. Petersburg / City of St Petersburg 845 Development Svcs	Acquisition of Repetitive Loss Properties	Acquire repetitive loss properties to mitigate real property vulnerabilities. Estimated completion time: more than 12 months. / 1	\$1,000,000	Currently Unfunded	Residential Construction Mitigation Program; EMPATF, HMGP; PDM Program	1/10/2018	9/26/2016		Noah Taylor
	970 St. Petersburg / Eckerd College	Building Flood/Wind Retrofit	Retrofit priority support building to address vulnerabilities to high winds and/or flooding based on engineering evaluation. Estimated completion time: more than 12 months. / 1, 2	\$50,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	10/24/2016		Lisa Mets

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
	940 St. Petersburg / Eckerd College	Building Flood/Wind Retrofit	Retrofit academic building to address vulnerabilities to high winds and/or flooding based on engineering evaluation. Estimated completion time: more than 12 months. / 1, 2	\$250,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018	10/24/2016		Lisa Mets
	780 St. Petersburg / St. Anthony's Hospital	Public Education	Develop a community education program to provide a better interface between the City and its stakeholders. Estimated completion time: less than 12 months. / 4	\$10,000	Currently Unfunded	Residential Construction Mitigation Program; EMPATF, HMGP; PDM Program	1/10/2018			
	780 St. Petersburg / St. Anthony's Hospital	ER Retrofit to provide surge capacity for emergencies	Build surge capacity for St. Anthony's Hospital including a new Emergency Dept. Estimated completion time: more than 12 months. / 4	\$2,000,000	Currently Unfunded	Residential Construction Mitigation Program; EMPATF, HMGP; PDM Program	1/10/2018			
	St. Petersburg/ City of St Petersburg 1170 Public Works	Oak Street NE and Gandy Blvd Storm Drainage Improvements	Project will construct large conveyance piping to reduce street and property flooding. /1	\$1,000,000	FY16- FY18	Local	1/10/2018	9/26/2016		Noah Taylor
	St. Petersburg/ City of St Petersburg 1430 Public Works	Stormwater Management Master Plan Update	Update 1994 Stormwater Management Master Plan utilizing SWFWMD criteria. /1	\$1,800,000	FY17-FY20	SWFWMD/Local	1/10/2018	10/24/2017		Noah Taylor
	St. Petersburg/ City of St Petersburg 1245 Public Works	Cosme Water Treatment Facilities Structural Improvements	This project will provide wind mitigation improvements to water treatment plant buildings constructed in the 1960's and earlier. They include the Chemical, Chlorine, Fluoride, Pump/Filter, and Gulf to Bay Pumping Station buildings. The existing buildings are not structurally sufficient to provide shelter of emergency critical staff and remain operational during and after a hurricane.	\$1,000,000	Currently Unfunded	Bond CIP Funded	1/10/2018	10/24/2017		Noah Taylor
	St. Petersburg/ City of St Petersburg 1181 Public Works	Main Laboratory Replacement	Replace the Water Resources Department main Laboratory Building with a modern laboratory sufficient to conduct accurate analysis of samples taken at water reclamation and potable water treatment plant and other locations throughout the city. The existing building is not structurally sufficient to provide shelter of emergency critical staff and remain operational during and after a hurricane.	\$4,400,000	Currently Unfunded	Bond CIP Funded	1/10/2018	10/24/2017		Noah Taylor
	St. Petersburg/ City of St Petersburg 1223 Public Works	SW Water Reclamation Facility Building Replacements	This project provides for the replacement of operation/lab/maintenance buildings located in an Evacuation Zone A with buildings constructed to meet latest hurricane and flood codes. The existing buildings are not structurally sufficient to provide shelter of emergency critical staff during, and remain operational after, a hurricane.	\$4,250,000	Currently Unfunded	Bond CIP Funded	1/10/2018	10/24/2017		Noah Taylor
	St. Petersburg/ City of St Petersburg 1223 Public Works	NE Water Reclamation Facility Building Replacements	This project provides for the replacement of operation/lab/maintenance buildings to meet latest hurricane and flood codes. The existing buildings are not structurally sufficient to provide shelter of emergency critical staff during, and remain operational after, a hurricane.	\$4,250,000	Currently Unfunded	Bond CIP Funded	1/10/2018	10/24/2017		Noah Taylor
	St. Petersburg/ City of St Petersburg 1223 Public Works	NW Water Reclamation Facility Building Replacements	This project provides for the replacement of operation/lab/maintenance buildings to meet latest hurricane and flood codes. The existing buildings are not structurally sufficient to provide shelter of emergency critical staff during, and remain operational after, a hurricane.	\$4,250,000	Currently Unfunded	Bond CIP Funded	1/10/2018	10/24/2017		Noah Taylor
	St. Petersburg/ City of St Petersburg 1223 Public Works	Water Resources Maintenance Building Replacement	This project provides for the replacement of Water Resources Building C and M to meet latest hurricane and flood codes. The existing buildings are not structurally sufficient to provide shelter of emergency critical staff during, and remain operational after, a hurricane.	\$2,750,000	Currently Unfunded	Bond CIP Funded	1/10/2018	10/24/2017		Noah Taylor
	St. Petersburg/ City of St Petersburg 1368 Public Works	Sanitary Sewer Inflow and Infiltration Reduction Improvements	This project includes construction projects that will reduce inflow and infiltration (rain and ground water) into the City's sanitary sewer system by repairing and replacing old sewer collection system infrastructure. Inflow and Infiltration during wet weather periods has increased flow rates above the capacities of the collection system and treatment plants resulting in sewage discharges into the bay.	\$12,000,000	Currently Unfunded	Penny for Pinellas Local Option Sales Tax	1/10/2018	10/24/2017		Noah Taylor
	St. Petersburg/ City of St Petersburg 1193 Public Works	NE Water Reclamation Facility MCC Building	This project provides for the replacement of a building located in an Evacuation Zone A that contains electrical switch gear and controls for essential wastewater treatment process equipment with a new building meeting current wind and flood building code requirements.	\$1,500,000	Currently Unfunded	Bond CIP Fund	1/10/2018	10/24/2017		Noah Taylor
	St. Petersburg/ City of St Petersburg 1193 Public Works	SW Water Reclamation Facility MCC Building	This project provides for the replacement of a building located in an Evacuation Zone A that contains electrical switch gear and controls for critical wastewater treatment process equipment with a new building meeting current wind and flood building code requirements.	\$1,500,000	Currently Unfunded	Bond CIP Fund	1/10/2018	10/24/2017		Noah Taylor
	St. Petersburg/ City of St Petersburg 1121 Public Works	Bartlett Park Area Storm Drainage Improvements	This project includes construction of stormwater improvements to alleviate heavy flooding along Bartlett Park area and into recreation center in the neighborhood. Existing flooding is severe enough to reduce functionality of public park and services as well as endanger public safety.	\$1,400,000	Currently Unfunded	Bond CIP Fund	1/10/2018	10/24/2017		Noah Taylor
	St. Petersburg/ City of St Petersburg 1026 Public Works	Broadwater at 42nd Ave S and 37th St/S Storm Drainage Improvements	This project includes construction of stormwater improvements to alleviate heavy flooding along in the Broadwater Neighborhood. Current flooding has caused repetitive loss to vehicle and encroached on house structures as well as impeding road travel evacuating the neighborhood	\$1,200,000	Currently Unfunded	Bond CIP Fund	1/10/2018	10/24/2017		Noah Taylor
	St. Petersburg/ City of St Petersburg 906 Public Works	5th Ave Improvements East of 72nd Street	This project includes construction of stormwater improvements to alleviate a stormwater system that incorporates a large community that has experienced some repetitive loss and flooding concerns. It has been identified in a stormwater masterplan update as a possible improvement area.	\$1,580,000	Currently Unfunded	Bond CIP Fund	1/10/2018	10/24/2017		Noah Taylor
	Tampa Bay Regional Planning Council / 1130 Pinellas County	Regional Public Education Initiative	With Pinellas County Emergency Management develop a county-wide public education program to address preparation and mitigation actions for all hazards related to hurricanes. All jurisdictions will benefit from this effort. Estimated completion time: less than 12 months. / 4	\$75,000	Currently Unfunded	EMPATF, HMGP, PDM Program	1/10/2018			
	Tampa Bay Regional Planning Council / 940 Pinellas County	Post-Storm Evaluation of the Regional Evacuation Study	Evaluate the evacuation study to identify any discrepancies in the predicted and observed elements of the Regional Plan. Estimated completion time: less than 12 months. / 4	\$90,000	Currently Unfunded	EMPATF, HMGP; PDM Program	1/10/2018			
	1166 Tarpon Springs Housing Authority	Emergency Operations Generator	Emergency generator to allow operations during state of emergency, power outages or other events of power loss. 1 & 2	\$64,200	Currently Unfunded	CDBG, HUD	1/10/2018	10/11/2017		Michael Denehy
	800 Tarpon Springs Housing Authority	Landscape Restoration	Trimming of Palm, Planting of Sod & Shrubs, Repair of Erosion and Control of Runoff	\$56,640	Currently Unfunded	CDBG, HUD	1/10/2018	9/21/2016		Michael Denehy
	1160 Tarpon Springs Housing Authority	Door & Window Upgrades	Replacement of all original doors and windows to meet Florida building codes, Miami-Dade wind codes, and impact resistant ratings.	\$96.30	Currently Unfunded	CDBG, HUD	1/10/2018	10/11/2017		Michael Denehy

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
	Tarpon Springs Project Administration 1073 Department	Portable Generators	Purchase 15 portable generators	\$450,000	FY 2017 Currently Unfunded	City of Tarpon Springs General Fund and Utility Reserve Fund	1/10/2018	10/27/2017	As a result of Hurricane Irma the City has determined a need for additional portable generators	Heather Urwiller
1200	Tarpon Springs Stormwater Division	SAP	Stormwater Capital Improvement plan. (SAP-Stormwater Action Plan) Estimated completion time: Ongoing. / 4	\$100,000 Annually	Currently funded	Stormwater Tax Assessment	1/10/2018	12/1/2017		Heather Urwiller
998	Tarpon Springs Stormwater Division	Vehicles	Purchase Tennant Mini Street Sweeper for removal of sidewalk and roadside sediment, fertilizer & debris that would otherwise get into our bayou system.	\$16,000	Purchased	Stormwater Tax Assessment	1/10/2018	8/23/2017		Heather Urwiller
993	Tarpon Springs Streets & Stormwater Division	Vehicles	Purchase CAT Mini Excavator & Trailer for in-house construction and maintenance of Stormwater infrastructure. Estimated completion time: Ongoing. / 1,3	\$89,000	Purchasing	Stormwater Tax Assessment	1/10/2018	8/23/2017		Heather Urwiller
1170	Tarpon Springs Streets & Stormwater Division	Spruce Street flood abatement SAP 29	Project to reduce/eliminate localized flooding and emergency vehicle access.	\$151,230	Currently Unfunded	Stormwater Tax Assessment, EMPATF, HMGP; PDM Program	1/10/2018	10/24/2016		Heather Urwiller
1080	Tarpon Springs Streets & Stormwater Division	Riverside/Hillside flood abatement SAP 71	Project to reduce/eliminate localized flooding and emergency vehicle access.	\$50,680	Construction to Begin 10/2017	Stormwater Tax Assessment, EMPATF, HMGP; PDM Program	1/10/2018	8/23/2017		Heather Urwiller
1260	Tarpon Springs Streets & Stormwater Division	Pent/Grosse flood abatement SAP 5	Project to reduce/eliminate localized flooding and emergency vehicle access.	\$2,183,614	Construction 2018	Stormwater Tax Assessment, SWFWMD Cooperative Funding Initiative (50% Match)	1/10/2018	8/23/2017		Heather Urwiller
1190	Tarpon Springs Streets & Stormwater Division	Jasmine/Highland flood abatement SAP 5 & 33	Project to reduce/eliminate localized flooding and emergency vehicle access.	\$993,382	Design Completion	Stormwater Tax Assessment, SWFWMD Cooperative Funding Initiative (50% Match)	1/10/2018	8/23/2017		Heather Urwiller
1120	Tarpon Springs Streets & Stormwater Division	Athens/Dodecanese flood abatement SAP 42	Project to reduce/eliminate localized flooding and emergency vehicle access.	\$110,915	Design Phase	Stormwater Tax Assessment	1/10/2018	8/23/2017		Heather Urwiller
1180	Tarpon Springs Streets & Stormwater Division	Palm Avenue flood abatement SAP 22	Project to reduce/eliminate localized flooding and emergency vehicle access.	\$499,958	Design 2018- Construction 2019	Stormwater Tax Assessment, SWFWMD Cooperative Funding Initiative (50% Match)	1/10/2018	8/23/2017		Heather Urwiller
1160	Tarpon Springs Streets & Stormwater Division	GIS Mapping of Stormwater Infrastructure	Project to reduce/eliminate localized flooding and emergency vehicle access.	\$200,000	Begin 10-1-17 & Complete 2019/20	Stormwater Tax Assessment, SWFWMD Cooperative Funding Initiative (50% Match)	1/10/2018	8/23/2017		Heather Urwiller
1170	Tarpon Springs Streets & Stormwater Division	Avoka Drive flood abatement SAP 74	Project to reduce/eliminate localized flooding and emergency vehicle access.	\$255,600	Currently Unfunded	Stormwater Tax Assessment, EMPATF, HMGP; PDM Program	1/10/2018	10/24/2016		Heather Urwiller
1140	Tarpon Springs Streets & Stormwater Division	Mango Street & Mango Circle flood abatement SAP 102	Project to reduce/eliminate localized flooding and emergency vehicle access.	\$43,900	Currently Unfunded	Stormwater Tax Assessment, EMPATF, HMGP; PDM Program	1/10/2018	10/24/2016		Heather Urwiller
1160	Tarpon Springs Streets & Stormwater Division	Coburn Drive flood abatement SAP 39	Project to reduce/eliminate localized flooding and emergency vehicle access.	\$210,040	Currently Unfunded	Stormwater Tax Assessment, EMPATF, HMGP; PDM Program	1/10/2018	10/24/2016		Heather Urwiller
1160	Tarpon Springs Streets & Stormwater Division	Levis between Lime & Oakwood flood abatement SAP 25	Project to reduce/eliminate localized flooding and emergency vehicle access.	\$248,638	Currently Unfunded	Stormwater Tax Assessment, EMPATF, HMGP; PDM Program	1/10/2018	10/24/2016		Heather Urwiller
1190	Tarpon Springs Streets & Stormwater Division	Kenneth Way & Seaside flood abatement SAP 57	Project to reduce/eliminate localized flooding and emergency vehicle access.	\$91,000	Currently Unfunded	Stormwater Tax Assessment, EMPATF, HMGP; PDM Program	1/10/2018	10/24/2016		Heather Urwiller
1270	Town of Belleair	Generator Installation Town Hall/Police Department	1, 2	138,476.00	6 months	HMGP Hurricane Hermine	1/10/2018	4/24/2017		Greg Lauda
1710	Treasure Island	Citywide Seawall Assessment and Repair for Locations NOT listed as a separate project (street ends, etc.)	Citywide Seawall repair/replacement. Estimated completion time: more than 12 months. / 4	\$2,260,000	Currently Unfunded	EMPATF, HMGP; PDM Program; CDBG	1/10/2018	10/30/2017		Paulette Cohen
970	Treasure Island	Wind Retrofit of critical facilities	Harden critical municipal facilities including: PWorks Admin, PWorks Garage. Estimated completion time: more than 12 months. / 2	\$100,000	Funded by City	EMPATF, HMGP; PDM Program;	1/10/2018	10/30/2017		Paulette Cohen
1060	Treasure Island	City Hall Seawall Rehabilitation	Repair/replace seawall adjacent to critical facilities: Estimated completion time: more than 12 months. / 3	\$660,000	Currently Unfunded	EMPATF, HMGP; PDM Program; CDBG	1/10/2018	10/30/2017		Paulette Cohen
970	Treasure Island	Electronic Information Signs at Bridges	Purchase and installation of four (4) electronic signs, to be placed at strategic locations on either side of the two bridges. Signs would afford motorists, cyclists, and pedestrian's sufficient opportunity to choose alternate travel routes in the event bridge(s) are closed for repairs, malfunction, traffic accidents, or other reasons. /4	\$600,000	Currently Unfunded; Projected for FY 2019	DOT Grant (County Incentive Program); CDBG; HMGP; HMGP Planning; Local Funding	1/10/2018	10/30/2017		Paulette Cohen
1290	Treasure Island	Stormwater Interceptor project in Sunset Beach and rehabilitation of underdrain system at lots 2 and 3 improvement of stormwater discharge throughout the city / 4	At lots 2 and 3 and nearby areas. 2016: Phase 4 & 5. 2017: Phase 6. 2018: Master Plan. 2019: Causeway Area. 2020: Sunshine Beach Area. 2021: Downtown Area.	\$3,105,000	FY16 – FY17 Partially Funded (50% funded by SWFWMD); FY 18- FY 21: Unfunded	Capitalization Grants for Clean Water State Revolving Funds; CDBG; FMAP; HMGP; SWFWMD Cooperative Funding, Nonpoint Source Implementation Grants	1/10/2018	10/30/2017		Paulette Cohen
1270	Treasure Island	Replacement of City Hall and seawall rehabilitation	Harden critical municipal facilities - Admin, Fire, and Police Estimated completion time: more than 12 months. / 2	\$8,000,000	Currently Unfunded	EMPATF, HMGP; PDM Program; CDBG; FMAP	1/10/2018	10/30/2017		Paulette Cohen
1220	Treasure Island	Provide ten -- 10.5 and 5 hp pumps and controls to city lift stations	(Lift Station 7 -\$250,000)(Lift Station 9 - \$250,000)(Lift Station 8 - \$250,000)(Lift Station 6 - \$250,000) Harden critical municipal facilities - Estimated completion time: more than 12 months. / 4	\$1,000,000	Partially Funded by City	Capitalization Grants for Clean Water State Revolving Funds; CDBG; FMAP; HMGP; Nonpoint Source Implementation Grants; HMGP Planning	1/10/2018	10/30/2017		Paulette Cohen

**Pinellas County
Local Mitigation Strategy
2018 Appendix 9, Table 9-1: Mitigation Initiatives**

Total Score	Jurisdiction/ Organization	Project Name	Description/ Natural Hazard Addressed (Key: 1=Flooding; 2=Storm Wind; 3=Erosion; 4=All Hazard)	Est. Cost	Timeframe / Status	Possible Funding Sources	Date Last Reviewed	Date Last Updated	Comments	Updated By
970	Treasure Island	Kingfish Park Seawall Rehabilitation	Repair/replace seawall: Estimated completion time: less than 12 months. / 3	\$50,000	2018 Currently Unfunded; Projected for FY	EMPATF, HMGP; PDM Program; CDBG Capitalization Grants for Clean Water State	1/10/2018	10/30/2017		Paulette Cohen
940	Treasure Island	Lift Station #4 - Refurbishment	Elevation of Controls & Electrical Equipment in Lift Station #4 Estimated completion time: more than 12 months. / 4	\$823,300	City Partially Funded by	Revolving Funds; CDBG; FMAP; HMGP; Nonpoint Source Implementation Grants; HMGP Planning	1/10/2018	10/30/2017		Paulette Cohen
890	Treasure Island	GPS Inventory of Street Signs	Inventory all street and identification signs using GPS technology to facilitate replacement following a storm event. Estimated completion time: more than 12 months. / 4	\$50,000	2018 Currently Unfunded; Projected for FY	CDBG; HMGP; HMGP Planning DOT Grant (County Incentive Program);	1/10/2018	10/30/2017		Paulette Cohen
1060	Treasure Island	Mitigation of Rising Sea Levels Study	Hire a consultant to conduct a study regarding rising sea level impacts and possible mitigation measures and associated mitigation measure costs for Treasure Island.	\$400,000	2021 Currently Unfunded; Projected for FY	Capitalization Grants for Clean Water State Revolving Funds; CDBG; HMGP; HMGP Planning; Local Funding	1/10/2018	10/30/2017		Paulette Cohen