

*Fiscal Year 2020*  
Cooperative Funding Initiative Applications  
**Tampa Bay Region**

**Stewart Middle Magnet School Shoreline Restoration Project**

Managed by:  
The Southwest Florida Water Management District  
Surface Water Improvement and Management (SWIM) Program

Funded by:  
The Southwest Florida Water Management District SWIM Program  
The Hillsborough River Basin Board of the Southwest Florida Water Management District  
Hillsborough County Public Schools

The Pinellas County Environmental Fund Partners –  
Pinellas County and the National Oceanic and Atmospheric Administration

Designed by: Ecosphere Restoration Institute, Inc.    Constructed by: SWWMD Operations Department

Southwest Florida Water Management District  
Hillsborough County  
ecosphere  
Pinellas County  
NOAA  
Florida Department of Environmental Protection  
SWWMD  
WM





## Coop Funding By Region For FY2020

### Tampa Bay Region

Project	Project Name	Project Cost
N748	Dale Mabry Henderson Trunkline - Upper Peninsula Watershed Drainage Improvments	\$36,500,000
N773	Cypress Street Outfall Regional Stormwater Improvements	\$30,000,000
N850	SW IMP - Flood Protection - Sea Pines Neighborhood Flood Abatement	\$4,500,000
N855	DAR - South Hillsborough Aquifer Recharge Expansion (SHARE) - Phase 1	\$9,700,000
N865	Magnolia Valley Storage and Wetland Enhancement	\$13,193,000
N901	Port Richey Alternative Outfall	\$3,250,000
N904	WMP - City of St. Petersburg Watershed Management Plan	\$1,800,000
N915	SW IMP- FLOOD PROTECTION- LOWER SPRING BRANCH CONVEYANCE IMPROVEMENTS	\$3,320,000
N949	Southeast Seminole Heights Flood Relief	\$23,500,000
N965	Tampa Bypass Canal Gates Automation	\$1,032,000
N967	Hidden Lake/Yellow Lake	\$6,000,000
N970	South Creek Watershed Management Plan	\$750,000
N990	Zephyr Creek Drainage Improvements: Units 3 and 4	\$5,100,000
N993	WMP-Cypress Creek Watershed Management Plan	\$1,800,000
N995	Plant City Watershed Management Plan	\$1,300,000
N998	Regional Facility Site Pump Station Expansion	\$2,400,000
Q011	Pithlachascotee/Bear Creek Water Management Plan	\$1,600,000
Q012	Buck and Lanier	\$620,000
Q013	Hammock Creek WMP	\$1,800,000
Q027	56th St and Hanna Avenue Regional Drainage Improvements	\$3,350,000
Q034	Brooker Creek Watershed Management Plan	\$900,000
Q036	Bartlett Park and 7th Street South Stormwater Improvements	\$2,350,000
Q042	PHSC Berm/Boggy Creek	\$3,250,000
Q048	Tammy Lane	\$2,750,000
Q053	Pent St/Grosse Ave Stormwater Improvements	\$3,159,976
Q055	Conservation - Hillsborough County Advanced Metering Infrastructure (AMI) Expansion	\$4,000,000
Q057	RCW Main Extension from 12th St & CR 54 to Wire Rd & Otis Allen and to Hospital	\$1,442,500
Q061	Regional Surface Water Treatment Plant Expansion	\$550,000
Q063	Desalination Water Treatment Plant Expansion	\$3,000,000
Q064	DAR - North Hillsborough Aquifer Recharge Program (NHARP) - Phase 2	\$10,000,000
Q068	City of Tarpon Springs Toilet Rebate Program- Phase I	\$20,000
Q071	Groundwater Treatment Plant via Aquifer Recharge Credits from SHARP/SHARE Program	\$600,000
Q074	Temple Terrace Golf & CC New Irrigation System	\$1,044,696
Q076	harbor Dr & LaHacienda Dr. Stormwater Improvements	\$244,228
Q078	Pasco County - Toilet Rebate - Phase 13	\$1,720,000
Q083	Klosterman Bayou Watershed Management Plan	\$600,000
Q084	Reclaimed Water - Kracker Ave Estuary RWM Extension	\$1,200,000
Q087	Demand Management Plan Implementation	\$1,286,426
Q088	DAR - South Hillsborough Aquifer Recharge Program (SHARP) - Phase 3	\$13,000,000
Q089	Sensible Sprinkling Program, Phase 9	\$1,068,136
Q090	Belleair Brackish Water Hydrologic Testing	\$1,763,350
Q096	St. Petersburg Residential Clothes Washer Rebate Program, Phase 2	\$99,700
Q098	Reclaimed Water - Pasco County Cypress Preserve Reclaimed Water Transmission Main Phase 3	\$861,000
Q100	Sparkman Nesmith-Frank Moore Rd Drainage Improvements	\$1,300,000
Q101	Shady Hills Energy Center Reuse Project	\$27,091,560
Q107	Tampa Augmentation Project - Design Phase	\$3,000,000
Q108	Pasco County Reclaimed Water - Nutrient Removal Study	\$168,000
Q109	Pasco County - Satellite Based Potable Water Leak Detection Study	\$60,000
Q112	Advanced Metering Implementation	\$4,000,000
Q113	McIntosh Park IPR Feasibility and Pilot Test	\$850,000

Q115	East Pasco WMP Update	\$800,000
Q116	Roosevelt Creek Watershed Management Plan	\$800,000
Q117	Reclaimed Water - Columbus Sports Park RWM Extension	\$800,000
Q122	Watershed Model & SCADA Stream/LakeWarning System	\$2,000,000
Q125	McIntosh Park Integrated Water Master Plan Stormwater Improvements	\$16,050,000
Q128	No Name Creek-Pinellas Technical College-St. Petersburg	\$600,000
Q129	Breakwater Park Living Shoreline	\$225,000
Q130	Nutrient Source Tracking	\$200,000
W024	FY2020 Tampa Bay Environmental Restoration Fund	\$1,400,000
W300	Channel 1A2 Stormwater Quality Improvements	\$807,800
	<b>Region Total</b>	<b>\$266,577,372</b>

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Dale Mabry Henderson Trunkline - Upper Peninsula Watershed Drainage Improvements  
**Project Number** N748  
**Cooperator** City of Tampa  
**Department** Stormwater  
**Contact Person** Ben Allushuski  
**Address** 306 E Jackson St, 6n  
**City State Zip** Tampa, FL 33602  
**Phone #** 813-274-3257  
**Email** ben.allushuski@tampagov.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This project consists of the design and construction of approximately 8,100 linear feet of box culvert and associated utility construction, commencing at the intersection of Dale Mabry Highway and Henderson Boulevard and outfalling to a canal at the Estrella Street terminus. Construction of this high capacity box culvert provides a primary conveyance system to relieve chronic flooding along Dale Mabry Highway, which serves as the main evacuation route for South Tampa. As demonstrated by hydraulic modeling for this watershed provided in a 2012 Alternatives Analysis, the depth of flooding along Dale Mabry is approximately 18 inches during the mean annual rainfall event. There is also significant neighborhood flooding occurring along collectors and neighborhood collectors that are served by the existing surface water management facilities. The City is funding and constructing the entire trunkline from Dale Mabry Highway to the outfall on Estrella. The Florida Department of Transportation is separately funding a box culvert along Dale Mabry Highway with an estimated cost of \$3,000,000 that will connect to the City's trunkline. The coordinated effort will provide regional flooding relief by constructing a conveyance system with sufficient capacity to reduce flood stages along a critical arterial roadway and serve future lateral connections to adjacent neighborhoods that experience frequent flooding. The anticipated FY 2020 phase of the project consists of the construction of a new box culvert along Estrella Avenue from Old Tampa Bay to Manhattan Avenue all the way to Watrous Ave at Dale Mabry Highway. A feasibility study and corridor analysis was previously submitted for this project, with representative cost estimates provided.

**Benefit:**

The primary benefit of the project is that it provides a new major outfall to Old Tampa Bay to relieve frequent flooding on Dale Mabry Highway. Dale Mabry is the main evacuation route from South Tampa with an average daily traffic count of approximately 40,000 between Henderson and Neptune. High intensity, short duration rainfall events often overwhelm the existing stormwater system, causing dangerous driving conditions. Attachment B of the previously submitted "Dale Mabry: Henderson to Neptune Flooding Relief Report" documents the depth of flooding during a recent rainfall. Hydraulic modeling of proposed conditions with a new box culvert outfall predicts that the hydraulic grade line does not stage above inlets on Dale Mabry, effectively eliminating flooding during the mean annual event. A map based on the modeled conditions shows flood stage reduction of greater than 2 feet at fifteen (15) locations on Dale Mabry, Morrison, and Watrous Avenue. Six (6) other locations exhibit flood stage reductions greater than 12 inches (see Page 11 of previously submitted Alternatives Analysis). Residential areas immediately upstream of the new system along Morrison, Himes, and Almeria Avenues see a substantial reduction in flooding as a result of the new trunkline. Flood stage reduction also occurs downstream in the Culbreath Bayou neighborhood by diverting flow from the Neptune box culvert. A Benefit-Cost Ratio of 0.94 was calculated using the Federal Emergency Management Agency (FEMA) Benefit-Cost Analysis Tool.

**Cost:**

The FY 2020 portion of the project is estimated at \$10 million, with a total project cost of approximately \$40,000,000. This includes construction of the box culvert, new sanitary gravity pipe, water main and re-use relocation and offsets, utility lateral connections, and right-of-way restoration. A full cost estimate is provided in the attached Feasibility Study.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The City of Tampa has the following codes in place relating to water conservation: 1) Standard Plumbing Code (Ord. No. 92-67,2,5-7-92; Ord. No. 96-64,62,3-14-96; Ord. No.98-40,19 2-26-98), 2) Water Use Restrictions Code (Ord. No. 2003-316; Ord. No. 2000-69, 97, 3-16-00; Ord. No. 2000-43,97,9-14-00; Ord. No. 2001-87,97,3-29-01), 3) Increase in Water Restriction Violation Fines (Ord. NO. 2001-19,23,1-4-1), 4) Landscaping Code (Ord. No. 97-34,2,2-6-97), 5) Rain Sensor Requirement (part of Plumbing Code, Ord. NO 98-40,19,2-26-98), 6) Schedule of Water Rates ( Ord. NO. 2001-0987,26-31,8-30-01). The city has adopted a Flood Damage Control Ordinance (Ord. NO. 92-67, 2, 5-7-92, ord. NO 92-134, 3, 4, 81-3-92; Ord. NO. 96-64, 73-75, 3-14-96) as required to participate in the National Flood Insurance Program administered through FEMA. The City of Tampa also has a Stormwater Assessment Program that includes a Service Assessment and an Improvement Assessment. The Service Assessment has been in existence since 2003 as described in Resolution 2003-937. The Improvement Assessment was adopted in 2016 as described in Resolution 2016-706. The Service Assessment is an annual non-ad valorem assessment that pays for operations and maintenance of the existing stormwater system. Services include street sweeping, pond maintenance, pipeline system cleaning, outfall cleaning, ditch maintenance and miscellaneous micro-projects ancillary to maintenance activities. The Improvement Assessment is an annual non-ad valorem assessment that pays for capital improvements associated with the stormwater system in the City of Tampa. Improvements include system capacity increases, treatment facilities such as ponds, ditches and baffle boxes, new pipelines and box culverts, pump stations, backflow valves, inlets, curb and gutter systems, as well as roadway regrading to improve flow patterns.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share	5,000,000	5,000,000	5,000,000	3,250,000	18,250,000
Hillsborough River	5,000,000	5,000,000	5,000,000	3,250,000	18,250,000
Total	10,000,000	10,000,000	10,000,000	6,500,000	36,500,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

Construction

01/31/2020

**Data Collection Assessment:**

No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Cypress Street Outfall Regional Stormwater Improvements  
**Project Number** N773  
**Cooperator** City of Tampa  
**Department** Stormwater  
**Contact Person** Ben Allushuski  
**Address** 306 E Jackson St, 6n  
**City State Zip** Tampa, FL 33602  
**Phone #** 813-274-3257  
**Email** ben.allushuski@tampagov.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This project consists of the construction of regional stormwater improvements to serve an area of approximately 700 acres in the West Riverfront and North Hyde Park areas of Tampa. This project is a multi-year project that provides a primary stormwater conveyance trunkline for areas affected by severe, chronic flooding. Construction of a box culvert system providing a new stormwater outfall serving future regional improvements was approved under ERP No. 43041855.000 and is now complete. Construction will also include a dual 8' x 8' and dual 6' x 5' box culvert system extending from the outfall at North Boulevard and Cass Street west along Cass Street, and thence south along Rome Avenue to Kennedy Boulevard. The estimated Fiscal Year 2020 portion of the funding will consist of construction for Segment 2 of the project along Rome Ave between Cass St and Kennedy Blvd, as shown on the included conceptual drawings and project map. This system will serve the affected areas along the corridor and provide capacity for future lateral connections within the watershed. A corridor analysis, feasibility study, and cost-benefit ratio of the proposed trunkline is included in this application.

**Benefit:**

A regional XP-SWMM model of the area was developed and approved under ERP 43041855.000. The model was utilized to show the net benefit of the proposed box culvert system. The proposed improvements show a reduction in flooding at approximately 40 locations. The benefit is derived from the reduction of structural and roadway flooding. The attached Benefit-Cost Ratio memo shows the improvement in Level of Service (LOS) for roadways in the affected areas as well as LOS for structures impacted by flooding. A Benefit-Cost Ratio of 1.25 was calculated using the Federal Emergency Management Agency (FEMA) Benefit-Cost Analysis Tool.

**Cost:**

The total project cost for construction is estimated at \$27 million. Project costs are inclusive of utility relocations, roadway restoration, and the box culvert system. The estimated Fiscal Year 2020 expenditure for construction is \$10 million. Construction of additional lateral connections to the Cass/Rome trunk line system is estimated at \$17 million.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The City of Tampa has the following codes in place relating to water conservation: 1) Standard Plumbing Code (Ord. No. 92-67,2,5-7-92; Ord. No. 96-64,62,3-14-96; Ord. No.98-40,19 2-26-98), 2) Water Use Restrictions Code (Ord. No. 2003-316; Ord. No. 2000-69, 97, 3-16-00; Ord. No. 2000-43,97,9-14-00; Ord. No. 2001-87,97,3-29-01), 3) Increase in Water Restriction Violation Fines (Ord. NO. 2001-19,23,1-4-1), 4) Landscaping Code (Ord. No. 97-34,2,2-6-97), 5) Rain Sensor Requirement (part of Plumbing

Code, Ord. NO 98-40,19,2-26-98), 6) Schedule of Water Rates ( Ord. NO. 2001-0987,26-31,8-30-01). The city has adopted a Flood Damage Control Ordinance (Ord. NO. 92-67, 2, 5-7-92, ord. NO 92-134, 3, 4, 81-3-92; Ord. NO. 96-64, 73-75, 3-14-96) as required to participate in the National Flood Insurance Program administered through FEMA. The City of Tampa also has a Stormwater Assessment Program that includes a Service Assessment and an Improvement Assessment. The Service Assessment has been in existence since 2003 as described in Resolution 2003-937. The Improvement Assessment was adopted in 2016 as described in Resolution 2016-706. The Service Assessment is an annual non-ad valorem assessment that pays for operations and maintenance of the existing stormwater system. Services include street sweeping, pond maintenance, pipeline system cleaning, outfall cleaning, ditch maintenance and miscellaneous micro-projects ancillary to maintenance activities. The Improvement Assessment is an annual non-ad valorem assessment that pays for capital improvements associated with the stormwater system in the City of Tampa. Improvements include system capacity increases, treatment facilities such as ponds, ditches and baffle boxes, new pipelines and box culverts, pump stations, backflow valves, inlets, curb and gutter systems, as well as roadway regrading to improve flow patterns.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share	1,500,000	3,000,000	5,000,000	5,500,000	15,000,000
Hillsborough River	1,500,000	3,000,000	5,000,000	5,500,000	15,000,000
Total	3,000,000	6,000,000	10,000,000	11,000,000	30,000,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

Permitting	03/01/2019
30% Design	03/01/2019
Third Party Review	03/01/2019
Construction	03/31/2021

**Data Collection Assessment:**

No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** SW IMP - Flood Protection - Sea Pines Neighborhood Flood Abatement  
**Project Number** N850  
**Cooperator** Pasco County  
**Department** Design Stormwater Management  
**Contact Person** Pasco County Public Works Department  
**Address** 7536 State Street, Suite 140  
**City State Zip** New Port Richey, FL 34654  
**Phone #** 727-847-8143  
**Email** mgarrett@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

The Sea Pines neighborhood lies east of Old Dixie Hwy, west of Hwy 19, and north of Gulf Way. The project covers 750 acres, including 125 offsite acres. The neighborhood suffers from insufficient conveyance, storage, and topographical relief. The project would consist of design, permitting, construction, and real estate acquisition, encompassing increased storage and treatment, increased conveyance, and easement acquisition.

**Benefit:**

There are currently 24 residential structures at risk of flooding in a 100-year flooding event. The project, upon completion, would be expected to result in all but three (21 of the 24) of those structures' being removed from the flood hazard zone. Given the proposed storage/increased storage, the storm-water runoff currently being discharged from the site would undergo further treatment before being discharged directly or indirectly into the Gulf.

**Cost:**

Funding was approved in FY2018 for 30% design and third-party review. The District required a third-party review because this project is complex and includes multiple land acquisitions. FY2019 funding will complete engineering and permitting and FY2021 funding will complete construction. Total cost is \$4,500,000. Benefit/cost ratio is approximately 1.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017,

100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share	150,000	500,000	1,600,000		2,250,000
Hillsborough River	150,000	500,000	1,600,000		2,250,000
Total	300,000	1,000,000	3,200,000		4,500,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Sea Pines**

<b>Milestone</b>	<b>Projected Date</b>
Begin Engineering	10/01/2018
30% plans	03/01/2019
3rd party review	04/15/2019
100% Plans and permit	09/30/2019
bid	11/01/2020
Begin construction	01/15/2021
end construction	09/30/2021

**Data Collection Assessment:**

Land Survey  Mapping/GIS data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** DAR - South Hillsborough Aquifer Recharge Expansion (SHARE) - Phase 1  
**Project Number** N855  
**Cooperator** Hillsborough County  
**Department** Public Utilities  
**Contact Person** Nicholas Lopresti  
**Address** 925 E. Twiggs Street  
**City State Zip** Tampa, FL 33602  
**Phone #** 813-612-7768  
**Email** loprestin@hillsboroughcounty.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

Third Party Review (TPR) of the County's 30% design, completion of design and permitting, and initiation of construction for Phase 1 of the South Hillsborough Aquifer Recharge Expansion (SHARE) project is expected to occur prior to FY2019. Moving forward in FY2019, the Phase 1 project will construct interconnecting transmission mains; design, permit, and construct two recharge wells (2 mgd each) and eight monitoring wells; and install associated appurtenances. The SHARE project expands upon of the County's current recharge project (N287) and upon completion will consist of up to seven recharge wells with a total recharge flow of up to 14 mgd in Southern Hillsborough. TPR of the County's 30% design will be required per the District's CFI guidelines, as this project has a conceptual cost greater than \$5 million

In 2009, Hillsborough County's Public Utilities Department (PUD) began evaluating the feasibility of using highly-treated wastewater from its existing Advanced Water Reclamation Facilities to provide environmental improvements, a barrier to salt water intrusion, a path to the restoration of MIA water levels, and support a long-term and sustainable solution to water management challenges in the southern portion of its service area. The County's goal of 100% reuse capability is the driver behind the development of the first reclaimed water direct aquifer recharge pilot project in the state of Florida. The County's South Hillsborough Aquifer Recharge Project (SHARP) located at the Port Redwing Outfall became the first reclaimed water direct aquifer recharge project in the region. This project includes a Class V, Group 2, 3 million gallons per day (MGD) recharge well and associated monitoring wells, which started operation in July 2015. Operational data collected at the SHARP pilot well since 2015 provides the groundwork for the expansion of the aquifer recharge system. As a result of the successful implementation and operation of the SHARP system, PUD is now seeking to install additional Class V recharge wells in the Wolf Branch Creek area as part of the South Hillsborough Aquifer Recharge Expansion (SHARE) project. The County's aquifer recharge expansion vision includes a regional recharge system to mitigate saltwater intrusion in costal Hillsborough County, provide a level of mitigation to the SWUCA, MIA, and to allow for additional groundwater development in an area that has had historical adverse water level impacts to the aquifer. It is anticipated that at least seven (7) aquifer recharge wells will be constructed as part of SHARE in several phases over the next 10 -15 years. Each well is anticipated to operate at 2 MGD AADF with peak flows of approximately 3 MGD. This project, Phase 1 of SHARE consists of Design, Permitting and Construction of reclaimed water mains (RWMs); Two (2) recharge wells and approximately eight (8) monitoring wells; Two (2) recharge well wellheads and appurtenances; Monitoring wells and appurtenances, including remotely powered sample pumps and purge water discharge facilities for all wells; Electrical service to all monitoring wells for controls; SCADA, instrumentation and control, including automation so that the system can be remotely operated with all necessary monitoring systems in place to meet FDEP permit reporting requirements.

**Benefit:**

The County’s aquifer recharge expansion vision includes a regional recharge system to mitigate saltwater intrusion in costal Hillsborough County, provide a level of mitigation to the SWUCA, MIA, and to allow for additional groundwater development in an area that has had historical adverse water level impacts to the aquifer. This project, Phase 1 of SHARE (Two (2) Wells), is anticipated to recharge approximately 4 MGD AADF with peak flows of approximately 6 MGD. The total anticipated recharge quantity of the proposed seven (7) aquifer recharge wells (SHARE) plus the existing SHARP well is 14 MGD AADF with peak flows of approximately 24 MGD.

**Cost:**

Total Phase 1 Project Cost: \$9,700,000; Total District share: \$4,850,000; Hillsborough County share: \$4,850,000

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Hillsborough County was the premier local government to decriminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A fulltime Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County’s Water Conservation Ordinance (HCO 03-07) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County’s administration. Enforcement of water conservation issues is done through Code Enforcement and Construction Services (Plumbing and Building Departments) in areas of their respective responsibilities. Reclaimed Water Master Plans have been developed to determine how reclaimed water throughout the County will be utilized for the primary goal of offsetting potable water use and meeting regulatory compliance. Additionally, the County has established a Reclaimed Water Improvement Unit (RWIU) ordinance to retrofit existing subdivisions with reclaimed water distribution systems. Hillsborough County has adopted a flood plain ordinance (County Ordinance 01-33) as required to participate as a community in the National Flood Insurance Program (NFIP) administered through the Federal Emergency Management Agency (FEMA). The county has developed land development regulations (LDR 96-35) to enforce the ordinance. All development is required to receive the proper building and site alteration permits. At this time flood plain issues are addressed to ensure compliance with the flood plain ordinance. Finished floor elevations are compared to the 100 year flood elevation. The County is also a participant in FEMA’s Community Rating System and received a Class 6 rating. The Hillsborough County Reuse Program includes metering and an incentive based reuse rate structure for high volume water users and has proactive reclaimed water expansion policies which maximize utilization, water resource benefits and environmental benefits.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Alafia River	2,265,000	2,235,000	350,000		4,850,000
Applicant Share	2,265,000	2,235,000	350,000		4,850,000
Total	4,530,000	4,470,000	700,000		9,700,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**1 Advertise, Bid, Award**

Milestone	Projected Date
Bid Process End	12/31/2018

**2 Construction**

Milestone	Projected Date
Construction Start	04/01/2019

**3 Construction**

Milestone	Projected Date
Construction End	04/01/2020

**4 Construction**

Milestone	Projected Date
Final Closeout	09/30/2020

**Data Collection Assessment:**

- Groundwater or Surface Water Level measurements
- Monitor Well Installation
- Aquifer Testing

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Magnolia Valley Storage and Wetland Enhancement  
**Project Number** N865  
**Cooperator** Pasco County  
**Department** Design Stormwater Management  
**Contact Person** Pasco County Public Works Department  
**Address** 7536 State Street, Suite 140  
**City State Zip** New Port Richey, FL 34654  
**Phone #** 727-847-8143  
**Email** mgarrett@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This is a project to implement best management practices, which include design, permitting, construction of the Magnolia Valley Storage and Wetland Enhancement Area, and construction engineering and inspection. This project will occur on parcels the County purchased on 9/14/2016 and will consist of excavation to provide stormwater storage and wetland enhancement. The additional storage and wetland enhancement will provide water quality, flood protection and natural system benefits for the watershed. The projected cost for budgeting proposes is \$13,000,000. The project will be implemented as a multi-year project with a conceptual design, 30% design, third party review, final design and permitting, and construction phases. The Magnolia Valley area is within the Port Richey Watershed in Pasco County and is part of a 960-acre sub-watershed that has experienced repeated structure and street flooding. The County also began in to operate the pumping facility (May 2016) to protect the citizens within the contributing area. The County applied for and obtained a District ERP permit (No 49004413.005) on June 1 2016 that allows the County to legally operate the pumps consistent with their historic operation. A District Cooperative Funding Project for FY 2017, funded for a total project cost \$1,900,000. Project Number N835 funded the purchase of the Magnolia Valley Golf Course Parcels and repair of the Pumping Facility. The District and County also cooperatively funded (\$637,000) the New Port Richey Watershed Management Plan that developed a GIS database, a watershed model, peer reviewed and Governing Board approved floodplain results, and a BMP Alternative Analysis. The County further refined the BMP Alternative Analysis to evaluate the benefits of ownership of the golf course parcels. The County applied for and obtained an EPR Conceptual approval (Permit No. 49004413.004) for storage and conveyance elements in the Magnolia Valley Area, which is included in the applicants share for prior funding of this project.

**Benefit:**

The project will enhance water quality and natural systems while providing flood protection. The added storage will impact upstream and downstream flood elevations by providing additional storage. It will also replace a golf course with a water feature that includes enhanced wetlands and extended retention times for smaller storm events in the deep water cells. The change in land use from a golf course also eliminates the non-point source pollution from fertilizers and chemicals to maintain the turf. The flood protection preliminary benefit/cost ratio is 0.60, calculated using Stormwater Improvement Flood Protection (SIFP) Benefit Cost Analysis Tool (attached as a document). This benefit/cost ratio will be further refined during the conceptual design phase. FY 18 funds will design thru 30% plans and FY19 funds will complete design and permitting.

**Cost:**

The projected cost for budgeting is \$13,193,000, which includes \$193,000 of prior County funding.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017, 100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share	493,000	200,000	2,250,000	3,750,000	6,693,000
Coastal Rivers	300,000	200,000	2,250,000	3,750,000	6,500,000
Total	793,000	400,000	4,500,000	7,500,000	13,193,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Magnolia Valley Storage and Wetland Enhancement**

<b>Milestone</b>	<b>Projected Date</b>
NTP to Consultant	11/01/2018
30% Design Plans	11/01/2019
Third-Party Review	01/01/2020
Final Design/Permitting	11/01/2020
Begin Construction	03/01/2021
Complete Construction	12/01/2022

**Data Collection Assessment:**

- Groundwater or Surface Water Level measurements  Monitor Well Installation
- Land Survey

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Port Richey Alternative Outfall  
**Project Number** N901  
**Cooperator** Pasco County  
**Department** Design Stormwater Management  
**Contact Person** Pasco County Public Works Department  
**Address** 7536 State Street, Suite 140  
**City State Zip** New Port Richey, FL 34654  
**Phone #** 727-847-8143  
**Email** mgarrett@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This is a project to Implement Best Management Practices (BMPs) in the Port Richey Watershed to address flood protection issues. The project will provide an alternative outfall for the Salt Springs Slough, and Port Richey Slough, intermediate scale conveyance ways. Land development and mosquito control measures have alerted the configuration, storage and conveyance characteristics of the sloughs. This project will connect to an existing outfall to the Gulf of Mexico that passes through existing culverts at US 19. The project will include acquisition of property rights for the outfall. This will be a multi-year funded project implemented in phases, Conceptual Design, Property Right Acquisition, Design, Permitting, and Construction with Construction Engineering and Inspection. The project is currently in design.

**Benefit:**

To address Flood Protection issues in the Port Richey Watershed. The flood protection preliminary benefit/cost ratio is 1.03, calculated using Stormwater Improvement Flood Protection (SIFP) Benefit Cost Analysis Tool (attached as a document). This benefit/cost ratio will be further refined during the design phase.

**Cost:**

Total projected cost for budgeting \$3,250,000. Acquisition of some parcels or portion thereof along the route is probable; Parcel ID 28 25 16 0010 05600 0051 - \$50,000; Parcel ID 28 25 16 0010 05600 0020 - \$50,000; Other parcels may be need.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017, 100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed

water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share	225,000	400,000	1,000,000		1,625,000
Coastal Rivers	225,000	400,000	1,000,000		1,625,000
Total	450,000	800,000	2,000,000		3,250,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**PRAO**

<b>Milestone</b>	<b>Projected Date</b>
Begin Property Acquisition	05/01/2019
30% Plans, Specifications, and Cost Estimate	08/01/2019
Third-party Review Coordination	08/01/2019
Final Design/Permitting	09/24/2020
Begin Construction	01/01/2021
Complete Construction	01/01/2022

**Data Collection Assessment:**

Land Survey  Mapping/GIS data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** WMP - City of St. Petersburg Watershed Management Plan  
**Project Number** N904  
**Cooperator** City of St. Petersburg  
**Department** Engineering  
**Contact Person** Dan Saunders  
**Address** One 4th Street North  
**City State Zip** St. Petersburg, FL 33701  
**Phone #** 727-893-7854  
**Email** dan.saunders@stpete.org

### Project Type:

Water Supply  Water Quality  Flood Protection  Natural Systems

### Strategic Initiatives:

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

### Indicate All Counties to Benefit From Project:

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

### Project Description/Benefit/Cost

#### Description:

This is a continuing project which began in 2018. The City of St. Petersburg watershed encompasses an area of roughly 62 square miles and has experienced very significant flooding and water quality issues in the recent years. In 1994, the City developed their Stormwater Management Master Plan (Plan). Since 1994, the City has updated portions of the watershed for implementation of recommended projects. The current model is now comprised of sections in multiple software including ICPR, SWMM3, SWMM4, and Excel spreadsheets. The City has some of their basin data and stormwater inventory in a GIS format, but is looking to develop a more robust GIS database to house their model data. Since 1994, the City has been continuously implementing stormwater improvements as recommended in the City's previous Plan. However, there are still areas within the City that are prone to flooding. There are also FDEP-designated WBIDs within the City that are verified as impaired and/or have adopted Total Maximum Daily Loads (TMDLs). Due to the age of the existing Plan, the City is looking to develop a new comprehensive Watershed Management Plan (WMP) to address all four of the Southwest Florida Water Management District's (SWFWMD) areas of responsibility, including flood protection, water quality, natural systems, and water supply. The City will utilize the information from their existing Plan, in conjunction with new datasets such as LiDAR, plan sets, field reconnaissance, and survey, to develop a new Watershed Management Plan in accordance with the SWFWMD Guidelines and Specifications. The objectives of the new WMP include: 1) development of a GIS database to house all existing model components, 2) conversion of the existing models into SWMM5 or ICPR, 3) update to the existing model/GIS to account for new LiDAR data, plan sets for areas of new/ updated development, etc., 4) increase the level of detail between the existing and updated models, 5) development of floodplains, 6) determination of Level-of-Service for the watershed, and 7) analysis of Best Management Practice (BMP) alternatives to reduce flooding, address sea-level-rise, improve water quality, and restore/create natural systems.

#### Benefit:

The results of this WMP study will help the City to further identify their flood-prone areas and will help devise alternatives for flood management and water quality management throughout the City. The products of the WMP will also serve as best available data for SWFWMD Resources Regulation. The continuous updating of WMPs is essential for making reliable information available to local and regional decision makers. The City of St Petersburg participates in the National Flood Insurance Program (NFIP) and the Community Rating System (CRS). Currently the City is a Class 6 community, and this provides a 20% discount to all flood insurance premiums for people within the Special Flood Hazard Area (SFHA). The City has implemented goals to lower this score to a Class 5, with an effective discount of 25%. These goals have involved a Program for Public Information, higher level of flood protection, analysis of flood problem areas, and collaboration with Pinellas County Government to enhance the Watershed Management Plan. The proposed Watershed Management Plan project aligns with the City's goals and may help the City achieve

the desired Class 5 rating. During the course of this project, the City plans to hold public meetings to present the results of the preliminary floodplains. This meeting will be beneficial as it provides an opportunity to encourage public involvement by receiving feedback regarding resident's questions and concerns. It should be noted that there is new LiDAR data to be obtained from Pinellas County, and the City will be using this data for this project. Therefore, no additional costs are expected to be incurred due to LiDAR data collection efforts for this project.

**Cost:**

\$1,800,000.00

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The City is a premier local government engaging in multiple water conservation efforts that engage the public. The City participates and offers numerous programs including the Sensible Sprinkling Program, Toilet Rebate Programs, Indoor Water Conservation Kits, Restaurant Spray Valve Replacement Programs for Service Providers, Water Conservation Publications, Indoor Water Conservation Kits, and Public Presentations and Workshops. The City is authorized through its MS4 permit and/or local ordinances to maintain, construct, reconstruct, improve and extend stormwater systems to establish just and equitable stormwater utility rates, fees and charges for the services and facilities provided by the system. The utility fee is applied to each developed parcel in the City. The City has been supportive of neighborhood and community volunteer opportunities that help to implement their Drainage and Surface Water Management Ordinance. The Friends of Crescent Lake is a visible example of a voluntary effort on the part of the City and community to improve the lake's water quality and shoreline environment, while providing an aesthetic value and improvement to the quality of life within the community. Monthly vegetation management and water quality sampling efforts have provided opportunities for environmental education and community service for high school and university students. Significantly, the volunteer efforts in aquatic plant control and habitat creation have reduced the operational maintenance effort needed by the City stormwater department. The City of St Petersburg participates in the National Flood Insurance Program (NFIP) and the Community Rating System (CRS). The CRS program gives incentives to go above and beyond the minimum NFIP requirements by rewarding the City with a flood insurance premium discount. Currently the City is a Class 6 community, and this provides a 20% discount to all flood insurance premiums for people within the Special Flood Hazard Area (SFHA). The City has implemented further goals to lower this score to a Class 5, with an effective discount of 25%. These goals have involved a Program for Public Information, higher level of flood protection, analysis of flood problem areas, and collaboration with Pinellas County Government to enhance the Watershed Management Plan. The current Floodplain Ordinance #191-H establishes minimum floodplain requirements for all buildings being constructed or improved within the SFHA. The City Administration has been proactive in the development of ordinances vital to achieving the desired objective of management of water resources and flood protection. Ordinance No. 2017-F and 147-G regulates the control and management of drainage and surface waters in harmony with the City Comprehensive Plan and SWFWMD regulations. Building developments are regulated in terms of the quantity and quality of stormwater runoff. Water pollution protection is provided by Ordinance Section 27-430 – Section 27-433, which identify unlawful discharges into the public drainage system and provides for prosecution of violators.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share	281,250		350,000	268,750	900,000
Pinellas Anclote	281,250		350,000	268,750	900,000
Total	562,500		700,000	537,500	1,800,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

Watershed Evaluation	01/22/2020
Floodplain Analysis	06/28/2021
Surface Water Resource Assessment & BMP Water Quality Analysis	07/25/2022
Floodplain Level of Service BMP Alternatives Analysis	07/25/2022
Final Deliverables	08/10/2022

**Data Collection Assessment:**

- Groundwater or Surface Water Level measurements     Surface Water Flow (Discharge) measurements
- Rainfall or Other Meteorological measurements     Land Survey
- LIDAR/Elevation data     Mapping/GIS data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** SW IMP- FLOOD PROTECTION- LOWER SPRING BRANCH CONVEYANCE IMPROVEMENTS  
**Project Number** N915  
**Cooperator** City of Clearwater  
**Department**  
**Contact Person** Elliot Shoberg  
**Address** 100 South Myrtle Ave.  
**City State Zip** Clearwater, FL 337585520  
**Phone #** 727-562-4748  
**Email** elliot.shoberg@myclearwater.com

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

Design, permitting, and construction of conveyance improvements along the Lower Spring Branch of Stevenson Creek in Pinellas County. FY2020 funding will be used for construction of Douglas Avenue, Springtime Avenue and Overbrook Avenue crossings.

**Benefit:**

The contractual Measurable Benefit will be the conveyance improvements at the Douglas Avenue, Springtime Avenue, Overbrook Avenue and Sunset Point Road crossings of the Lower Spring Branch system. This project will provide flood relief for 11 homes adjacent to Spring Branch

**Cost:**

This project is estimated to have a total project cost of \$3,320,000. This includes, design, permitting and construction. The City of Clearwater is requesting the Southwest Florida Water Management District provide \$1,042,633 from its FY2020 budget for the construction of the crossings at Douglas Avenue, Springtime Avenue and Overbrook Avenue.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The City of Clearwater has an impressive track record of developing, implementing and enforcing water conservation measures. The City has met the requirements of the Northern Tampa bay Water Use Caution Area stipulations included in its Water Use Permit. The 2015 Water Year compliance per capita water consumption for the City of Clearwater was 76 gpcd. This is well below the required 130 gpcd for Year 2001 required in the Water Use Caution Area regulations. The City has also implemented a consumptive use rate structure in October 2006 to ensure efficient use of reclaimed water which reduces the use of potable water for irrigation needs.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		122,500	821,250		943,750
Pinellas Anclote		122,500	1,537,500		1,660,000
Pinellas County			716,250		716,250
Total		245,000	3,075,000		3,320,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

30 % Design Complete	11/30/2018
60% Design Complete	01/31/2019
90% Design Complete	03/30/2019
Complete Design and Permintting	05/30/2019
Solicit Bids for Construction	06/30/2019
Bidding and Contractor Selection Complete	09/30/2019
Begin Construction	01/01/2020
Complete Construction	06/30/2021
Record Drawings Complete	09/30/2021

**Data Collection Assessment:**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Groundwater or Surface Water Level measurements   | <input checked="" type="checkbox"/> Surface Water Flow (Discharge) measurements |
| <input checked="" type="checkbox"/> Groundwater or Surface Water Quality measurements | <input checked="" type="checkbox"/> Land Survey                                 |
| <input checked="" type="checkbox"/> LIDAR/Elevation data                              | <input checked="" type="checkbox"/> Aerial Imagery                              |
| <input checked="" type="checkbox"/> Mapping/GIS data                                  |   |

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Southeast Seminole Heights Flood Relief  
**Project Number** N949  
**Cooperator** City of Tampa  
**Department** Stormwater  
**Contact Person** Ben Allushuski  
**Address** 306 E Jackson St, 6n  
**City State Zip** Tampa, FL 33602  
**Phone #** 813-274-3257  
**Email** ben.allushuski@tampagov.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This project will consist of the construction of regional stormwater improvements to serve an area of approximately 780 acres of urban environment discharging into the Hillsborough River south of the Hillsborough River Dam in the Southeast Seminole Heights area of the City of Tampa. Surface drainage generally flows east to west towards the river, but is hindered by the higher elevations of Interstate 275. Observed flooding problems in the basin are the result of an undersized storm sewer system and limited surface drainage infrastructure due to lack of topographic relief in the study area. The drainage basin is highly urbanized and consists mainly of residential neighborhoods with commercial strips extending the length of the main highways. Chronic flooding occurs in the watershed due to high intensity, short duration rainfall events that overwhelm the existing stormwater system causing dangerous driving conditions. The attached project map shows the extent of flooding issues in the area. The City's intent is to construct and implement several flood relief efforts in the watershed to alleviate frequent and dangerous flooding on critical evacuation routes and in residential neighborhoods. These flood relief efforts include upsizing existing pipes, installing higher capacity trunklines, and constructing new stormwater ponds for water quality and quantity purposes. The City will be coordinating these efforts with FDOT as they have jurisdiction over many of the critical roads in the watershed. These flood relief efforts can be viewed in detail in the attachments section. The City has already purchased three lots in the watershed that frequently flood and intends to construct a stormwater pond on the site. This project will ultimately decrease the 5-year/8-hour (critical storm duration) floodplain in the project area on critical evacuation routes and in residential neighborhoods, as well as provide structural protection for the 100-year/24-hour storm event in the project area. The Fiscal Year 2020 portion of the project will fund the Third Party Review and Thirty Percent Design portions of the project. The total cost of the project is approximately \$23.5 million. A detailed feasibility study and corridor analysis of the proposed stormwater improvements has been completed and is attached to this application for review.

**Benefit:**

The primary benefit of the project is that it provides an upsized stormwater system to relieve frequent flooding on critical roads in the Southeast Seminole Heights neighborhood. Hillsborough and Nebraska Avenues, including Interstate 275, are the main evacuation routes for the Southeast Seminole Heights area and often experience dangerous flooding. High intensity, short duration rainfall events overwhelm the existing stormwater system, causing treacherous driving conditions on evacuation routes and in residential areas. The Resource Benefit of this project will be to decrease the 5-year/8-hour floodplain in the area, as well as provide structural protection from the 100-year/24-hour storm event in the area. The Measurable Benefit of this project will be the construction of upsized stormwater infrastructure including, but not limited to, pipes, box culverts, and retention ponds. A Benefit-

Cost Ratio of 0.92 was calculated using the SWFWMD Stormwater Improvement Flood Protection (SIFP) Benefit-Cost Analysis Tool.

**Cost:**

The total project cost is estimated at approximately \$23,500,000 based on an engineer’s opinion of probable cost. The City of Tampa is requesting \$1,000,000 total in FY 2020 which will cover the third party review and 30% design components of the project. A detailed cost estimate (that does not include design costs) and benefit-cost analysis is attached to this application for review.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The City of Tampa has the following codes in place relating to water conservation: 1) Standard Plumbing Code (Ord. No. 92-67,2,5-7-92; Ord. No. 96-64,62,3-14-96; Ord. No.98-40,19 2-26-98), 2) Water Use Restrictions Code (Ord. No. 2003-316; Ord. No. 2000-69, 97, 3-16-00; Ord. No. 2000-43,97,9-14-00; Ord. No. 2001-87,97,3-29-01), 3) Increase in Water Restriction Violation Fines (Ord. NO. 2001-19,23,1-4-1), 4) Landscaping Code (Ord. No. 97-34,2,2-6-97), 5) Rain Sensor Requirement (part of Plumbing Code, Ord. NO 98-40,19,2-26-98), 6) Schedule of Water Rates ( Ord. NO. 2001-0987,26-31,8-30-01). The city has adopted a Flood Damage Control Ordinance (Ord. NO. 92-67, 2, 5-7-92, ord. NO 92-134, 3, 4, 81-3-92; Ord. NO. 96-64, 73-75, 3-14-96) as required to participate in the National Flood Insurance Program administered through FEMA. The City of Tampa also has a Stormwater Assessment Program that includes a Service Assessment and an Improvement Assessment. The Service Assessment has been in existence since 2003 as described in Resolution 2003-937. The Improvement Assessment was adopted in 2016 as described in Resolution 2016-706. The Service Assessment is an annual non-ad valorem assessment that pays for operations and maintenance of the existing stormwater system. Services include street sweeping, pond maintenance, pipeline system cleaning, outfall cleaning, ditch maintenance and miscellaneous micro-projects ancillary to maintenance activities. The Improvement Assessment is an annual non-ad valorem assessment that pays for capital improvements associated with the stormwater system in the City of Tampa. Improvements include system capacity increases, treatment facilities such as ponds, ditches and baffle boxes, new pipelines and box culverts, pump stations, backflow valves, inlets, curb and gutter systems, as well as roadway regrading to improve flow patterns.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		500,000	500,000	10,750,000	11,750,000
Hillsborough River		500,000	500,000	10,750,000	11,750,000
Total		1,000,000	1,000,000	21,500,000	23,500,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

Feasibility and Corridor Analysis	10/05/2018
Permitting	03/31/2020
Third Party Review and 30% Design	03/31/2020
Construction	09/30/2022

**Data Collection Assessment:**

No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Tampa Bypass Canal Gates Automation  
**Project Number** N965  
**Cooperator** Tampa Bay Water  
**Department** Engineering Support  
**Contact Person** Solomon Kang  
**Address** 2575 Enterprise Rd  
**City State Zip** Clearwater, FL 33763  
**Phone #** 813-996-4185  
**Email** skang@tampabaywater.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This project will equip the existing manual slide gates located on top of the larger flood control gates with remote-controlled motorized gate actuators at the Tampa Bypass Canal Structures 160, 161, and 162. The structures are owned by the Army Corps of Engineers, the flood control gates are operated by the Southwest Florida Water Management District (SWFWMD), and the slide gates are operated by Tampa Bay Water. There are a total of 15 flood control gates, 14 of which have slide gates at the top. Five of the top-mounted slide gates already have automation installed. This project includes the installation of automation on the remaining nine slide gates.

**Benefit:**

This project will allow a more controlled release of water from pool to pool at the Tampa Bypass Canal, and reduce water loss due to flood management. Additionally, automating the slide gates will improve the water quality of the surface water supply at the Tampa Bypass Canal pumping facility by better controlling the use of the larger flood gates which stirs up sediment from the bottom of the canal thereby impairing water quality. Finally, this project will reduce the District's frequency of having to manually operate the larger flood control gates. Regional demands are projected to increase from water year 2017 demands of 251 MGD, to water year 2040 demands of 280-320 MGD.

**Cost:**

The total capital cost for this project is \$1,032,000 including the following project elements: • Design, Permitting, and Bidding \$195,500 • Construction \$659,500 • Construction Engineering & Inspection (CEI) \$172,000 • As-Built Survey, Record Drawings, & Substantial Completion \$5,000

Expected annual operating and maintenance (not part of this funding request) includes: • Operations \$18,000 • Maintenance \$5,000

Expected Renewal and Replacement cost (not part of this funding request) at the end of the project's useful life (15 years) is \$1.5 Million.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Conservation is an important element of the region's water supply. Tampa Bay Water plans and coordinates conservation programming in the Tampa Bay region. Our member governments are responsible for implementing programs that quantifiably reduce water demand. Due to the successful conservation planning and implementation efforts by Tampa Bay Water and its members, the per capita use rate of approximately 100 gpcpd in the Tampa Bay region is significantly lower than the State average

and exceeds District goals. Tampa Bay Water supports local government conservation programs by funding programs quantifying water conservation potential and cost, providing region-wide educational and marketing programs, and various research and development-based programs. Tampa Bay Water worked with its member governments in creating model irrigation and landscape ordinance language that was adopted by most of our members, has evaluated implementation of those ordinances, and is working with members to increase ease and effectiveness of implementation. Tampa Bay Water is a wholesale drinking water provider to our member governments and has no regulatory purview of any kind. Flood protection ordinances fall under the purview of the members and are implemented by them.

Tampa Bay Water continues to seek better ways of serving its customers and protecting the environment. In addition to comprehensive hydrologic and environmental monitoring at Tampa Bay Water facilities, technologies employed include the OROP, short-term and long-term demand forecasting, and surface water forecasting methods to ensure that we keep pace with our member government demands, react quickly to changed conditions, and manage our facilities for the protection of the environment and the benefit of our customers.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		210,700	216,800	88,500	516,000
General Fund-District Wide		210,700	216,800	88,500	516,000
<b>Total</b>		<b>421,400</b>	<b>433,600</b>	<b>177,000</b>	<b>1,032,000</b>

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**A-Professional Services Selection**

<b>Milestone</b>	<b>Projected Date</b>
Engineering Services Scope Approval	10/22/2018

**B-Design**

<b>Milestone</b>	<b>Projected Date</b>
100% Design Complete	05/31/2019

**C-Bidding**

<b>Milestone</b>	<b>Projected Date</b>
Bid Approval	10/21/2019

**D-Construction**

<b>Milestone</b>	<b>Projected Date</b>
Construction Substantial Completion	12/31/2021

**E-Close-Out**

<b>Milestone</b>	<b>Projected Date</b>
Final Project Close-Out Approval	06/20/2022

**Data Collection Assessment:**

No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Hidden Lake/Yellow Lake  
**Project Number** N967  
**Cooperator** Pasco County  
**Department** Design Stormwater Management  
**Contact Person** Pasco County Public Works Department  
**Address** 7536 State Street, Suite 140  
**City State Zip** New Port Richey, FL 34654  
**Phone #** 727-847-8143  
**Email** mgarrett@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

Historically, certain areas downstream of Hidden Lake have flooded during the 100YR/24HR Storm Event, as well as from less intense events. Areas most impacted by flooding from this watershed include residences near Bass Lake, Yellow Lake, and Scout Lake. The project would provide flood relief to downstream properties immediately after completion. The project consists of constructing berms around Hidden Lake with a control structure. The berms would allow the lake property to retain more water, then discharge at a controlled/ reduced rate. In the current condition, Pasco County runs multiple emergency pumping operations to provide additional capacity in the surrounding lakes to protect the homes and roads; this has been done prior to and after major storm events. This project is intended to relieve the need for pumping. This project will, in addition, serve to provide aquifer recharge and water quality benefits.

This regional stormwater improvement - flood protection project is an implementation of the Best Management Practices (BMPs) element of the DISTRICT'S Watershed Management Program (WMP) for the Yellow Lake and Lake Worrell (STUDY AREA) basins in Pasco County FL (5.4 sq. mi. - 3,468 acres), located in the Pithlachascotee River and Bear Creek (Bear/Cotee) watershed (201.1 sq. mi. - 128,704 acres) BMP conceptual design has been performed under the Bear/Cotee WMP Update and BMP Analysis (N509) TWA #15TW-275 and will, with this requested funding, be completed through the first phase of the project including land acquisition as well as final design and permitting of drainage improvements designed to reduce home flooding from 78 homes under existing conditions to 0 homes after the project and the length of roadway flooding by as much as 4,432 feet.

The study area is historically flood-prone and has been the subject of several past studies including development and implementation of facilities that provide increased conveyance capacity in the vicinity of Rocky Sink to the south of Lake Worrell. Analysis of the watershed and those facilities were the subjects of several previous studies including:

Bear Creek Stormwater Management Master Plan , Final Report (Ghioto & Associates, Inc., 1993),  
The Pithlachascotee River Flood Plain Analysis (Ghioto & Associates, Inc., 1997) and Hydraulic Design Evaluation,  
Rocky Sink/Boggy Creek Watershed Improvement Project (Ardaman & Associates, Inc., 2002).

The regional system project includes detailed modeling and design, permitting, land acquisition, and construction/CEI for improvements in the Hidden Lake area that will create flood storage and provide flood mitigation in the Yellow Lake and Lake Worrell sub-watersheds. The project includes construction of berms to impound stormwater at Hidden Lake and structures to

ultimately divert this stormwater away from Yellow Lake and Lake Worrell through Boggy Creek and on to the Pithlachascotee River. Construction of the proposed BMPs will relieve flooding impacts to residential properties and reduce street flooding.

**Benefit:**

Proposed project would provide flood relief to downstream properties immediately after completion. The project consists of constructing berms around Hidden Lake with a control structure. The berms would allow the lake property to retain more water, then discharge at a controlled/ reduced rate to properties in the Bass Lake area (Lake Worrell), Yellow Lake Area, Cranes Roost, and Tanglewood East Subdivision. The project is estimated to prevent 78 homes from flooding during the 100YR/24HR storm event. Because more water is being retained in the post condition than in the pre-condition, the project includes a water quality component as well. This project will, in addition, serve to provide aquifer recharge and water quality benefits.

**Cost:**

Total Cost: \$6,000,000. This cost estimate includes an \$800,000 land acquisition of the Hidden Lake Parcel currently owned by the district, which is 589 AC MOL; parcel numbers:

30-25-17-0000-00100-0011  
19-25-17-0000-00100-0000

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017, 100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share		600,000	1,000,000	1,400,000	3,000,000
Pinellas Anclote		600,000	1,000,000	1,400,000	3,000,000
Total		1,200,000	2,000,000	2,800,000	6,000,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Hidden Lake/Yellow Lake**

Milestone	Projected Date
Begin Property Acquisition	11/01/2018
Complete RSQ Process	04/01/2019
Begin Engineering and Permitting	07/01/2019
Complete Engineering and Permitting	07/01/2020
Begin Construction	11/01/2020
Complete Construction	11/01/2021

**Data Collection Assessment:**

Groundwater or Surface Water Quality measurements  Land Survey

Mapping/GIS data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** South Creek Watershed Management Plan  
**Project Number** N970  
**Cooperator** Pinellas County  
**Department** Public Works  
**Contact Person** Paul Miselis  
**Address** 22211 Us Highway 19 North  
**City State Zip** Clearwater, FL 33765  
**Phone #** 727-464-8921  
**Email** pmiselis@pinellascounty.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

<input checked="" type="checkbox"/> Water Quality Maintenance and Improvement	<input type="checkbox"/> Water Quality Monitoring
<input type="checkbox"/> Alternative Water Supply	<input type="checkbox"/> Conservation
<input type="checkbox"/> Reclaimed Water	<input type="checkbox"/> Regional Water Supply Planning
<input checked="" type="checkbox"/> Emergency Flood Response	<input checked="" type="checkbox"/> Floodplain Management
<input type="checkbox"/> Minimum Flows and Level Establishment and Monitoring	<input type="checkbox"/> Minimum Flows and Levels Recovery
<input checked="" type="checkbox"/> Natural Systems Conservation and Restoration	<input type="checkbox"/> Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

<input type="checkbox"/> Charlotte	<input type="checkbox"/> Citrus	<input type="checkbox"/> Desoto	<input type="checkbox"/> Hardee	<input type="checkbox"/> Hernando	<input type="checkbox"/> Highlands	<input type="checkbox"/> Hillsborough	<input type="checkbox"/> Lake
<input type="checkbox"/> Levy	<input type="checkbox"/> Manatee	<input type="checkbox"/> Marion	<input type="checkbox"/> Pasco	<input checked="" type="checkbox"/> Pinellas	<input type="checkbox"/> Sarasota	<input type="checkbox"/> Sumter	<input type="checkbox"/> Polk

**Project Description/Benefit/Cost**

**Description:**

The project involves the development of a comprehensive watershed management plan (WMP) that results in recommendations for drainage, water quality and natural systems improvement projects in the South Creek watershed.

The South Creek watershed covers approximately 2,913 acres in northern Pinellas County. The majority of current land use within the South Creek Watershed is urban. The watershed contains a number of interconnected urban lakes and four main stream channels. A number of flooding and conveyance issues have been identified in the watershed. Lake St. George, the largest lake in the watershed at 65 acres, is impaired for nutrients according to the State of Florida's Impaired Waters Rule (IWR). The ultimate discharge point for the watershed is Lake Tarpon and the Lake Tarpon outfall canal, a SWIM priority water body. No WMP presently exists for South Creek. This project will develop a new WMP for South Creek, which will be developed in general accordance with the District's Guidelines and Specifications.

**Benefit:**

This project involves the development of a comprehensive watershed management plan that results in BMP recommendations for flood protection, water quality, and natural system improvement projects in the contributing watershed.

**Cost:**

This request is for the second year of a three-year project whose total project amount is estimated to be \$750,000.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The Pinellas County Comprehensive Plan obligates the County to protect, enhance, and improve water quality through water quality monitoring, watershed management plan development, implementation of projects, and environmental enforcement. In addition, the County is obligated by the Comprehensive Plan to work to improve flood protection and natural systems. The County has a fertilizer ordinance which restricts using products containing nitrogen or phosphorus during the rainy season with a related sales ban, a pet waste ordinance, and a street sweeping program all designed to reduce nutrient pollution to receiving waters. The County also has adopted a stormwater assessment that collects money to fund surface water programs, which include stormwater maintenance and related public outreach and education programs. In addition, many of our County vehicles are wrapped with stormwater education messages and professional landscape maintenance companies are required to take a BMP training certification course.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		75,000	150,000	150,000	375,000
Pinellas Anclote		75,000	150,000	150,000	375,000
Total		150,000	300,000	300,000	750,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Watershed Management Plan**

<b>Milestone</b>	<b>Projected Date</b>
Procurement	01/31/2019
Project Development	03/31/2019
Watershed Evaluation	09/01/2019
Floodplain Analysis	05/01/2020
FPLOS and BMP Alternatives Analysis	11/01/2020
SWRA and BMPs for Water Quality	06/01/2021

**Data Collection Assessment:**

Land Survey

Mapping/GIS data

Other data collection: LiDAR, rain, flow and water quality data will be sourced from existing monitoring efforts.

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Zephyr Creek Drainage Improvements: Units 3 and 4  
**Project Number** N990  
**Cooperator** Pasco County  
**Department** Design Stormwater Management  
**Contact Person** Pasco County Public Works Department  
**Address** 7536 State Street, Suite 140  
**City State Zip** New Port Richey, FL 34654  
**Phone #** 727-847-8143  
**Email** mgarrett@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This is a multi-year, regional-scale stormwater improvement project to perform the implementation of Best Management Practices (BMPs) element of the District's Watershed Management Program (WMP) for Units 3 & 4 of the 8,000 acre Lake Zephyr Watershed. Flooding problems north of C Avenue, near Old S.R. 54, south of 8th Avenue, west of Plant Street and west of Dean Dairy Road are the most severe with respect to both flood depth and extent of inundation within the watershed. The SWMMP for the six-unit Lake Zephyr Watershed was completed in 1989, with Units 1 and 2 being updated in 2009. Through cooperative funding and HUD grant funds, Unit 5 (Geiger Pond) has been completed and has been shown to be effective. Furthermore, upgraded cross-culverts have been designed and installed under US 301 and Dean Dairy Road (portions of Units 2 and 5, respectively) via Community Development Block Grant and FEMA monies. In order to complete the middle two (2) units of the Lake Zephyr Watershed Management Plan, additional funding is being requested for design and construction. Unit 3 improvements will consist of two (2) cross-culvert improvements at C Avenue and Lagoon Court along with channel improvements near the old S.R. 54 crossing. In turn, Unit 4 improvements will be composed of three (3) cross-culvert improvements at 8th Avenue, Wooden Bridge (upstream of 8th Avenue) and Plant Street. In addition, 6,500LF of channel maintenance is to be performed if required

**Benefit:**

The overall proposed project promises to reduce expected flood levels so that approximately **fifty-nine (59)** structures can be reclassified as laying above the FEMA floodplain. Furthermore, the project will address access deficiencies for **two (2)** roadways (6th Avenue & 1st Street). These units represent the middle section of Zephyr Creek located directly downstream of Geiger Pond, and would serve to further alleviate flooding throughout the watershed. The Total Present Value of Future Benefits is estimated to be \$9.96M. Estimated construction cost is at \$5.1M, resulting in a B/C ratio of **1.95**

**Cost:**

FY 2019 is being used for design and permitting and FY 2020 funding is being requested construct Unit 3 and 4 improvements. Total project cost is estimated to be \$5.1M

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017, 100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		300,000	1,500,000	750,000	2,550,000
Hillsborough River		300,000	1,500,000	750,000	2,550,000
Total		600,000	3,000,000	1,500,000	5,100,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Zephyr 3 & 4**

<b>Milestone</b>	<b>Projected Date</b>
Commence Design/Permitting	12/03/2018
30% Pland	06/03/2019
Complete design/permitting	09/02/2019
Comence Construction	01/01/2020
Complete Construction	02/01/2021

**Data Collection Assessment:**

Land Survey  Mapping/GIS data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** WMP-Cypress Creek Watershed Management Plan  
**Project Number** N993  
**Cooperator** Pasco County  
**Department** Stormwater Management  
**Contact Person** David Sua  
**Address** 4454 Grand Blvd  
**City State Zip** New Port Richey, FL 346525402  
**Phone #** 727-834-3611 ext3611  
**Email** dsua@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This multi-year project will perform the following: 1) Watershed Evaluation and 2) Implement Watershed Management Plan elements of the District's Watershed Program (WMP) for the Cypress Creek Watershed. The objective is to update the existing WMP for the Cypress Creek/South Lakes (CCSL) Watershed, which was commenced in 2004 for the Southwest Florida Water Management District and Pasco County, and completed in May of 2011. The WMP update is needed to account for the following in the watershed: land use changes and new development impacts in the watershed, use of more accurate digital topographic data (LiDAR), incorporation of the County's current spatial infrastructure database for stormwater assets that are now available, which will help to more accurately reflect drainage features in the Watershed. The WMP update will also include updating the existing hydrologic and hydraulic model for the watershed, to reflect the aforementioned changes that have occurred since 2004, and include a BMP Alternatives Analysis for the Watershed that includes the following: updated floodplain model that updates previously identified BMP alternatives along with identification of additional new BMPs resulting from the updated floodplain modeling, to specifically address flood abatement in the watershed. Identification of specific BMPs or groups of BMPs, their types, sizes, conceptual design features and specifications, preliminary and revised/updated cost estimates and easement requirements that are needed to lower or eliminate the risk of flooding in the Cypress Creek Watershed will result from the updated WMP. Additionally, tabulations of flood depths, number of structures flooded or removed from the floodplain, depth and areal extent of parcel and roadway flooding (extent and linear footage) and production of GIS-based existing and proposed flood maps supporting the overall flood abatement effective of each BMP or groups of BMPs, as well as recommendation on the sequence of implementation that reflects BMP effectiveness, as well as address regulatory permissibility of the BMPs. Level of Service (LOS) determinations for structures and roadways shall also be addressed. Project description includes Project Development, Watershed Evaluation, Floodplain Analysis, Level of Service Analysis and BMP Alternatives Analysis.

The project's study area includes only the approximately 130-acre portion of the Cypress Creek Basin in Pasco County, and includes the approximately 25-mile long creek that originates in north-central Pasco County, flowing southerly into Big Cypress Swamp, northwest of the I-75/SR54 interchange. Creek flow continues southerly into Hillsborough County before discharging into the Hillsborough River. The total budget amount for this project is \$1,800,000, and was estimated based on the fact that there is already an existing WMP as well as staff experience with similar project requirements.

**Benefit:**

The resulting Watershed Model, floodplain analysis information and identified BMPs are critical to better identifying risk of flood damage assessment, effective floodplain management and future development planning in the Watershed. Results of this project will facilitate achievement of a lower ranking in the Community Rating System of the Federal Emergency Agency (FEMA), which may lead to lower insurance premiums in Pasco County.

**Cost:**

Total cost is estimated at \$1,800,000 for this multi-year project, with the Applicant's share of \$900,000, and an equivalent matching amount of \$900,000 from the District, as depicted in the Funding Table Tab. Future phases of implementation will finalize the WMP update and include the BMP Alternatives Analysis, as well as the FEMA map revision for the Cypress Creek Watershed.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017, 100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share		378,000	270,000	252,000	900,000
Hillsborough River		378,000	270,000	252,000	900,000
Total		756,000	540,000	504,000	1,800,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**01/01/2022 - 04/30/2022**

**Milestone**

Level of Service Analysis

**Projected Date**

04/30/2022

**03/01/2019 - 09/30/2020**

**Milestone**

Watershed Evaluation

**Projected Date**

09/30/2020

**05/01/2022 - 06/30/2023**

**Milestone**

BMP Analysis

**Projected Date**

06/30/2023

**10/01/2020 -12/31/2021**

**Milestone**

Floodplain Analysis

**Projected Date**

12/31/2021

**12/01/2018 - 02/28/2019**

**Milestone**

Project Development

**Projected Date**

02/28/2019

**Data Collection Assessment:**

- Surface Water Flow (Discharge) measurements
- Land Survey
- LIDAR/Elevation data
- Aerial Imagery
- Mapping/GIS data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Plant City Watershed Management Plan  
**Project Number** N995  
**Cooperator** Plant City  
**Department** Engineering  
**Contact Person** Michael Schenk  
**Address** P.O. Box C  
**City State Zip** Plant City, FL 33564  
**Phone #** 813-659-4200 ext4154  
**Email** mschenk@plantcitygov.com

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

Watershed Management Plan (WMP) and storm water inventory, floodplain delineation, and Best Management Practices (BMP) alternative analysis for the Plant City Watershed using digital topographic information, ERP data, and land use updates. Two studies have been completed within the City Limits, the Eastside Canal Improvements in 2001 and the Westside Canal Improvements in 2008. Information from those studies will be utilized and incorporated into the new WMP. The first year funding is FY2019 and will be used to initiate the WMP. This year' funding, FY 2020, will be used to conduct the watershed evaluation and modelling that will identify the preliminary floodplain areas within the City. The preliminary delineation of the floodplain areas will be based on the SWIM modeling.

**Benefit:**

The contractual Measurable Benefit will be the completion of a WMP and storm water inventory, floodplain delineation, Best Management Practices and Alternative Analysis for the Plant City Watershed in the City of Plant City using digital topographical information, ERP data and land use updates.

**Cost:**

Total Project Cost: \$1,300,000

City of Plant City: \$650,000

District: \$650,000

The City will provide \$250,000 for the first phase of the project starting FY 2019The City will provide for this second phase, FY 2020, an additional \$200,000

The City of Plant City has an area of 28.16 square miles within its city limits and is served by two watersheds, Hillsborough River and Alafia River.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The City is submitting for Phase 2, FY 2020 funding for the Watershed Management Plan Cooperative Funding Initiative in order to complete the watershed evaluation and modeling efforts. Results from the modeling will provide the preliminary delineation of the floodplain areas based on SWIM modeling. The City is fully committed to move forward on Phase 2, FY 2020, on this Watershed Management Plan in order to improve the existing storm water facilities and lessen the flooding potential in the neighborhoods

which will benefit the citizens of Plant City as well as those who reside outside of the City.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		250,000	200,000	200,000	650,000
General Fund-District Wide		250,000	200,000	200,000	650,000
Total		500,000	400,000	400,000	1,300,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**December 1, 2020 - November 30, 2021**

**Milestone**

Phase III: Completion of Floodplain Delineation, Level of Services, BMP's

**Projected Date**

11/30/2021

**December 2, 2019 - November 30, 2020**

**Milestone**

Phase II: Completion of Watershed Evaluation

**Projected Date**

11/30/2020

**December 3, 2018**

**Milestone**

Project Kickoff Meeting

**Projected Date**

12/03/2018

**December 3, 2018 - November 29, 2019**

**Milestone**

Phase I: Documentation collection, surveys, mapping existing systems

**Projected Date**

11/29/2019

**Data Collection Assessment:**

Land Survey  Mapping/GIS data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Regional Facility Site Pump Station Expansion  
**Project Number** N998  
**Cooperator** Tampa Bay Water  
**Department** Engineering Support  
**Contact Person** Solomon Kang  
**Address** 2575 Enterprise Rd  
**City State Zip** Clearwater, FL 33763  
**Phone #** 813-996-4185  
**Email** skang@tampabaywater.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This project will increase the existing regional water system alternative water supplies' firm pumping capacity by 10-12 MGD average and 20 to 22 MGD maximum day from the Regional Facility Site High Service Pump Station – the main pump station for the region's wholesale water system. The project will include engineering services for the design, bidding, construction management, and construction activities associated with the removal of an existing unused 10 MGD (600 HP) jockey pump and installation of a new 24 MGD (2,000 HP) split case pump, structural modifications to support pump, Variable Frequency Drive, motor and ancillary electrical and mechanical equipment.

**Benefit:**

This project will increase the existing regional water system alternative water supplies' firm pumping capacity from 110 MGD to 132 MGD at the Regional Facility Site High Service Pump Station, which is projected to increase the annual average capacity by 10-12 MGD over 20 years. The increased pumping capacity is part of a larger, overall program to increase the resiliency of the Tampa Bay region's water supply system and maximize the use of permitted surface water capacity when it is available. The Regional Facility Site High Service Pump Station is part of Tampa Bay Water' alternative water supply system that includes: the Regional C.W. Bill Young Regional Reservoir, the Tampa Bay Desalination Facility, and the Surface Water Treatment Plant. This additional pumping capacity will also prepare the system for the next increment of supply that will be developed as part of the Long-Term Master Water Supply Plan. Regional demands are projected to increase from water year 2017 demands of 251 MGD to water year 2040 demands of 280-320 MGD.

**Cost:**

The total capital cost for this project is \$2.4 million including the following project elements:  
• Design, Permitting, and Bidding \$150,000 • Construction \$2,095,000 • Construction Engineering & Inspection \$150,000 • As-Built Survey, Record Drawings & Substantial Completion \$5,000  
Expected annual operating and maintenance (not part of this funding request) for the project includes: • Maintenance \$20,000 • Operations (Power Consumption) \$400,000  
Expected Renewal and Replacement cost (not part of this funding request) at the end of the project's useful life (20 years) is \$4.3 Million

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Conservation is an important element of the region's water supply. Tampa Bay Water plans and coordinates conservation programming in the Tampa Bay region. Our member governments are responsible for implementing programs that quantifiably

reduce water demand. Due to the successful conservation planning and implementation efforts by Tampa Bay Water and its members, the per capita use rate of approximately 100 gpcpd in the Tampa Bay region is significantly lower than the State average and exceeds District goals. Tampa Bay Water supports local government conservation programs by funding programs quantifying water conservation potential and cost, providing region-wide educational and marketing programs, and various research and development-based programs. Tampa Bay Water worked with its member governments in creating model irrigation and landscape ordinance language that was adopted by most of our members, has evaluated implementation of those ordinances, and is working with members to increase ease and effectiveness of implementation. Tampa Bay Water is a wholesale drinking water provider to our member governments and has no regulatory purview of any kind. Flood protection ordinances fall under the purview of the members and are implemented by them.

Tampa Bay Water continues to seek better ways of serving its customers and protecting the environment. In addition to comprehensive hydrologic and environmental monitoring at Tampa Bay Water facilities, technologies employed include the OROP, short-term and long-term demand forecasting, and surface water forecasting methods to ensure that we keep pace with our member government demands, react quickly to changed conditions, and manage our facilities for the protection of the environment and the benefit of our customers.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		108,000	1,014,500	77,500	1,200,000
General Fund-District Wide		108,000	1,014,500	77,500	1,200,000
<b>Total</b>		<b>216,000</b>	<b>2,029,000</b>	<b>155,000</b>	<b>2,400,000</b>

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**A-Professional Services Selection**

<b>Milestone</b>	<b>Projected Date</b>
Engineering Services Scope Approval	10/22/2018

**B-Design**

<b>Milestone</b>	<b>Projected Date</b>
100% Design Complete	05/31/2019

**C-Bidding**

<b>Milestone</b>	<b>Projected Date</b>
Bid Approval	10/21/2019

**D-Construction**

<b>Milestone</b>	<b>Projected Date</b>
Construction Substantial Completion	06/30/2021

**E-Close-Out**

<b>Milestone</b>	<b>Projected Date</b>
Final Project Close-Out Approval	02/21/2022

**Data Collection Assessment:**

No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Pithlachascotee/Bear Creek Water Management Plan  
**Project Number** Q011  
**Cooperator** Pasco County  
**Department** Design Stormwater Management  
**Contact Person** Pasco County Public Works Department  
**Address** 7536 State Street, Suite 140  
**City State Zip** New Port Richey, FL 34654  
**Phone #** 727-847-8143  
**Email** mgarrett@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

Pithlachascotee / Bear Creek, Cypress Creek, and Hammock Creek Watersheds are proposed for updating and conceptual design completion under the SWFWMD (Southwest Florida Water Management District) Watershed Management Program. The Hammock Creek Watershed study was last updated in 2008, however the study was not accepted by the SWFWMD Governing Board. The project will need to be updated and complete to the current standards with an increased level of detail. Cypress Creek and Pithlachascotee / Bear Creek Watersheds require updating. Significant development has occurred as depicted below necessitating the updating of the model to complete the conceptual alternatives for the Pasco County flood prone areas.

**Benefit:**

Watershed models allow Pasco County to identify watershed status and trends. These models become outdated as the County grows and new development is built. These plans survey existing structures, topography and develop a model which can run various scenarios to understand how water moves through the watershed. This information is critical in permitting new developments, identifying problem areas, and developing solutions for problem areas.

**Cost:**

Total Cost: \$1,600,000

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017, 100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the

system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		400,000	400,000		800,000
Pinellas Anclote		400,000	400,000		800,000
Total		800,000	800,000		1,600,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Pithlachascotee/Bear Creek WMP**

<b>Milestone</b>	<b>Projected Date</b>
WMP Project Development	01/01/2019
Watershed Evaluation Project Development	01/01/2020
Watershed Model Development	10/01/2020
Peer Review	01/01/2021
Public Notification/ Governing Board Approval	04/01/2021
Final Approval of Deliverables	08/01/2021

**Data Collection Assessment:**

Land Survey  Mapping/GIS data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Buck and Lanier  
**Project Number** Q012  
**Cooperator** Pasco County  
**Department** Design Stormwater Management  
**Contact Person** Pasco County Public Works Department  
**Address** 7536 State Street, Suite 140  
**City State Zip** New Port Richey, FL 34654  
**Phone #** 727-847-8143  
**Email** mgarrett@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

<input checked="" type="checkbox"/> Water Quality Maintenance and Improvement	<input type="checkbox"/> Water Quality Monitoring
<input type="checkbox"/> Alternative Water Supply	<input type="checkbox"/> Conservation
<input type="checkbox"/> Reclaimed Water	<input type="checkbox"/> Regional Water Supply Planning
<input checked="" type="checkbox"/> Emergency Flood Response	<input type="checkbox"/> Floodplain Management
<input type="checkbox"/> Minimum Flows and Level Establishment and Monitoring	<input type="checkbox"/> Minimum Flows and Levels Recovery
<input type="checkbox"/> Natural Systems Conservation and Restoration	<input type="checkbox"/> Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

<input type="checkbox"/> Charlotte	<input type="checkbox"/> Citrus	<input type="checkbox"/> Desoto	<input type="checkbox"/> Hardee	<input type="checkbox"/> Hernando	<input type="checkbox"/> Highlands	<input type="checkbox"/> Hillsborough	<input type="checkbox"/> Lake
<input type="checkbox"/> Levy	<input type="checkbox"/> Manatee	<input type="checkbox"/> Marion	<input checked="" type="checkbox"/> Pasco	<input type="checkbox"/> Pinellas	<input type="checkbox"/> Sarasota	<input type="checkbox"/> Sumter	<input type="checkbox"/> Polk

**Project Description/Benefit/Cost**

**Description:**

Design and implement Alternative 2 of the 2012 Buck/Lanier study by URS. Create additional 8.5 ac-ft storage and improved conveyance.

**Benefit:**

The area at Buck and Lanier and the area near Fantasy Lane experience flooding regularly. Adding increased storage will reduce flooding in these two areas of a closed basin protecting multiple structures. Discharge from the Crystal Lakes MHP north of HWY 54 causes the flooding and makes this an intermediate system. In the past 6 years the area has experienced 4-50 year events. The Benefit /Cost is 3.0.

**Cost:**

\$120,000 2019 for design/permitting  
\$500,000 2020 for construction

A portion of Parcel ID 18 26 21 0000 02400 0020 will be acquired at \$50,000

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of

reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017, 100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		60,000	250,000		310,000
Hillsborough River		60,000	250,000		310,000
Total		120,000	500,000		620,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Buck & Lanier**

<b>Milestone</b>	<b>Projected Date</b>
Begin Design	12/01/2018
Begin Permitting	07/01/2019
Complete Design and Permitting	09/01/2019
Aquisition	10/01/2019
Bidding	12/01/2019
Contract Award	01/01/2020
Comence Construction	02/01/2020
Complete Construction	10/01/2020

**Data Collection Assessment:**

- Groundwater or Surface Water Level measurements  Land Survey
- Mapping/GIS data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Hammock Creek WMP  
**Project Number** Q013  
**Cooperator** Pasco County  
**Department** Design Stormwater Management  
**Contact Person** Pasco County Public Works Department  
**Address** 7536 State Street, Suite 140  
**City State Zip** New Port Richey, FL 34654  
**Phone #** 727-847-8143  
**Email** mgarrett@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This is a multi-year project that will develop a Watershed Management Plan for the Hammock Creek Basin located in Northwest Pasco County. The project will include all aspects of a WMP including development of a watershed model, floodplain analysis, peer review of the model and preliminary flood plain analysis, public meeting, District Governing Board approval, final floodplain analysis, BMP development and related efforts.

**Benefit:**

The Hammock Creek area has experienced heavy flooding in the past and the several efforts have been made to complete a WMP for the area. The Hammock Creek Watershed contains over 1,500 sub-basins and roughly 60% are closed. The current flood maps do not accurately predict the flood risk in the majority of the sub-basins. An accurate model and floodplain maps will provide a tool for better development and aid in permitting. Significant flooding occurs and development of BMPs will help reduce flooding. In 2004 County Line road was closed due to flooding in the basin.

**Cost:**

\$1,800,000, multiyear with the first year (FY19) cost of \$450,000 District and \$450,000 Pasco County will fund the project through the Watershed evaluation phase and FY20 funding of \$450,000 district and \$450,000 Pasco County will complete the project.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of

reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017, 100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		450,000	450,000		900,000
Coastal Rivers		450,000	450,000		900,000
Total		900,000	900,000		1,800,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Hammock Creek WMP**

<b>Milestone</b>	<b>Projected Date</b>
Contract with consultant	10/01/2018
Watershed evaluation	01/01/2019
WMP project development	01/01/2019
Watershed evaluation project development	01/01/2020
Watershed Model Development	10/01/2020
Peer Review	01/01/2021
Public notification/Governing Board approval	04/01/2021
Final approval of deliverables	08/01/2021

**Data Collection Assessment:**

Mapping/GIS data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** 56th St and Hanna Avenue Regional Drainage Improvements  
**Project Number** Q027  
**Cooperator** Hillsborough County  
**Department** Public Works  
**Contact Person** Jie Tong  
**Address** 601 E Kennedy Blvd 22nd Floor  
**City State Zip** Tampa, FL 33602  
**Phone #** 813-307-1818  
**Email** TongJ@hillsboroughcounty.org

**Project Type:**

Water Supply  
  Water Quality  
  Flood Protection  
  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement       Water Quality Monitoring  
 Alternative Water Supply       Conservation  
 Reclaimed Water       Regional Water Supply Planning  
 Emergency Flood Response       Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring       Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration       Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  
  Citrus  
  Desoto  
  Hardee  
  Hernando  
  Highlands  
  Hillsborough  
  Lake  
 Levy  
  Manatee  
  Marion  
  Pasco  
  Pinellas  
  Sarasota  
  Sumter  
  Polk

**Project Description/Benefit/Cost**

**Description:**

The 56th St. and Hanna Ave. Drainage Improvement Project will include the identification of deficiencies related to flood control and water quality, assess flooding risk and property damage, provide an alternatives analysis, and design plans. The proposed system will include: A second outfall to the Hillsborough River. Local drainage system improvements along 56th Street, and a diversion structure (smart box) near the intersection of 56th St. and E. Sligh Ave. Three(3) to five(5) acres of wet detention pond(s) along 56th St which will intercept the runoff from surrounding concrete industries to provide flood attenuation as well as water quality treatment.

**Benefit:**

The proposed project will improve the drainage system of 56th Street which serves as a major evacuation route.

**Cost:**

The estimated cost is \$3,350,000.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Water Conservation: Hillsborough County was the premier local government to decriminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A fulltime Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County's Water Conservation Ordinance (HCO 03-07) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County's administration. Flood Protection: The principal purpose of Hillsborough County's floodplain management program is to protect residents and business owners from flooding risks. Flooding disasters are the leading recurring hazard within the County and have the potential of affecting greater than one-quarter of the population at a value that is greater than five billion dollars in personal property. Construction standards and planning concepts are implemented through the County's Land Development Code.Floodplain Management Plan and Local Mitigation Strategy.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share		200,000	200,000	1,275,000	1,675,000
General Fund-District Wide		200,000	200,000	1,275,000	1,675,000

Total	400,000	400,000	2,550,000	3,350,000
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**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

PD&E	03/31/2020
Design	12/31/2021
Procurement & Construction	09/30/2023

**Data Collection Assessment:**

No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Brooker Creek Watershed Management Plan  
**Project Number** Q034  
**Cooperator** Pinellas County  
**Department** Public Works  
**Contact Person** Paul Miselis  
**Address** 22211 Us Highway 19 North  
**City State Zip** Clearwater, FL 33765  
**Phone #** 727-464-8921  
**Email** pmiselis@pinellascounty.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

The project involves the development of a comprehensive watershed management plan (WMP) that results in recommendations for drainage, water quality and natural systems improvement projects.

The Brooker Creek Watershed covers approximately 15.6 square miles in northeastern Pinellas County. It also extends into Hillsborough and Pasco. The majority of current land use within the Brooker Creek Watershed is rural and agricultural; however, increasing percentages of the land area are planned for residential community development, mainly concentrated around the lake chains of the upper portion of the watershed in Hillsborough County and in the lower portion of the watershed in Pinellas County. This area has experienced significant hydrologic changes due to rapid growth. These changes have resulted in impacts to flood protection, water quality and natural systems. The morphology of the area changes from a lake dominated landscape in Hillsborough County to an upland forest and wetland-dominated landscape in Pinellas County. The watershed contains 37 named lakes, multiple wetlands and Brooker Creek, which is the primary tributary to Lake Tarpon, a SWIM priority water body. In 2010, Pinellas County completed a WMP for Brooker Creek, which included recommendations for BMPs to improve water quality and flooding issues. Hillsborough County and SWFWMD has recently completed an update to the watershed management plan for the Hillsborough portion of Brooker Creek. The Pinellas County project will provide a new WMP in Pinellas portion of the Brooker Creek watershed, which will be developed in general accordance with the District's Guidelines and Specifications.

**Benefit:**

This project involves the development of a comprehensive watershed management plan that results in BMP recommendations for flood protection, water quality, and natural system improvement projects in the contributing watershed.

**Cost:**

This request is for the second year of a three-year project whose total project amount is estimated to be \$900,000.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The Pinellas County Comprehensive Plan obligates the County to protect, enhance, and improve water quality through water quality monitoring, watershed management plan development, implementation of projects, and environmental enforcement. In addition, the County is obligated by the Comprehensive Plan to work to improve flood protection and natural systems. The County has a fertilizer ordinance which restricts using products containing nitrogen or phosphorus during the rainy season with a related sales ban, a pet waste ordinance, and a street sweeping program all designed to reduce nutrient pollution to receiving waters. The County also has adopted a stormwater assessment that collects money to fund surface water programs, which include stormwater

maintenance and related public outreach and education programs. In addition, many of our County vehicles are wrapped with stormwater education messages and professional landscape maintenance companies are required to take a BMP training certification course.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share	150,000	75,000	225,000		450,000
Pinellas Anclote		75,000	225,000	150,000	450,000
<b>Total</b>	<b>150,000</b>	<b>150,000</b>	<b>450,000</b>	<b>150,000</b>	<b>900,000</b>

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Watershed Management Plan**

<b>Milestone</b>	<b>Projected Date</b>
Procurement	01/31/2019
Project Development	03/31/2019
Watershed Evaluation	09/01/2019
Floodplain Analysis	05/01/2020
FPLOS and BMP Alternatives Analysis	11/01/2020
SWRA and BMPs	06/01/2021

**Data Collection Assessment:**

Land Survey

Mapping/GIS data

Other data collection: LiDAR, rain, flow and water quality data will be sourced from existing monitoring efforts.

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Bartlett Park and 7th Street South Stormwater Improvements  
**Project Number** Q036  
**Cooperator** City of St. Petersburg  
**Department** Engineering  
**Contact Person** Dan Saunders  
**Address** One 4th Street North  
**City State Zip** St. Petersburg, FL 33701  
**Phone #** 727-893-7854  
**Email** dan.saunders@stpete.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

The SWFWMD funded this project in FY2019 for design and permitting. This application is for construction and engineering services during construction. This project is to implement the design and construction for stormwater improvements at Bartlett Park, and along 7th Street South from 18th Avenue South to 22nd Avenue South. The project provides for drainage improvements that will alleviate flooding within the neighborhood west of Bartlett Park and within Bartlett Park. The existing stormwater system is undersized and is negatively affected by regional tailwater conditions, resulting in frequent flooding within the neighborhood. The proposed drainage improvements includes low-impact development (LID) elements, a nutrient separating baffle box, and increased conveyance capacity via enlarged piping and natural swales. The project will implement Complete Streets concepts (includes LID, green infrastructure, bicycle paths, etc.).

**Benefit:**

St. Petersburg's low-lying terrain combined with high intensity, short duration storm events overload the City's existing drainage system. This causes street flooding resulting in residents suffering inconveniences and, in some cases, property damage. The new conveyance system will meet the City's level-of-service (LOS) goal which is a 10-year storm event and reduce peak stages during the 100-year, 24 hour design storm event. The total present value of future benefits for this project is approximately \$2,550,000.

**Cost:**

The total Applicant share of the project is \$1,175,000, and the District share is also \$1,175,000. The breakdown of the total project cost of \$2,350,000.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Numerous educational outreaches have been initiated by the city related to water conservation including school presentations taught at St. Petersburg's public and private schools. The City's web site incorporates the Water Resources Water Conservation site that includes information about indoor and outdoor conservation, water use calculations, water wise awards, conservation resources and youth education resources. The Water Conservation site also includes information about sprinkling restrictions and water and waste water maintenance contact information. Lawn watering restrictions have been established through City Ordinance 842-F and 178-G. A new Water Efficient Landscape Ordinance (Chapter 16 of the City Code) was adopted by City Council in 2002. The City has used reclaimed water for irrigating lawns and landscaped areas since 1977 which has significantly lowered potable water demands. The City Administration has been proactive in the development of ordinances vital to achieving the desired objective of management of water resources and flood protection. Ordinance No. 2017-F and 147-G regulates the control and

management of drainage and surface waters in harmony with the City Comprehensive Plan and SWFWMD regulations. Building developments are regulated in terms of the quantity and quality of stormwater runoff. Water pollution protection is provided by Ordinance 16-311, which identifies unlawful discharges into the public drainage system and provides for prosecution of violators. The City of St. Petersburg participates in the National Flood Insurance Program (NFIP). In order to qualify for the program the City adopted and enforces Article VII Flood Damage Prevention (City Code Sec. 16-376 through Sec. 16-433) to regulate development in the flood hazard areas. The basic objective of the ordinance is to ensure that such development will not aggravate existing flood conditions and to verify that new buildings will be protected from damage. The City's current Community Rating Score (CRS) is a 5 (per FEMA, October 1, 2016, <https://www.fema.gov/media-library/assets/documents/15846>). The City of St. Petersburg currently collects a stormwater fee.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		122,500	1,052,500		1,175,000
Pinellas Anclote		122,500	1,052,500		1,175,000
Total		245,000	2,105,000		2,350,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

Design and Permitting	11/01/2019
Bidding and Contract Award	02/01/2020
Construction and Construction Engineering & Inspection (CEI)	02/01/2021
As-Built Survey, Record Drawings & Substantial Completion	03/01/2021

**Data Collection Assessment:**

Land Survey

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** PHSC Berm/Boggy Creek  
**Project Number** Q042  
**Cooperator** Pasco County  
**Department** Design Stormwater Management  
**Contact Person** Pasco County Public Works Department  
**Address** 7536 State Street, Suite 140  
**City State Zip** New Port Richey, FL 34654  
**Phone #** 727-847-8143  
**Email** mgarrett@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

The Boggy Creek system receives stormwater from Crane's Roost, Lake Worrell Acres, Crescent Forest and Bass Lake Estates neighborhoods in major storm events . These areas have experienced major flooding in recent and historical storm events. The intent of this project is to evaluate the existing stormwater system and identify opportunities to improve drainage conveyance in the system. Items that will be considered are expanding the capacity for the existing drainage system as well as potentially creating new conveyance paths near the Hidden Lake Airport and behind the Pasco Hernando Community College on Ridge Road where the existing berm will be breached with a drop structure. This will allow the upstream waters to be conveyed more directly to Boggy Creek thus relieving the flooding in the Lake Worrell system.

**Benefit:**

Reduced flooding in the Lake Worrell system. The Benefit Cost Analysis Ratio is estimated to be 1.44.

**Cost:**

Design and Permitting: \$250,000  
Construction: \$3,000,000  
Total Cost: \$3,250,000

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017, 100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the

system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		125,000	1,500,000		1,625,000
Pinellas Anclote		125,000	1,500,000		1,625,000
Total		250,000	3,000,000		3,250,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**PHSC Berm/Boggy Creek**

<b>Milestone</b>	<b>Projected Date</b>
Complete RSQ Process	04/01/2019
Begin Engineering and Permitting	07/01/2019
Complete Engineering and Permitting	07/01/2020
Begin Construction	11/01/2020
Complete Construction	11/01/2021

**Data Collection Assessment:**

Land Survey

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Tammy Lane  
**Project Number** Q048  
**Cooperator** Pasco County  
**Department** Design Stormwater Management  
**Contact Person** Pasco County Public Works Department  
**Address** 7536 State Street, Suite 140  
**City State Zip** New Port Richey, FL 34654  
**Phone #** 727-847-8143  
**Email** mgarrett@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This project consists of installing a control structure in Tammy Lake and running approximately 900 ft. of double culvert South to Chancy Road. Then an open ditch approximately 1,300 ft. long South along Griffin Road. From there a combination of ditches and culverts will run about 1,400 ft. West to New River. The project is BMP, Site 1: Tammy Lane – Alternative 1 from the New River Watershed Plan.

**Benefit:**

This project will remove 20 homes from the flood plain and significantly reduce flooding for many more.

**Cost:**

Project cost is \$2,556,000 with a benefit/cost of 1.89.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017, 100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed

water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			125,000	1,250,000	1,375,000
Hillsborough River			125,000	1,250,000	1,375,000
Total			250,000	2,500,000	2,750,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Tammy Lane**

<b>Milestone</b>	<b>Projected Date</b>
Begin Design	12/01/2020
Complete Design and Permitting	10/01/2021
Aquisition	10/01/2021
Bidding	02/01/2022
Commence Construction	03/01/2022
Contract Award	04/01/2022
Complete Construction	12/01/2022

**Data Collection Assessment:**

Land Survey  Mapping/GIS data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Pent St/Grosse Ave Stormwater Improvements  
**Project Number** Q053  
**Cooperator** Tarpon Springs  
**Department** Public Services  
**Contact Person** Anthony Mannello  
**Address** 324 E. Pine Street  
**City State Zip** Tarpon Springs, FL 34689  
**Phone #** 727-942-5610  
**Email** amannello@ctsfl.us

**Project Type:**

Water Supply  
  Water Quality  
  Flood Protection  
  Natural Systems

**Strategic Initiatives:**

<input type="checkbox"/> Water Quality Maintenance and Improvement	<input type="checkbox"/> Water Quality Monitoring
<input type="checkbox"/> Alternative Water Supply	<input type="checkbox"/> Conservation
<input type="checkbox"/> Reclaimed Water	<input type="checkbox"/> Regional Water Supply Planning
<input checked="" type="checkbox"/> Emergency Flood Response	<input type="checkbox"/> Floodplain Management
<input type="checkbox"/> Minimum Flows and Level Establishment and Monitoring	<input type="checkbox"/> Minimum Flows and Levels Recovery
<input type="checkbox"/> Natural Systems Conservation and Restoration	<input type="checkbox"/> Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

<input type="checkbox"/> Charlotte	<input type="checkbox"/> Citrus	<input type="checkbox"/> Desoto	<input type="checkbox"/> Hardee	<input type="checkbox"/> Hernando	<input type="checkbox"/> Highlands	<input type="checkbox"/> Hillsborough	<input type="checkbox"/> Lake
<input type="checkbox"/> Levy	<input type="checkbox"/> Manatee	<input type="checkbox"/> Marion	<input type="checkbox"/> Pasco	<input checked="" type="checkbox"/> Pinellas	<input type="checkbox"/> Sarasota	<input type="checkbox"/> Sumter	<input type="checkbox"/> Polk

**Project Description/Benefit/Cost**

**Description:**

The project is located within the City of Tarpon Springs, FL. Stormwater runoff from the project discharges into Anclote River, WBID #1440, a Class 3M estuary waterbody. Primary land use for the contributing basin area is urban/residential. There are five (5) areas of historical flooding that comprise this project, none of the areas having storm sewer infrastructure or a stormwater management facility. The project was originally submitted under SWFWMD CFI Application No. 5309 and ranked HIGH (Project Number N770). However, there have been significant changes to the scope of work required to provide the flood abatement identified in the original proposal, as presented to the Southwest Florida Water Management District (SWFWMD). In addition, there have been additional resource benefits added to the project that were not included with the original proposal. With these items in mind, the City is resubmitting the project with the SWFWMD Stormwater Improvement Flood Protection (SIFP) Benefit Cost Analysis Tool results to demonstrate that the project and added costs are cost-effective, beneficial, and in accordance with the District's Strategic Plan. The SIFP Benefit Cost Analysis resulted in a Benefit / Cost Ratio of 1.54. In the current conditions, 9 single-family homes and 1 general warehouse (office complex) have finish floor elevations below the 100-year/24-hour storm event flood stage. In the proposed conditions, all 100-year/24-hour storm event flood stages are lower or equal to the existing finished floor elevations. Significant reductions to the flood stage and duration to five residential roadways have also been accomplished. The project has secured all regulatory permits including; SWFWMD ERP General Permit (No. 47043379.000), US Army Corps of Engineers Nationwide Permit (No. SAJ-2018-00574), Pinellas County R/W Use Permit (No. 18-0392 D), and Pinellas County Dredge and Fill Permit (No. DF2691-18). The proposed work activity will not require any additional R/W. The project is on track to have Final Plans provided to the City of Tarpon Springs before the end of January 2019.

**Benefit:**

The project would provide direct flooding abatement (duration and flood frequency) for the 25-yr./24-hr. storm event for over 36 residential properties, 2 structures, 5 roadways, one of those roadways being a hurricane evacuation route for City residents. Project would also provide a net improvement (reduction of 121.59 kg/yr TN and 22.62 kg/yr TP) to water quality discharge to Anclote River, WBID #1440, a Class 3M estuary waterbody. The SIFP Benefit Cost Analysis resulted in a Benefit / Cost Ratio of 1.54. In the current conditions, 9 single-family homes and 1 general warehouse (office complex) have finish floor elevations below the 100-year/24-hour storm event flood stage. In the proposed conditions, all 100-year/24-hour storm event flood stages are lower or equal to the existing finished floor elevations. Significant reductions to the flood stage and duration to five residential roadways have also been accomplished.

**Cost:**

\$3,159,976

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The project would provide direct flooding abatement (duration and flood frequency) for the 25-yr./24-hr. storm event for over 36 residential properties, 2 structures, 5 roadways, one of those roadways being a hurricane evacuation route for City residents. Project would also provide a net improvement (reduction of 121.59 kg/yr TN and 22.62 kg/yr TP) to water quality discharge to Anclote River, WBID #1440, a Class 3M estuary waterbody. The SIFP Benefit Cost Analysis resulted in a Benefit / Cost Ratio of 1.54. In the current conditions, 9 single-family homes and 1 general warehouse (office complex) have finish floor elevations below the 100-year/24-hour storm event flood stage. In the proposed conditions, all 100-year/24-hour storm event flood stages are lower or equal to the existing finished floor elevations. Significant reductions to the flood stage and duration to five residential roadways have also been accomplished.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			1,060,219	519,769	1,579,988
Pinellas Anclote			1,060,219	519,769	1,579,988
Total			2,120,438	1,039,538	3,159,976

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Construction**

<b>Milestone</b>	<b>Projected Date</b>
Begin Construction	10/01/2019
End Construction	04/30/2021
Project Closeout & Contract Termination	09/30/2021

**Data Collection Assessment:**

No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Conservation - Hillsborough County Advanced Metering Infrastructure (AMI) Expansion  
**Project Number** Q055  
**Cooperator** Hillsborough County  
**Department** Public Utilities  
**Contact Person** Nicholas Lopresti  
**Address** 925 E. Twiggs Street  
**City State Zip** Tampa, FL 33602  
**Phone #** 813-612-7768  
**Email** loprestin@hillsboroughcounty.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This project is for the delivery and implementation of an Advanced Metering Infrastructure (AMI) systems solution as an initial pilot program. A cloud-based, Software as a Service (SaaS) and Network as a Service (NaaS) hosted system will be used to implement the pilot and provide Advanced Metering Analytics (AMA). Purchase and install of 16,000 AMI meter registers at approximately \$250 per register. Note that this is not meter replacement but is for analytic equipment above and beyond the meter itself. The proposal anticipates 5 gallons per home per day savings and will allow for customer alerts of leaks and high water use for conservation. This program will be implemented in FY20 and continue over a period of 5 years..

**Benefit:**

The current savings estimate is 80,000 gallons per day for the 16,000 units (5 gallons per home). The intent is to implement the savings by promoting awareness through the following:

1. Provide a customer portal to log-in and graph customer water use over time.
2. Detect and notify customers of leaks on a daily or monthly basis.
3. Educate customers about District watering restrictions based on actual daily water usage.
4. Alert customers to a pre-set threshold usage amount.

**Cost:**

Total Project Cost: \$4,000,000; District share: \$400,000 in FY2020; Hillsborough County share: \$400,000. Future funding of \$3,200,000; District share: \$1,600,000; Hillsborough County share: \$1,600,000

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Hillsborough County was the premier local government to decriminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A fulltime Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County's Water Conservation Ordinance (HCO 03-07) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County's administration. Enforcement of water conservation issues is done through Code Enforcement and Construction Services (Plumbing and Building Departments) in areas of their respective responsibilities. Reclaimed Water Master Plans have been developed to determine how reclaimed water throughout the County will be utilized for the primary goal of offsetting potable water use and meeting regulatory compliance. Additionally, the County has established a Reclaimed Water Improvement Unit (RWIU) ordinance to retrofit existing subdivisions with reclaimed water distribution systems. Hillsborough County has adopted a flood plain ordinance

(County Ordinance 01-33) as required to participate as a community in the National Flood Insurance Program (NFIP) administered through the Federal Emergency Management Agency (FEMA). The county has developed land development regulations (LDR 96-35) to enforce the ordinance. All development is required to receive the proper building and site alteration permits. At this time flood plain issues are addressed to ensure compliance with the flood plain ordinance. Finished floor elevations are compared to the 100 year flood elevation. The County is also a participant in FEMA's Community Rating System and received a Class 6 rating. The Hillsborough County Reuse Program includes metering and an incentive based reuse rate structure for high volume water users and has proactive reclaimed water expansion policies which maximize utilization, water resource benefits and environmental benefits.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Alafia River			400,000	1,600,000	2,000,000
Applicant Share			400,000	1,600,000	2,000,000
Total			800,000	3,200,000	4,000,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**1. Installation**

**Milestone**

Installation Begin

**Projected Date**

10/01/2020

**2. Installation**

**Milestone**

Installation Complete

**Projected Date**

04/01/2025

**3. Closeout**

**Milestone**

Closeout

**Projected Date**

09/30/2025

**Data Collection Assessment:**

Other data collection: customer water use

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** RCW Main Extension from 12th St & CR 54 to Wire Rd & Otis Allen and to Hospital  
**Project Number** Q057  
**Cooperator** Zephyrhills  
**Department** Utilities  
**Contact Person** Esther Kaufman  
**Address** 730 Ne Waldo Road  
**City State Zip** Gainesville, FL 32641  
**Phone #** 352-377-5821  
**Email** ekaufman@jonesedmunds.com

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

The City of Zephyrhills has 1.36 millions of gallons per day of public access reuse reclaimed water (RCW) that goes unused on an average daily basis of 496 million gallons (MG) per year. The additional transmission reclaimed water main will immediately all the City to offset 11.5 MG per year of potable water by providing RCW to an existing cooling tower owned by Florida Hospital. This offset reduces the ground water withdrawals from the Upper Floridan Aquifer in the Upper Hillsborough River basin and thus positively impacts not only Pasco County but both bordering counties as well. Additionally, a new development, Zephyr Lakes, is in the late stage design. The design includes irrigation systems supplied from RCW, if available. The development consists of 514 residences on 208.3 acres. Zephyr Lakes is projected to use 73 MG per year, assuming 1/2 inch of irrigation per week with a total of one half of the total development area to be irrigated. The project consists of installing 11,000 linear feet of 12-inch RCW main to serve the two identified customers and will also increase the availability of RCW to customers in northern urbanized portions of the City. The main starts at the intersection of Wire Road and CR 54. The main will head west along CR 54, then north along Dairy Road, east on Pretty Pond Road to Wire Road and north on Wire Road to Otis Allen Road. A map is provided as Attachment A and presents the location and extents of the project.

**Benefit:**

This project will directly reduce demands for traditional, high-quality ground water withdrawals from the Upper Floridan Aquifer in the Hillsborough River Basin. This ground water source affects the level and flows directly and locally in the upper Hillsborough River which has an adopted MFL since FY2013. Additionally, the reduction of ground water sourced withdrawals is regionally impactful since ground water is the main source of potable water not only for the City of Zephyrhills but also for cities in Hillsborough and Pasco Counties. The Benefit is the supply of 0.2 MGD of RCW for irrigation and cooling tower to customers in the Upper Hillsborough River MFL. There are two customers identified for the RCW transmission main project, Florida Hospital and Zephyr Lakes subdivision. The Zephyr Lakes subdivision must connect by ordinance since it is a new development and construction of this RCW transmission main will cause the RCW to be reasonably available. Furthermore, the developer has provided engineering documents that have been approved by City development staff, where separate systems for RCW distribution is provided throughout the development. Florida Hospital has expressed an interest in using RCW for an onsite cooling tower when available. Although, the City and Florida Hospital do not yet have an agreement to switch from potable to RCW as the cooling tower source water, Florida Hospital has indicated that it will do so.

**Cost:**

Engineer's Opinion of Construction Costs exclusive of planning, engineering, and professional services is \$1,204,500 (see Attachment B for details).

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Zephyrhills is committed to water quality and water conservation by supporting and promoting conservation efforts as well as improving existing systems. To both support and promote conservation efforts, the City has instituted several ordinances including: 1. Land Development Code Amendment 922-05 also known as Landscape and Tree Removal Amendment (see Attachment C).2. Sewer and Reclaimed Water Design Standards (see Attachment D).3. Water and Sewer Rates (see Attachment E).4. Website Information on County Irrigation Codes and Conservation Tips.The City of Zephyrhills requires that all new construction in the vicinity of reclaimed water transmission mains construct RCW lines. In the Landscape and Tree Removal Amendment under Section 14.D. it states, "where available, reclaimed wastewater shall be used for landscape irrigation and shall comply with the requirements of this Section." Additionally, this amendment stipulates that efficiency must be maintained though equipment and in operations in Section 14.I and J.(see Attachment C).The City also requires meters be installed for each RCW customers (including individual residential customers and all larger users including commercial industrial and residential subdivisions). This requirement is codified in the Sewer and Reclaimed Water Design Standards Section 18 Part 1.03 F 1. which states that all "reclaimed water services lines shall extend to the City's right-of-way line and shall include meter, meter box, valves, fittings, adapters and appurtenances necessary for a proper installation."In terms of efficiency, the City is committed to using water wisely and has a potable and RCW volume-based water conserving rates. The City is undertaking several improvements including:1. Upgrades to the city-owned wastewater reclamation facility (WRF) to bring nutrients down to advance wastewater treatment standards,2. Improvements to the potable metering system to reduce water wasting due to undetected leaks. 3. Improvements to the City's potable water distribution system reduce the need for flushing.4. A recently completed low-flow toilet rebate program.With the upgrades to the WRF, the City will have more access to an even high quality of RCW and thus will have more public access reuse water available for consumers. In an effort to reduce potable water demand, the City upgraded all water meters with a Neptune AMI system. This system allows customers to access their water use, set leak alerts, high use alerts, and has an endless history of use through the City's billing vendor Fathom.Additionally, in 2017, the City updated the Potable Water System Master Plan Update Report that included an evaluation the City's water system facilities including wells, booster pump station, controls, and exposed piping, and developed a 5-year Capital Improvement Plan. Part of this plan was geared to recommend improvements to improve system efficiency and operations. The plan identified water main improvement to eliminate dead ends on Phelps Road, Gall Boulevard and Chancy Road. These dead-end mains are problematic for water age and water quality and require regular flushing to maintain water quality. By elimination of these dead-end water mains the City will reduce ground water withdrawals.The City has also completed a low flow toilet rebate that ended in 2013.And finally, the City encourages water conservation by informing consumers on the City website which includes conservation tips and which provides links to the Pasco County website with information on the local irrigation ordinances. Pasco County has strict watering rules that are locally enforced by Codes Inspectors. This system relies on citizens to report violations. Fines may be assessed in certain cases.The City's reclaimed water is billed by volume with smaller lots paying \$0.35/1000 and customers with parcels larger than one acre paying \$0.18/1000.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share	18,000	220,000	602,250		840,250
Hillsborough River			602,250		602,250
Total	18,000	220,000	1,204,500		1,442,500

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**RCW Transimission Main**

Milestone	Projected Date
Planning, Easements anf Survey	01/31/2019
Preliminary Design	03/31/2019
Permitting	06/30/2019
Final Desisgn	06/30/2019
Bid Documents	07/31/2019
Bidding	09/30/2019
Mobilization and Procurement	10/31/2019
RCW Construction	09/30/2020
General Clean Up, Slte Restoration, and Record Drawings	10/31/2020

**Data Collection Assessment:**

Land Survey

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Regional Surface Water Treatment Plant Expansion  
**Project Number** Q061  
**Cooperator** Tampa Bay Water  
**Department** Planning And System Decision Support  
**Contact Person** Ivana Kajtezovic  
**Address** 2575 Enterprise Road  
**City State Zip** Clearwater, FL 337631102  
**Phone #** 727-791-2345  
**Email** ikajtezovic@tampabaywater.org

### Project Type:

Water Supply  Water Quality  Flood Protection  Natural Systems

### Strategic Initiatives:

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

### Indicate All Counties to Benefit From Project:

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

### Project Description/Benefit/Cost

#### Description:

The purpose of this project is to further assess the feasibility of expanding the existing Regional Surface Water Treatment Plant and increasing the use of associated surface water supplies to maximize the available yield of surface water supplies. This project would leverage the existing facility as much as possible for meeting projected regional water demands without significant capital expenditures, as well as inform design decisions for the future expansion. The project will also evaluate an alternative location for a new surface water treatment plant near the C.W. Bill Young Regional Reservoir, including the inventorying of anticipated risks and benefits associated with that location. The overall objective of the project is to increase Tampa Bay Water's annual average yield of surface water supplies by 10 to 15 MGD, thus contributing to the required regional supply increase of 20 MGD. The 20 MGD supply need was identified in the 2018 Long-term Master Water Plant Update for the 2020 – 2040 planning horizon. The Regional Surface Water Treatment Plant is part of Tampa Bay Water's alternative water supply system that also includes the Regional C.W. Bill Young Regional Reservoir, the Tampa Bay Desalination Facility, and the Regional Facility Site High Service Pump Station. Financial support is being requested through the Southwest Florida Water Management District Cooperative Funding Initiative to cover the following efforts:

- Detailed capacity analysis of the existing Regional Surface Water Treatment Plant to identify process limitations and evaluate the feasibility of rerating or modifying unit processes to address process limitations as required for the expansion.
- Field testing of existing biofiltration unit process and/or other treatment processes to evaluate the impact of operation and treatment at a higher loading rate.
- Additional modeling to finalize the potential yield and withdrawal capacities from the existing sources to expand the surface water treatment capacity.
- Feasibility study and surface water/reservoir modeling to evaluate the impacts of constructing a new 20 MGD surface water treatment plant at the C.W. Bill Young Regional Reservoir. The study will evaluate the reliability and vulnerability of the new facility at this location with respect to drought conditions and infrastructure failures. Opportunities to mitigate the potential risks will be evaluated.
- Hydraulic evaluation of the raw water transmission and pumping system to accommodate the new surface water treatment plant.
- Preliminary property assessment and piping route studies for new surface water treatment plant location.
- Conceptual cost and site plan development for expanding the existing facility or constructing a new facility.

#### Benefit:

This project has the potential to increase the available surface water supplies by 10 – 15 MGD as one of Tampa Bay Water's long-term water supply projects. This project is part of a larger, overall strategy to increase Tampa Bay Water's regional water supplies

in order to meet projected regional demands. Existing surface water sources are a promising option for additional yield based on the results of a multi-criteria decision analysis that was conducted as part of the 2018 Long-term Master Water Plan. Increased use of surface water supplies scored favorably relative to other water supply options in terms of environmental, economic, and reliability criteria.

**Cost:**

The total capital cost for this project is \$550,000, including the following project elements. A total of \$275,000 is being requested from the Southwest Florida Water Management District, all of which will be matched by the applicant.

- Feasibility study - \$450,000
- Coordination efforts (workshops, meetings, conference calls) - \$50,000
- Contingency - \$50,000

The basis of this cost estimate is projected time and materials required for the efforts listed above. The estimated quarterly expenditure plan is as follows:

- Quarter 4, 2019 - \$75,000
- Quarter 1, 2020 - \$125,000
- Quarter 2, 2020 - \$125,000
- Quarter 3, 2020 - \$125,000
- Quarter 4, 2020 - \$100,000

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Tampa Bay Water uses a complex model to optimize and balance use of its existing supplies, which considers the impact on the environment, water quality, and reliability of the source water while meeting the overall system demands. Potential new supplies are incorporated into the model to evaluate the ability of the new supplies to meet future system demands while balancing the usage of Tampa Bay Water's existing sources. The model provides Tampa Bay Water with an effective tool for assessing and utilizing its existing and future water sources. Conservation is an important element of Tampa Bay Water's regional water supply. Tampa Bay Water plans and coordinates conservation programming in the Tampa Bay region. Member governments are responsible for implementing programs that quantifiably reduce water demand. Due to the successful conservation planning and implementation efforts by Tampa Bay Water and its members, the per capita use rate of approximately 100 gpcpd in the Tampa Bay region is significantly lower than the State average and exceeds District goals. Tampa Bay Water supports local government conservation programs by funding programs quantifying water conservation potential and cost, providing region-wide educational and marketing programs, and various research and development-based programs. Tampa Bay Water worked with its member governments in creating model irrigation and landscape ordinance language that was adopted by most members, has evaluated implementation of those ordinances, and is working with members to increase ease and effectiveness of implementation. Tampa Bay Water is a wholesale drinking water provider to our member governments and has no regulatory purview of any kind. Flood protection ordinances fall under the purview of the members and are implemented by them. Tampa Bay Water continues to seek better ways of serving its customers and protecting the environment. In addition to comprehensive hydrologic and environmental monitoring at Tampa Bay Water facilities, technologies employed include the Optimized Regional Operations Plan (OROP), short-term and long-term demand forecasting, and surface water forecasting methods to ensure that we keep pace with our member government demands, react quickly to changed conditions, and manage our facilities for the protection of the environment and the benefit of our customers.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			225,000	50,000	275,000
General Fund-District Wide			225,000	50,000	275,000
Total			450,000	100,000	550,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Regional Surface Water Treatment Plant Expansion**

Milestone	Projected Date
Engineering Services Scope Approval	10/21/2019
Feasibility Study Completion	10/19/2020
Closeout	12/21/2020

**Data Collection Assessment:**

No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Desalination Water Treatment Plant Expansion  
**Project Number** Q063  
**Cooperator** Tampa Bay Water  
**Department** Planning And System Decision Support  
**Contact Person** Ivana Kajtezovic  
**Address** 2575 Enterprise Road  
**City State Zip** Clearwater, FL 337631102  
**Phone #** 727-791-2345  
**Email** ikajtezovic@tampabaywater.org

**Project Type:**

Water Supply  
  Water Quality  
  Flood Protection  
  Natural Systems

**Strategic Initiatives:**

<input type="checkbox"/> Water Quality Maintenance and Improvement	<input type="checkbox"/> Water Quality Monitoring
<input checked="" type="checkbox"/> Alternative Water Supply	<input type="checkbox"/> Conservation
<input type="checkbox"/> Reclaimed Water	<input checked="" type="checkbox"/> Regional Water Supply Planning
<input type="checkbox"/> Emergency Flood Response	<input type="checkbox"/> Floodplain Management
<input type="checkbox"/> Minimum Flows and Level Establishment and Monitoring	<input type="checkbox"/> Minimum Flows and Levels Recovery
<input type="checkbox"/> Natural Systems Conservation and Restoration	<input type="checkbox"/> Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

<input type="checkbox"/> Charlotte	<input type="checkbox"/> Citrus	<input type="checkbox"/> Desoto	<input type="checkbox"/> Hardee	<input type="checkbox"/> Hernando	<input type="checkbox"/> Highlands	<input checked="" type="checkbox"/> Hillsborough	<input type="checkbox"/> Lake
<input type="checkbox"/> Levy	<input type="checkbox"/> Manatee	<input type="checkbox"/> Marion	<input checked="" type="checkbox"/> Pasco	<input checked="" type="checkbox"/> Pinellas	<input type="checkbox"/> Sarasota	<input type="checkbox"/> Sumter	<input type="checkbox"/> Polk

**Project Description/Benefit/Cost**

**Description:**

The purpose of this project is to further assess the feasibility of expanding the existing Desalination Water Treatment Plant to maximize the available yield of Tampa Bay Water's regional water supplies. This project would leverage the existing facility as much as possible for meeting projected regional water demands, as well as inform design decisions for the future expansion. The overall objective of the project is to increase Tampa Bay Water's available supply by 10 - 15 MGD by expanding the Desalination Water Treatment Plant, which would contribute toward the region's 20 MGD need that was identified in the 2018 Long-term Master Water Plan Update for the 2020 - 2040 planning horizon. The Desalination Water Treatment Plant is part of Tampa Bay Water's alternative water supply system that also includes the C.W. Bill Young Regional Reservoir, the Regional Surface Water Treatment Plant, and the Regional Facility Site High Service Pump Station. Financial support is being requested through the Southwest Florida Water Management District Cooperative Funding Initiative to cover the following efforts required for the expansion:

- Detailed evaluation of several potential opportunities to increase the capacity and improve the reliability of the facility. Improved reliability and a sustainable capacity at the Desalination WTP are critical as a strong foundation for a future expansion.
- Pilot scale testing of alternate pretreatment systems to reduce the footprint of the expansion while improving overall system reliability and providing more consistent water quality to the membranes. Pilot testing will also evaluate alternate membranes that could increase the flux rate through the membranes while increase overall plant recoveries to limit the required footprint of the expansion.
- Water quality sampling to evaluate future changes in influent water quality.
- Evaluation of alternate intake configurations to account for the expansion.
- Evaluation of the concentrate management system based on changes in recovery and increases in the concentrate disposal quantities.
- Evaluation of the vulnerability of the facility to storm surge and infrastructure failures and opportunities to mitigate weaknesses as part of the expansion.
- Consideration of potential improvements based on future TECO operational changes as it relates to influent flow, water quality, and concentrate blending.
- Preliminary permitting and modeling efforts to evaluate potential impacts to the Bay based on changes to the concentrate quality and increased flows.
- Conceptual cost and site plan development for the expansion of the existing facility.

**Benefit:**

This project has the potential to increase the available water supply by 10 – 15 MGD as one of Tampa Bay Water’s long-term water supply projects. This project is part of a larger, overall strategy to increase Tampa Bay Water’s regional water supplies in order to meet projected regional demands. Existing source water from the Bay is a promising option for additional yield based on the results of a multi-criteria decision analysis that was conducted as part of the 2018 Long-term Master Water Plan. Increased use of the seawater supply within several future water supply configurations scored favorably relative to other water supply options in terms of environmental, economic, and reliability criteria.

**Cost:**

The total capital cost for this project is \$3,000,000, including the following project elements. A total of \$1,500,000 is being requested from the Southwest Florida Water Management District, all of which will be matched by the applicant.

- Feasibility Study - \$500,000
- Pilot Testing - \$1,500,000
- Preliminary Permitting - \$500,000
- Water Quality Sampling - \$50,000
- Coordination Efforts (workshops, meetings, conference calls) - \$50,000
- Contingency - \$400,000

The basis of this cost estimate is projected time and materials required for the efforts listed above. The estimated quarterly expenditure plan is as follows:

- Quarter 4, 2019 - \$100,000
- Quarter 1, 2020 - \$250,000
- Quarter 2, 2020 - \$350,000
- Quarter 3, 2020 - \$400,000
- Quarter 4, 2020 - \$400,000
- Quarter 1, 2021 - \$500,000
- Quarter 2, 2021 - \$400,000
- Quarter 3, 2021 - \$300,000
- Quarter 4, 2021 - \$300,000

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Tampa Bay Water uses a complex model to optimize and balance use of its existing supplies, which considers the impact on the environment, water quality, and reliability of the source water while meeting the overall system demands. Potential new supplies are incorporated into the model to evaluate the ability of the new supplies to meet future system demands while balancing the usage of Tampa Bay Water’s existing sources. The model provides Tampa Bay Water with an effective tool for assessing and utilizing its existing and future water sources. Conservation is an important element of Tampa Bay Water’s regional water supply. Tampa Bay Water plans and coordinates conservation programming in the Tampa Bay region. Member governments are responsible for implementing programs that quantifiably reduce water demand. Due to the successful conservation planning and implementation efforts by Tampa Bay Water and its members, the per capita use rate of approximately 100 gpcpd in the Tampa Bay region is significantly lower than the State average and exceeds District goals. Tampa Bay Water supports local government conservation programs by funding programs quantifying water conservation potential and cost, providing region-wide educational and marketing programs, and various research and development-based programs. Tampa Bay Water worked with its member governments in creating model irrigation and landscape ordinance language that was adopted by most members, has evaluated implementation of those ordinances, and is working with members to increase ease and effectiveness of implementation. Tampa Bay Water is a wholesale drinking water provider to our member governments and has no regulatory purview of any kind. Flood protection ordinances fall under the purview of the members and are implemented by them. Tampa Bay Water continues to seek better ways of serving its customers and protecting the environment. In addition to comprehensive hydrologic and environmental monitoring at Tampa Bay Water facilities, technologies employed include the Optimized Regional Operations Plan (OROP), short-term and long-term demand forecasting, and surface water forecasting methods to ensure that we keep pace with our member government demands, react quickly to changed conditions, and manage our facilities for the protection of the environment and the benefit of our customers.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			550,000	950,000	1,500,000
General Fund-District Wide			550,000	950,000	1,500,000
Total			1,100,000	1,900,000	3,000,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Desalination Water Treatment Plant Expansion**

Milestone	Projected Date
Engineering Services Scope Approval	10/21/2019
Pilot Testing	04/19/2021
Feasibility Study Completion	10/18/2021
Closeout	12/20/2021

**Data Collection Assessment:**

- X Groundwater or Surface Water Quality measurements
- X Biological (vegetation, benthic, fish, etc.)
- X Sediment

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** DAR - North Hillsborough Aquifer Recharge Program (NHARP) - Phase 2  
**Project Number** Q064  
**Cooperator** Hillsborough County  
**Department** Public Utilities  
**Contact Person** Thomas Stinson Jr.  
**Address** 925 E. Twiggs Street  
**City State Zip** Tampa, FL 33602  
**Phone #** 813-612-7743  
**Email** stinson@hillsboroughcounty.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

In 2009, Hillsborough County's Public Utilities Department (PUD) began evaluating the feasibility of using highly-treated wastewater from its existing Advanced Water Reclamation Facilities to provide environmental improvements, a barrier to salt water intrusion, a path to the restoration of MIA water levels, and support a long-term and sustainable solution to water management challenges in the southern portion of its service area. The County's goal of 100% reuse capability is the driver behind the development of the first reclaimed water direct aquifer recharge pilot project in the state of Florida. The County's South Hillsborough Aquifer Recharge Project (SHARP) located at the Port Redwing Outfall became the first reclaimed water direct aquifer recharge project in the region. The County has continued with the SHARP program with two (2) additional recharge wells (Phase 2) currently in design which is being cooperatively funded by the SWFWMD. The County has continued this program in our Northwest Service Area by initiating a similar project (NHARP - Phase 1) which will also create a salinity barrier and improve water levels within the Northern Tampa Bay Water Use Caution Area (NTBWUCA). PUD is now seeking to begin Phase two (2) of the NHARP expansion and install additional Class V recharge wells in the Northwest Hillsborough County area. The County's aquifer recharge expansion vision includes a regional recharge system to mitigate saltwater intrusion in coastal Hillsborough County, provide a level of mitigation to the NTBWUCA and to allow for additional groundwater development in an area that has had historical adverse water level impacts to the aquifer. It is anticipated that at least seven(7) aquifer recharge wells will be constructed as part of NHARP in several phases over the next 10 -15 years. Each well is anticipated to operate at 2 MGD AADF with peak flows of approximately 3 MGD. Additionally, the construction of deep exploratory wells (3) and associated monitoring wells will be initially required to characterize the aquifer in this project area. This project, Phase 2 of NHARP consists of Design, Permitting and Construction of two (2) aquifer recharge wells, associated monitoring wells, and interconnection pipelines; Two (2) recharge well wellheads and appurtenances; Deep exploratory wells (3) and associated appurtenances; Monitoring wells and appurtenances, including remotely powered sample pumps and purge water discharge facilities for all wells; Booster pumps and associated equipment, Electrical service to all monitoring wells for controls; SCADA, instrumentation and control, including automation so that the system can be remotely operated with all necessary monitoring systems in place to meet FDEP permit reporting requirements; Interconnecting pipelines (approximately 2,000 feet) to connect the recharge wells to existing reclaimed water transmission mains.

**Benefit:**

The County's aquifer recharge expansion vision includes a regional recharge system to mitigate saltwater intrusion in coastal Hillsborough County, provide a level of mitigation to the NTBWUCA, MIA, and to allow for additional groundwater development in an area that has had historical adverse water level impacts to the aquifer. This project, NHARP Phase 2 (Two (2) Recharge Wells),

is anticipated to recharge a total of approximately 4 MGD AADF with peak flows of approximately 6 MGD. The total anticipated recharge quantity of the NHARP well program is 7 MGD AADF with peak flows of up to 21 MGD.

**Cost:**

Total Phase 2 Project Cost \$10,000,000; Total District Share \$2,500,000 in FY2020 and \$2,500,000 anticipated in future fiscal years; Hillsborough County Share \$5,000,000

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Hillsborough County was the premier local government to decriminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A fulltime Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County's Water Conservation Ordinance (HCO 03-07) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County's administration. All significant regulatory issues pertaining to the County's water conservation efforts are reviewed through a Water Conservation Technical Committee comprised of environmental interests, green industry representatives, other local governments, Tampa Bay Water and the Southwest Florida Water Management District. Enforcement of water conservation issues is done through a 5-member Conservation Team, and supplemented by Code Enforcement and Construction Services (Plumbing and Building Departments) in areas of their respective responsibilities. Reclaimed Water Master Plans have been developed to determine how reclaimed water throughout the County will be utilized for the primary goal of offsetting potable water use and meeting regulatory compliance. Additionally, the County has established a Reclaimed Water Improvement Unit (RWIU) ordinance to retrofit existing subdivisions with reclaimed water distribution systems. Hillsborough County has adopted a flood plain ordinance (County Ordinance 01-33) as required to participate as a community in the National Flood Insurance Program (NFIP) administered through the Federal Emergency Management Agency (FEMA). The county has developed land development regulations (LDR 96-35) to enforce the ordinance. All development is required to receive the proper building and site alteration permits. At this time flood plain issues are addressed to insure compliance with the flood plain ordinance. Finished floor elevations are compared to the 100 year flood elevation. The County is also a participant in FEMA's Community Rating System and received a Class 6 rating.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Alafia River			2,500,000	2,500,000	5,000,000
Applicant Share			2,500,000	2,500,000	5,000,000
Total			5,000,000	5,000,000	10,000,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**1. Design**

<b>Milestone</b>	<b>Projected Date</b>
Design Begin	10/01/2019

**2. Construction - Exploratory Wells**

<b>Milestone</b>	<b>Projected Date</b>
Exploratory Wells Complete	05/01/2020

**3. Design**

<b>Milestone</b>	<b>Projected Date</b>
Design Complete	09/01/2020

**4. Permitting**

<b>Milestone</b>	<b>Projected Date</b>
End Permitting	12/31/2020

**5. Procurement**

<b>Milestone</b>	<b>Projected Date</b>
Advertise, Bid, Award	01/31/2021

**6. Construction - Recharge Wells**

<b>Milestone</b>	<b>Projected Date</b>
Construction Begin	06/01/2021

**7. Construction - Recharge Wells**

<b>Milestone</b>	<b>Projected Date</b>
Construction Complete	06/01/2022

**8. Closeout**

<b>Milestone</b>	<b>Projected Date</b>
Final Closeout	12/31/2022

**Data Collection Assessment:**

Groundwater or Surface Water Level measurements  Monitor Well Installation

X Aquifer Testing

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** City of Tarpon Springs Toilet Rebate Program- Phase I  
**Project Number** Q068  
**Cooperator** Tarpon Springs  
**Department** Public Services  
**Contact Person** Nick Makris  
**Address** 324 E. Pine Street  
**City State Zip** Tarpon Springs, FL 34689  
**Phone #** 727-942-5638 ext2244  
**Email** nmakris@ctsf.us

### Project Type:

Water Supply  Water Quality  Flood Protection  Natural Systems

### Strategic Initiatives:

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

### Indicate All Counties to Benefit From Project:

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

### Project Description/Benefit/Cost

#### Description:

City of Tarpon Springs Toilet Rebate Program will provide financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets that use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets that use 1.6 gallons per flush or less. This project will include rebates and program administration for the replacement of approximately 100 high flow toilets. Also included are educational materials, program promotion, and surveys necessary to ensure the success of the program.

#### Benefit:

It is anticipated that by replacing 100 high-volume toilets, this project will provide an estimated potable water savings of 3,098 gallons per day in the Northern Tampa Bay Water Use Caution Area. The contractual Measurable Benefit will be the implementation of the program and the completion of a Final Report.

#### Cost:

Total project cost \$20,000 (\$200 per toilet); split between the City of Tarpon Springs: \$10,000; and the SWFWMD: \$10,000. The project's cost effectiveness is \$1.78 per thousand gallons saved. (3,098 gpd water saved at a cost of \$20,000 amortized at 8% over 20 years).

### Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.

The City of Tarpon Springs has a Water Distribution Division and Water Meter Repair Division, which are responsible for maintaining and evaluating the operating conditions of each component to optimize our public water supply system and keep our avoidable water loss to a minimum. Each division performs any required repairs and performs specific preventative maintenance tasks to ensure conservation of our water supply. The City of Tarpon Springs Law Enforcement Officers are responsible for enforcing the mandated water restrictions within the City. It should be noted, the City has maintained watering restrictions that are more stringent than currently required by the District. City conservation efforts include a water conserving inclining block rate structures and a comprehensive reclaimed water program that helps to offset potable quality groundwater for irrigation. It should be noted that our reclaimed water program continues to improve and expand with additional customers, most recently notable is the Westwinds and Grassy Pointe residential reclaimed transmission and distribution program presently nearing completion with the cooperative grant assistance from the SWFWMD. The promotion of these water conservation efforts have resulted in a measurable and steady reduction in our per capita water consumption to 90 gallons per capita per day. The City has an alternative water supply facility that relies upon the efficient use of water resources for long-term sustainability and accordingly, water conservation

represents an integral part. City leadership remains committed to providing extremely water conservation is one of the most effective ways we can help build a sustainable water supply and we are looking forward to building upon our successful collaborative relationship for this water conservation project for evaluation and consideration of CFI funding.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			10,000		10,000
Pinellas Anclote			10,000		10,000
Total			20,000		20,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Commence**

<b>Milestone</b>	<b>Projected Date</b>
Toilet Rebates, Program Administration, Inspection, Promotion & Education	10/01/2019
Draft Report of Phase I results	10/01/2020
Final Report	01/01/2021

**Complete**

<b>Milestone</b>	<b>Projected Date</b>
Toilet Rebates, Program Administration, Inspection, Promotion & Education	10/01/2020
Draft Report of Phase I results	12/31/2020
Final Report	02/01/2021

**Data Collection Assessment:**

No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Groundwater Treatment Plant via Aquifer Recharge Credits from SHARP/SHARE Program  
**Project Number** Q071  
**Cooperator** Tampa Bay Water  
**Department** Planning And System Decision Support  
**Contact Person** Ivana Kajtezovic  
**Address** 2575 Enterprise Road  
**City State Zip** Clearwater, FL 337631102  
**Phone #** 727-791-2345  
**Email** ikajtezovic@tampabaywater.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

The purpose of this project is to further assess the feasibility of constructing a new Groundwater Treatment Plant in South Hillsborough County to meet supply needs for the region and in South Hillsborough County. The overall objective of the project is to increase Tampa Bay Water's available supply by 7.5-20 MGD by constructing a new Groundwater Treatment Plant as one of the supply options to meet Tampa Bay Water's long-term water supply needs as identified in the 2018 Long-term Master Water Plan Update for the 2020 – 2040 planning horizon. The new Groundwater Treatment Plant would become part of Tampa Bay Water's alternative water supply system that also includes the Regional C.W. Bill Young Regional Reservoir, the Regional Surface Water Treatment Plant, the Tampa Bay Desalination Facility, and the Regional Facility Site High Service Pump Station. The new Groundwater Treatment Plant is considered an alternative water supply project because withdrawals will be enabled by aquifer recharge with reclaimed water from Hillsborough County, thus generating aquifer recharge credits and providing a net benefit to the aquifer. Financial support is being requested through the Southwest Florida Water Management District Cooperative Funding Initiative to cover the following efforts:

- Further feasibility study to evaluate the siting, potential yields, and treatment requirements of a new groundwater treatment plant based on the finalized location of Hillsborough County recharge wells as part of the SHARP/SHARE program.
- Additional groundwater modeling to confirm the withdrawal yields.
- Water quality sampling to evaluate the potential water quality from the new withdrawal wells.
- Conceptual design of the new withdrawal wellfield and treatment plant.
- Evaluation of expanding the recharge well system and groundwater treatment plant, including an assessment of additional property and pipeline routing.
- Public information support for the new facility.
- Conceptual cost and site plan development of the new wellfield and groundwater treatment plant.

**Benefit:**

This project has the potential to increase Tampa Bay Water's regional supply by 7.5 - 20 MGD as one of Tampa Bay Water's long-term water supply projects. This project is part of a larger, overall strategy to increase Tampa Bay Water's regional water supplies in order to meet projected regional demands, as well as projected localized demands in south Hillsborough County. The new groundwater treatment plant via aquifer recharge credits is a promising option for additional yield based on the results of a multi-criteria decision analysis that was conducted as part of the 2018 Long-term Master Water Plan Update. The use of this groundwater supply in several future water supply configurations scored favorably relative to other water supply options in terms of environmental, economic, and reliability criteria.

**Cost:**

The total capital cost for this project is \$600,000, including the following project elements. A total of \$300,000 is being requested from the Southwest Florida Water Management District, all of which will be matched by the applicant.

- Feasibility Study - \$250,000
- Modeling - \$100,000
- Water Quality Sampling - \$50,000
- Coordination Efforts (workshops, meetings, conference calls) - \$50,000
- Public Information - \$100,000
- Contingency - \$50,000

The basis of this cost estimate is projected time and materials required for the efforts listed above. The estimated quarterly expenditure plan is as follows:

- Quarter 4, 2019 - \$150,000
- Quarter 1, 2020 - \$150,000
- Quarter 2, 2020 - \$150,000
- Quarter 3, 2020 - \$100,000
- Quarter 4, 2020 - \$50,000

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Tampa Bay Water uses a complex model to optimize and balance use of its existing supplies, which considers the impact on the environment, water quality, and reliability of the source water while meeting the overall system demands. Potential new supplies are incorporated into the model to evaluate the ability of the new supplies to meet future system demands while balancing the usage of Tampa Bay Water's existing sources. The model provides Tampa Bay Water with an effective tool for assessing and utilizing its existing and future water sources. Conservation is an important element of Tampa Bay Water's regional water supply. Tampa Bay Water plans and coordinates conservation programming in the Tampa Bay region. Member governments are responsible for implementing programs that quantifiably reduce water demand. Due to the successful conservation planning and implementation efforts by Tampa Bay Water and its members, the per capita use rate of approximately 100 gpcpd in the Tampa Bay region is significantly lower than the State average and exceeds District goals. Tampa Bay Water supports local government conservation programs by funding programs quantifying water conservation potential and cost, providing region-wide educational and marketing programs, and various research and development-based programs. Tampa Bay Water worked with its member governments in creating model irrigation and landscape ordinance language that was adopted by most members, has evaluated implementation of those ordinances, and is working with members to increase ease and effectiveness of implementation. Tampa Bay Water is a wholesale drinking water provider to our member governments and has no regulatory purview of any kind. Flood protection ordinances fall under the purview of the members and are implemented by them. Tampa Bay Water continues to seek better ways of serving its customers and protecting the environment. In addition to comprehensive hydrologic and environmental monitoring at Tampa Bay Water facilities, technologies employed include the Optimized Regional Operations Plan (OROP), short-term and long-term demand forecasting, and surface water forecasting methods to ensure that we keep pace with our member government demands, react quickly to changed conditions, and manage our facilities for the protection of the environment and the benefit of our customers.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			275,000	25,000	300,000
General Fund-District Wide			275,000	25,000	300,000
Total			550,000	50,000	600,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**New Groundwater Treatment Plant via Credits**

Milestone	Projected Date
Engineering Services Scope Approval	10/21/2019
Feasibility Study Completion	08/17/2020
Closeout	10/19/2020

**Data Collection Assessment:**

- Groundwater or Surface Water Level measurements  Groundwater or Surface Water Quality measurements
- Lithologic/Geophysical data  Aquifer Testing
- Mapping/GIS data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Temple Terrace Golf & CC New Irrigation System  
**Project Number** Q074  
**Cooperator** Temple Terrace Golf and Country Club  
**Department**  
**Contact Person** Jim Musick  
**Address** 200 Inverness Avenue  
**City State Zip** Temple Terrace, FL 33617  
**Phone #** 813-261-9380  
**Email** jmusick@templeterracegolf.com

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

Description: In an effort to further improve upon ground water conservation, Temple Terrace Golf and Country Club (TTGCC) are proposing a cooperative funding initiative project that will replace the entire irrigation system, consisting of the following components:

- New automated central control unit
  - 2 new field satellite control units
  - 815 new irrigation heads which will be individually controlled for maximum efficiency to regulate and conserve water, including substantial use of 'part-circle' settings to reduce irrigated turf area and water usage by as much as 25%
  - Installation of all new piping, which will be capable of accommodating reclaimed water use if and when that source becomes available. Additionally, the new piping will replace the current 70+ year old piping which is prone to chronic and prolonged major system failure, leakage, blowouts and immeasurable water waste.
  - Installation of weather-based irrigation controllers and rain sensors to reduce irrigation water use.
- The installing contractor will provide orientation and training to the golf course Superintendent to assist in educating and familiarizing the staff with the new equipment. Water use data will be collected on a monthly basis and a report will be submitted to the District documenting previous water usage prior to the improvements and current usage after the improvements.

**Benefit:**

Benefit: This project is anticipated to reduce pumping of potable ground water with an estimated savings of 49,515 GPD and 18,072,975 annually. The following methodology was used to calculate savings: • Available research on the proposed controllers, heads and reduction in irrigated turf area shows the new system can save more than 38% in irrigation use. To be conservative 33% was assumed. Estimated Annual Water Savings = 49,515 GPD × 365 Days/Year = 18,072,975 Gallons Annually.

**Cost:**

Cost: The estimate provided by licensed contractors for this project totals \$1,147,330.58.

- Material \$697,330.58
- Labor \$450,000.00

Assuming 5% inflation to the cost of labor and materials, the estimated cost for the 2020 fiscal year is \$1,204,696.00. The total cost will be reduced by \$160,000 through a combination of two (2) Hillsborough County Historical Grants totaling \$75,000, and a rebate from TORO Irrigation for \$85,000. The adjusted estimated total out of pocket cost for the system is \$1,044,696. Assuming a 50% cost sharing, each party will be responsible for \$522,348.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

**Water Conservation Plan Implementation and Ongoing Monitoring and Adjustment of Water Usage**

The golf course management staff will actively participate in the Districts water conservation and public education programs. Likewise, the golf course superintendent will prepare and implement a detailed water conservation program whereby irrigation system programming and utilization is constantly monitored for maximum water use efficiency and conservation.

In addition, the newly installed automated system with a weather monitoring system will enhance the efficiency of water usage by receiving constant input from actual conditions to adjust the system automatically. Also, with remote access to the automated system our golf course superintendent will be capable of monitoring the system from outside the facility which is not currently possible.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			522,348		522,348
General Fund-District Wide			522,348		522,348
<b>Total</b>			<b>1,044,696</b>		<b>1,044,696</b>

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

Start Date October 15, 2019

01/01/2019

**Data Collection Assessment:**

Rainfall or Other Meteorological measurements  Other data collection: Pump Station Monitoring

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** harbor Dr & LaHacienda Dr. Stormwater Improvements  
**Project Number** Q076  
**Cooperator** Indian Rocks Beach  
**Department** Grants  
**Contact Person** Hetty Harmon  
**Address** 2525 Drane Field Road  
**City State Zip** Lakeland, FL 33860  
**Phone #** 863-646-4771  
**Email** hharmon@civilsurv.com

### Project Type:

Water Supply  Water Quality  Flood Protection  Natural Systems

### Strategic Initiatives:

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

### Indicate All Counties to Benefit From Project:

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

### Project Description/Benefit/Cost

#### Description:

This a project to perform the implementation of Best Management Practices element of the District's Watershed Management Program for the City of Indian Rocks Beach Watershed. Implementation of BMP's includes the following tasks: design, development of construction documents, construction permitting, bidding and contractor selection, construction of the BMP's and construction engineering and inspection.

The City of Indian Rocks Beach stormwater quality improvement project and retrofit involves the installation of CDS stormwater treatment units (CDS Technologies, Inc.) and improvements to the collection system.

The requested funds will be used toward design, permitting and construction services necessary to complete the following:

-Improvements of the stormwater pipe system for the Harbor Drive and LaHacienda basins with installation of 2 storm water collection systems and piping, replacing the 12" RCP with 15" from the CDS units to the Intercoastal.

-Stormwater quality treatment of 3.82 acres with CDS/Suntree stormwater treatment units.

The project will address the existing stormwater system, which is inadequate and deteriorating, and causes flooding in the area of Harbor Drive and LaHacienda Drive. An upgraded system would relieve the flooding situation of the street and private properties within the subject area. The improved stormwater system will also retrofit the existing system by providing treatment within the CDS/Suntree stormwater treatment unit before the surface runoff flows are discharged to the Intercoastal Waterway.

The project will improve the level of service deficiencies by improving conveyance within the service area. In addition, construction of the BMPs will remove sediments and pollutants from the stormwater runoff which discharges into Boca Ciega

#### Benefit:

The project will improve the level of service deficiencies by improving conveyance within the service area. In addition, construction of the BMPs will remove sediments and pollutants from the stormwater runoff which discharges into Boca Ciega Bay.

#### Cost:

The budgeted amount for this project is \$300,000 out of which half was to be from the SWFWMD grant. Since that time the engineer's estimate is 244,227.00 and the City is requesting matching funds from the District for \$122,133.50

### Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.

the City has completed the following in support of this project.

1. Stormwater master Plan, Glace & Radcliffe, Inc.(1991)2. Added project to Capital Improvement Program and allocated funding.3. Street Sweeping program that sweeps over 280 miles per year collecting 69 tons of material which removes 27 pounds of nitrogen

and 16 pounds of phosphorus.4. Adopted the Florida Friendly fertilizer us ordinance and has distributed flyers and newsletters to over 5000 residents and assists in the reporting of improper disposal.5. the City has distributed information on the reporting of illicit discharges.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			122,114		122,114
Pinellas Anclote			122,114		122,114
Total			244,228		244,228

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**1/23/2020 to 1/30/2020**

**Milestone**

Construction Bid Package

**Projected Date**

01/30/2020

**1/6/2020 to 1/21/2020**

**Milestone**

Final Design

**Projected Date**

01/21/2020

**10/1/19**

**Milestone**

Consultant Notice to proceed

**Projected Date**

10/01/2019

**10/1/19 to 2/17/20**

**Milestone**

project Easement Aquisition

**Projected Date**

02/17/2020

**10/2/19 to 11/4/19**

**Milestone**

Design 30%

**Projected Date**

11/04/2019

**11/1/19**

**Milestone**

Pre-App SWFWMD

**Projected Date**

11/01/2019

**11/18/19 to 12/13/19**

**Milestone**

Design 60%  
permit Exemption

**Projected Date**

12/13/2019  
12/13/2019

**12/16/19 to 1/3/2020**

**Milestone**

Design 90%

**Projected Date**

01/03/2020

**2/17/2020 to 3/27/2020**

**Milestone**

Bid Advertisement

**Projected Date**

03/27/2020

**3/31/2020 to 4/27/2020**

**Milestone**

Bid Award

**Projected Date**

04/27/2020

**4/28/2020**

**Milestone**

Contractor Notice to Proceed

**Projected Date**

04/28/2020

**5/25/2020 to 8/14/2020**

**Milestone**

Construction Inspection, reports

**Projected Date**

08/14/2020

**5/4/2020 to 5/22/2020**

**Milestone**

Start Construction

**Projected Date**

05/22/2020

**8/17/2020 to 8/24/2020**

**Milestone**

Substantial completion

**Projected Date**

08/24/2020

**8/25/2020 to 8/31/2020**

**Milestone**

Complete Construction

**Projected Date**

08/31/2020

**9/1/2020 to 9/9/2020**

**Milestone**

Construction Record drawings

**Projected Date**

09/09/2019

**9/10/2020**

**Milestone**

Final Report

**Projected Date**

09/10/2020

**9/11/2020 to 9/17/2020**

**Milestone**

Project close-out

**Projected Date**

09/17/2020

**Data Collection Assessment:**

Land Survey

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# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Pasco County - Toilet Rebate - Phase 13  
**Project Number** Q078  
**Cooperator** Pasco County  
**Department** Utilities  
**Contact Person** Pamela Lynch  
**Address** 19420 Central Blvd.  
**City State Zip** Land O'Lakes, FL 34637  
**Phone #** 813-235-6191  
**Email** plynch@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This is a thirteenth year request for a proven, successful toilet rebate project that offers financial incentives to water customers (residential and commercial) within Pasco County Utilities' service area to replace existing high-volume (3.5 gallons per flush (gpf) or higher) with high-efficiency (HET) models (1.28 gpf or lower) to save potable water. The Fiscal Year 2020 project proposes to retrofit and rebate up to an additional 500 toilets through an outside contracted consultant. The rebates are offered in the form of a credit to the customer's water bill. The educational materials, program promotion, and surveys necessary to ensure the success of the program are included. Depending on the program's continued success, the Utilities Department may continue the program for additional years.

**Benefit:**

Based on the Water Management District's Acceptable Data for Estimating Conservation Savings, it is anticipated that by replacing 500 high-volume toilets this phase of the program will provide an estimated potable water savings of approximately 13,956 gallons per day in the Northern Tampa Bay Water Use Caution Area.

**Cost:**

The project's cost effectiveness is \$1.97 per thousand gallons saved.  
The FY '20 project costs:  
Total District share - \$50,000 Total County share - \$50,000 Total project cost \$100,000

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also

provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017, 100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share	760,000	50,000	50,000		860,000
General Fund-District Wide	760,000	50,000	50,000		860,000
<b>Total</b>	<b>1,520,000</b>	<b>100,000</b>	<b>100,000</b>		<b>1,720,000</b>

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Commence Rebate Period**

**Milestone**

October 1, 2019

**Projected Date**

10/01/2019

**Project Completion**

**Milestone**

September 30, 2020

**Projected Date**

09/30/2020

**Data Collection Assessment:**

Other data collection: number of HETs replaced and water savings

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Klosterman Bayou Watershed Management Plan  
**Project Number** Q083  
**Cooperator** Pinellas County  
**Department** Public Works  
**Contact Person** Paul Miselis  
**Address** 22211 Us Highway 19 North  
**City State Zip** Clearwater, FL 33765  
**Phone #** 727-464-8921  
**Email** pmiselis@pinellascounty.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

The project involves the development of a comprehensive watershed management plan (WMP) that results in recommendations for drainage, water quality and natural systems improvement projects in the Klosterman Bayou watershed. Except for the County's Stormwater Master Plan completed in the early 1980, no more up-to-date watershed management plan exists for the Klosterman Bayou watershed. This project would develop a new WMP for Klosterman Bayou, which will be developed in general accordance with the District's Guidelines and Specifications.

The Klosterman Bayou watershed is located in northeast Pinellas County, west of Lake Tarpon. The total basin area is approximately 2,068 acres. The watershed also contains the County's William E. Dunn Water Reclamation Facility. The watershed is mostly low to medium density residential land use. All surface water runoff generated in western portions of the freshwater segment of the Klosterman Bayou watershed enters the series of interconnected lakes located in the central portion of the basin and ultimately outfalls to St. Joseph Sound via a tidal creek and canals.

All surface water runoff generated in western portions of the freshwater segment of the Klosterman Bayou watershed enters the series of interconnected lakes located in the central portion of the basin and ultimately outfalls to St. Joseph Sound via a tidal creek and canals.

**Benefit:**

This project involves the development of a comprehensive watershed management plan that results in BMP recommendations for flood protection, water quality, and natural system improvement projects in the contributing watershed.

**Cost:**

This request is for the first year of a three-year project whose total project amount is estimated to be \$700,000. This estimate will be updated during the watershed evaluation phase of the project based on the needed scale of the survey and modelling effort.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The Pinellas County Comprehensive Plan obligates the County to protect, enhance, and improve water quality through water quality monitoring, watershed management plan development, implementation of projects, and environmental enforcement. In addition, the County is obligated by the Comprehensive Plan to work to improve flood protection and natural systems. The County has a fertilizer ordinance which restricts using products containing nitrogen or phosphorus during the rainy season with a related sales ban, a pet waste ordinance, and a street sweeping program all designed to reduce nutrient pollution to receiving waters. The County also has adopted a stormwater assessment that collects money to fund surface water programs, which include stormwater maintenance and related public outreach and education programs. In addition, many of our County vehicles are wrapped with stormwater education messages and professional landscape maintenance companies are required to take a BMP training certification course.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			100,000	200,000	300,000
Pinellas Anclote			100,000	200,000	300,000
Total			200,000	400,000	600,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Watershed Management Plan**

Milestone	Projected Date
Procurement	01/31/2020
Project Development	03/31/2020
Watershed Evaluation	09/01/2020
Floodplain Analysis	05/01/2021
FPLOS and BMP Alternatives Analysis	11/01/2021
SWRA and BMPs for Water Quality	06/01/2022

**Data Collection Assessment:**

Land Survey

Mapping/GIS data

Other data collection: LiDAR, rain, flow and water quality data will be sourced from existing efforts.

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Reclaimed Water - Kracker Ave Estuary RWM Extension  
**Project Number** Q084  
**Cooperator** Hillsborough County  
**Department** Public Utilities  
**Contact Person** Thomas Stinson Jr.  
**Address** 925 E. Twiggs Street  
**City State Zip** Tampa, FL 33602  
**Phone #** 813-612-7743  
**Email** stinsont@hillsboroughcounty.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

The County is partnering with multiple agencies including the SWFWMD to supply wetlands with reclaimed water just north of Kracker Avenue. The Kracker Avenue Restoration Project, entails the restoration of a 25-acre former tropical fish farm back to coastal wetlands and native upland habitat. They have requested the use of up to 4.0 MGD of reclaimed water.

This project consists of the Planning, Design, Permitting, and Construction of approximately 3,000 feet of reclaimed water main on the west side of US Highway 41. Associated metering, controls, SCADA and associated appurtenances are also included. The project is anticipated to supply a total of 1 MGD AADF to this project with peak flow of approximately 4 MGD.

**Benefit:**

The Kracker Avenue Restoration Project entails the restoration of a 25-acre former tropical fish farm back to coastal wetlands and native upland habitat.. The project is located just north of Kracker Avenue on the west side of U.S. 41. The current condition consists of more than 220 small linear ponds overgrown with Brazilian pepper and other invasive non-native species, as well as native species such as oaks, pines and cabbage palms. The restored condition will include freshwater wetlands, salt marshes, and a tidal lagoon channels.

The Restoration Project is anticipated to provide valuable nursery areas for recreational and commercially important species such as seatrout, redfish, mullet, tarpon, shrimp and crabs. There will also be a one-acre butterfly garden and simple public amenities (short trail and picnic table and/or benches). The restored landscape will provide valuable wildlife habitat for wading shorebirds and other coastal wildlife species. Additional benefits include easier public access, reduced mosquito habitat, and improved visual aesthetics.

This pipe line project is anticipated to provide 1 MGD AADF of reclaimed water to the Restoration Project, with peak flows of approximately 4 MGD.

**Cost:**

This pipeline project will cost \$1,200,000, and is scheduled to begin in FY2020. Hillsborough County is requesting District funding for Design and Construction. Design is estimated to be \$300,000 and Construction is estimated to be \$900,000. The Districts share is requested for a total of \$600,000 for FY2020. Hillsborough County will provide \$600,000 for FY2020.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Hillsborough County was the premier local government to decriminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A full time Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County's Water Conservation Ordinance (HCO 03-07) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County's administration. Enforcement of water conservation issues is done through Code Enforcement and Construction Services (Plumbing and Building Departments) in areas of their respective responsibilities. Reclaimed Water Master Plans have been developed to determine how reclaimed water throughout the County will be utilized for the primary goal of offsetting potable water use and meeting regulatory compliance. Additionally, the County has established a Reclaimed Water Improvement Unit (RWIU) ordinance to retrofit existing subdivisions with reclaimed water distribution systems. Hillsborough County has adopted a flood plain ordinance (County Ordinance 01-33) as required to participate as a community in the National Flood Insurance Program (NFIP) administered through the Federal Emergency Management Agency (FEMA). The county has developed land development regulations (LDR 96-35) to enforce the ordinance. All development is required to receive the proper building and site alteration permits. At this time flood plain issues are addressed to ensure compliance with the flood plain ordinance. Finished floor elevations are compared to the 100 year flood elevation. The County is also a participant in FEMA's Community Rating System and received a Class 6 rating. The Hillsborough County Reuse Program includes metering and an incentive based reuse rate structure for high volume water users and has pro active reclaimed water expansion policies which maximize utilization, water resource benefits and environmental benefits.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Alafia River			600,000		600,000
Applicant Share			600,000		600,000
Total			1,200,000		1,200,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**.02 Design**

<b>Milestone</b>	<b>Projected Date</b>
Design Begin	01/01/2020

**.03 Design**

<b>Milestone</b>	<b>Projected Date</b>
End Design	08/30/2020

**.03 Permitting**

<b>Milestone</b>	<b>Projected Date</b>
End Permitting	09/30/2020

**.06 Procurement for Construction**

<b>Milestone</b>	<b>Projected Date</b>
Advertise, Bid, Award	12/01/2020

**.07 Construction**

<b>Milestone</b>	<b>Projected Date</b>
End Construction	07/01/2021

**.08 Closeout**

<b>Milestone</b>	<b>Projected Date</b>
Final Closeout	12/31/2021

**Data Collection Assessment:**

Surface Water Flow (Discharge) measurements

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Demand Management Plan Implementation  
**Project Number** Q087  
**Cooperator** Tampa Bay Water  
**Department** Engineering Support  
**Contact Person** Dave Bracciano  
**Address** 2575 Enterprise Road  
**City State Zip** Clearwater, FL 33765  
**Phone #** 727-791-2313  
**Email** dbracciano@tampabaywater.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

Tampa Bay Water, as part of its Long-Term Water Supply Plan update, is required to evaluate and update their Demand Management Plan (DMP) every five years. The previous document and associated analysis, completed in 2013, with the analysis updated in 2018 to determine if demand-side efficiency opportunities can cost-effectively defer supply capacity development in the Tampa Bay region and sustain existing supply capacity. Documentation will be completed and added to the Long-Term Water Supply Plan for Board consideration in December 2018. The 2018 DMP evaluated water use and savings potential in the three main sectors of demand in the region; single family, multi-family and non-residential water uses. Technologies and programs specific to end uses within those sectors, originally developed for the 2013 report, were evaluated successfully to illustrate application can increase efficiency of water use and cost effectively defer the need for capacity development based on programs beginning in WY2020 and ending in WY2030 using the Alliance for Water Efficiency's Conservation Tracking Tool (version 3). Eleven major activities were identified in the evaluation, each of which is listed with individual attributes in Table 1. In August 2018, Tampa Bay Waters' Board of Directors directed staff to apply to the Southwest Florida Water Management District for cooperative funding of program elements provided. They also required staff to work with Member Governments to develop implementation strategies consistent with Tampa Bay Water governing requirements. Determination of how the program elements will work will be decided prior to the Agency's April 2019 Board of Directors meeting when the water year 2020 budget for the program will be provided. DMP program elements specifics include:

- The DMP accounts for increases in efficiency that have occurred passively (toilets) and those due to active implementation by Member Governments to eliminate double counting issues and helps to eliminate the potential of free riders and installation where savings might be minimal.
- Market penetration rates of programs were consistently applied across Tampa Bay Water's member service areas and sectors.
- Where programs were anticipated to have slow uptake, penetration rates were lowered (ex: Cooling Towers).
- Within the 11 program elements identified, implementation rates can and will vary while the total costs will not exceed quantities identified.
- Overhead costs are average estimated costs and will vary based on year one values.
- Actual program implementation is scheduled to start in spring of 2020.
- All program elements have a benefit to cost ratio for utility savings greater than 1.0 using the Alliance for Water Efficiency Conservation Tracking tool.

The objective of this effort is to increase the likelihood active demand management measures provide at least 11 mgd of potential savings between 2020 and 2030. Most of the 11 programs identified cost less than \$0.50/1000 gallons and are about 1/10th the

cost of new conventional supply projects identified for the 2018 Master Water Plan update. Therefore, they provide a greater financial benefit to utility customers than development of water supply sources and optimizes use of existing potable water supplies in the region.

**Benefit:**

This project is designed to increase the efficiency of existing potable water resources in the Tampa Bay region. Anticipated savings are up to 0.48 mgd in 2020 (6 months implementation in first year) accelerating to about 1.1 mgd per year between 2021 to 2030, with an overall cumulative total of 11.1 mgd by the end of 2030. The Alliance for Water Efficiency Conservation Tracking Tool was used to calculate benefit to cost ratios and program elements to the utility (in this case Tampa Bay Water's cost to its Member Governments). The overall rate is currently at 2.0. (Meaning for every dollar spent on these programs overall approximately 2 dollars will be saved in potable water costs to Tampa Bay Water Member Governments). These numbers do not include the value of reducing greenhouse gas emissions associated with production and pumping of water sources from Tampa Bay Water or its Member Governments.

Measure implementation is currently spread amongst Tampa Bay Water's Member Government service areas based on consistent application of market penetration rates to specific types of water use (categories within three sectors- SF, MF and NR) as identified in Tampa Bay Waters' demand forecasting database. Based on current water demand forecasts these savings will defer the need to develop about 12.5 mgd source of supply from 2030 to 2045.

Program elements are scheduled to begin just prior to the spring dry season in early 2020. The goal is to create an understanding of opportunity with the benefitted public prior to the program beginning so potential applicants will be ready to use resources once they become available. It is anticipated the Agency and Member Governments will work with the Tampa Bay Building Owners and Managers Association (BOMA) to promote programs in the non-residential and multi-family sectors, the Florida Irrigation Society in the outdoor programs in the single-family sector, and the Tampa Bay Builders Association when dealing with new home development. Additionally, there is specific opportunity to work collaboratively with the Florida Water Star program.

Advertising will also occur directly through Member Government mail-outs to applicable parties on a recurring basis to clearly incent customers to implement changes that will save them money and water resources.

**Cost:**

The program will be broken down into 11 one-year funding breakdowns. The first year of the program is designed to begin around the middle of the water year (6 month implementation initial year) with estimated incentives less than ½ proposed for future years. Costs were estimated based on discussions with the District, University of Florida and various utilities around the country (example: Cooling towers). First year costs are estimated at \$1,286,425 with a request of \$643,212.50 from the District. Overall incentive costs are estimated at \$1,006,950 and overhead costs at approximately \$279,475 (which is anticipated to be a combination of program and marketing costs). As Tampa Bay Water works with Member Governments to develop the specific implementation strategy for creating comprehensive programming that can be used throughout the region, we expect to develop updated specific overhead costs. The largest costs for this project include an independent contractor which will promote and market program elements (using Tampa Bay Water and/or Member Government databases to establish communication with appropriate parties), track and distribute incentives to applicable parties, provide reports to Tampa Bay Water, its Member Governments and the District as required. The contractor will also provide electronic data to Tampa Bay Water for incorporation into its database. (Tampa Bay Water will track potential savings long-term as part of its water resource optimization programming). The Agency may also consider hiring a contractor to install soil moisture sensor or ET controllers on some single-family properties. An evaluation of costs will be completed prior to this occurrence. Additionally, there may be some determination of costs to oversee parts of the Cooling Tower rebate program with specific expertise. This may be part of the independent contractor or a subconsultant to them. Estimated program activities with costs savings rates and other ancillary information is provided in Table 1 (attached).

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Tampa Bay Water uses a complex model to optimize and balance use of its existing supplies, which considers the impact on the environment, water quality, and reliability of the source water while meeting the overall system demands. Potential new supplies are incorporated into the model to evaluate the ability of the new supplies to meet future system demands while balancing the usage of Tampa Bay Water's existing sources. The model provides Tampa Bay Water with an effective tool for assessing and utilizing its existing and future water sources.

Conservation is an important element of Tampa Bay Water's regional water supply. Tampa Bay Water plans and coordinates conservation programming in the Tampa Bay region. Member governments are responsible for implementing programs that quantifiably reduce water demand. Due to the successful conservation planning and implementation efforts by Tampa Bay Water and its members, the per capita use rate of approximately 100 gpcpd in the Tampa Bay region is significantly lower than the State average and exceeds District goals. Tampa Bay Water supports local government conservation programs by funding programs quantifying water conservation potential and cost, providing region-wide educational and marketing programs, and various research and development-based programs. Tampa Bay Water worked with its member governments in creating model irrigation and landscape ordinance language that was adopted by most members, has evaluated implementation of those ordinances, and is working with members to increase ease and effectiveness of implementation.

Tampa Bay Water is a wholesale drinking water provider to our member governments and has no regulatory purview of any kind. Flood protection ordinances fall under the purview of the members and are implemented by them.

Tampa Bay Water continues to seek better ways of serving its customers and protecting the environment. In addition to comprehensive hydrologic and environmental monitoring at Tampa Bay Water facilities, technologies employed include the Optimized Regional Operations Plan (OROP), short-term and long-term demand forecasting, and surface water forecasting methods to ensure that we keep pace with our member government demands, react quickly to changed conditions, and manage our facilities for the protection of the environment and the benefit of our customers.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			643,213		643,213
General Fund-District Wide			643,213		643,213
Total			1,286,426		1,286,426

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Demand Management Plan**

<b>Milestone</b>	<b>Projected Date</b>
Board includes budget for funding programs	04/30/2019
Board approves budget for funding programs	04/30/2020
Staff develops formal structure for program implementation with member govts	04/30/2020
Implementation strategies for individual programs developed	06/30/2020
Implementation of incentive programs	09/30/2020
Marketing of program elements	09/30/2020
Closeout	10/30/2020

**Data Collection Assessment:**

No data will be collected for this project

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# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** DAR - South Hillsborough Aquifer Recharge Program (SHARP) - Phase 3  
**Project Number** Q088  
**Cooperator** Hillsborough County  
**Department** Public Utilities  
**Contact Person** Paul Schaedler  
**Address** 925 E. Twiggs Street  
**City State Zip** Tampa, FL 33602  
**Phone #** 813-209-3096  
**Email** schaedlerp@hillsboroughcounty.org

### Project Type:

Water Supply  Water Quality  Flood Protection  Natural Systems

### Strategic Initiatives:

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

### Indicate All Counties to Benefit From Project:

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

### Project Description/Benefit/Cost

#### Description:

In 2009, Hillsborough County's Public Utilities Department (PUD) began evaluating the feasibility of using highly-treated wastewater from its existing Advanced Water Reclamation Facilities to provide environmental improvements, a barrier to salt water intrusion, a path to the restoration of MIA water levels, and support a long-term and sustainable solution to water management challenges in the southern portion of its service area. The County's goal of 100% reuse capability is the driver behind the development of the first reclaimed water direct aquifer recharge pilot project in the state of Florida. The County's South Hillsborough Aquifer Recharge Project (SHARP) located at the Port Redwing Outfall became the first reclaimed water direct aquifer recharge project in the region. The County has continued with the SHARP program with two (2) additional recharge wells (Phase 2) currently in procurement for construction which is currently being cooperatively funded by the SWFWMD. PUD is now seeking to begin Phase three (3) of the SHARP Program and install additional Class V recharge wells in the South Hillsborough County area. The County's aquifer recharge expansion vision includes a regional recharge system to mitigate saltwater intrusion in coastal Hillsborough County, provide a level of mitigation to the SWUCA, MIA, and to allow for additional groundwater development in an area that has had historical adverse water level impacts to the aquifer. It is anticipated that at least ten (10) aquifer recharge wells will be constructed as part of SHARP in several phases over the next 10 -15 years. Each well is anticipated to operate at 2 MGD AADF with peak flows of approximately 3 MGD. This project, Phase 3 of SHARP, consists of the Design, Permitting and Construction of three (3) aquifer recharge wells, associated monitoring wells, and interconnection pipelines; Three (3) recharge well wellheads and appurtenances; Monitoring wells and appurtenances, including remotely powered sample pumps and purge water discharge facilities for all wells; Booster pumps and associated equipment; Electrical service to all monitoring wells for controls; SCADA, instrumentation and control, including automation so that the system can be remotely operated with all necessary monitoring systems in place to meet FDEP permit reporting requirements; Interconnecting pipelines (approximately 4,000 feet) to connect the recharge wells to existing reclaimed water transmission mains.

#### Benefit:

The County's aquifer recharge expansion vision includes a regional recharge system to mitigate saltwater intrusion in coastal Hillsborough County, provide a level of mitigation to the SWUCA, MIA, and to allow for additional groundwater development in an area that has had historical adverse water level impacts to the aquifer. This project, SHARP Phase 3 (Three (3) Wells), is anticipated to recharge a total of approximately 6 MGD AADF with peak flows of approximately 9 MGD. The total anticipated recharge quantity of the SHARP well program is 20 MGD AADF with peak flows of approximately 30 MGD.

#### Cost:

Total Phase 3 Project Cost: \$13,000,000; Total District share: \$3,250,000 in FY2020 and \$3,250,000 anticipated in future fiscal years; Hillsborough County share: \$6,500,000.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Hillsborough County was the premier local government to decriminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A fulltime Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County's Water Conservation Ordinance (HCO 03-07) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County's administration. Enforcement of water conservation issues is done through Code Enforcement and Construction Services (Plumbing and Building Departments) in areas of their respective responsibilities. Reclaimed Water Master Plans have been developed to determine how reclaimed water throughout the County will be utilized for the primary goal of offsetting potable water use and meeting regulatory compliance. Additionally, the County has established a Reclaimed Water Improvement Unit (RWIU) ordinance to retrofit existing subdivisions with reclaimed water distribution systems. Hillsborough County has adopted a flood plain ordinance (County Ordinance 01-33) as required to participate as a community in the National Flood Insurance Program (NFIP) administered through the Federal Emergency Management Agency (FEMA). The county has developed land development regulations (LDR 96-35) to enforce the ordinance. All development is required to receive the proper building and site alteration permits. At this time flood plain issues are addressed to ensure compliance with the flood plain ordinance. Finished floor elevations are compared to the 100 year flood elevation. The County is also a participant in FEMA's Community Rating System and received a Class 6 rating. The Hillsborough County Reuse Program includes metering and an incentive based reuse rate structure for high volume water users and has proactive reclaimed water expansion policies which maximize utilization, water resource benefits and environmental benefits.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Alafia River			3,250,000	3,250,000	6,500,000
Applicant Share			3,250,000	3,250,000	6,500,000
Total			6,500,000	6,500,000	13,000,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**1. Design**

<b>Milestone</b>	<b>Projected Date</b>
Design Begin	10/01/2019

**2. Design**

<b>Milestone</b>	<b>Projected Date</b>
Design Complete	05/01/2020

**3. Permitting**

<b>Milestone</b>	<b>Projected Date</b>
End Permitting	08/31/2020

**4. Procurement**

<b>Milestone</b>	<b>Projected Date</b>
Advertise, Bid, Award	09/30/2020

**5. Construction**

<b>Milestone</b>	<b>Projected Date</b>
Construction Begin	02/01/2021

**6. Construction**

<b>Milestone</b>	<b>Projected Date</b>
Construction Complete	02/01/2022

**7. Closeout**

<b>Milestone</b>	<b>Projected Date</b>
Final Closeout	08/31/2022

**Data Collection Assessment:**

Groundwater or Surface Water Level measurements  Monitor Well Installation

Aquifer Testing

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Sensible Sprinkling Program, Phase 9  
**Project Number** Q089  
**Cooperator** City of St. Petersburg  
**Department** Engineering  
**Contact Person** Chris Claus  
**Address** 1650 Third Ave. No.  
**City State Zip** St. Petersburg, FL 33713  
**Phone #** 727-892-5688  
**Email** chris.claus@stpete.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

The City of St. Petersburg is proposing the continuance of an outdoor water conservation education and irrigation evaluation project that will educate customers who use potable, private well, and reclaimed water regarding on-site irrigation system modifications that can maximize watering efficiency. The 2020 project will be the sixteenth year of this ongoing effort and is expected to provide 300 irrigation system evaluations and installation of 300 rain sensors at no cost to the customer. A qualified irrigation contractor will be hired to perform evaluations. Project participants will receive a sprinkler system evaluation report with site-specific recommendations, rain sensor installation if an operable sensor is not present, water wise landscaping educational materials, and a watering shut-off nozzle.

**Benefit:**

To date, over 2,500 evaluations and 2,160 rain sensor installations have been performed as part of this project in order to improve outdoor water use efficiency. The water savings, nutrient runoff minimization and other results of this program will help protect natural systems and water quality, minimize flooding potential, and conserve water supplies. Irrigation systems utilizing reclaimed or private well water have been included in this program to encourage conservative practices and prevent over-utilization of these resources, thereby increasing water resource availability to additional customers. This project affects the entire Tampa Bay region since water savings in St. Petersburg has a positive effect on regional water supplies and assists in protection of natural systems.

**Cost:**

According to "Potable Water Conservation Best Management Practices for the Tampa Bay Region" (Tampa Bay Water, 2003), a City of Tampa study of 96 residential locations identified average savings of 188 gallons per account per day (gpad) as a result of irrigation evaluations. Despite the lack of a rebate associated with modifications, during the previous phases of this Program customer survey and follow-up evaluation results indicate that many of the system and time clock suggested efficiency modifications were implemented. Daily water savings is estimated to be 56,400 gallons, equating to an annual water savings of over 20 million gallons. Utilizing the District's methodology, the overall cost effectiveness of this rebate project is \$1.22 per thousand gallons saved, and is expected to save over 102 million gallons over the next 5 years.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

St. Petersburg City Administration has been proactive in the development of ordinances vital to achieving the desired objectives of protecting water quality and management of water resources and flood protection. The City's Comprehensive Plan includes policies that require the Water Resources Department to develop and implement water conservation initiatives. Since 1989, these initiatives

have helped reduce the City’s average yearly water demand from a high of 41 mgd to a low of 28 mgd in 2016 (a thirty-one percent reduction). Watering restrictions for the use of potable, well and surface waters have been established through City Ordinance. A Water Efficient Landscape Ordinance (Chapter 16) was adopted by City Council in 2002. In 1985, the City established a water-conserving rate structure, as required by the City’s Comprehensive Plan. This rate structure triggers the cost of water to become increasingly more expensive during months of increased demand. As an additional conservation incentive, sanitary sewer rates are based on water usage with no outdoor water use cutoff. In 2009, a fifth tier was added to the water-conserving block rate structure for single family residential customers using over 20,000 gallons of water per month; this highest tier is intended to send a price signal to customers who use potable water for more than the typical domestic uses. In 1994, the St. Petersburg Stormwater Management Master Plan was completed and SWFWMD conceptual permits were obtained for the proposed projects.

The St. Petersburg Stormwater Management Master Plan also addresses level of service criteria and serves as the guide document for City ordinances and pending drainage improvements within the City. Ordinance No. 2017-F and 147-G regulates the control and management of drainage and surface waters in harmony with the City Comprehensive Plan and SWFWMD regulations. Water pollution protection is provided by Chapter 11, Section 2 of City Code, which identifies unlawful discharges into the public drainage system and provides for prosecution of violators. The City participates in the National Flood Insurance Program (NFIP). In order to qualify for the program, the City adopted and enforces Article VII Flood Damage Prevention (City Code 16.30.040 through 16.40.060.4.5), to regulate development in the flood hazard areas.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share	462,550		50,000		512,550
Pinellas Anclote	505,586		50,000		555,586
<b>Total</b>	<b>968,136</b>		<b>100,000</b>		<b>1,068,136</b>

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

Irrigation Evaluation Period Starts	10/01/2019
Irrigation Evaluation Period Ends	09/30/2020
Final Report	09/30/2021

**Data Collection Assessment:**

No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Belleair Brackish Water Hydrologic Testing  
**Project Number** Q090  
**Cooperator** Town of Belleair  
**Department** Public Works  
**Contact Person** Terry Griffin  
**Address** 380 Park Place Boulevard, Suit  
**City State Zip** Clearwater, FL 33759  
**Phone #** 727-224-9480  
**Email** terry.griffin@Cardno.com

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

<input type="checkbox"/> Water Quality Maintenance and Improvement	<input type="checkbox"/> Water Quality Monitoring
<input checked="" type="checkbox"/> Alternative Water Supply	<input type="checkbox"/> Conservation
<input type="checkbox"/> Reclaimed Water	<input type="checkbox"/> Regional Water Supply Planning
<input type="checkbox"/> Emergency Flood Response	<input type="checkbox"/> Floodplain Management
<input type="checkbox"/> Minimum Flows and Level Establishment and Monitoring	<input type="checkbox"/> Minimum Flows and Levels Recovery
<input type="checkbox"/> Natural Systems Conservation and Restoration	<input type="checkbox"/> Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

<input type="checkbox"/> Charlotte	<input type="checkbox"/> Citrus	<input type="checkbox"/> Desoto	<input type="checkbox"/> Hardee	<input type="checkbox"/> Hernando	<input type="checkbox"/> Highlands	<input checked="" type="checkbox"/> Hillsborough	<input type="checkbox"/> Lake
<input type="checkbox"/> Levy	<input type="checkbox"/> Manatee	<input type="checkbox"/> Marion	<input checked="" type="checkbox"/> Pasco	<input checked="" type="checkbox"/> Pinellas	<input type="checkbox"/> Sarasota	<input type="checkbox"/> Sumter	<input type="checkbox"/> Polk

**Project Description/Benefit/Cost**

**Description:**

The Town of Belleair (Town) is requesting funding assistance to support a hydrogeologic investigation of the upper Floridan aquifer in western Pinellas County, Florida, and to determine the feasibility of transitioning to brackish groundwater production and treatment within this 90 year old coastal wellfield. Key objectives of this project will be to identify the presence and characteristics of a deeper brackish water zone within the upper Floridan aquifer (Zone B), that could potentially provide an additional source of brackish groundwater in the future; and to investigate the presence and characteristics of a deeper permeable zone (Zone C) in the upper Floridan aquifer that could be utilized for injection of brine concentrate from the reverse osmosis (RO) treatment process. This Project would constitute the first phase of developing a brackish groundwater reverse osmosis (RO) desalination system for the Town of Belleair. Currently the Town's water demand is met through its potable-quality wellfield and water treatment plant. The wellfield is currently permitted under Water Use Permit (WUP) 20007692.007, with an annual average withdrawal of 885,900 gpd and a peak month of 1.063 mgd.

The Town's wellfield is located near the Gulf of Mexico. Chloride levels in production wells have risen significantly since the 1970s and the rate of increase has accelerated in recent years, even as groundwater withdrawal rates within the wellfield have been significantly reduced during the same time period. Chloride concentrations have exceeded or are approaching the drinking water standard in most production wells. Blending of water from the wells is currently producing a finished water supply that meets the chloride standard. However, given the rate of chloride increase, the Town may be unable to meet water quality standards within the next few

**Benefit:**

The hydrogeologic information generated from the Project will be extensive and will complement SWFWMD's efforts to gather regional hydrogeologic data through its Regional Observation and Monitoring Program. Data obtained from the Project can be used to enhance the management of groundwater resources throughout the Tampa Bay Region in the following ways:

- Provide critical hydrogeologic and water quality information at multiple depth intervals within the dynamic salt water interface portion of the upper Floridan aquifer in western Pinellas County, offering temporal data potentially associated with sea level rise in the region,

- Maintain optimum and best use of water that is of reduced quality due to regional impacts on the aquifer systems,
- Provide data to assist with development of reclaimed water aquifer recharge/aquifer storage and recovery projects throughout the District

In addition, the Project is the first step in enabling the Town to continue meeting its demands with its own water supply. The only alternative is for the Town to be supplied by Pinellas County through Tampa Bay Water, which would have the negative effect of increasing stress on ground and surface water sources in Pasco and Hillsborough Counties.

**Cost:**

Cost estimates were developed through discussions with drilling contractors currently working in the Tampa Bay Area. A summary of the total project costs are as follows: Total Project Cost \$1,763,350.00 Cooperator Share \$881,675.00 Funds Requested in FY 20 \$705,340.00 Funds Requested in FY 21 \$176,335.00

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The Town of Belleair has substantially reduced its withdrawal quantities during the previous 20+ years, including a reduction in the permitted withdrawal quantity from 1,160,400 gpd to 885,900 gpd in 2017. The Town only allows irrigation one day a week year round, and has an aggressively tiered rate structure for water use. The Town uses a state of the art metering and billing system that notifies the Public Works Department and individual customers if water use rates increase beyond the norm. The Town has also removed two production wells, backplugged a third well, and installed three new wells that are further from the coast and further from other production wells. An optimized pumping schedule is also used to minimize drawdowns due to superposition of well influences.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			705,340	176,335	881,675
General Fund-District Wide			705,340	176,335	881,675
Total			1,410,680	352,670	1,763,350

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

final design and testing documents submittal to District	08/30/2019
Draft Bid Specification Documents for District Review	11/15/2019
Bid solicitation and contractor selection	01/31/2020
complete installation and testing of Zone C well	08/28/2020
Complete Zone B and Zone A well installations and testing	12/18/2020
complete and submit final report of results	03/31/2021
Final Invoice to District	05/31/2021
Project Closeout	07/01/2021

**Data Collection Assessment:**

- Groundwater or Surface Water Level measurements  Groundwater or Surface Water Quality measurements
- Monitor Well Installation  Lithologic/Geophysical data
- Aquifer Testing

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** St. Petersburg Residential Clothes Washer Rebate Program, Phase 2  
**Project Number** Q096  
**Cooperator** City of St. Petersburg  
**Department** Engineering  
**Contact Person** Chris Claus  
**Address** 1650 Third Ave. No.  
**City State Zip** St. Petersburg, FL 33713  
**Phone #** 727-892-5688  
**Email** chris.claus@stpete.org

### Project Type:

Water Supply  Water Quality  Flood Protection  Natural Systems

### Strategic Initiatives:

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

### Indicate All Counties to Benefit From Project:

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

### Project Description/Benefit/Cost

#### Description:

The City of St. Petersburg is proposing an indoor water conservation education and high efficiency appliance rebate project. In FY2018, the City implemented a pilot program that was the first of its kind within the District. Phase 2 of this project is designed to provide \$125 rebates to 300 single family residential water customers replacing an in-unit high water flow clothes washer with an EPA Energy Star certified high efficiency model. These rebates will also be provided to multi-family residents with in-unit washers (mainly, condominium and townhome residents). A qualified contractor will be hired to perform program administration tasks which include inspections of old and new washers and ensuring that an old fixture is disposed of in a manner to prevent its re-use. Project participants will receive a rebate and indoor water conservation information regarding toilet and other household leak detection and repair practices.

#### Benefit:

The clothes washing machines is the second highest water user in a home, after toilets. Tampa Bay Water's Demand Management Plan (Hazen and Sawyer, December 2013) indicates that over 80% of clothes washers in St. Petersburg have high flow rates (above 11 Water Factor or WF). As an indicator of how many gallons of water is needed to wash one cubic foot of clothing, the lower the WF value, the more water efficient the clothes washer. A focus on single-family clothes washers is expected to result in the highest water savings among the residential end uses evaluated. According to A National Study of Water & Energy Consumption in Multifamily Housing, In-Apartment Washers vs. Common Area Laundry Rooms (Multi-Housing Laundry Association, 2001), a comparison of in-unit washers and common area laundry rooms indicates residents' with in-unit washers use 3.3 times more water. Energy Star high-efficient residential clothes washers provide comparable or better wash performance than traditional models, while saving the consumer both water and energy. A full-sized Energy Star-certified clothes washer uses 13 gallons of water per load or less. Certified models use 35-50% less water and 50% less energy. Water savings will affect the entire Tampa Bay region since water savings in St. Petersburg has a positive effect on regional water supplies and assists in protection of natural systems. The water and energy savings and other results of this program will protect natural systems and conserve water supplies.

#### Cost:

As proposed, the Total Project Cost will be \$75,000; District share will be \$37,500. According to Tampa Bay Water's Best Management Practices, the greatest water savings for this Project will be from offering a high efficiency clothes washer rebate to customers owning single family units (savings of 15 gallons per account per day) or multi-family units (townhomes, condominiums, mobile homes, etc.) with in-unit washers (savings of 12 gallons per unit per day). Based on savings rates in Tampa Bay Water's

Demand Management Plan and this Project's estimated number of rebates, daily water savings from this 2020 project is expected to be 4,200 gallons, equating to an estimated annual savings of over 1,533,000 gallons. The 12-year water savings, based on the life expectancy of the appliance, is estimated to be over 18.4 million gallons. The overall cost effectiveness of this pilot rebate project is \$6.31 per thousand gallons saved.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

St. Petersburg City Administration has been proactive in the development of ordinances vital to achieving the desired objectives of protecting water quality and management of water resources and flood protection. The City's Comprehensive Plan includes policies that require the Water Resources Department to develop and implement water conservation initiatives. Since 1989, these initiatives have helped reduce the City's average yearly water demand from a high of 41 mgd to a low of 28 mgd in 2016 (a thirty-one percent reduction). Watering restrictions for the use of potable, well and surface waters have been established through City Ordinance. A Water Efficient Landscape Ordinance (Chapter 16) was adopted by City Council in 2002. In 1985, the City established a water-conserving rate structure, as required by the City's Comprehensive Plan. This rate structure triggers the cost of water to become increasingly more expensive during months of increased demand. As an additional conservation incentive, sanitary sewer rates are based on water usage with no outdoor water use cutoff. In 2009, a fifth tier was added to the water-conserving block rate structure for single family residential customers using over 20,000 gallons of water per month; this highest tier is intended to send a price signal to customers who use potable water for more than the typical domestic uses.

In 1994, the St. Petersburg Stormwater Management Master Plan was completed and SWFWMD conceptual permits were obtained for the proposed projects. The St. Petersburg Stormwater Management Master Plan also addresses level of service criteria and serves as the guide document for City ordinances and pending drainage improvements within the City. Ordinance No. 2017-F and 147-G regulates the control and management of drainage and surface waters in harmony with the City Comprehensive Plan and SWFWMD regulations. Water pollution protection is provided by Chapter 11, Section 2 of City Code, which identifies unlawful discharges into the public drainage system and provides for prosecution of violators. The City participates in the National Flood Insurance Program (NFIP). In order to qualify for the program, the City adopted and enforces Article VII Flood Damage Prevention (City Code 16.30.040 through 16.40.060.4.5), to regulate development in the flood hazard areas.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share	12,350		37,500		49,850
Pinellas Anclote	12,350		37,500		49,850
<b>Total</b>	<b>24,700</b>		<b>75,000</b>		<b>99,700</b>

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

Project Implementation Start Date	10/01/2019
Project Implementation End Date	04/01/2021
Final Report	07/30/2022

**Data Collection Assessment:**

No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Reclaimed Water - Pasco County Cypress Preserve Reclaimed Water Transmission Main Phase 3  
**Project Number** Q098  
**Cooperator** Pasco County  
**Department** Utilities  
**Contact Person** Pamela Lynch  
**Address** 19420 Central Blvd.  
**City State Zip** Land O'Lakes, FL 34637  
**Phone #** 813-235-6191  
**Email** plynch@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This project is for the continuation of construction of approximately 1828 linear feet of 16-inch reclaimed water transmission main and 792 linear feet of 12-inch reclaimed water transmission main that will extend from the northern end of Hawks Landing Drive and continue on to Grand Live Oak Blvd. Cypress Preserve is an approved MPUD located on U.S. Highway 41 just south of State Road 52. This Fiscal Year 2020 request is for an approximate total project cost of \$200,000.00 (\$100,000 - District share and \$100,000 - County share). The Cypress Preserve community will eventually consist of 557 single family homes, 284 multi-family homes, and approximately 15 acres of common areas. Furthermore, future development to the west of the project is anticipated to be significant - up to 10,000 single family homes. The community's distribution system will advance the utilization of reclaimed water for irrigation of homes and businesses and will eliminate the need to utilize potable water for this purpose.

This is a multi-year funded project.

**Benefit:**

The annual average flow offset of potable water used for irrigation at build out of the Cypress Preserve community is approximately 70 million gallons per year or .62 million gallons per day (mgd), with Phase 1 at 0.19 mgd, Phase 2 at 0.20 mgd, and Phase 3 at 0.23 mgd. Customers to be served are anticipated to be receiving project benefits by 2019. This project will enable the continuation of concurrent reclaimed water construction with roads and other utilities. Cypress Preserve is located in the Northern Tampa Bay Water Use Caution Area. It will serve to further implement the District's Regional Water Supply Plan by greatly reducing the need for utilizing ground water for irrigation purposes.

**Cost:**

The total project cost is \$413,000. District Share = \$206,500 - County Share = \$206,500

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017, 100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share	17,500	206,500	206,500		430,500
General Fund-District Wide	17,500	206,500	206,500		430,500
Total	35,000	413,000	413,000		861,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Commence Construction**

<b>Milestone</b>	<b>Projected Date</b>
Commence Construction	10/01/2019

**Complete Construction**

<b>Milestone</b>	<b>Projected Date</b>
Complete Construction	09/30/2020

**Data Collection Assessment:**

Mapping/GIS data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Sparkman Nesmith-Frank Moore Rd Drainage Improvements  
**Project Number** Q100  
**Cooperator** Hillsborough County  
**Department** Public Works  
**Contact Person** Jie Tong  
**Address** 601 E Kennedy Blvd 22nd Floor  
**City State Zip** Tampa, FL 33602  
**Phone #** 813-307-1818  
**Email** TongJ@hillsboroughcounty.org

**Project Type:**

Water Supply  
  Water Quality  
  Flood Protection  
  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement       Water Quality Monitoring  
 Alternative Water Supply       Conservation  
 Reclaimed Water       Regional Water Supply Planning  
 Emergency Flood Response       Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring       Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration       Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  
  Citrus  
  Desoto  
  Hardee  
  Hernando  
  Highlands  
  Hillsborough  
  Lake  
 Levy  
  Manatee  
  Marion  
  Pasco  
  Pinellas  
  Sarasota  
  Sumter  
  Polk

**Project Description/Benefit/Cost**

**Description:**

Upgrade three (3) roadway drainage system along Sparkman Rd, Nesmith Rd, and Frank Moore Rd with combination of a 3-4 acres detention pond to alleviate flooding problem in this conveyance system as well as provide the water quality improvements.

**Benefit:**

These 3 roads serve the Springhead Elementary School and surrounding neighborhood.

**Cost:**

The estimated cost is \$1,300,000.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Water Conservation: Hillsborough County was the premier local government to decriminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A fulltime Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County's Water Conservation Ordinance (HCO 03-07) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County's administration. Flood Protection: The principal purpose of Hillsborough County's floodplain management program is to protect residents and business owners from flooding risks. Flooding disasters are the leading recurring hazard within the County and have the potential of affecting greater than one-quarter of the population at a value that is greater than five billion dollars in personal property. Construction standards and planning concepts are implemented through the County's Land Development Code. Floodplain Management Plan and Local Mitigation Strategy.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Alafia River			500,000		500,000
Applicant Share		300,000	500,000		800,000

Total 300,000 1,000,000 1,300,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

Design 60%	11/17/2018
Design 90%	07/15/2019
Final Design	09/28/2019
Procurement & Construction	03/19/2021

**Data Collection Assessment:**

No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Shady Hills Energy Center Reuse Project  
**Project Number** Q101  
**Cooperator** Shady Hills Energy Center, LLC.  
**Department**  
**Contact Person** Bruce Pohlman  
**Address** 2001 E Easter Ave. Suite 100  
**City State Zip** Centennial, CO 80122  
**Phone #** 303-730-2328  
**Email** bruce-pohlman@alliancepower.com

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This project is for third-party review and construction of reclaimed water infrastructure to supply, treat, and reuse reclaimed water at the Shady Hills Energy Center, LLC's (SHEC) new 573-megawatt Shady Hills Combined Cycle Facility (SHCCF) power plant which will be constructed in Central Pasco County next to the Pasco County Shady Hills wastewater treatment facility. The project is anticipated to include all transmission, storage, treatment, pumping, and appurtenances necessary to supply an annual average of 2.82 mgd of reclaimed water (1.92 mgd of Pasco County reclaimed water and 0.90 mgd of internal water reclamation through the SHCCF's zero liquid discharge (ZLD) system) for power generation. The project is ready to begin on or before December 1, 2019. Demands for cooling water are anticipated to be 4.30 mgd Total Peak and 2.82 mgd Annual Average of which Pasco County reclaimed water will supply 2.95 mgd Peak and 1.92 mgd Annual Average and internal ZLD system reclamation will supply 1.35 mgd Peak and 0.90 mgd Annual Average. Boiler feedwater treatment will be constructed by SHEC and is not included in the calculations (no District funding). Based upon anticipated reclaimed water quality, the treatment technologies will include but are not limited to chemical feed systems, lime softening, granular media filtration, intermediate storage, ultrafiltration, reverse osmosis, brine concentrating and crystallization, and solids dewatering infrastructure. The new 573-megawatt SHCCF will provide Seminole Electric Cooperative, Inc. with enough electricity to power approximately 500,000 homes, including customers in the Withlacoochee River Electric Cooperative service territory in Pasco, Hernando and Citrus Counties.

**Benefit:**

The benefit of this project is the supply and utilization of an annual average of 2.82 mgd of reclaimed water and internal reuse for power plant cooling and other processes for an anticipated water savings of 2.82 mgd within the Northern Tampa Bay Water Use Caution Area and the Aripeka/Weeki Wachee Springshed.

**Cost:**

**Total project cost:** \$27,091,560 (Third-party review and Construction); **Shady Hills Energy Center, LLC share:** \$13,545,780; **District share:** \$13,545,780; with \$12,191,202 requested in FY2020 and \$1,354,578 to be requested in FY 2021.

For basis of cost, see Basis of Estimate document included under "Documents" tab.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

In addition to the water supply resource benefits, this project will also have water quality benefits that will result in a reduction of pollutant loads to the Aripeka/Weeki Wachee Springshed by an estimated 52,602 lbs/yr total nitrogen (TN) based upon the 1.92 mgd annual reuse received from Pasco County at their current reuse quality standards (9 mg/L TN). If Pasco County upgrades to advanced wastewater treatment (i.e., 3 mg/L TN), then the project would result in an estimated 17,534 lbs/yr TN reduction. The project nutrient benefit is not located in a Priority Focus Area (PFA).

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			12,191,202	1,354,578	13,545,780
General Fund-District Wide			12,191,202	1,354,578	13,545,780
Total			24,382,404	2,709,156	27,091,560

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

Full Design Commence	04/30/2019
3rd Party Review Commence	10/01/2019
3rd Party Review Completion	11/30/2019
Construction Commence	12/01/2019
Construction Completion	12/31/2021

**Data Collection Assessment:**

No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Tampa Augmentation Project - Design Phase  
**Project Number** Q107  
**Cooperator** City of Tampa  
**Department** Water Department  
**Contact Person** Seung Park  
**Address** 306 E. Jackson St., 5e  
**City State Zip** Tampa, FL 33602  
**Phone #** 813-274-7095  
**Email** seung.park@tampagov.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This phase of the project will focus on engineering design services for implementing a recharge/recovery system to treat, store and recover reclaimed water in the Florida Aquifer System (FAS) for subsequent delivery to the Hillsborough River Reservoir or directly to the water intake system of the David L. Tippin Water Treatment Facility (DLTWTF). Project components for final design will include, but not limited to a 48-inch diameter transmission main and various smaller diameter distribution pipes, a pumping station at the Howard F. Curren Advanced Wastewater Treatment Plant (HFCAWTP), multiple recharge and recovery wells and all associated appurtenances.

**Benefit:**

The Tampa Augmentation project will provide for a new, safe, local, cost-effective, drought-resistant, long term sustainable alternative source of drinking water for the Tampa Bay region. The project will help protect and enhance important environmental resources such as Hillsborough Bay and Tampa Bay by reducing nutrient loading and also the Lower Hillsborough River by adding freshwater flows to meet Minimum Flows requirements. It also enables Tampa to manage its water resources for the highest and best use.

**Cost:**

The City anticipates \$3,000,000 of costs for the engineering consultant for the first year design effort and will commit \$1,500,000 into FY 2020 Capital Improvement Program budget. The City's request for funding from the District is \$1,500,000 in FY 2020. The District funded the feasibility study phase (N751) in FY2016 and FY2017 as well as Q028 in FY2019.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The City of Tampa has the following codes in place relating to water conservation: 1) Standard Plumbing Code (Ord. No. 92-67, 2, 5-7-92; Ord. No. 96-64, 62, 3-14-96; Ord. No. 98-40, 19 2-26-98), 2) Water Use Restrictions Code (Ord. No. 2003-316; Ord. No. 2000-69, 97, 3-16-00; Ord. No. 2000-43, 97, 9-14-00; Ord. No. 2001-87, 97, 3-29-01), 3) Increase in Water Restriction Violation Fines (Ord. NO. 2001-19, 23, 1-4-1), 4) Landscaping Code (Ord. No. 97-34, 2, 2-6-97), 5) Rain Sensor Requirement (part of Plumbing Code, Ord. NO 98-40, 19, 2-26-98), 6) Schedule of Water Rates ( Ord. NO. 2001-0987, 26-31, 8-30-01). The city has adopted a Flood Damage Control Ordinance (Ord. NO. 92-67, 2, 5-7-92, ord. NO 92-134, 3, 4, 81-3-92; Ord. NO. 96-64, 73-75, 3-14-96) as required to participate in the National Flood Insurance Program administered through FEMA.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			1,500,000		1,500,000
General Fund-District Wide			1,500,000		1,500,000
Total			3,000,000		3,000,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Contract Execution**

**Milestone**

Contract Execution

**Projected Date**

12/31/2020

**Design Completion**

**Milestone**

100% Design

**Projected Date**

09/30/2021

**Interim Design Review**

**Milestone**

60% Design

**Projected Date**

06/30/2021

**Data Collection Assessment:**

No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Pasco County Reclaimed Water - Nutrient Removal Study  
**Project Number** Q108  
**Cooperator** Pasco County  
**Department** Utilities  
**Contact Person** Pamela Lynch  
**Address** 19420 Central Blvd.  
**City State Zip** Land O'Lakes, FL 34637  
**Phone #** 813-235-6191  
**Email** plynch@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

The purpose of this project is to complete a feasibility study to identify the best option to reduce nitrogen loading to the Weeki Wachee and Aripeka Springsheds. Pasco County owns and operates a large interconnected wastewater system that serves nearly 200,000 residents, treating on average, approximately 21 million gallons per day (MGD). This water is treated to public access reuse quality. Currently there is a county-wide program to provide this alternative water resource to a variety of customers. The feasibility study will investigate nutrient reduction technology to reduce the Nitrogen concentration to 3 mg/l to enhance the treatment of the existing 1 to 2 MGD to the northwest portion of Pasco County. This provides the continued implementation of beneficial use of reuse within the Weeki Wachee Basin Management Action Plan (BMAP) area.

This project will provide the necessary information to find the most practical, cost effective option for reducing nitrogen loading entering the springshed. The adopted total maximum daily load (TMDL) requires a 71.1% and 77.3% reduction in nitrate to meet the waste load allocations (WLA) in the Weeki Wachee Spring and River, respectively. The TMDL is adopted into rule by the Florida Department of Environmental Protection (FDEP). We anticipate the application of a treatment technology, or treatment train, can significantly reduce nitrogen loading to the Springshed.

This feasibility study will identify nitrogen removal options including but not limited to innovative bio-treatment RIBs that utilize soil amendments with under drain system, treatment wetlands, or more conventional methods such as alum treatment and denitrification filters. The study will evaluate options to consider cost comparisons, nitrogen removal potential, operation and maintenance, and develop a technology recommendation to implement a nutrient reduction approach.

**Benefit:**

The benefit of this project will be a feasibility study that evaluates options to reduce nitrogen loading and support the achievement of the TMDL WLA to the Weeki Wachee Spring and the receiving water Weeki Wachee River. A potential future benefit will be to select the best project option identified by the study and work with the Water Management District under a separate project to design and construct the best option that facilitates the restoration of the ecological imbalance through nitrogen loading in the Springshed.

**Cost:**

Total cost of feasibility study is \$168,000.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017, 100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			84,000		84,000
General Fund-District Wide			84,000		84,000
<b>Total</b>			<b>168,000</b>		<b>168,000</b>

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Commence Study**

<b>Milestone</b>	<b>Projected Date</b>
Commence Study	10/01/2019

**Draft Report and Pilot Plan Development**

<b>Milestone</b>	<b>Projected Date</b>
Draft Report and Pilot Plan Development	05/01/2020

**Feasibility Evaluation**

<b>Milestone</b>	<b>Projected Date</b>
Feasibility Evaluation	01/01/2020

**Final Report**

<b>Milestone</b>	<b>Projected Date</b>
Final Report	12/31/2020

**Data Collection Assessment:**

- Groundwater or Surface Water Quality measurements     Lithologic/Geophysical data  
 Land Survey

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Pasco County - Satellite Based Potable Water Leak Detection Study  
**Project Number** Q109  
**Cooperator** Pasco County  
**Department** Utilities  
**Contact Person** Pamela Lynch  
**Address** 19420 Central Blvd.  
**City State Zip** Land O'Lakes, FL 34637  
**Phone #** 813-235-6191  
**Email** plynch@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

Pasco County Utilities (PCU) provides water supply to over 280,000 residents through a series of Tampa Bay Water (TBW) interconnects and Pasco County owned wells with a total water use of approximately 32 million gallons per day (MGD). PCU operates and maintains the water distribution system to ensure uninterrupted service to all customers. PCU has been proactive in minimizing non-revenue water loss, which results in reducing operational costs and the loss of a natural resource. PCU has implemented a variety of programs to decrease water losses in the distribution system including adding intelligent flushers, field analyzers and other technologies. PCU is also taking a proactive approach to identifying and fixing system leaks including training and properly equipping crews to focus on water pipe leak detection. Traditional established methods for leak detection involve a very time intensive process of listening to pipes for leaks in a relatively small focus area at a time. The time involved to investigate the full distribution system of approximately 1600 miles of water mains would be relatively infeasible. PCU is looking at innovative technologies to overcome this restriction in identifying potential leaks to repair.

The innovative solution to overcome the hurdles to identifying potential pipe leaks that PCU is pursuing though this pilot project is to work with a satellite based water leak detection company to collect multispectral images from satellite based sensors. The company will analyze and search the images for the freshwater spectral signature corresponding to water pipe leaks. This pilot project will cover up to 500 total miles of linear pipes of the area of interest and provide up to 100 points of interest at one time, presenting a significant labor and time savings. The identified leak data will be geo-referenced and displayed on the PCU's GIS water pipe maps. A leakage report will be provided to ground based leak crews using acoustic leak detection equipment to pinpoint the leak location. The repairs can easily be scheduled and performed by certified leak detection contractors. This project will pilot this technology for PCU but has the potential to be expanded Countywide as a cost effective way to detect system leaks in the future.

**Benefit:**

A 2017 Water Audit Report for PCU concluded that system leaks totaled 6.2% of total gross water use or approximately 2 MGD. The satellite based leak detection pilot project will analyze 500 linear miles of pipe with up to 100 points of interest, provide a full analysis, and deliver a leakage report. Leak detection crews will be able to quickly start their investigations, increasing the number

of leaks located, and ultimately allowing for the needed repairs to be made. The ultimate benefits will be conserving an estimated 100,000 gallons of water per day, saving time and tax payer dollars, and providing for a regional tool to reduce water loss.

**Cost:**

The total cost of the pilot project is \$60,000 all in FY2020. This includes a satellite survey (\$40,000) and 10 leak detection field investigations (\$20,000) by a certified contractor. This pilot project has the potential for expansion into other locations throughout the Pasco County Utility Service Area.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017, 100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			30,000		30,000
General Fund-District Wide			30,000		30,000
Total			60,000		60,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Commence Study**

**Milestone**

Commence Study

**Projected Date**

10/01/2019

**Complete Study**

**Milestone**

Complete Study

**Projected Date**

09/30/2020

**Final Report**

**Milestone**

Final Report

**Projected Date**

03/31/2021

**Data Collection Assessment:**

Aerial Imagery  Other data collection: normalized imagery displayed on a GIS application

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Advanced Metering Implementation  
**Project Number** Q112  
**Cooperator** City of Tampa  
**Department** Water Department  
**Contact Person** Seung Park  
**Address** 306 E. Jackson St., 5e  
**City State Zip** Tampa, FL 33602  
**Phone #** 813-274-7095  
**Email** seung.park@tampagov.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

<input type="checkbox"/> Water Quality Maintenance and Improvement	<input type="checkbox"/> Water Quality Monitoring
<input type="checkbox"/> Alternative Water Supply	<input checked="" type="checkbox"/> Conservation
<input type="checkbox"/> Reclaimed Water	<input type="checkbox"/> Regional Water Supply Planning
<input type="checkbox"/> Emergency Flood Response	<input type="checkbox"/> Floodplain Management
<input type="checkbox"/> Minimum Flows and Level Establishment and Monitoring	<input type="checkbox"/> Minimum Flows and Levels Recovery
<input type="checkbox"/> Natural Systems Conservation and Restoration	<input type="checkbox"/> Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

<input type="checkbox"/> Charlotte	<input type="checkbox"/> Citrus	<input type="checkbox"/> Desoto	<input type="checkbox"/> Hardee	<input type="checkbox"/> Hernando	<input type="checkbox"/> Highlands	<input checked="" type="checkbox"/> Hillsborough	<input type="checkbox"/> Lake
<input type="checkbox"/> Levy	<input type="checkbox"/> Manatee	<input type="checkbox"/> Marion	<input type="checkbox"/> Pasco	<input type="checkbox"/> Pinellas	<input type="checkbox"/> Sarasota	<input type="checkbox"/> Sumter	<input type="checkbox"/> Polk

**Project Description/Benefit/Cost**

**Description:**

City of Tampa's 5-Year Capital Improvement Program includes Advanced Metering Infrastructure project. City will engage a technical consultant to provide a complete oversight on the project implementation that considers the speed of deployment, needed process change, data requirement, communications plan for internal and external users including enhanced customer engagement. City also recognizes that a measurable conservation value of the Advanced Metering Infrastructure project implementation needs to be better understood. As the City implements its initial phase of the Advanced Metering Infrastructure project, the City's consultant will develop and execute a plan to analyze water savings as a result of the successful implementation of the Advanced Metering Infrastructure project by evaluating pre- and post- implementation per capita water consumption metric. We intend to begin with hourly reads and also have the capacity to obtain instantaneous reading upon demand. We expect to have meter data detail that provides analysis-based decision making and the timely availability of information about individual customer water consumption.

**Benefit:**

The following list has been compiled as benefits of Advanced Metering: 1. Elimination of human error and reduction of turnaround time associated with meter data collection, transcription, and bill creation, 2. Monthly and off-cycle billing based on actual meter readings, without the expense of deploying field staff, 3. Early identification of water leaks or high consumption events on the customer's side of the meter, enabling the City to proactively notify customers before they receive high consumption bills, 4. Greater customer awareness of water consumption habits, leading to improvements in conservation, 5.Reduced customer calls and field investigations, 6. Employment of sophisticated rate structures, such as those based on individualized conservation water budgets, day-of-use, or time-of-use, 7. Analysis of trends in individual consumption readings to identify possible meter failure or wear-out, 8. Right-sizing of meters that experience flow rates outside the accuracy range of the installed meter, 9. Monitoring of individual customer consumption to perform precise, targeted conservation enforcement, 10.Detection of leaks in the distribution system, facilitating the reduction of non-revenue water and improvements in distribution efficiency, and 11. Identification of and influence on system-wide usage patterns, leading to improved infrastructure planning and potential deferral of certain capital investments.

**Cost:**

City anticipates \$4,000,000 to be initial implementation cost for this project. City has committed \$2,000,000 in its budget. City requests funding from the District to be \$2,000,000 in FY 2020.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The City of Tampa has the following codes in place relating to water conservation: 1) Standard Plumbing Code (Ord. No. 92-67,2,5-7-92; Ord. No. 96-64,62,3-14-96; Ord. No.98-40,19 2-26-98), 2) Water Use Restrictions Code (Ord. No. 2003-316; Ord.No. 2000-69, 97, 3-16-00; Ord. No. 2000-43,97,9-14-00; Ord. No. 2001-87,97,3-29-01), 3) Increase in Water Restriction ViolationFines (Ord. NO. 2001-19,23,1-4-1), 4) Landscaping Code (Ord. No. 97-34,2,2-6-97), 5) Rain Sensor Requirement (part ofPlumbing Code, Ord. NO 98-40,19,2-26-98), 6) Schedule of Water Rates ( Ord. NO. 2001-0987,26-31,8-30-01). The city hasadopted a Flood Damage Control Ordinance (Ord. NO. 92-67, 2, 5-7-92, ord. NO 92-134, 3, 4, 81-3-92; Ord. NO. 96-64, 73-75,3-14-96) as required to participate in the National Flood Insurance Program administered through FEMA.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			2,000,000		2,000,000
General Fund-District Wide			2,000,000		2,000,000
Total			4,000,000		4,000,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**1st Year Implementation**

<b>Milestone</b>	<b>Projected Date</b>
Initial Area Implementation	09/30/2020

**Contract Execution**

<b>Milestone</b>	<b>Projected Date</b>
Contract Execution	12/31/2019

**Post Implementation Evaluation**

<b>Milestone</b>	<b>Projected Date</b>
Water Savings Analysis	12/31/2021

**Data Collection Assessment:**

Other data collection: water consumption data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** McIntosh Park IPR Feasibility and Pilot Test  
**Project Number** Q113  
**Cooperator** Plant City  
**Department** Utilities Department  
**Contact Person** Lynn Spivey  
**Address** 1500 Victoria Street  
**City State Zip** Plant City, FL 335633059  
**Phone #** 813-757-9190 ext105  
**Email** lspivey@plantcitygov.com

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

**McIntosh Park IPR Feasibility and Pilot Project**

The purpose of the McIntosh Park IPR Feasibility and Pilot Study (Phase IIb), for which this application is being submitted, is to verify treatment needed to augment groundwater levels in the Northern Tampa Bay and Dover/Plant City Water Use Caution Area through aquifer recharge. This recharge could play a critical element in the future water supply of the region. Phase I (funded by Plant City in FY19) will establish the level of treatment expected from the wetland system and what additional treatment will be necessary to utilize the water for groundwater recharge, and also establish available quantities. This pilot study will be designed and operated to simulate the full-scale treatment system for the blended reclaimed and stormwater. Pilot testing will also be used to evaluate treatment performance and establish design criteria. Groundwater modeling will also be performed to simulate recharge at the McIntosh site based on regional SWFWMD models. A UIC permit application for an exploratory well will be submitted to the FDEP with the goal of obtaining a permit within the year. Following the pilot testing period, the pilot system data will be evaluated, and a Draft Feasibility and Basis of Design Report (BODR) will be prepared. The report will include recommendations and conceptual design for implementation of a full-scale system. A review meeting will be held with the City of Plant City and the SWFWMD to discuss comments on the Draft report. After incorporation of the comments, a Final Report will be submitted.

**Benefit:**

The benefits of the IPR feasibility study are to provide information regarding the treatment of blended reclaimed and stormwater to a level that would allow groundwater recharge in the Plant City/Dover WUCA area. It is anticipated that 3 to 5 mgd would be available for recharge, resulting in a water supply benefit of 1-1.5 million gallons per day.

**Cost:**

Total Project Cost \$600,000  
City of Plant City \$300,000  
District \$300,000

The basis for the costs estimate is prior similar pilot studies and a preliminary level of effort estimate.

In addition, the City of Plant City will provide \$250,000 for a feasibility study in FY19.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

McIntosh Park Integrated Water Master Plan Phase I feasibility study (funded by Plant City) will be performed in FY2019 and will investigate an expansion of the wetland system at McIntosh Park to increase stormwater storage capacity, and evaluate the potential for recharge using the blended stormwater and reclaimed water. The project will investigate the feasibility of creating additional wetlands to accommodate excess surface water and all or some of the reclaimed water flow from the Pant City WRF. The project will advance a preferred project alternative that will be modeled to determine the layout of the proposed wetland system. Phase I will hydrologically model water flow to McIntosh Park and investigate the feasibility of recharge from the Eastside Canal sub-watershed of the Hillsborough River Watershed, along with reclaimed water from the Plant City WRF. The need for additional treatment prior to recharge will also be evaluated Phase IIa (separate application for co-funding in FY202) will include the design and permitting of the wetland expansion project.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		250,000	300,000		550,000
Hillsborough River			300,000		300,000
Total		250,000	600,000		850,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**McIntosh Park IPR Feasibility and Pilot Study**

**Milestone**

FY2020

**Projected Date**

10/01/2021

**Data Collection Assessment:**

Groundwater or Surface Water Quality measurements  Other data collection: Pilot treatment study data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** East Pasco WMP Update  
**Project Number** Q115  
**Cooperator** Pasco County  
**Department** Design Stormwater Management  
**Contact Person** Pasco County Public Works Department  
**Address** 7536 State Street, Suite 140  
**City State Zip** New Port Richey, FL 34654  
**Phone #** 727-847-8143  
**Email** mgarrett@pascocountyfl.net

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

The East Pasco Watershed Plan is proposed for updating and conceptual design completion under the SWFWMD (Southwest Florida Water Management District) Watershed Management Program. The East Pasco Watershed consists of the Lake Zephyr Watershed and the East Zephyrhills Watershed and was last updated in 2009. The project will need to be updated and completed to the current standards with an increased level of detail. Significant development has occurred as depicted below necessitating the updating of the model to complete the conceptual alternatives for the Pasco County flood prone areas. LiDAR acquisition in FY18/ FY19 will allow the terrain to be updated for use in the watershed model updates. The project will include all aspects of a WMP including development of a watershed model, floodplain analysis, peer review of the model and preliminary flood plain analysis, public meeting, District Governing Board approval, final floodplain analysis, and related efforts.

**Benefit:**

Watershed models allow Pasco County to identify watershed status and trends. These models become outdated as the County grows and new development is built. These plans survey existing structures, topography and develop a model which can run various scenarios to understand how water moves through the watershed. This information is critical in permitting new developments, identifying problem areas, and developing solutions for problem areas.

**Cost:**

Total Cost: \$800,000

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Pasco County's reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental

benefits. Pasco County adopted Ordinance 01-08 requiring the following: one day/week irrigation restrictions for potable water; curtailed use of potable water for irrigation when rain has occurred within 24 hours; scheduled availability and restricted use of reclaimed water irrigation to distribute limited supply to as many customers as possible; washing of non-business, personal vehicles only using low volume methods and over non-impervious surfaces; prohibiting aesthetic uses of water unless such use also provides a necessary aeration or water quality benefit; and the use of reclaimed water for road construction activities when available. Enforcement of this ordinance is by designated County personnel and law enforcement officers. During Water Year 2017, 100% of Pasco County Utilities' wastewater was reused. Effective October 1, 2018, the bulk rate charged for the use of reclaimed water is \$0.33 per 1,000 gallons for customers that have storage capability. All other bulk customers that feed directly off of the system will be charged \$0.65 per thousand gallons used. Residential irrigation customers will be billed a flat rate of \$15.05 per month. Pasco County's potable water rates are applied in a water conservation inclining block rate. County Ordinance 93-16 requires each new development to construct a reclaimed water distribution system as a condition of wastewater service when the development is within designated areas in the Reclaimed Water Master Plan and when providing the development with reclaimed water supply is determined in the best interest of the County. Pasco County participates in the National Flood Insurance Program, administered through FEMA. All finished floor elevations are required to be above the 100-year flood elevation. These elevations are reviewed prior to construction and certified after construction. Fill Ordinance, adopted in March 2005, requires permit applications and review for placement of fill greater than 5 CY on properties.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			250,000	150,000	400,000
Hillsborough River			250,000	150,000	400,000
Total			500,000	300,000	800,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**East Pasco WMP**

<b>Milestone</b>	<b>Projected Date</b>
Contract with consultant	10/01/2019
WMP project development	01/01/2020
Watershed evaluation	01/01/2020
Watershed evaluation project development	01/01/2021
Watershed Model Development	10/01/2021
Peer Review	01/01/2022
Public notification/Governing Board approval	04/01/2022
Final approval of deliverables	08/01/2022

**Data Collection Assessment:**

Mapping/GIS data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Roosevelt Creek Watershed Management Plan  
**Project Number** Q116  
**Cooperator** Pinellas County  
**Department** Public Works  
**Contact Person** Paul Miselis  
**Address** 22211 Us Highway 19 North  
**City State Zip** Clearwater, FL 33765  
**Phone #** 727-464-8921  
**Email** pmiselis@pinellascounty.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

The project involves the development of a comprehensive watershed management plan (WMP) that results in recommendations for drainage, water quality and natural systems improvement projects in the Roosevelt Creek watershed. The Roosevelt Creek watershed covers approximately 8,116 acres of central Pinellas County. The watershed consists of intensely-developed urban and industrial land use within portions of unincorporated Pinellas County as well as parts of the City of St. Petersburg and the City of Pinellas Park. Three major channels drain the Roosevelt Creek watershed into Old Tampa Bay.

The most recent Roosevelt Creek WMP was completed in 2007, but the watershed has seen a great deal of development over the last 10 years. Furthermore, significant new capital improvement projects are planned in the watershed (e.g., the FDOT's Gateway Expressway project, the County's 126<sup>th</sup> Ave. North improvement project, and the County's two, SWFWMD co-funded water quality improvement projects). Concurrently, the City of St. Petersburg is undertaking an update to their stormwater master plan, which includes their portion of the Roosevelt Creek watershed. The County's project would develop an updated WMP for Roosevelt Creek within unincorporated Pinellas County and would complement St. Petersburg's efforts to update the WMP within their portion of the watershed. The WMP will be developed in general accordance with the District's Guidelines and Specifications.

**Benefit:**

This project involves the development of an updated, comprehensive watershed management plan that results in BMP recommendations for flood protection, water quality, and natural system improvement projects in the contributing watershed.

**Cost:**

This request is for the first year of a three-year project, whose total project amount is estimated to be \$800,000.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The Pinellas County Comprehensive Plan obligates the County to protect, enhance, and improve water quality through water quality monitoring, watershed management plan development, implementation of projects, and environmental enforcement. In addition, the County is obligated by the Comprehensive Plan to work to improve flood protection and natural systems. The County

has a fertilizer ordinance which restricts using products containing nitrogen or phosphorus during the rainy season with a related sales ban, a pet waste ordinance, and a street sweeping program all designed to reduce nutrient pollution to receiving waters. The County also has adopted a stormwater assessment that collects money to fund surface water programs, which include stormwater maintenance and related public outreach and education programs. In addition, many of our County vehicles are wrapped with stormwater education messages and professional landscape maintenance companies are required to take a BMP training certification course.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			100,000	300,000	400,000
Pinellas Anclote			100,000	300,000	400,000
Total			200,000	600,000	800,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Watershed Management Plan**

Milestone	Projected Date
Procurement	01/31/2020
Project Development	03/31/2020
Watershed Evaluation	09/01/2020
Floodplain Analysis	05/01/2021
FPLOS and BMP Alternatives Analysis	11/01/2021
SWRA and BMPs for Water Quality	06/01/2022

**Data Collection Assessment:**

Land Survey

Mapping/GIS data

Other data collection: LiDAR, rain, flow and water quality data will be sourced from existing monitoring efforts.

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Reclaimed Water - Columbus Sports Park RWM Extension  
**Project Number** Q117  
**Cooperator** Hillsborough County  
**Department** Public Utilities  
**Contact Person** Paul Schaedler  
**Address** 925 E. Twiggs Street  
**City State Zip** Tampa, FL 33602  
**Phone #** 813-209-3096  
**Email** schaedlerp@hillsboroughcounty.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

Hillsborough County is currently constructing a Sports Park in the Central area of Hillsborough County. This project, the Columbus Sports Park, is located on Columbus Drive just west of Falkenburg Road. It is anticipated that there will be 16-20 playing fields when completed. These fields are currently planned to be irrigated with groundwater. Hillsborough County Public Utilities (PUD) is planning to supply reclaimed water to this Park. This project consists of the Design, Permitting, and Construction of a 4,700 foot reclaimed water pipeline connecting the Sports Park to an existing reclaimed water transmission main located east of the park on Columbus Drive at Falkenburg Rd. Construction is currently anticipated to be completed by May 2021.

**Benefit:**

The proposed project is anticipated to provide approximately 89,600 GPD of reclaimed water for irrigation to the Sports Complex in lieu of the same quantity of well water. This project is located near the northern boundary of the SWUCA where groundwater supplies have been stressed.

**Cost:**

This pipeline project will cost \$800,000, and is scheduled to begin in FY2020. Hillsborough County is requesting District funding for Design and Construction. Design is estimated to be \$200,000 and Construction is estimated to be \$600,000. The Districts share is requested for a total of \$400,000 for FY2020. Hillsborough County will provide \$400,000 for FY2020.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Hillsborough County was the premier local government to decriminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A full time Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County's Water Conservation Ordinance (HCO 03-07) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County's administration. Enforcement of water conservation issues is done through Code Enforcement and Construction Services (Plumbing

and Building Departments) in areas of their respective responsibilities. Reclaimed Water Master Plans have been developed to determine how reclaimed water throughout the County will be utilized for the primary goal of offsetting potable water use and meeting regulatory compliance. Additionally, the County has established a Reclaimed Water Improvement Unit (RWIU) ordinance to retrofit existing subdivisions with reclaimed water distribution systems. Hillsborough County has adopted a flood plain ordinance (County Ordinance 01-33) as required to participate as a community in the National Flood Insurance Program (NFIP) administered through the Federal Emergency Management Agency (FEMA). The county has developed land development regulations (LDR 96-35) to enforce the ordinance. All development is required to receive the proper building and site alteration permits. At this time flood plain issues are addressed to ensure compliance with the flood plain ordinance. Finished floor elevations are compared to the 100 year flood elevation. The County is also a participant in FEMA's Community Rating System and received a Class 6 rating. The Hillsborough County Reuse Program includes metering and an incentive based reuse rate structure for high volume water users and has proactive reclaimed water expansion policies which maximize utilization, water resource benefits and environmental benefits.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			400,000		400,000
Hillsborough River			400,000		400,000
Total			800,000		800,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**1. Design**

<b>Milestone</b>	<b>Projected Date</b>
Design Starts	01/02/2020

**2. Design**

<b>Milestone</b>	<b>Projected Date</b>
Design Complete	06/30/2020

**3. Procurement**

<b>Milestone</b>	<b>Projected Date</b>
Advertise, Bid, Award	10/01/2020

**4. Construction**

<b>Milestone</b>	<b>Projected Date</b>
Begin Construction	11/01/2020

**5. Construction**

<b>Milestone</b>	<b>Projected Date</b>
Complete Construction	05/31/2021

**6. Closeout**

<b>Milestone</b>	<b>Projected Date</b>
Closeout	10/31/2021

**Data Collection Assessment:**

Other data collection: Reclaimed Water use will be metered

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Watershed Model & SCADA Stream/LakeWarning System  
**Project Number** Q122  
**Cooperator** Hillsborough County  
**Department** Public Works  
**Contact Person** Jie Tong  
**Address** 601 E Kennedy Blvd 22nd Floor  
**City State Zip** Tampa, FL 33602  
**Phone #** 813-307-1818  
**Email** TongJ@hillsboroughcounty.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

1. Conduct a study and provide a master plan for installation of a lake/stream SCADA system in critical locations within Hillsborough County. 2. Calibrate/verify watershed models prior to each storm event based on current available data. 3. Develop a lake/stream warning system to be coupled with the watershed model results for prediction of the available capacity of the lake/stream systems (potential to flood). 4. Provide recommendations to SWFWMD for operation of their lake and stream structures to optimize flood control and lake management during the hurricane season.

**Benefit:**

Three major rivers originate from surrounding counties, flow through Hillsborough County, and ultimately discharge into Tampa Bay. These systems include many natural lakes with control structures that are operated by SWFWMD and interconnected with other minor streams within Hillsborough County. Being able to predict available capacity of these systems coupled with the results of existing watershed studies will be able to provide a pre-storm and during-storm warning system for communities and the transportation system, as well as providing recommendations to SWFWMD for their structure operations to prevent / alleviate flooding problems during the hurricane season.

**Cost:**

The estimated cost is \$2,000,000.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Water Conservation: Hillsborough County was the premier local government to decriminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A fulltime Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County's Water Conservation Ordinance (HCO 03-07) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County's administration. Flood Protection: The principal purpose of Hillsborough County's floodplain management program is to protect residents and business owners from flooding risks. Flooding disasters are the leading recurring hazard within the County and have the potential of affecting greater than one-quarter of the population at a value that is greater than five billion dollars in personal property. Construction standards and planning concepts are implemented through the County's Land Development Code, Floodplain Management Plan and Local Mitigation Strategy.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		100,000	900,000		1,000,000
General Fund-District Wide		100,000	900,000		1,000,000
<b>Total</b>		<b>200,000</b>	<b>1,800,000</b>		<b>2,000,000</b>

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

SCADA System Master Plan	09/30/2019
Lake / Stream Warning System	03/31/2020
System Installations	03/31/2021

**Data Collection Assessment:**

Groundwater or Surface Water Level measurements  Surface Water Flow (Discharge) measurements

Rainfall or Other Meteorological measurements

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** McIntosh Park Integrated Water Master Plan Stormwater Improvements  
**Project Number** Q125  
**Cooperator** Plant City  
**Department** Utilities Department  
**Contact Person** Lynn Spivey  
**Address** 1500 Victoria Street  
**City State Zip** Plant City, FL 335633059  
**Phone #** 813-757-9190 ext105  
**Email** lspivey@plantcitygov.com

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

McIntosh Park Integrated Water Master Plan provides additional stormwater treatment and beneficially reuse reclaimed water. Design and permit about 100-150 acres of new wetlands on the remaining land within McIntosh Park to supplement the existing 45 acres of in the existing wetlands treatment system. Currently, there are approximately 30 acres of jurisdictional wetlands that were previously ditched and are hydrologically impacted. The proposed approach is to improve the hydrologically impacted wetlands while increasing the overall wetland footprint at the Park.

**Benefit:**

100-150-acre wetland treatment nutrient reduction 1000 lb/yr TP 2,000 lbs/yr of TN. Fecal coliform bacteria reduction through capture a larger volume of first flush. Improve Hydrologically Impacted Natural Wetlands, Ecological Restoration, Surficial Aquifer Recharge. A quantification of the resource benefit includes; 100-150 Acres of treatment wetlands, 30 acres of improved hydrologically impacted natural wetlands, 1.5 MGD of reclaimed water beneficially reused. Cost benefit; \$75,000 Acre of treatment/restoration, \$803 Per pound TP, \$401 Per pound TN. Benefits Blackwater Creek, Hillsborough River, Tampa Bay

**Cost:**

Hydrological Modeling 60,000; Design & Permitting 1,265,000; survey 100,000; total 1,425,000

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

McIntosh Park Integrated Water Master Plan Phase I feasibility study investigates a 100 to 150-acre expansion of the wetland system to increase stormwater storage to increase stormwater treatment capacity. The project will investigate the feasibility of creating additional wetlands to accommodate excess surface water and all or some of the available reclaimed water flow. In addition to the improvement in water quality, the project would result in wetland enhancement. The study will include a literature

review to gather existing data, wetland delineation and classification, preliminary geotechnical investigation, preliminary water quality sampling, surface water modeling, and water quality modeling. The project will advance a preferred project alternative that will be modeled to determine the layout of the proposed wetland system. Phase I will hydrologically model both water flow to McIntosh park and investigate the feasibility of recharge from the Eastside Canal sub-watershed of the Hillsborough River Watershed, along with reclaimed water from the Plant City WRF, through the enhanced McIntosh Park wetland system. A second objective of the feasibility study is to evaluate the potential for utilizing the water that is discharged from the wetland system for direct or indirect aquifer recharge. The water quality data collected through Phase I will help assess permit constraints regarding subsurface water quality verses the potential recharge water quality. This will drive the selection of supplemental treatment options, if necessary, to meet UIC water quality standards.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share	250,000	712,500	7,187,500		8,150,000
General Fund-District Wide		712,500	7,187,500		7,900,000
<b>Total</b>	<b>250,000</b>	<b>1,425,000</b>	<b>14,375,000</b>		<b>16,050,000</b>

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Phase IIa- Stormwater Improvements**

**Milestone**

Design and Permitting

**Projected Date**

09/30/2019

**Data Collection Assessment:**

No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** No Name Creek-Pinellas Technical College-St. Petersburg  
**Project Number** Q128  
**Cooperator** Pinellas County School Board  
**Department**  
**Contact Person** Manda Rahgozar  
**Address** 11111 Belcher Rd.  
**City State Zip** Largo, FL 33773  
**Phone #** 727-547-7110  
**Email** Rahgozarm@pcsb.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

Pinellas County School District is proposing an urban stream restoration project within the No Name Creek in Pinellas Technical College-St. Petersburg. The proposed method of stabilization will include a combination of a rock toe (riprap), gabion baskets, and native vegetation planting along the banks and maintenance zones. The combination of materials used (riprap, gabion baskets and planting) will vary along the creek corresponding to existing conditions. In areas with steep existing slopes, gabion baskets with a riprap toe will be utilized. In areas with shallow existing slopes, only riprap will be used. In either case native vegetation will be planted on the north and south sides of the creek to restore the area to a native habitat. This project will result in 0.48 acres of temporary impact to No Name Creek and a few cubic yards of imported/removed fill material.

**Benefit:**

The erosion along portions of the south bank is compromising the structural integrity of one of the existing School buildings and limited pavement in close proximity to the south bank. The Restoration of the Creek will eliminate the potential for structural damage to the existing School building.

Also, the existing condition of the No Name Creek within the project area is less than optimal. Isolated regions of the creek consists of eroding banks, siltation of submerged habitat, and a dominance of exotic and nuisance vegetation. After mechanical harvesting of the vegetative communities and removal of existing nuisance/exotic vegetative cover, we propose to provide enhanced restoration along portions of the north bank and south bank of the creek to create native habitat. Restoration will include planting native trees, shrubs, and ground cover to create a mixed wetland hardwood habitat along the banks of the No Name Creek.

**Cost:**

The projected cost of the project is estimated at \$600,000.00.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

**Stormwater Modeling;**

The Existing Conditions analysis for the project will utilize the latest Regional Watershed Study provided by City of St. Petersburg/ Pinellas County/SWFWM. Florida Design Consultants, Inc., the Engineer of Record, will examine this Regional ICPR model and review against the recently collected site-specific survey data associated with those portions of No Name Creek within the project area.

The review of the Regional Watershed Study will include:

- 1) No revisions to the hydraulic characteristics of the creek within the project area,
- 2) No revisions to the initial stages within existing nodes,
- 3) Examination of the cross-sections associated with the channel based on invert elevations that rely on recently collected site specific survey data, and
- 4) Revisions to the Manning's n value for the existing channel to reflect the existing conditions of the creek (i.e. n=0.08- channels not maintained w/clear bottom, brush sides). Note: The latest version of the FDOT Hydrology Handbook will be used to determine the Manning's n value.

**Water Quality;**

A Unified Mitigation Assessment Method (UMAM) analysis will also be conducted by the environmental scientist. Based on observation, only three major productive habitat types are within the project area, rip-rap, rock and partially submerged vegetation. The site has been disturbed by historic channelization, traffic and pedestrian bridges, on-site modifications and erosion of the creek banks. The assessment will determine if it falls within marginal category. The assessment will also reflect the lack of habitat diversity, intensity of habitat smothering, artificial channelization, unstable banks, and minimal riparian buffer zone dominated by nuisance and exotic species in the current condition.

**Flood Protection;**

If required, a comparison of the Existing Condition and Proposed Condition Peak Elevations will be performed to confirm the restoration project will cause no adverse impacts to No Name Creek. The comparison will also show no increase in 100-year peak elevations to the nodes both upstream and downstream of the proposed project area.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			200,000		200,000
City		200,000			200,000
Pinellas Anclote			200,000		200,000
Total		200,000	400,000		600,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Design, Permitting and Bidding by October 2019**

**Milestone**

Construction Completion by June 2020

**Projected Date**

06/30/2020

**Data Collection Assessment:**

Land Survey  Other data collection: Jurisdictional Delineation

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Breakwater Park Living Shoreline  
**Project Number** Q129  
**Cooperator** Gulfport  
**Department** Gulfport Municipal Marina  
**Contact Person** Denis Frain  
**Address** 4630 29th Avenue South  
**City State Zip** Gulfport, FL 33711  
**Phone #** 727-893-1071  
**Email** dfrain@mygulfport.us

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

The City of Gulfport is in the process of designing and permitting a living shoreline located in Boca Ciega Bay Aquatic Preserve adjacent to the Gulfport Municipal Marina and the Gulfport Yacht Club. The living shoreline project combines both soft and hard, living techniques to protect the existing seawall protecting these marinas. The project area is directly adjacent to Clam Bayou and, ultimately, connects to Tampa Bay prior to reaching the Gulf of Mexico. Figure 1 shows the location of the project in relation to Clam Bayou, Boca Ciega Bay Aquatic Preserve, Tampa Bay, and the Gulf of Mexico.

The proposed design of the living shoreline includes layering of soft and hard techniques that will provide various advantages from shoreline stabilization, wave attenuation, sediment and nutrient capture, water quality improvements, and habitat creation. From the seawall to the upper reaches of the high tide, various dune and marsh grass vegetation is proposed to be planted specifically to trap sediments, absorb nutrients, and create a transition zone between uplands, the seawall, and the waters edge that will attract birds and other land dwelling animals that venture into very shallow marine environments. In the tidal zone, hard structure, either oyster domes or oyster bags, will be installed in areas currently void of rip rap or existing habitat. This will minimize wave attenuation, improve shoreline stability, create fish, oyster and invertebrate habitat, and provide water quality improvements as such communities begin to settle. In the subtidal zone, seagrass will be planted in areas currently void of habitat. Figure 2 shows the overall site and proposed locations of enhancement. Please note that the aerial used is from 2017 and the exact location of improvements may change as future work determines the current conditions and habitat types.

The total area for the salt marsh vegetation, oysters and seagrass equals approximately 13,500 square feet. The project location is linear is design to parallel the seawall and has a total linear length of approximately 605 feet. Please see attached summary document for additional details regarding the areas to be created.

**Benefit:**

"Living Shorelines" are becoming popular in many coastal areas as an alternative or additive to typical stabilization techniques such as hardening using seawalls and bulkheads. Many benefits stem from living shorelines that cross several environmental boundaries including habitat creation, water quality improvements, and recreational improvement in addition to the stabilization abilities of erosion reduction and wave attenuation by maintaining the "natural" land to water interface. Living Shorelines also provide many recreational benefits.

Stabilization Benefits include reduces erosion and property loss, maintains or traps sediment, buffers the existing infrastructure

from storms, and reduces wave energy, ultimately, preserving or increasing overall coastal resilience. Environmental benefits include improvements in water quality by allowing for tidal exchange, filtering of nutrients and pollutants, providing fish, invertebrate, bird, and other wildlife habitat, and increasing community productivity. Recreational benefits include bird watching, fishing, snorkeling, and kayaking.

**Cost:**

The City of Gulfport is requesting a match for only the construction costs associated with the Breakwater Park Living Shoreline project. The total anticipated cost to purchase all material, equipment costs, and installation efforts is estimated to be a total of \$160,000. The total linear foot distance is approximately 605 feet for a cost per linear foot amount of \$265. All costs associated with the design and permitting efforts are being covered by the City in anticipation of CFI Funding for the project's construction during the fiscal year 2020.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The City of Gulfport is currently working to finalize the conceptual design of the living shoreline and its various components. The project site is slated to be ground truthed before the end of 2018, and all necessary permit applications are estimated to be prepared and submitted by February 2019. These are the efforts that are directly related to this project.

However, there are many other water quality and flood protection projects that have been completed to date that tie directly into this watershed, and several of them have been cooperatively funded by SWFWMD. These include the major modification and upgrades at the 49th Street Outfall, which included the installation of a baffle box inline with the stormwater lines and the construction of two retention treatment ponds prior to the outfall into the surface waters of the Gulfport Municipal Marina. This project was completed in 2017.

Another water quality and flood protection project is the Tangerine Avenue Greenway, which was completed in 2001. This project included the retrofitting an existing retention pond at Tomlinson Park and rerouting stormwater to the 49th St Outfall. The pipeline starts at Tomlinson Park, heads east along the Tangerine Avenue Greenway, turns south following 49th Street. From there, it turns east on 27th Avenue South, heads south on Upton Street South, before finally turning east along 29th Avenue South to discharge into the new ponds at the 49th Street Outfall.

The City of Gulfport has provided match towards other state funds to retrofit and update the pump out equipment and to purchase a pump out boat for the Gulfport Municipal Marina and the Gulfport Mooring Field, which is located adjacent to Gulfport's waterfront areas adjacent to the marina. These improvements were completed in 2017. The Gulfport Municipal Marina is a FDEP certified Clean Marina.

Lastly, and most important, is all of the efforts the City of Gulfport has given toward Clam Bayou since 1996. Major changes and improvements specifically for water quality improvement have been integrated into the long-term project, and the City of Gulfport has been involved since the beginning of its transformation. Figure 3 provides an overall outlook of all the efforts that the City of Gulfport has undertaken to date that directly impact and improve water quality in the Boca Ciega Bay Aquatic Preserve and in Tampa Bay.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share		65,000	80,000		145,000
General Fund-District Wide			80,000		80,000
Total		65,000	160,000		225,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Task 1**

Milestone	Projected Date
Conceptual Design	10/05/2018

**Task 2**

Milestone	Projected Date
Site Ground Truth	10/19/2018

**Task 3A**

Milestone	Projected Date
Permit Application Preparation	12/03/2018

**Task 3B**

Milestone	Projected Date
Permit Application Submittal	12/19/2018

**Task 4**

Milestone	Projected Date
RAI Responses	02/20/2019

**Task 5**

**Milestone**

Upland Nuisance & Exotic Species Removal

**Projected Date**

06/28/2019

**Task 6**

**Milestone**

Purchase Materials

**Projected Date**

08/15/2019

**Task 7**

**Milestone**

Construction of Living Shoreline

**Projected Date**

09/30/2019

**Data Collection Assessment:**

Groundwater or Surface Water Quality measurements  Mapping/GIS data

Biological (vegetation, benthic, fish, etc.)

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# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Nutrient Source Tracking  
**Project Number** Q130  
**Cooperator** Pinellas County  
**Department** Environmental Management  
**Contact Person** Kelli Hammer Levy  
**Address** 22211 Us Hwy 19 N Bldg 10  
**City State Zip** Clearwater, FL 33765  
**Phone #** 727-464-4425 ext3317  
**Email** klevy@pinellascounty.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

The purpose of this project is to identify the sources of elevated nutrient levels (nitrogen and phosphorus) observed in the McKay Creek, Allen's Creek, and Curlew Creek watersheds using isotope analysis. Each of these watersheds is impaired for nutrients, and McKay and Curlew have nutrient TMDLs in place. Because of these impairments and TMDLs, water quality improvement in these watersheds is a high priority for the County. To most effectively use funds for best management practice implementation, it is vital to know the sources of the nutrients and identify "hot spot" areas of nutrient loading and this project will accomplish both of those objectives.

The McKay Creek watershed comprises approximately nine square miles in west-central Pinellas County and drains to southern Clearwater Harbor. The Allen's Creek watershed encompasses 7.5 square miles in central eastern Pinellas County and flows into Old Tampa Bay. The Curlew Creek watershed in north-central Pinellas County encompasses nearly 11 square miles and drains into northern Clearwater Harbor. Each of these watersheds is highly developed, mostly with high density residential land use, and multi-jurisdictional. McKay and Allen's have existing Watershed Management Plans (WMPs), and a WMP is currently being developed for Curlew. This project aligns with recommendations in the WMPs. This project will include a review of existing watershed data, development of a sampling regime for each watershed, sampling at multiple sites in each watershed for at least one year, use of appropriate tracer tools such as isotopes, and a report of findings with recommendations to reduce nutrient sources in each watershed. The results of this project will be presented to the municipalities that share jurisdiction with the County in order to collaborate to most effectively and efficiently address the nutrient impairments in each watershed.

**Benefit:**

The major benefits of this project will be the identification of sources of nutrients, both in terms of form and location, and recommendations for reducing nutrient loads in each of three impaired watersheds. This will allow for future targeted best management practices aimed at reducing nutrient inputs in a cost-effective manner, with the ultimate goal of attaining designed uses and improved water quality.

**Cost:**

The total cost of this project is expected to be \$200,000 over the course of three fiscal years. The first year cost (FY2020) will be \$80,000, the second year cost (FY2021) is anticipated to be \$90,000 and the third year cost (FY2020) is anticipated to be \$30,000.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The Pinellas County Comprehensive Plan obligates the County to protect, enhance, and improve water quality through water quality monitoring, watershed management plan development, implementation of projects, and environmental enforcement. In addition, the County is obligated by the Comprehensive Plan to work to improve flood protection and natural systems. The County has a fertilizer ordinance which restricts using products containing nitrogen or phosphorus during the rainy season with a related sales ban, a pet waste ordinance, and a street sweeping program all designed to reduce nutrient pollution to receiving waters. The County also has adopted a stormwater assessment that collects money to fund surface water programs which includes stormwater maintenance and related public outreach/education programs. In addition, many of our County vehicles are wrapped with stormwater education messages and professional landscape maintenance companies are required to take a BMP training certification course.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			40,000	60,000	100,000
Pinellas Anclote			40,000	60,000	100,000
Total			80,000	120,000	200,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

Review Existing Watershed Data	03/01/2020
Sampling Plan Development	05/01/2020
Field Monitoring	09/30/2021
Lab and Data Analysis	12/01/2021
Final Report and Nutrient Management Recommendations	07/01/2022

**Data Collection Assessment:**

Surface Water Flow (Discharge) measurements  Groundwater or Surface Water Quality measurements

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** FY2020 Tampa Bay Environmental Restoration Fund  
**Project Number** W024  
**Cooperator** TBEP  
**Department** Executive  
**Contact Person** Maya Burke  
**Address** 263 13th Avenue S., Suite 350  
**City State Zip** St. Petersburg, FL 33701  
**Phone #** 727-893-2765  
**Email** mburke@tbep.org

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This project is for Year 8 of the highly successful Tampa Bay Environmental Restoration Fund (TBERF) to fund restoration, applied research and education initiatives in Tampa Bay and its contributing watershed, consistent with the District's core mission and priorities expressed for the Tampa Bay Planning Region. TBERF is a competitive grant fund open to public entities (including SWFWMD) and NGOs, with project awards from \$25,000 to \$200,000 to support habitat restoration, water quality improvement and environmental education. Project proposals will be solicited through a widely-distributed Request for Proposals early in 2020, following execution of the contract between SWFWMD and TBEP. Eligible proposals are reviewed by a Proposal Review team, consisting of scientists, resource managers and restoration practitioners who provide their findings to the TBEP Executive Director. The TBEP Policy Board (which includes a District Governing Board member) approves the final list of projects to be funded in May 2020. All funded projects will be initiated by September 2020, and are generally 1-3 years in duration. In the first six years (2013-2018), SWFWMD CFI funds were matched with other public and private sources to provide \$4.5M for 55 competitively-awarded projects. \$1.2M has been awarded to eight different District projects for the same period.

**Benefit:**

The TBERF request presents an opportunity to leverage SWFWMD funds with other public and private partners in the Tampa Bay area and funds from outside Florida to directly address SWFWMD core mission objectives. In the first six years (2013-2018), SWFWMD CFI funds were matched with other public and private sources to provide funds for 55 competitively-awarded projects, resulting in measurable environmental benefits including: 7,500 acres of planned or restored coastal habitat; more than 15,000 square feet of oyster reefs; 200 acres of seagrass; 2200 linear feet of living shoreline; 89.5 acres of wetland habitat enhanced through hydrologic restoration; Florida-Friendly Landscaping; natural resources and nutrient management education; assessment of fish habitat, harmful algal blooms, hard bottom substrate, remote sensing technology, existing habitat value of dredged holes in Tampa Bay, carbon sequestration in coastal habitats, and microplastics abundance; treatment of urban runoff from 500 acres of highly urbanized areas; and waterbird management on 13 Tampa Bay island sanctuaries. Projects selected for the seventh year of the TBERF grant program (projects are scheduled to be selected in spring 2020) will have similar requirements to provide significant measurable environmental benefits consistent with the District's core mission, strategic initiatives and regional priorities.

**Cost:**

The Tampa Bay Estuary Program will continue to act as the local sponsor for the FY2019 TBERF. The non-profit Restore America's Estuaries (RAE), a 501(c)(3), will act as our national partner, and brings the ability to leverage local funds with funds obtained through appropriations, environmental fines and philanthropic gifts from entities beyond the Tampa Bay area. For FY2020, the CFI

request of \$350,000 is expected to be met with funds from Hillsborough County, Pinellas County, The Mosaic Company Foundation, Manatee County, TECO, FDOT, and USFWS. It is anticipated that additional funds will be raised from other local and national sources.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

Generally, this category does not apply to the Tampa Bay Estuary Program. However, TBEP does have a Comprehensive Conservation and Management Plan (CCMP), approved by federal, state and local governments (including SWFWMD), that lays out a detailed road map for Tampa Bay restoration and recovery. This Plan includes measurable goals and strategic initiatives for Tampa Bay and its contributing watersheds. Implementation of the CCMP by TBEP partners, in particular SWFWMD, has led to an internationally-recognized restoration effort in Tampa Bay. The CCMP also addresses water conservation and management issues.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Alafia River		100,000	100,000		200,000
Applicant Share		350,000	350,000		700,000
Hillsborough River		100,000	100,000		200,000
Pinellas Anclote		150,000	150,000		300,000
Total		700,000	700,000		1,400,000

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

RFP Advertisement	02/28/2020
RFP Evaluation and Award	05/31/2020
Notice to Proceed Issued to Contractors	09/30/2020
FY20 Projects Closed Out/Measurable Benefits Acheived	09/30/2023

**Data Collection Assessment:**

Other data collection: TBERF projects may include data collection, which will be made available to the District.

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2020 Cooperative Funding Initiative Application Form

**Project Name** Channel 1A2 Stormwater Quality Improvements  
**Project Number** W300  
**Cooperator** Pinellas Park Water Management District  
**Department**  
**Contact Person** Randal Roberts  
**Address** 6460 35th Street N.  
**City State Zip** Pinellas Park, FL 337816221  
**Phone #** 727-528-8022  
**Email** randy@ppwmd.com

**Project Type:**

Water Supply  Water Quality  Flood Protection  Natural Systems

**Strategic Initiatives:**

Water Quality Maintenance and Improvement  Water Quality Monitoring  
 Alternative Water Supply  Conservation  
 Reclaimed Water  Regional Water Supply Planning  
 Emergency Flood Response  Floodplain Management  
 Minimum Flows and Level Establishment and Monitoring  Minimum Flows and Levels Recovery  
 Natural Systems Conservation and Restoration  Natural Systems Identification and Monitoring

**Indicate All Counties to Benefit From Project:**

Charlotte  Citrus  Desoto  Hardee  Hernando  Highlands  Hillsborough  Lake  
 Levy  Manatee  Marion  Pasco  Pinellas  Sarasota  Sumter  Polk

**Project Description/Benefit/Cost**

**Description:**

This application is for the design, permitting, bidding, and construction in FY2020 to eliminate erosive conditions located in the Pinellas Park Water Management District (PPWMD) Channel 1A2 west of 49th Street North. The project includes replacing a 300-foot section of Channel 1A2 with a 4-foot by 12-foot concrete box culvert including a grass swale with raised inlets above the box culvert. Approximately 20 acres of roadway runoff will be partially treated by the grass swale. The PPWMD has continuously worked over the years to maintain Channel 1A2 in its current condition, but the costs of maintenance have increased to a point where capital improvements must be made.

**Benefit:**

In 2013 and 2014, the PPWMD expended approximately \$85,000 and \$78,000 (totaling 163,000), respectively, to repair excessive erosion in Channel 1A2. A 300-foot section of Channel 1A2 immediately adjacent to a parking lot has continued to experience significant erosion and capital improvements are needed to permanently repair the erosion. Based on PPWMD basin maps, approximately 20 acres of roadway (49th Street North) drains directly to Channel 1A2. Using 2018 topography and comparing it to the District's concept permit from 1900s (No. 49.8378), we estimate that 130 cubic yards of sediment has eroded from the 300-foot section of Channel 1A2. Converting sediment from volume to weight, it is estimated 315,900 pounds of sediment has been eroded downstream. With the proposed project, a grass swale with raised inlets will provide first-flush treatment (reducing 223 and 29 pounds per year of TN and TP, respectively according to BMPTRAINS model). A concrete box culvert constructed below the swale will eliminate sediment erosion. Using the metrics for HIGH RANKING cost effectiveness (\$5 for TSS, \$176 for TN, and \$1,498 for TP), we estimate that this project provides a total of \$1,662,190 in benefit.

**Cost:**

The total Applicant share of the project is \$403,900, and the District share is also \$403,900. The total project cost is \$807,800.

**Describe your complementary efforts in developing, implementing and enforcing water conservation, water quality and flood protection ordinances.**

The PPWMD is responsible for managing the primary stormwater drainage system in its approximately 15-square-mile jurisdictional area, which encompasses the City of Pinellas Park, the City of St. Petersburg, unincorporated Pinellas County, and other small governmental areas. The secondary systems, including street drainage, curb and gutter inlets, and associated conveyance systems, are maintained by the city and county. The PPWMD is governed by a Board of Directors appointed by the City of Pinellas Park City Council and the Pinellas County Board of County Commissioners. The work of the PPWMD is carried out by the executive director, a staff of administrative and maintenance professionals, and consultants. The PPWMD had one primary goal: to

alleviate flooding by retaining the runoff from 25-year/24-hour recurring storm events within channel banks and 100-year/24-hour storm events out of houses. When possible, the PPWMD incorporates water quality best management practices (BMPs) within their capital projects.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2019 Budget</b>	<b>FY2020 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			403,900		403,900
Pinellas Anclote			403,900		403,900
Total			807,800		807,800

**Matching Fund Reduction**

Check here if requesting a reduction in matching funds requirement pursuant to s.288.06561, F.S.

**Timelines**

**Bidding**

<b>Milestone</b>	<b>Projected Date</b>
Bidding	03/31/2020

**Construction and Services during Construction**

<b>Milestone</b>	<b>Projected Date</b>
Construction and Services during Construction	09/30/2019

**Design and Permitting**

<b>Milestone</b>	<b>Projected Date</b>
Design and Permitting	12/31/2019

**Data Collection Assessment:**

No data will be collected for this project

*The Southwest Florida Water Management District (District) does not discriminate on the basis of disability. This nondiscrimination policy involves every aspect of the District's functions, including access to and participation in the District's programs and activities. Anyone requiring reasonable accommodation as provided for in the Americans with Disabilities Act should contact the District's Human Resources Director, 2379 Broad Street, Brooksville, Florida 34604-6899; 1-352-796-7211 or 1-800-423-1476 (Florida only), extension 4702; TDD (Florida only) 1-800-231-6103; or email to [ADACoordinator@swfwmd.state.fl.us](mailto:ADACoordinator@swfwmd.state.fl.us)*