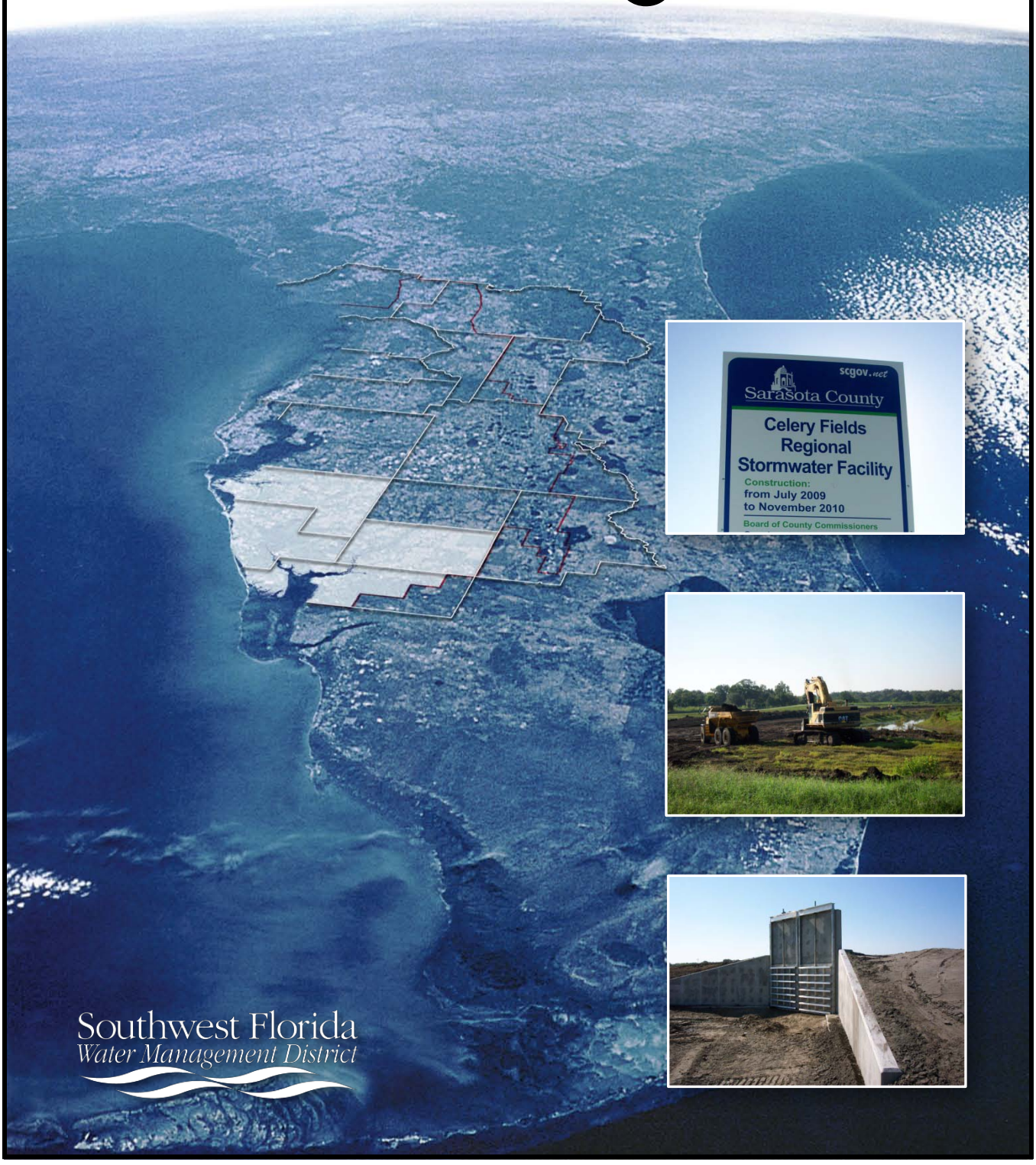
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

Fiscal Year 2019

Cooperative Funding Initiative Applications

Southern Region



Southwest Florida
Water Management District

Coop Funding By Region For FY2019

Southern Region

Project	Project Name	Project Cost
N780	Brackish - Punta Gorda RO Facility	$32,200,000
N786	Dona Bay Surface Water Storage Facility	$8,000,000
N823	AWS Interconnect- PRMRWSA Regional Integrated Loop System Phase 3B	$26,967,000
N838	SW IMP - Flood Protection - City of Bradenton 71st St W Improvements	$120,000
N842	DAR - City of Bradenton Aquifer Protection Recharge Well	$5,000,000
N854	ASR - PRMRWSA Partially Treated Water ASR	$7,755,000
N858	WMP - City of Arcadia Watershed Management Plan	$300,000
N874	AWS Interconnect-PRMRWAS Regional Integrated Loop System Phase 4- Segment 1	$4,925,000
N912	ASR - Braden River Utilities ASR Feasibility	$6,345,000
N947	Study - Midnight Pass Road Flood Control Study	$300,000
N950	SW IMP - Flood Protection - Greater Port Charlotte Area Water Control Structure HAV 4.84	$1,000,000
N959	WMP - Lemon Bay Watershed Management Plan BMP Analysis	$600,000
N974	SW IMP - Flood Protection - Construction of Cocoplum water control structure	$1,968,500
N979	Conservation-North Port Water Distribution System Looping	$1,069,121
N980	Study-PRMRWSA Integrated Regional Water Supply Plan 2020	$450,000
N982	Conservation- Manatee County Toilet Rebate Project, Phase 12	$2,182,582
N991	WMP - Sarasota Bay Watershed Management Plan BMP Analysis	$600,000
N992	Conservation - City of Venice Toilet Rebate and Retrofit Project - Phase 6	$203,300
N994	AWS-PRMRWAS Bachman Regional Pumping and Storage Facility	$12,000,000
Q004	Restoration - Tatum Sawgrass Restoration	$900,000
Q005	Reclaimed Water-Tropicana Industrial Reclaimed Water Construction Project	$4,800,000
Q006	City of Bradenton Adopt a Catch Basin	$30,000
Q008	Study - Upper Myakka Lake Water Control Structure and Restoration Options	$120,000
Q009	WMP - Stormwater Utility Fee Rate Structure & Methodology	$200,000
Q015	WMP - Spring Lake Stormwater Study	$132,000
Q016	WMP - Little Sarasota Bay Watershed Management Plan Update	$600,000
Q020	Conservation-Braden River Utilities Soil Moisture Sensor Rebate Program Phase 2	$308,000
Q030	Reclaimed Water- North Port Reclaim Water Transmission Main - Phase 4	$3,500,000
Q031	WMP - Dona Bay Watershed Management Plan BMP Analysis	$600,000
Q032	AWS Interconnect- PRMRWSA Regional Integrated Loop System Phase 2B	$30,400,000
W213	SW IMP - Water Quality - Rubonia Subdivision Stormwater Management Improvement Project	$1,569,370
W215	SW IMP - Water Quality - COAM North Island Flood Reduction - BMPS	$913,500
W218	SW IMP - Water Quality - Anna Maria BMPs North Shore	$936,000
W302	SW IMP – Water Quality – Southeast Riverside Water Quality Improvements	$1,400,000
W638	SW IMP - Water Quality - Holmes Beach BMPs Basins 1,2,6,7 and 10	$1,473,152
W639	SW IMP - Water Quality - COBB FLOOD REDUCTION-BMPs Avenues B and C	$530,930
	Region Total	**$160,398,455**

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	Brackish - Punta Gorda RO Facility
Project Number	N780
Cooperator	City of Punta Gorda
Department	Utilities
Contact Person	Tom Jackson
Address	326 W. Marian Avenue
City Sate Zip	Punta Gorda, FL 33950
Phone #	941-575-3339
Email	tjackson@pgorda.us

Project Type:

[X] Water Supply [X] Water Quality [ ] Flood Protection [X] Natural Systems

Strategic Initiatives:

[X] Water Quality Maintenance and Improvement	[ ] Water Quality Monitoring
[X] Alternative Water Supply	[ ] Conservation
[ ] Reclaimed Water	[ ] Regional Water Supply Planning
[ ] Emergency Flood Response	[ ] Floodplain Management
[X] 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:

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

Project Description/Benefit/Cost

Description:

The City of Punta Gorda is seeking Cooperative Funding for Alternative Water Supply Brackish Water Desalination. This project will address three critical water supply needs. (1) Punta Gorda operates a public water system which obtains all water supply from Shell Creek. Shell Creek water quality does not meet FAC 62-302 standards for TDS. This project will blend reverse osmosis treated groundwater (RO Project) with the Shell Creek treated water to achieve the drinking water standard for TDS. (2) The draft MFL for Shell Creek will require the City to reduce Shell Creek withdrawals to achieve water quality goals. The RO Project is needed to meet current and projected public water supply demands after the MFL schedule is adopted. (3) The RO Project will decommission the Punta Gorda ASR well system and convert the ASR well system into a groundwater supply for the Punta Gorda RO Project.

Benefit:

A 30% Design Report completed August 2015 demonstrates the following benefits: (1) A new brackish desalination water supply will be used to meet identified public supply demand. The RO Project will be used to blend with existing Shell Creek treated water to achieve the TDS standard for drinking water. (3) The RO Project will offset surface water withdrawal reductions necessary for the Shell Creek MFL goals. (4) The RO Project will convert the Punta Gorda ASR system to a groundwater supply well system.

Cost:

The August 2015 Design Report opinion of cost is $32,200,000.

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

Through the efforts of our community outreach, watering restrictions, and enforcement activities the City has achieved a 15-20% reduction of outdoor water use. The City has adopted an inclined tiered water rate structure approved by the District to promote conservation. The City has demonstrated a pattern of cooperation with SWFWMD and PRMRWSA planning and developing water supply projects. The City, SWFWMD, and PRMRWSA recently completed the Phase 1A Interconnect Project. The City, SWFWMD, and PRMRWSA are also cooperatively constructing the Phase 1 Interconnect Project. The City continues to work in cooperation with the District and the Authority planning and developing water supply projects in the region. The City attends all PRMRSWA meetings and participates with regional planning programs.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding

Applicant Share	2,500,000	6,575,000	6,575,000	15,650,000
Peace River	2,500,000	6,575,000	6,575,000	15,650,000
State	900,000			900,000
Total	5,900,000	13,150,000	13,150,000	32,200,000

Matching Fund Reduction

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

Timelines

2017

Milestone	Projected Date
ETW completion	09/30/2017
DIW completion	11/10/2017
RO Design TPR completion	12/12/2017

2018

Milestone	Projected Date
RO Facility Bid	01/10/2018
RO Facility begin construction	03/12/2018
RO Facility startup	01/10/2020
Project completion	02/10/2020

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

FY2019 Cooperative Funding Initiative Application Form

Project Name Dona Bay Surface Water Storage Facility
Project Number N786
Cooperator Sarasota County
Department Environmental Services
Contact Person Susan Gray
Address 1001 Sarasota Ctr. Blvd.
City Sate Zip Sarasota, FL 34240
Phone # 941-861-0900
Email sgray@scgov.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:

SWFWMD and Sarasota County jointly developed the Dona Bay Watershed Management Plan (L019) (Dona Bay Plan) in FY05 to restore the hydrologic watershed conditions and improve Dona Bay. N424 implemented the first phase of construction which was complete in June 2017. This cooperative funding application is for the second year of multi-year funding for N786, the second phase for the Dona Bay Surface Water Storage Facility. The Facility will provide treatment and attenuation and re-direct about 3 mgd of flow from Cow Pen Slough to discharge into the Myakka River Basin.

Benefit:

1. Construction of a 380 acre storage and treatment facility.
2. Reduction of approximately 3,362 ac-ft annually of fresh water volume going into Dona Bay.
3. Total Nitrogen pollutant load reduction to Dona Bay is estimated at approximately 7,000 lbs/yr.
4. 10% improvement in saltwater habitat of over 77 acres.

Cost:

Total construction cost is estimated at $8,000,000 with $1,200,000 in FY18, $5,600,000 in FY19 and $1,200,000 in FY20 split 50% between SWFWMD and the County.

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

Sarasota County has extensive experience in providing public education on conservation through websites, exhibits, workshops, speaking engagements, brochures and incentive programs. Sarasota County has a Class 5 FEMA Community Rating System rating. The County received the James Lee Witt Local Award for Excellence by the State Floodplain Managers Association and FEMA in 2002. As a Community Technical Partner with FEMA, the County has entered into a 3-way Mapping Agreement Statement with FEMA and SWFWMD for the conversion of the county's digital floodplain maps and studies to Digital-Flood

Insurance Rate Maps (D-FIRMs). The County received the Florida Stormwater Association's 2008 Excellence Award for having the best Stormwater Utility Program in Florida. This prestigious award concentrates on four major areas: Flood Protection, Water Quality, Operations& Maintenance, and the Capital Improvement Program. A Land Development Ordinance to further the objectives of floodplain management requires all new development have stormwater management systems and finished floor elevations designed at or above the 100 year flood elevation. Developments are required to demonstrate that they will not result in adverse increases in off-site flood stages within the appropriate county watershed model.

The Water-Efficient Landscape Ordinance won a statewide award for innovation.Irrigation restrictions that allow for once-a-week irrigation are enforced by code enforcement officers. Reduction of potable water use is encouraged with our rain barrel harvesting program. By Ordinance developers are required to install reuse lines throughout new development if a reuse system exists within one hundred and fifty feet of any property line of a subdivision, single or multi-family residence or any non-residential lot or use.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share		600,000	2,800,000	600,000	4,000,000
Manasota		600,000	2,800,000	600,000	4,000,000
Total		1,200,000	5,600,000	1,200,000	8,000,000

Matching Fund Reduction

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

Timelines

April 1, 2018

Milestone	Projected Date
Construction	05/31/2020

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	AWS Interconnect- PRMRWSA Regional Integrated Loop System Phase 3B
Project Number	N823
Cooperator	PRMRWSA
Department	
Contact Person	Mike Coates
Address	9415 Town Center Parkway
City Sate Zip	Lakewood Ranch, FL 34202
Phone #	941-316-1776
Email	mcoates@regionalwater.org

Project Type:

[X] Water Supply [ ] Water Quality [ ] Flood Protection [ ] Natural Systems

Strategic Initiatives:

[ ] Water Quality Maintenance and Improvement	[ ] Water Quality Monitoring
[X] 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:

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

Project Description/Benefit/Cost

Description:

The Regional Phase 3B Interconnect project [SR 681 to Clark Road] is part of the Authority's Regional Integrated Loop Pipeline System providing a regional water transfer and delivery system for existing and future water sources within the Authority's service area. Specifically the Phase 3B Interconnect project will extend a 48-inch diameter transmission main from the current northern terminus of the Regional System located immediately west of the Sarasota County landfill along Cow Pen Slough, north about 5 miles to Clark Road [SR 72]. This transmission main extension will facilitate delivery of regional water supplies to the northern portion of Sarasota County's service area and, in conjunction with Regional Interconnect Phase 3C and 3D pipelines, will enable interconnection of Manatee County's water system with the regional water supply system. The Project is included in the Authority's Integrated Regional Water Supply Plan 2015, and in the Districts 2015 Regional Water Supply Plan (Southern Planning Region).

The District and Authority have executed a co-funding agreement (17CF0000379) for this project through 3rd Party Review and the State of Florida has also committed funds to the Project. The Project is in the Final Design phase now.

Benefit:

Development of the Regional Integrated Loop Pipeline System will promote regional resource management efforts and support water supply goals within the four county area including; maximizing use of alternative water sources such as seasonal surface water for public drinking water supply; improving rotational capacity and the ability to rest sources; providing reserve capacity for emergency transfers; limiting the development of groundwater in the Southern Water Use Caution Area (SWUCA); and optimizing financial investments in water supply infrastructure on a regional basis. In addition to the benefits mentioned for the Regional Integrated Loop Pipeline System, specific benefits of the Phase 3B Interconnect project include significant progress toward interconnection of Manatee County's water system with the regional water supply system, and improved supply conditions in northern Sarasota County. This Project is included in the Authority's *Integrated Regional Water Supply 2015*, the District's *2015 Regional Water Supply Plan (Southern Planning Region)*, and it supports the SWUCA recovery strategy, and the Alternative Water Supplies, MFL Establishment and Recovery (in SWUCA) strategic initiatives laid out in the District's Strategic Plan.

Cost:

Total estimated cost for the Phase 3 Interconnect is $26,967,000 (see *Integrated Regional Water Supply Plan 2015*, page 8-7, Table 8.4). Out of that total, $2,670,000 is estimated for land acquisition and under current District policy is non-fundable. Remaining cost of $24,297,000 includes all design and construction costs for pipeline, pumping, chemical trim, metering and

storage facilities. The Authority has obtained a grant from the state of Florida for $500,000 that is being applied to this project, resulting in a fundable total cost of $23,797,000, of which we request 50% co-funding for that total (equal to $11,898,500) in this application. Preliminary design work commenced in February 2016 and was completed in June 2017. Third Party review of the project was completed in August and is scheduled to be presented to the Districts Board in the October-November 2017 timeframe.

The District and Authority have executed a co-funding agreement (17CF0000379) for this project through 3rd Party Review Project and the project is now in final design with projected final completion of construction scheduled for first quarter FY 2021. Projected costs for design and construction of the facilities are identified in the funding section of this application as well as the attached funding letter.

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

The Authority is a wholesale supplier of potable water to the customers of Charlotte, DeSoto, Manatee and Sarasota Counties and the City of North Port. These utilities are retail suppliers for their respective public water systems. The Authority cooperatively participates with Customer Utilities and the District in public awareness and education regarding water conservation including broadcast public service announcements, newspaper advertisements and inserts and public presentations. Authority Customers are leaders in water conservation, showing aggregate gross per capita water use declining from 104 gpc/day in 2003 to 78 gpc/day in 2016 (based on the 2016 PS forms). Supporting this conservation ethic have been the Authority's Water Policy Summits with the Water Alliance in 2009, 2010, 2011, 2012, 2015 and 2016. The Water Alliance is a voluntary assembly of 13 local municipalities, including the Authority's Customers, dedicated to water conservation, and providing water customers/residents a cost effective, high-quality, reliable and environmentally sustainable drinking water supply. The Summits have been well attended and focused on; water conservation/demand management; optimization of supply capacity, resource sharing and interconnecting supplies, and the value of high quality public water supply to the economic vitality of the region. In addition, the Authority's *Integrated Regional Water Supply Plan 2015* included recommendations for development of a predictive tool focused on quantifiable BMP's for the region to incorporate water conservation savings into future demand and supply planning; investigation of regional opportunities to reduce flushing in the consecutive potable system; and regional support for expansion and development of regional interconnections in the reclaimed water system that will support more effective use of that resource.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share	285,000	400,000	8,370,000	5,513,500	14,568,500
Manasota	285,000	400,000	5,700,000	5,513,500	11,898,500
State of Florida	285,000	215,000			500,000
Total	855,000	1,015,000	14,070,000	11,027,000	26,967,000

Matching Fund Reduction

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

Timelines

Phase 3B Interconnect

Milestone	Projected Date
Third Party Review	11/30/2017
Final Design & Permitting	07/31/2018
Bidding Complete	12/31/2018
Construction	12/31/2020

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	SW IMP - Flood Protection - City of Bradenton 71st St W Improvements
Project Number	N838
Cooperator	City of Bradenton
Department	Public Works
Contact Person	Kim Clayback
Address	1411 9th St W
City Sate Zip	Bradenton, FL 34205
Phone #	941-708-6300 ext224
Email	kim.clayback@cityofbradenton.com

Project Type:

[ ] Water Supply [X] Water Quality [X] Flood Protection [ ] Natural Systems

Strategic Initiatives:

[X] Water Quality Maintenance and Improvement	[ ] Water Quality Monitoring
[ ] Alternative Water Supply	[ ] Conservation
[ ] Reclaimed Water	[ ] Regional Water Supply Planning
[ ] Emergency Flood Response	[X] 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	[X] Manatee	[ ] Marion	[ ] Pasco	[ ] Pinellas	[ ] Sarasota	[ ] Sumter	[ ] Polk

Project Description/Benefit/Cost
Description:

The project consists of the engineering (design and permitting) and construction of improvements to the existing drainage system along 71st Street West located in the City of Bradenton. The City recently completed a Watershed Management Plan and provides the flooding extent of the project area along with this alternative as a flood reduction and water quality improvement project.

The project site is approximately 2800 linear feet along 71st St W from 29th Ave W to Seabreeze Blvd. The project area crosses over Palma Sola Creek approximately 0.5 mile upstream of Palma Sola Bay. On the west side of 71st St W is an existing 1600 linear foot swale with six at-grade drop inlets and a 30-inch pipe running the length of the swale discharging to Palma Sola Creek. The roadway cross slope forces stormwater runoff to the east side of the street where it ponds as there are only two catch basins. The roadway lacks a defined crown and curb and gutter system so little if any runoff actually reaches the swale on the west side. The contributing area to the swale system is ±5.0 acres and the total retention volume is ±20,500 ft3.

The project proposes to add three roadway inlets and a piping system as well as a 700 linear foot vegetated swale along the east side of the roadway to convey runoff, alleviate the roadway flooding and provide treatment prior to entering Palma Sola Creek. Additionally, the project would create a crowned roadway to send runoff to the existing west side swale. The project will increase treatment volume in the existing swale by raising the six existing drop inlets within the swale and improving the outlet structure to Palma Sola Creek.

Benefit:

The resource benefits of the project will reduce the existing flooding problem during the 25-year, 24-hour storm event. Street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system. Minimizing the street flooding avoids damages to roads and improves public safety for a critical facility (Seabreeze Elementary School). The reconfiguration of the roadway and addition of the east side swale add a water quality component to the basin that does not currently exist. The annual reduction of total nitrogen through the treatment swale is approximately 9.5 lbs/yr. This equates to 380 lb of nitrogen removal annually.

Cost:

The District-eligible cost of this project will be $120,000. The engineering (design and permitting), bidding and construction tasks are anticipated to be completed by December 31, 2018.
City share: $60,000.
SWFWMD share: $60,000 ($30,000 in FY2018 and $30,000 in FY2019).

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

The City of Bradenton has developed and implemented a Water Demand Management Plan (WDMP) to manage and protect the City's water supply in a way that ensures a safe and adequate supply of water for the citizens of Bradenton. The WDMP is driven by triggering mechanisms developed to initiate specific conservation measures. These conservation measures and District water shortage orders are enforceable pursuant to City Ordinance #2650. The City initially adopted inclining block rates for potable water in 1982. The average potable water use in Bradenton during 2016 was 88 gallons per person per day. City Ordinance #2679 is for reclaimed water use with provisions for user charges.

City Resolution #00-58 provides for adoption of a Floodplain Management Plan developed to comply with the National Flood Insurance Program (NFIP). Currently the City maintains a class 7 status as prescribed by the Community Rating System (CRS) of the NFIP. This favorable rating provides for a 15% reduction in flood insurance premium for City residents. City Land Use Development Regulations (Ordinance #2627) Section 400(c) provides for minimum requirements to be maintained in areas specified as special flood hazard areas. All new and retrofitted projects within the City are subject to the water quality standards as prescribed by 40D-4, 40D-40, and 40D-400, F.A.C.

The City continues to operate a stormwater utility (enacted in 1996) which funds primarily maintenance activities. Several activities directly impact water quality and are monitored in some cases weekly, continually updated for improved compliance and reported annually to FDEP. Activities include catch basin and storm pipe cleanout using a flush truck, operating three street sweepers, weekly inspection of storm structures, annual training for Public Works personnel, and partnering with Keep Manatee Beautiful. In addition, the City recently completed a Watershed Management Plan and provides the flooding extent of the project area along with this alternative as a flood reduction and water quality improvement project.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share		30,000	30,000		60,000
Manasota		30,000	30,000		60,000
Total		60,000	60,000		120,000

Matching Fund Reduction

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

Timelines

04/01/2018-05/31/2018

Milestone	Projected Date
Bidding and Award	05/31/2018

06/01/2018-12/31/2018

Milestone	Projected Date
Construction	12/31/2018

10/01/2017-03/31/2018

Milestone	Projected Date
Engineering (Design and Permitting)	03/31/2018

Data Collection Assessment:

☒ Land Survey

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	DAR - City of Bradenton Aquifer Protection Recharge Well
Project Number	N842
Cooperator	City of Bradenton
Department	Public Works
Contact Person	Susan Hochuli
Address	1411 9th St. W.
City Sate Zip	Bradenton, FL 34205
Phone #	941-708-6300 ext231
Email	susan.hochuli@cityofbradenton.com

Project Type:

[X] Water Supply [X] Water Quality [X] Flood Protection [X] Natural Systems

Strategic Initiatives:

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

Indicate All Counties to Benefit From Project:

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

Project Description/Benefit/Cost

Description:

The City of Bradenton (City) proposes to construct one (1) Aquifer Protection Recharge Well capable of recharging the Avon Park High Permeability Zone (APHPZ) of the Upper Floridan aquifer (UFA). This well will be sited at the City's Wastewater Treatment Facility (City WWTF), southwest corner of 1st St. W (U.S. 301) and 17th Av. W., which is owned and under the institutional control of the City. The project components are anticipated to include one (1) recharge well capable of receiving up to 15-million gallons per day (MGD) of excess treated wastewater and/or excess local storm water, one (1) recharge zone monitoring well, one (1) shallow zone monitoring well, and the necessary surface facilities. The recharge well is proposed to be 24-inches in diameter, and will be cased to approximately 1,000-feet. Existing City WWTF disposal options include its public access reuse system and surface water disposal for when the reclaimed water demand decreases. Future stages of the City's Aquifer Protection Recharge program include storm water transmission infrastructure to the City WWTF site to facilitate aquifer recharge with excess storm water.

A feasibility study has been performed by the City's consultant and it concludes that an Aquifer Recharge Well is conceptually feasible for the City WWTF location and can provide a low cost, high volume, high benefit alternative to surface water discharge during wet weather periods. The study notes that the APHPZ of the UFA will likely be considered to be an Underground Source of Drinking Water (USDW). A Florida Department of Environmental Protection Underground Injection Control (UIC) Class V, Group 3 permit application for the Aquifer Recharge Well will be submitted in FY2018.

The multi-year project tasks include preliminary engineering (basis of design; 30% design and permitting; and third party review), final engineering (60%, 90%, and Final design and permitting; and bidding/awarding), services during construction, construction and a FDEP UIC operation permit. Upon receipt of the UIC construction permit, in FY2018 the City would begin preliminary design and permitting for a system package (well drilling and for surface facilities) to at least a 30% design level, and participate in a District-led third party review. Upon a favorable third party review, including District Governing Board approval, the next project steps include final engineering, bidding, construction, testing, and obtaining a FDEP UIC operational permit.

Benefit:

The project's primary goal is to provide for a rise in the elevation of the potentiometric ground water surface of the APHPZ of the UFA. The well will be constructed within an inland component of the MIA of the SWUCA. Project benefits anticipated include: assisting in restoring declining water level elevations within the MIA of the SWUCA; facilitating a substantial increase in ground water quality through freshening; introducing an inland barrier reducing the potential of further salt water intrusion into a USDW aquifer in coastal Manatee County; reducing nutrient loading to the Manatee River and ultimately Tampa Bay from surface water

discharge of treated wastewater and potentially, excess stormwater, in the project area; minimizing flooding and ponding within several City drainage basins; providing a regional demonstration of multi-use recharge wells that other utilities within the District can mimic; and, the potential to provide ground water credits to the City by supplementing the groundwater supply in the Avon Park Formation.

Cost:

The total cost of this project will be $5,000,000. During FY2018, the City anticipates obtaining the FDEP UIC construction permit. The City anticipates that preliminary design, third party review, final design and permitting, construction, and receipt of an UIC operational permit for the Aquifer Recharge Well can be completed by September 30, 2022. Anticipated summary milestones and cost estimates are provided next.

Preliminary Engineering (Basis of design; 30% design and permitting; third party review of well and surface facilities' system), $225,000.
Final Engineering (parallel, coordinated tracks for 60%, 90%, 100% design and permitting for well drilling and surface facilities), $375,000.
Construction, Testing and UIC operation permit (includes staggered, coordinated tracks for performing well drilling and constructing surface facilities), $4,000,000.
Services During Construction (includes staggered, coordinated tracks for consultant services throughout the construction and testing of the well drilling and the surface facilities), $400,000.

City share $2,500,000
SWFWMD share $2,500,000

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

The City of Bradenton has developed and implemented a Water Demand Management Plan (WDMP) to manage and protect the City's water supply in a way that ensures a safe and adequate supply of water for the citizens of Bradenton. The WDMP is driven by triggering mechanisms developed to initiate specific conservation measures. These conservation measures and District water shortage orders are enforceable pursuant to City Ordinance #2650. The City initially adopted inclining block rates for potable water in 1982. The average potable water use in Bradenton during 2016 was 88 gallons per person per day. City Ordinance #2679 is for reclaimed water use with provisions for user charges.

City Resolution #00-58 provides for adoption of a Floodplain Management Plan developed to comply with the National Flood Insurance Program (NFIP). Currently the City maintains a class 7 status as prescribed by the Community Rating System (CRS) of the NFIP. This favorable rating provides for a 15% reduction in flood insurance premium for City residents. City Land Use Development Regulations (Ordinance #2627) Section 400(c) provides for minimum requirements to be maintained in areas specified as special flood hazard areas. All new and retrofitted projects within the City are subject to the water quality standards as prescribed by 40D-4, 40D-40, and 40D-400, F.A.C.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share		500,000	1,000,000	1,000,000	2,500,000
Manasota		500,000	1,000,000	1,000,000	2,500,000
Total		1,000,000	2,000,000	2,000,000	5,000,000

Matching Fund Reduction

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

Timelines

05/01/2019-08/31/2022

Milestone	Projected Date
Services During Construction	08/31/2022
Construction and Testing	08/31/2022

10/01/2017-12/31/2018

Milestone	Projected Date
Preliminary Engineering and 3rd Party Review	12/31/2018

12/01/2018 - 05/31/2019

Milestone	Projected Date
Final Engineering - Well Drilling	05/31/2018

12/01/2018 – 01/31/2020

Milestone	Projected Date
Final Engineering - Surface Facilities	01/31/2020

Data Collection Assessment:

☒ Groundwater or Surface Water Level measurements ☒ Groundwater or Surface Water Quality measurements

[X] Rainfall or Other Meteorological measurements

[X] Lithologic/Geophysical data

[X] Monitor Well Installation

[X] Aquifer Testing

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SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	ASR - PRMRWSA Partially Treated Water ASR
Project Number	N854
Cooperator	PRMRWSA
Department	
Contact Person	Mike Coates
Address	9415 Town Center Parkway
City Sate Zip	Lakewood Ranch, FL 34202
Phone #	941-316-1776
Email	mcoates@regionalwater.org

Project Type:

[X] Water Supply [ ] Water Quality [ ] Flood Protection [ ] Natural Systems

Strategic Initiatives:

[ ] Water Quality Maintenance and Improvement	[ ] Water Quality Monitoring
[X] 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:

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

Project Description/Benefit/Cost Description:

The key to use of seasonally available surface water as a reliable public water supply is the ability to harvest and store large volumes of water during relatively short periods of availability. The Peace River facility utilizes off-stream raw water reservoirs, and an aquifer storage and recovery system to support use of supplies skimmed from the Peace River as an alternative water supply, reliably meeting much of the drinking water need in the District's southern water planning area. The Aquifer Storage and Recovery (ASR) system at the Peace River Facility stores fully treated drinking water, and upon recovery from ASR that water is discharged to the surface reservoir system and re-treated. The re-treatment is necessary to remove small concentrations of naturally occurring arsenic picked up in the aquifer while the water is in storage. The Partially Treated Water Aquifer Storage and Recovery Project is currently investigating (through a pilot testing program), and if feasible, will implement use of partially treated water (rather than fully treated water) for ASR. Implementation of this concept would involve pumping water directly from one of the Authority's surface reservoirs through a filtration system for recharge to ASR. Water recovered from ASR would be discharged and mixed into the surface reservoir system and conveyed as needed to the Peace River Water Treatment Facility for treatment and supply to Authority Customers. This process would eliminate the need to treat the ASR water twice and yields multiple benefits which are discussed below. The project specifically involves pilot testing (currently ongoing) the partially treated ASR concept at two existing ASR wells, evaluation of results, and if the concept proves feasible; permitting, design and construction of facilities that will enable ASR recharge using partially treated water at the site. Project completion is scheduled for 2020.

Benefit:

This project has the potential to significantly improve the performance of the Authority's ASR system, yielding increased reliability and more effective use of the water resources available for this alternative public drinking water supply. It will also serve as a model for ASR in other areas, supporting a means to improve access to, and use of seasonally available water supplies, potentially reducing groundwater pumping. Partial treatment of water recharged to ASR reduces operational costs for the system by nearly 50% through only treating the supply once (upon recovery), instead of twice (on recharge and recovery) before delivery to Customers. Increased recharge rates and total storage volume can be achieved because recharge does not rely on the availability of excess treatment plant capacity. Recovered water quality and recovery efficiency of the ASR system is improved because the partially treated supply being recharged has lower total dissolved solids concentrations that the treated water (water treatment

utilizes alum (aluminum sulfate) as a coagulant which raises TDS concentrations in the finished water supply by about 75 mg/L). Because of lower costs there is opportunity to recharge significantly more water than is recovered, which could help mitigate groundwater pumping impacts and yield improved conditions in the Floridan Aquifer. Finally carbon footprint is reduced through lower electric and chemical usage associated with once through, rather than twice through treatment. This Project supports the SWUCA recovery strategy, and the strategic initiatives laid out in the District's Strategic Plan.

Cost:

Total estimated cost for the Partially Treated Water Aquifer Storage and Recovery Project is $7,755,000. This includes pilot testing (ongoing), permitting, design, 3rd party review and construction of pumping facilities adjacent to one of the Authority's reservoirs to enable recharge to ASR. The Authority is requesting 50% co-funding of the eligible costs. Projected annual costs to complete the study and construct facilities are identified in the funding section of the application, as well as in the attached Funding Letter.

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

The Authority is a wholesale supplier of potable water to the customers of Charlotte, DeSoto, Manatee and Sarasota Counties and the City of North Port. These utilities are retail suppliers for their respective public water systems. The Authority cooperatively participates with Customer Utilities and the District in public awareness and education regarding water conservation including broadcast public service announcements, newspaper advertisements and inserts and public presentations. Authority Customers are leaders in water conservation, showing aggregate gross per capita water use declining from 104 gpc/day in 2003 to 78 gpc/day in 2016 (based on the CY 2016 PSPS data). Supporting this conservation ethic have been the Authority's Water Policy Summits with the Water Alliance in 2009, 2010, 2011, 2012, 2015 and 2016. The Water Alliance is a voluntary assembly of 13 local municipalities, including the Authority's Customers, dedicated to water conservation, and providing water customers/residents a cost effective, high-quality, reliable and environmentally sustainable drinking water supply. The Summits have been well attended and focused on; water conservation/demand management; optimization of supply capacity, resource sharing and interconnecting supplies, and the value of high quality public water supply to the economic vitality of the region. In addition, the Authority's *Integrated Regional Water Supply Plan 2015* included recommendations for development of a predictive tool focused on quantifiable BMP's for the region to incorporate water conservation savings into future demand and supply planning; investigation of regional opportunities to reduce flushing in the consecutive potable system; and regional support for expansion and development of regional interconnections in the reclaimed water system that will support more effective use of that resource.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share	225,000	115,000	375,000	3,275,000	3,990,000
Peace River		115,000	375,000	3,275,000	3,765,000
Total	225,000	230,000	750,000	6,550,000	7,755,000

Matching Fund Reduction

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

Timelines

PTW ASR

Milestone	Projected Date
Complete Pilot Testing & Feasibility Study	01/31/2018
Complete ASR System Re-Permitting to Allow PTW ASR	07/31/2018
Complete 30% Design	03/31/2019
Complete Third Pary Review	04/30/2019
Complete Final Design & Bidding	12/31/2019
Construction - Final Completion	12/31/2020

Data Collection Assessment:

☒ Groundwater or Surface Water Quality measurements

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	WMP - City of Arcadia Watershed Management Plan
Project Number	N858
Cooperator	City of Arcadia
Department	
Contact Person	Julie Karleskint
Address	7334 Delainey Court
City Sate Zip	Sarasota, FL 34240
Phone #	941-378-2862
Email	jkarleskint@hazenandsawyer.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 includes preparation of a Watershed Evaluation, Watershed Management Plan (WMP) and model, floodplain delineation, Surface Water Resource Assessment (SWRA) – TMDL evaluation, flood protection Level of Service (LOS) determination, and Best Management Practices (BMP) alternative analysis for a portion of the Peace River Watershed that includes the City of Arcadia in Desoto County. Flood problems include street flooding that makes roads impassable, ditches that overflow their banks, and structures that are flooded during significant rainfall events. Much of the flooding occurs in the City's downtown area which has limited drainage infrastructure. In addition, recent FDOT roadway improvements may have impacted the City's drainage system resulting in additional or more frequent flooding. The City does not currently have a watershed model, making it very difficult to evaluate the impacts of roadway improvements and other development. The watershed model will provide a tool for the review of future land alterations. The SWRA and BMP alternative analysis will allow the City to identify improvement projects to address water quality and flooding issues. Peer review and public meetings are also included. Public meetings will be held to solicit input on the watershed model results, BMP alternative analysis, and the prioritization of BMPs.

Benefit:

The WMP will analyze flooding problems that exist in the watershed. Currently, flood analysis models are not available or are over 10 years old, and the watershed includes regional or intermediate stormwater systems. The information will be used to develop an

improvement strategy that will focus on using cost effective solutions to address flooding and water quality issues.

Cost:

The total cost for this project is $ 300,000. The City of Arcadia is a REDI community and will pay 25% of the total cost. The District is being asked to fund 75% of the project cost. This will be a multi-year funded project, with funding distributed over 2 years, FY 2018 and FY2019. The City and their Engineer Hazen and Sawyer will be in the lead role and responsible for retaining consultants to complete the project tasks as needed.

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

The City wastewater treatment plant will continue to provide reclaimed water to all of it's customers to the maximum extent possible. The City provides reclaimed water at no cost to local orange groves, city parks, cemetery, and residential users in addition to the golf course.

The City has also amended their Comprehensive Plan in February 2013 to establish procedures for the conservation of potable water. This included requiring low volume plumbing fixtures for new construction, encouragement of florida-friendly land scaping, the continued implementation of reuse, use of rain sensors on irrigation systems and enforcement of water use restrictions during District declared water shortages.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share		40,000	35,000		75,000
Peace River		120,000	105,000		225,000
Total		160,000	140,000		300,000

Matching Fund Reduction

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

Timelines

Watershed Evaluation	09/30/2018
Floodplain Analysis	03/31/2019
Alternative Analysis	12/31/2019

Data Collection Assessment:

☒ Groundwater or Surface Water Quality measurements
☒ Rainfall or Other Meteorological measurements
☒ Land Survey
☒ LIDAR/Elevation data
☒ Mapping/GIS data

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	AWS Interconnect-PRMRWAS Regional Integrated Loop System Phase 4- Segment 1
Project Number	N874
Cooperator	PRMRWSA
Department	
Contact Person	Mike Coates
Address	9415 Town Center Parkway
City Sate Zip	Lakewood Ranch, FL 34202
Phone #	941-316-1776
Email	mcoates@regionalwater.org

Project Type:

[X] Water Supply [ ] Water Quality [ ] Flood Protection [ ] Natural Systems

Strategic Initiatives:

[ ] Water Quality Maintenance and Improvement	[ ] Water Quality Monitoring
[X] 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:

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

Project Description/Benefit/Cost

Description:

The Phase 4 Regional Interconnect project [Burnt Store WTP to Phase 1A] is part of the Authority's Regional Integrated Loop Pipeline System providing a regional water transfer and delivery system for existing and future water sources within the Authority's service area. The Phase 4 Regional Interconnect Project in-total includes approximately 15-miles of transmission main that will be installed (or acquired) in segments to interconnect the regional water supply system at the Phase 1A pump station east of Punta Gorda with the Burnt Store Water Treatment Facility in southwest Charlotte County. Segment 1 of the Phase 4 Regional Interconnect will install approximately 4 miles of 16-inch regional transmission main connecting with Charlotte County's transmission main along Burnt Store Road, north and east to Tuckers Grade near I-75. Segment 1 will be installed as part of a Utility Services Agreement between Charlotte County and a private party. Once constructed, ownership of the pipeline will be conveyed to the County, and thereafter conveyed to the Authority through Interlocal Agreement (in preparation). Future Phase 4 Regional Interconnect segments will extend the regional transmission main north approximately seven miles from Tuckers Grade to the Phase 1A Regional Pumping station on U.S. 17 east of Punta Gorda, and extend the regional transmission system south about 4 miles to connect Burnt Store Water Treatment Plant to the regional system.

Benefit:

Development of the Regional Integrated Loop Pipeline System will promote regional resource management efforts and support water supply goals within the four county area including; maximizing use of surface water and alternative supplies for public supply; improving rotational capacity and the ability to rest sources; providing reserve capacity for emergency transfers; limiting the development of groundwater in the Southern Water Use Caution Area (SWUCA); and optimizing financial investments in water supply infrastructure on a regional basis. In addition to the benefits mentioned for the Regional Integrated Loop Pipeline System, specific benefits of the Phase 4 Regional Interconnect – Segment 1 project include the first step toward interconnecting the Charlotte County Burnt Store RO Facility (an alternative water supply) with the regional system for local and regional supply reliability, and providing supply to support growth in southern Charlotte County. This Project is included in the Authority's *Integrated Regional Water Supply 2015*, the District's *2015 Regional Water Supply Plan (Southern Planning Region)*, and supports the SWUCA recovery strategy, and the strategic initiatives laid out in the District's Strategic Plan.

Cost:

Total estimated cost for the 15-mile Phase 4 Regional Interconnect is $27,505,000 (see *Integrated Regional Water Supply Plan 2015*, page 8-7, Table 8.4). Segment 1 of that pipeline (4 miles of 16-inch diameter transmission main) – which is the subject of this co-funding application is projected to cost $4,925,000. Segment 1 will be installed by a private entity through a utility services agreement with Charlotte County. Once constructed, ownership of the four-mile Segment 1 pipeline will be conveyed to the County, and thereafter Charlotte County will convey the transmission main to the Authority in accordance with an Interlocal Agreement (currently in development). The $4,925,000 cost includes pipeline and meter station facility. The Authority is requesting 50% co-funding of the eligible total cost of Segment 1 which will be reconciled upon acquisition of the pipeline segment from the County by the Authority (projected late FY 2019).

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

The Authority is a wholesale supplier of potable water to the customers of Charlotte, DeSoto, Manatee and Sarasota Counties and the City of North Port. These utilities are retail suppliers for their respective public water systems. The Authority cooperatively participates with Customer Utilities and the District in public awareness and education regarding water conservation including broadcast public service announcements, newspaper advertisements and inserts and public presentations. Authority Customers are leaders in water conservation, showing aggregate gross per capita water use declining from 104 gpc/day in 2003 to 78 gpc/day in 2016 (based on the 2016 PS forms). Supporting this conservation ethic have been the Authority's Water Policy Summits with the Water Alliance in 2009, 2010, 2011, 2012, 2015 and 2016. The Water Alliance is a voluntary assembly of 13 local municipalities, including the Authority's Customers, dedicated to water conservation, and providing water customers/residents a cost effective, high-quality, reliable and environmentally sustainable drinking water supply. The Summits have been well attended and focused on; water conservation/demand management; optimization of supply capacity, resource sharing and interconnecting supplies, and the value of high quality public water supply to the economic vitality of the region. In addition, the Authority's *Integrated Regional Water Supply Plan 2015* included recommendations for development of a predictive tool focused on quantifiable BMP's for the region to incorporate water conservation savings into future demand and supply planning; investigation of regional opportunities to reduce flushing in the consecutive potable system; and regional support for expansion and development of regional interconnections in the reclaimed water system that will support more effective use of that resource.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			2,462,500		2,462,500
Peace River			2,462,500		2,462,500
Total			4,925,000		4,925,000

Matching Fund Reduction

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

Timelines

Phase 4 - Segment 1

Milestone	Projected Date
Interlocal Agreement Between Authority and Charlotte County	04/04/2018
Regional Acquisition of Pipeline	09/01/2019

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	ASR - Braden River Utilities ASR Feasibility
Project Number	N912
Cooperator	Braden River Utilities
Department	Progessive Water Resources Llc
Contact Person	Stephen Suau
Address	6561 Palmer Park Circle, St. D
City Sate Zip	Sarasota, FL 34238
Phone #	941-552-5657
Email	ssuau@prowatersource.com

Project Type:

[X] Water Supply [ ] Water Quality [ ] Flood Protection [X] Natural Systems

Strategic Initiatives:

[ ] Water Quality Maintenance and Improvement	[ ] Water Quality Monitoring
[X] Alternative Water Supply	[ ] Conservation
[X] Reclaimed Water	[X] Regional Water Supply Planning
[ ] Emergency Flood Response	[ ] Floodplain Management
[ ] Minimum Flows and Level Establishment and Monitoring	[X] 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	[X] Manatee	[ ] Marion	[ ] Pasco	[ ] Pinellas	[X] Sarasota	[ ] Sumter	[ ] Polk

Project Description/Benefit/Cost

Description:

This regional Project is located within the Most Impacted Area (MIA) of the Southern Water Use Caution Area (SWUCA) and the 47 square mile non-potable utility service area of the Cooperator, Braden River Utilities (BRU), a subsidiary of Schroeder-Manatee Ranch, Inc. (SMR). The project will assist the District in accomplishing the goal of its SWUCA Recovery Strategy, particularly as it regards recovery of the Saltwater Intrusion Minimum Aquifer Level (SWIMAL) which is intended to reduce the rate of saltwater intrusion in coastal Manatee and Sarasota counties.

SMR's lands are undergoing irrigation water use transition from Agricultural to Lawn and Landscape. BRU is the exclusive irrigation water supplier to the Lakewood Ranch community, generally anticipated to achieve buildout in the next 20 years. The Project is a Reclaimed Water Aquifer Storage and Recovery (ASR) feasibility study involving the construction of two exploratory wells ("test wells"). Two test wells are proposed due to the large size of the BRU service area and the multi-delivery points from several reclaimed water providers. The two sites will each have an ASR production well and three monitor wells (two storage zone; one overlying zone). Attachment 1 – Location Map identifies preliminary locations for up to six (6) potential future dispersed ASR wellfield sites (each with up to two ASR wells) which may ultimately be constructed assuming the proposed project confirms ASR feasibility. The current proposed locations of the two Project test wells are at those identified as ASR-4 and ASR-5 sites, respectively. BRU is fully committed to achieving the use of reclaimed water as its primary water supply source. Since the adoption of the Beneficial Reuse Area in 2010, BRU has secured 20-year contracts for reclaimed water supply with three regional reclaimed water suppliers for a total of up to 15 to 19 MGD, allowing SMR's lands to serves as a regional hub for reclaimed water distribution and beneficial use in the southern reaches of the MIA. These sources include: 1) the City of Bradenton (up to 6.0 MGD of AWT); 2) Manatee County (up to 4.0 to 8.0 MGD of non-AWT); and 3) City of Sarasota (up to 5.0 MGD of AWT). In addition to securing 20-year contracts towards the ultimate build-out demands for the entire BRU service area, BRU with funding assistance from the District has constructed transmission lines from providers to their service area as well as backbone distribution lines to the BRU service area.

The Project is intended to increase BRU's wet weather storage capability through development of underground storage. If determined feasible, this will allow for the use of reclaimed waters that would otherwise have been lost during wet weather conditions, thereby increasing reclaimed water supply reliability. In doing so it will allow for enhanced use of AWS in lieu of groundwater and greater contribution to the District's SWUCA Recovery Strategy.

At its own expense, BRU conducted a desktop ASR feasibility study in FY 2017.

BRU has discussed the submittal of this Cooperative Funding Request with potential regional partners including the Peace River

Manasota Regional Water Supply Authority, the City of Sarasota, the City of Bradenton, and Manatee County. All potential partners understood the value of this initiative and are genuinely supportive.

Benefit:

The benefit of this project is optimization of reclaimed water supplies through increasing wet-weather storage, reducing reliance on groundwater and contributing to the recovery of the MIA of the the SWUCA. The measurable benefit will be the construction and testing of two ASR wells. An additional benefit will be to reduce discharge of reclaimed water to the bay thereby decreasing nutrients and improving water quality.

Cost:

This requested CFI Project is to cost-share construction and construction infrastructure, construction phase and subsequent cycle testing, monitoring, reporting, and an FDEP Operational Permit application (assuming feasibility is confirmed) regarding both test wells in Fiscal Years 18 - 21 with the District on a 50% cost share basis.
The construction of each ASR exploratory well will include three monitoring wells, piping, pumps and other associated infrastructure necessary to sufficiently and cost-effectively determine feasibility. To the degree practicable, temporary infrastructure and simplified control systems will be used. The proposed storage zone is the Suwannee Limestone of the Upper Floridan Aquifer within an anticipated interval between approximately 500 and 750 feet below land surface. However, based on the results of the third party review or permitting requirements, alternatives may be considered if necessary. The exploratory wells will be designed and constructed to allow for their use as ASR production wells assuming the project confirms ASR is feasible. BRU may elect to request future funding to modify the two ASR temporary systems to permanent systems and to construct additional ASR wells should the project prove ASR is technically, economically, and environmentally feasible. The annual storage capability of the Project will be determined as part of the feasibility study. BRU preliminarily estimates each Suwannee Limestone ASR well should be capable of producing between 1.0 to 2.0 MGD (to be confirmed through Project testing). For CFI Application purposes, BRU assumes each well will be capable of recovering approximately 1.5 MGD, and that both wells combined would be capable of using approximately 450 MGY. Since the storage zone may contain TDS of less than 1,000 mg/l, the recovery efficiency could approach as much as 100%. The Measurable Benefit will be the construction and testing of two ASR sites. The project costs are consistent with the range of costs for similarly funded District projects. Project costs assume the ability to demonstrate sufficient Institutional Control to FDEP such that degasification is not required to control arsenic mobilization, and that pre-treatment of reclaimed waters received from providers and post-treatment of waters withdrawn from the well will not require treatment.
A preliminary estimate of probable cost is as follows: (1) Third-Party Review = $30,000 (2) Exploratory well construction and testing @ $880,000/well = $1,760,000; (3) Professional services during well construction and testing @ $260,000/well = $520,000; (4) Surface facilities construction/well = $1,458,750/well = $2,917,500; (5) Professional services during surface facilities construction @ $122,500/well = $245,000; and (6) Startup/Cycle testing and associated sampling/FDEP Operational permit application @ $261,250/well = $522,500. TOTAL ESTIMATED CFI PROJECT COST = $5,995,000.
BRU anticipates that $1,581,250 of the total cost will be expended in FY19 and $522,500 is expected to be expended during subsequent years.
The Prior Funding and funding source table below represents BRU's expenses to conduct the desktop feasibility study and design/ permitting for domestic wastewater and UIC Construction.

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

BRU has adopted a Water Conservation Plan that has been submitted to the District as part of its Water Use Permit (WUP). BRU has also made provisions for the availability and use of seasonal surface storage as well as pursued water conservation initiatives such as soil moisture sensor rebates and requirements, green building certification requirements, prohibited the use of potable water from public suppliers and installation of individual wells for irrigation; and community education. BRU has also secured a Master Reuse Permit with the Florida Department of Environmental Protection and is currently amending their WUP to place 4.0 MGD on stand-by. BRU also conducts a surface water quality monitoring program for waterways throughout its service area in coordination with the City of Bradenton and Manatee County. BRU does not administer any flood protection ordinances or programs.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share	350,000	1,945,625	790,625	261,250	3,347,500
Manasota		1,945,625	790,625	261,250	2,997,500
Total	350,000	3,891,250	1,581,250	522,500	6,345,000

Matching Fund Reduction

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

Timelines

(1) - 7/1/2017 - 11/30/2017

Milestone	Projected Date
30-Percent Design and Engineering Report	11/30/2017

(2) - 12/1/2017 - 3/30/2018

Milestone	Projected Date
Third-Party Review	03/30/2018

(3) - 4/1/2018 - 5/30/2018

Milestone	Projected Date
Post Third-Party Review	05/30/2018

(4) - 10/1/2017 - 6/30/2022

Milestone	Projected Date
Permitting (Domestic Wastewater/UIC Construction and Operations)	06/30/2022

(5) - 5/15/2018 - 7/15/2018

Milestone	Projected Date
Bidding and Contract Award	07/15/2018

(6) - 8/15/2018 - 11/15/2019

Milestone	Projected Date
Construction	11/15/2019

(7) - 12/15/2019 - 6/30/2022

Milestone	Projected Date
Cycle Testing	06/30/2022

Data Collection Assessment:

- [X] Groundwater or Surface Water Level measurements
- [X] Groundwater or Surface Water Quality measurements
- [X] Monitor Well Installation
- [X] Lithologic/Geophysical data
- [X] Aquifer Testing
- [X] Land Survey

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SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name Study - Midnight Pass Road Flood Control Study
Project Number N947
Cooperator Sarasota County
Department Environmental Services
Contact Person Susan Gray
Address 1001 Sarasota Ctr. Blvd.
City Sate Zip Sarasota, FL 34240
Phone # 941-861-0900
Email sgray@scgov.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 develop a stormwater management plan to address the coastal, barrier island flooding on Midnight Pass Road and meet the adopted flood protection level of service for the evacuation route. Midnight Pass Road from Stickney Point Road Bridge to the southern terminus (approximately 3 miles of roadway) is designated as an evacuation route constructed and reconstructed over the past 80+ years without the bebenefit ofhe cohesive, engineered stormwater management system for the roadway anand thedjacent land draining to the road. Redevelopment over the past 20 years has increase the stormwater rurunoff volumeirected to and stored in Midnight Pass Road right-of-way to the exextent thathe roadway is not passable during more frequent rainfall events. SaSarasota County'slood protection level of service for evacuation routes is no flflooding onhe roadway for the 100-year 24-hour rainfall event.

The project will evaluate alalternatives includingump stations; easement acquisitions for overland conveyance and/oror closedystems; potential land acquisitions for stormwater runoff storage wiwith potentialeuse opportunities; potential land acquisitions for ststormwater treatmentmodification to the existing Midnight Pass Road right-of-way fofor stormwateranagement system and horizontal and vertical alignment changes toto Midnightass Road.

Benefit:

Stormwater Management Plan to address drainage for Midnight Pass Road, an evacuation route on the coastal, barrier island of Siesta Key, Sarasota County, including detailed cost/benefit analysis to prioritize alternatives to meet the flood protection level of service.

Cost:

The total study cost is anticipated to be $300,000 with 50% split between SWFWMD and the County.

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

Sarasota County has extensive experience in providing public education on conservation through websites, exhibits, workshops, speaking engagements, brochures and incentive programs. Sarasota County has a Class 5 FEMA Community Rating System rating. The County received the James Lee Witt Local Award for Excellence by the State Floodplain Managers Association and FEMA in 2002. As a Community Technical Partner with FEMA, the County has entered into a 3-way Mapping Agreement Statement with FEMA and SWFWMD for the conversion of the county's digital floodplain maps and studies to Digital-Flood Insurance Rate Maps (D-FIRMs). The County received the Florida Stormwater Association's 2008 Excellence Award for having the best Stormwater Utility Program in Florida. This prestigious award concentrates on four major areas: Flood Protection, Water Quality, Operations & Maintenance, and the Capital Improvement Program. A Land Development Ordinance to further the objectives of floodplain management requires all new development have stormwater management systems and finished floor elevations designed at or above the 100 year flood elevation. Developments are required to demonstrate that they will not result in adverse increases in off-site flood stages within the appropriate county watershed model.

The Water-Efficient Landscape Ordinance won a statewide award for innovation. Irrigation restrictions that allow for once-a-week irrigation are enforced by code enforcement officers. Reduction of potable water use is encouraged with our rain barrel harvesting program. By Ordinance developers are required to install reuse lines throughout new development if a reuse system exists within one hundred and fifty feet of any property line of a subdivision, single or multi-family residence or any non-residential lot or use.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			150,000		150,000
Manasota			150,000		150,000
Total			300,000		300,000

Matching Fund Reduction

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

Timelines

August 1, 2020

Milestone	Projected Date
Final Plan	10/31/2020

February 1, 2019

Milestone	Projected Date
Consultant Selection	05/01/2019

June 1, 2019

Milestone	Projected Date
Draft Plan	07/01/2020

October 1, 2018

Milestone	Projected Date
Execute Agreement	01/01/2019

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	SW IMP - Flood Protection - Greater Port Charlotte Area Water Control Structure HAV 4.84
Project Number	N950
Cooperator	Charlotte County
Department	
Contact Person	Joanne Vernon
Address	410 Taylor Rd, Unit 104
City Sate Zip	Punta Gorda, FL 33950
Phone #	941-575-3661
Email	joanne.vernon@charlottecountyfl.gov

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:

Charlotte County is requesting $500,000 in cooperative funding for FY 2019 to construct Water Control Structure HAV 4.84.

This project will improve the existing structure by increasing the 25 year and the 100-year peak flow, and decreasing the flood stage elevations.

The current 25-year peak flow is 232 CFS, and will be improved to 601 CFS; for the 100 year, the peak flow will increase from 260 CFS to 831 CFS.

The 25-year stage upstream elevations will increase slightly from 14.40 to 15.10, and will decrease from 15.20 to 12.50 for elevations downstream.

The 100-year stage elevation will decrease from 21.30 to 15.80 upstream, and the downstream 100-year elevation will decrease from 17.10 to 14.0.

This project will help perform the Implementation of Best Management Practices (BMPs) element of the District's Watershed Management Program (WMP) for a portion of Greater Port Charlotte in Charlotte County.

Implementation of BMPs includes the following tasks: design, development of construction documents, construction permitting, land acquisition, bidding and contractor selection, construction of the BMPs and construction engineering and inspection.

The Greater Port Charlotte area was developed pre–1984, prior to District flood protection and current water quality regulations.

The residential density is in a range of 50-70 percent impervious. Property damage, and roadway washouts are flood damage issues to be addressed by the proposed improvements to the stormwater management infrastructure.

The resolution of flood Level of Service (LOS) deficiencies lies in a comprehensive approach to watershed management, and implementation of development practices within the 100-year floodplain.

Benefit:

The replacement of Water Control Structure HAV 4.84 directly links to the Districts Core Mission Flood Protection Goal of minimizing flood damage to protect people, property, infrastructure and investment.

This water control structure replacement also aligns with SWFWMD's Strategic initiative for Flood Protection, specifically Floodplain Management Strategies to-operate, maintain and upgrade water management structures and associated facilities.

The implementation of this project will improve level of service deficiencies in Charlotte County's Greater Port Charlotte area by providing increased flood protection to the homes and businesses along the waterways. The existing flood control structures were constructed thirty-five to forty years ago, of galvanized steel sheeting and over time have rusted and deteriorated. The replacement structures constructed of reinforced concrete will have a substantially longer lifespan, and will be better able to control water surface elevations in the area.

Cost:

The total budgeted amount for this project is $1,000,000.00 of which the District's share is $500,000.00 and the County's share is $500,000.00.

This structure is one of 38 structures included in Charlotte County's Stormwater Management Master plan.

To date we have successfully completed thirty-five (35) water control structure projects including K280, N740, and N752. The District contributed $4,332,058.00 to these projects, and the County has contributed $24,659,565.00.

Based on the most recent cost estimates in Charlotte County's Stormwater Management Master Plan an additional $4 million in future funding may be needed to implement additional Water Control structure projects in need of upgrades. The County will be requesting cooperative funding of up to 50% of these future costs.

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

The Charlotte County Board of County Commissioners approved a tax rate increase to the Mid County Stormwater MSBU Unit in fiscal year 2006 to ensure that funding would be available replace the stormwater structures for flood protection.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			500,000		500,000
Peace River			500,000		500,000
Total			1,000,000		1,000,000

Matching Fund Reduction

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

Timelines

Construct HAV 4.84

Milestone	Projected Date
Construction may extend into FY2020	10/01/2018

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	WMP - Lemon Bay Watershed Management Plan BMP Analysis
Project Number	N959
Cooperator	Sarasota County
Department	Environmental Services
Contact Person	Susan Gray
Address	1001 Sarasota Ctr. Blvd.
City Sate Zip	Sarasota, FL 34240
Phone #	941-861-0900
Email	sgray@scgov.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 develop a holistic BMP Alternatives Analysis for the Lemon Bay Watershed Management Plan that will integrate flood protection, natural systems, and water quality benefits within a watershed framework.

In the 1990's and early 2000's, Basin Master Plans were developed for the 26 basins in Sarasota County to evaluate the extent at which riverine storm events created flood protection levels of service (FPLOS) deficiencies. All projects that met the County's cost effective analysis were constructed and paid for through basin assessments. SWFWMD and the County through project N669 updated the County's ICPR model to 2007 LIDAR and added new development. This project will use the more accurate ICPR model to analyze basins for riverine FPLOS deficiencies and identify BMP alternatives for cost effective flood control projects.

SWFWMD and the County jointly developed the Lemon Bay Water Quality Management Plan (L610) which included a detailed watershed analysis resulting in 23 project concepts to improve the health of Lemon Bay. The County has successfully worked with partners, including SWFWMD and CHNEP, to implement 4 of the 12 feasible projects, over $600,000, resulting in 7,500 linear feet of waterways restored and 4 acres of wetland enhanced to improve Lemon Bay. This project will perform a surface water resource assessment to identify hot spots using recent water quality and environmental resource data; the jointly developed SIMPLE pollutant load model W552; current regulatory standards; and management targets. This project will identify BMP alternatives for cost effective water quality improvements.

The holistic analysis of BMP alternatives will have a cost/benefit matrix and include data from recent canal, pond, and coastal flooding studies as well as mitigation recommendations identified in the County's recent Repetitive Loss Area Analysis. Future condition hydrology scenarios will be estimated using "intermediate-high" projection for 2100, as included in the report Global Sea Level Rise Scenarios for the United States National Climate Assessment (National Oceanic and Atmospheric Administration, 2012) as a CRS Program requirement.

An interactive GIS map will be developed and included on the Water Atlas. The County will submit future SWFWMD CFI applications to implement the recommended projects. Collaboration with CHNEP, municipalities and stakeholders will occur throughout the project.

Benefit:

1. Holistic management plan incorporating flood protection, water quality and natural systems improvements throughout the watershed.

2. Maximize resources by creating a prioritized BMP Alternatives Analysis with a cost/benefit matrix.

Cost:

The total project cost is $600,000 with $400,000 in FY19 and $200,000 in FY20 split 50% between SWFWMD and County.

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

Sarasota County has extensive experience in providing public education on conservation through websites, exhibits, workshops, speaking engagements, brochures and incentive programs. Sarasota County has a Class 5 FEMA Community Rating System rating. The County received the James Lee Witt Local Award for Excellence by the State Floodplain Managers Association and FEMA in 2002. As a Community Technical Partner with FEMA, the County has entered into a 3-way Mapping Agreement Statement with FEMA and SWFWMD for the conversion of the county's digital floodplain maps and studies to Digital-Flood Insurance Rate Maps (D-FIRMs). The County received the Florida Stormwater Association's 2008 Excellence Award for having the best Stormwater Utility Program in Florida. This prestigious award concentrates on four major areas: Flood Protection, Water Quality, Operations & Maintenance, and the Capital Improvement Program. A Land Development Ordinance to further the objectives of floodplain management requires all new development have stormwater management systems and finished floor elevations designed at or above the 100 year flood elevation. Developments are required to demonstrate that they will not result in adverse increases in off-site flood stages within the appropriate county watershed model.

The Water-Efficient Landscape Ordinance won a statewide award for innovation. Irrigation restrictions that allow for once-a-week irrigation are enforced by code enforcement officers. Reduction of potable water use is encouraged with our rain barrel harvesting program. By Ordinance developers are required to install reuse lines throughout new development if a reuse system exists within one hundred and fifty feet of any property line of a subdivision, single or multi-family residence or any non-residential lot or use.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			200,000	100,000	300,000
Manasota			200,000	100,000	300,000
Total			400,000	200,000	600,000

Matching Fund Reduction

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

Timelines

August 1, 2020

Milestone	Projected Date
Final Plan	10/31/2020

February 1, 2019

Milestone	Projected Date
Consultant Selection	06/01/2019

July 1, 2019

Milestone	Projected Date
Draft Plan	07/01/2020

October 1, 2018

Milestone	Projected Date
Execute Agreement	01/01/2019

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	SW IMP - Flood Protection - Construction of Cocoplum water control structure
Project Number	N974
Cooperator	City of North Port - Public Utilities
Department	
Contact Person	Michelle Tipp
Address	6644 W Price Blvd
City Sate Zip	North Port, FL 34291
Phone #	941-240-8007 ext8007
Email	mtipp@cityofnorthport.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:

Water Control Structure (WCS) No. 106 is located on the Cocoplum canal just west of North Port Boulevard in the City of North Port. The structure is equipped with six gates which are operated in the closed position in order to allow storage of water similar to a reservoir. In anticipation of pending rain storm events and as the water level rises, the gates are opened as needed to reduce flooding and water is discharged into the Myakkahatchee Creek. The water in the Cocoplum canal serves as a raw water supply for the City's Water Treatment Plant. Thus, the proper functioning of these gates and structure are critical to the City's ability to control water levels, minimize adverse impacts from a storm event and supplement the City's potable water supply. This structure was constructed in the early 1960's. Over time, extensive corrosion has developed in the sheet metal weir piling, concrete supports, gates and catwalk. Although the City has kept up with the maintenance of the structure, the concrete columns that support the gates and the catwalk are so deteriorated that a new structure is urgently needed.

The City of North Port has retained a consultant to design and permit the replacement WCS No. 106 to be completed by September 2018. This cooperative funding application is for the FY 2019 construction phase of the new WCS No. 106.

With funding assistance from the SWFWMD, the City proposes to construct the upgrade to WCS No. 106. The existing sheet metal weir piling will be replaced with a new weir. All gates will be replaced with automated stainless steel gates with remote control and viewing capabilities. Two more gates will be added for a total of eight gates.

Benefit:

The improvements to WCS No. 106 has the following benefits for flood control and water supply reliability:

(1) Additional gates will provide redundancy in case of gate(s) failure

(2) Additional gates will also allow the City to draw down Cocoplum waterway faster in anticipation of a storm that gives little warning. Due to the number of residents living along the Cocoplum and interconnected waterways, there is always great concern when the water level is lowered too early in anticipation of a rain event that may not occur. The availability of additional gates will allow for a quicker reaction time and avoid the premature drawing down of water levels and avoid a dry canal situation if the storm does not come.

(3) Gate automation and telemetry with remote operation is vital to safe operation of this critical structure.

(4) Alternative construction materials will be implemented to maximize the structure design life.

(5) Operation of a reliable structure will avoid flooding of upstream Sarasota County and downstream Charlotte County areas.

Cost:

The total project cost is anticipated at $1,800,000 and is based on previous City experience with replacement of gated water control structures.

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

The City of North Port has one of the lowest per-capita water use rates in the region. This can be attributed to an extensive conservation program which includes a tiered rate structure, reuse water program, irrigation enforcement, floodplain management both locally and regionally; and, a comprehensive public education and outreach program that promotes water conservation, protection of City and regional resources, and encourages public participation in flood control efforts. The City's outreach program is a year round effort to involve, inform and inspire all ages to conserve and protect water in their daily activities. The program offers education for all ages through participation at school and community events locally and regionally as well as hosting its own workshops, contests – including a "rain barrel" contest, and annual environmental fair. These efforts are complimented by print and web based literature including the City's award winning web site and its annual Consumer Confidence Report, which provide practical, useful information on water conservation and protection. The City's public education and outreach efforts earned the City the internationally recognized 2014 "WateReuse Public Education Program of the Year" award from the WateReuse organization out of Alexandria, Virginia. The City continues acquisition of land as a protective conservation buffer for the Class I waters of the Myakkahatchee Creek, a potable water and recreational resource. This initiative also helps reduce damage from flooding events. The City's water conservation efforts and other sustainable development activities earned North Port the Florida Green Building Coalition's "Silver" level local government certification in 2016. In accordance with the City's 2008 Reuse Master Plan, the City continues planned expansion of the system to offset potable water use. In addition, the City's Unified Land Development Code (ULDC) includes the following requirement for new developments: "A reuse water system shall be provided in all new subdivisions, and connection shall be required with the City's reuse water system where the City system is within 1/4 mile from a point on the perimeter of the subdivision closest to the source of service and measured along an accessible right-of-way or easement. The order of supply sources of water for irrigation purposes shall be reuse water, storm water then well water." Owing to the City's extensive efforts in stormwater system management, maintenance, information dissemination and outreach efforts, the May 2011 Community Rating System (CRS) audit resulted in North Port receiving an improved CRS rating from 7 to 6. The City is an active participant in the Federal Emergency Agency (FEMA) and SWFWMD's Flood Insurance Rate Map (FIRM) revision activity. The City has adopted new FIRMs which are effective November 4,2016. The City requires that all applicable Federal and State permits be approved prior to the start of construction.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share	168,500		900,000		1,068,500
Manasota			900,000		900,000
Total	168,500		1,800,000		1,968,500

Matching Fund Reduction

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

Timelines

Release request for bids	05/28/2018
Select Contractor	09/25/2018
Issue Notice to Proceed	11/20/2018
Construction Completion	12/03/2019

Data Collection Assessment:

☒ Mapping/GIS data

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	Conservation-North Port Water Distribution System Looping
Project Number	N979
Cooperator	City of North Port - Public Utilities
Department	
Contact Person	Michelle Tipp
Address	6644 W Price Blvd
City Sate Zip	North Port, FL 34291
Phone #	941-240-8007 ext8007
Email	mtipp@cityofnorthport.com

Project Type:

[X] Water Supply [X] Water Quality [ ] Flood Protection [ ] Natural Systems

Strategic Initiatives:

[X] Water Quality Maintenance and Improvement	[ ] Water Quality Monitoring
[ ] Alternative Water Supply	[X] 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:

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

Project Description/Benefit/Cost
Description:

The City of North Port water supply system contains areas with multiple dead ends, which coupled with seasonal use, requires frequent flushing in order to maintain the required disinfectant residual for water quality in the system. In an effort to promote conservation and reduce flushing, the City has incorporated the Ten States Standards into its design specifications which strongly discourages the creation of dead end waterlines with new development. In addition, the City has identified areas in the potable distribution containing dead end lines for looping project to eliminate dead ends and reduce system flushing in four areas. The first area, Brickell Dr. Crane Ave. and San Luis Terr. project would have to be looped together as one area. This project will install 2,730 feet of 6” pipe with associated apparatuses to extend the existing Crane water line that meets at the end of Brickell Drive to connect to the existing line on Brickell Drive. The second part of this would be to connect the existing line on Brickell Drive to the line that runs on Crane Avenue. The second area, South Calera Street, will install 1,060 feet of 6” pipe to connect the existing line running from the end of Norbert Avenue to Raoul Avenue. The third area, Trionfo Avenue, will install 175 feet of 6” pipe to extend the Trionfo Avenue water line. The fourth and final area, Jeannin Drive, will install 8” pipe that will run from the existing line at Hallmark Boulevard to Price Blvd.

Benefit:

The proposed Brickell Drive, Crane Avenue, and San Luis Terrace will eliminate 5 dead ends, conserving an estimated 1,080,000 gallons of water per year. The proposed South Calera Street will eliminate 2 dead ends, conserving an estimated 6,696,000 gallons of water per year and the need for an existing auto-flusher. The proposed Trionfo Avenue looping will eliminate 2 dead ends, conserving an estimated 1,080,000 gallons of water per year. The proposed Jeannin Drive looping will eliminate 1 dead ends, conserving an estimated 4,464,000 gallons of water per year. This project will conserve an estimated total of 13,320,000 gallons of water per year and the need for an existing auto-flusher.

Cost:

The cost benefit for all the above projects is estimated at $4.75 per thousand gallons based on conserving .0364 mgd of potable water supply, a project cost of $704,000.

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

The City of North Port has one of the lowest per-capita water use rates in the region. This can be attributed to an extensive conservation program which includes a tiered rate structure, reuse water program, irrigation enforcement, floodplain management both locally and regionally; and, a comprehensive public education and outreach program that promotes water conservation, protection of City and regional resources, and encourages public participation in flood control efforts. The City's outreach program is a year round effort to involve, inform and inspire all ages to conserve and protect water in their daily activities. The program offers education for all ages through participation at school and community events locally and regionally as well as hosting its own workshops, contests – including a "rain barrel" contest, and annual environmental fair. These efforts are complimented by print and web based literature including the City's award winning web site and its annual Consumer Confidence Report, which provide practical, useful information on water conservation and protection. The City's public education and outreach efforts earned the City the internationally recognized 2014 "WateReuse Public Education Program of the Year" award from the WateReuse organization out of Alexandria, Virginia. The City continues acquisition of land as a protective conservation buffer for the Class I waters of the Myakkahatchee Creek, a potable water and recreational resource. This initiative also helps reduce damage from flooding events. The City's water conservation efforts and other sustainable development activities earned North Port the Florida Green Building Coalition's "Silver" level local government certification in 2016. In accordance with the City's 2008 Reuse Master Plan, the City continues planned expansion of the system to offset potable water use. In addition, the City's Unified Land Development Code (ULDC) includes the following requirement for new developments: "A reuse water system shall be provided in all new subdivisions, and connection shall be required with the City's reuse water system where the City system is within 1/4 mile from a point on the perimeter of the subdivision closest to the source of service and measured along an accessible right-of-way or easement. The order of supply sources of water for irrigation purposes shall be reuse water, storm water then well water." Owing to the City's extensive efforts in stormwater system management, maintenance, information dissemination and outreach efforts, the May 2011 Community Rating System (CRS) audit resulted in North Port receiving an improved CRS rating from 7 to 6. The City is an active participant in the Federal Emergency Agency (FEMA) and SWFWMD's Flood Insurance Rate Map (FIRM) revision activity. The City has adopted new FIRMs which are effective November 4,2016. The City requires that all applicable Federal and State permits be approved prior to the start of construction.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share	182,561		352,000		534,561
General Fund-District Wide	182,560		352,000		534,560
Total	365,121		704,000		1,069,121

Matching Fund Reduction

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

Timelines

Construction

Milestone	Projected Date
Bid Construction	08/01/2018
Select Contractor	10/01/2018
Begin Construction	01/01/2019
Complete Construction	08/01/2019

Data Collection Assessment:

☒ Mapping/GIS data

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name Study-PRMRWSA Integrated Regional Water Supply Plan 2020
Project Number N980
Cooperator PRMRWSA
Department
Contact Person Mike Coates
Address 9415 Town Center Parkway
City Sate Zip Lakewood Ranch, FL 34202
Phone # 941-316-1776
Email mcoates@regionalwater.org

Project Type:

[X] Water Supply [ ] Water Quality [ ] Flood Protection [ ] Natural Systems

Strategic Initiatives:

[ ] Water Quality Maintenance and Improvement
[ ] Water Quality Monitoring
[X] 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:

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

Project Description/Benefit/Cost Description:

Every five years the Authority updates its Regional Water Supply Master Plan to ensure preparedness and quality service in regional water supply to the four-county region. This (2020) effort will update the Authority's 2015 Integrated Regional Water Supply Master Plan. Major focus in the 2020 plan will include; refinement of future regional transmission main configuration, new interconnections and improvements to existing interconnections; an update on demand projections; an update on current and potential future sources of supply including a proposed supply development schedule; an inventory of reclaimed water resources in the region and consideration of the potential for improved utilization of this resource. A prioritized listing of project opportunities will be developed including cost estimates and timeframes required for implementation. This effort will be completed in a timeframe enabling use of this material in the SWFWMD 2020 Regional Water Supply Plan (Southern Region).

Benefit:

This regional planning effort supports the SWFWMD 2020 Regional Water Supply Plan (Southern Region) and it is critical for ensuring that the Authority's four-county region has identified the projects and the resources to meet growing water demands in an environmentally sustainable manner. The Authority's water supply planning efforts are integral to our strategic plan, and have historically focused on alternative water supplies, expansion of the Regional Integrated Loop Pipeline System and management and protection of water resources. These efforts promote sharing of resources, system reliability, regional resource management and cost-effective water supply development, all of which support the SWUCA recovery strategy and the strategic initiatives laid out in the District's Strategic Plan.

Cost:

Total estimated cost for the Authority's 2020 Integrated Regional Water Supply Plan is $450,000. The Authority is requesting 50% co-funding of eligible costs (equal to $225,000) in this application. Projected annual costs for development of the Authority's 2020 Integrated Regional Water Supply Plan are identified in the funding section of the application as well as in the attached Funding Letter.

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

The Authority is a wholesale supplier of potable water to the customers of Charlotte, DeSoto, Manatee and Sarasota Counties and the City of North Port. These utilities are retail suppliers for their respective public water systems. The Authority cooperatively participates with Customer Utilities and the District in public awareness and education regarding water conservation including broadcast public service announcements, newspaper advertisements and inserts and public presentations. The Authority's Customers are leaders in water conservation, showing aggregate gross per capita water use declining from 104 gpc/day in 2003 to 78 gpc/day in 2016 (based on the 2016 PS forms). Supporting this conservation ethic have been the Authority's Water Policy Summits with the Water Alliance in 2009, 2010, 2011, 2012, 2015 and 2016. The Water Alliance is a voluntary assembly of 13 local municipalities, including the Authority's Customers, dedicated to water conservation, and providing water customers/residents a cost effective, high-quality, reliable and environmentally sustainable drinking water supply. The Summits have been well attended and focused on; water conservation/demand management; optimization of supply capacity, resource sharing and interconnecting supplies, and the value of high quality public water supply to the economic vitality of the region. In addition, the Authority's *Integrated Regional Water Supply Plan 2015* included recommendations for development of a predictive tool focused on quantifiable BMP's for the region to incorporate water conservation savings into future demand and supply planning; investigation of regional opportunities to reduce flushing in the consecutive potable system; and regional support for expansion and development of regional interconnections in the reclaimed system that will support more effective use of that resource.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			175,000	50,000	225,000
Manasota			175,000	50,000	225,000
Total			350,000	100,000	450,000

Matching Fund Reduction

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

Timelines

PRMRWSA Water Supply Master Plan 2020

Milestone	Projected Date
Consultant Selection	10/30/2018
Plan Development	12/31/2019
Review and Finalization of Plan	03/31/2020

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	Conservation- Manatee County Toilet Rebate Project, Phase 12
Project Number	N982
Cooperator	Manatee County
Department	Utilities
Contact Person	Olga Wolanin
Address	4410 66th Street W.
City Sate Zip	Bradenton, FL 34210
Phone #	941-792-8811 ext5416
Email	olga.wolanin@mymanatee.org

Project Type:

[X] Water Supply [ ] Water Quality [ ] Flood Protection [ ] Natural Systems

Strategic Initiatives:

[ ] Water Quality Maintenance and Improvement	[ ] Water Quality Monitoring
[ ] Alternative Water Supply	[X] 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	[X] Manatee	[ ] Marion	[ ] Pasco	[ ] Pinellas	[ ] Sarasota	[ ] Sumter	[ ] Polk

Project Description/Benefit/Cost

Description:

The Manatee County Utilities Department planning to implement Phase 12 of the Toilet Rebate Program in FY 2019. This Ultra Low-Flow Toilet (ULFT) rebate adds an indoor conservation component to the County's existing Water Conservation Incentive Program for the County's retail water customers (residential, multi-family and commercial/industrial). The County is currently serving over 100,000 potable water accounts and anticipates continued growth over the next 20 years. The objectives of the retrofit program are to reduce water demand and provide financial incentives for the replacement of an estimated 1,000 toilets during FY 2019. The program addresses the Manatee County Board of County Commissioners' policies on water conservation and is supported by the County's water conservation rates for potable water use. Any program participant that replaces a 3.5 gallons per flush (gpf) or more toilet with an ultra-low flow (ULF) that uses 1.6 gpf or less and/or High Efficiency Toilets (HET), will receive up to a $100.00 rebate for each toilet with a maximum limit of two toilets per dwelling unit. This program will also focus on educating the new low volume toilet owners on the proper maintenance, specifically flappers and leak detection, necessary to ensure that each toilet remains a water conserving fixture. Rebate payments are subject to the recipient's submittal of the completed application, documented cost and will be distributed after personal inspection of the completed installation and verification that the old toilets are ready for disposal.

Benefit:

The project will replace approximately 1,000 high-volume toilets producing a water savings of approximately 26,380.26 gallons per day.

Cost:

The project’s estimated cost/benefit ratio is $1.57 per thousand gallons (20 years at 8% interest). The County is requesting $75,500 from the SWFWMD Board. The total cost of the project is $151,000.

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

Manatee County's overall conservation program includes existing metering and loss reduction program, water conservation rate structures, urban and agricultural reclaimed water irrigation supply, public education, SWUCA based level of service for water supply at 110 gpfcpd, land development codes requiring non-potable sources for irrigation in new developments, water supply protection ordinances and the use of aquifer storage and recovery for potable and potentially reclaimed waters.

Manatee County has adopted Ordinance 89-10 (Floodplain Management) as required to participate as a community in the National

Flood Insurance Program, administered through FEMA. Ordinance 90-01 (Land Development) was adopted to further the floodplain management objectives. All development is required to receive the proper building and site alteration permits. All finished floor elevations are required to be at or above the 100-year flood elevation. Manatee County is also a participant in FEMA's Community Rating System and has a Class 6 rating.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share	902,541	113,250	75,500		1,091,291
Manasota	902,541	113,250	75,500		1,091,291
Total	1,805,082	226,500	151,000		2,182,582

Matching Fund Reduction

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

Timelines

Execute Agreement with the District	09/28/2018
Begin Toilet Rebate Program, Phase 12	04/01/2019
Complete Toilet Rebate Program, Phase 12	03/31/2020
Final Report Due	06/01/2020

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	WMP - Sarasota Bay Watershed Management Plan BMP Analysis
Project Number	N991
Cooperator	Sarasota County
Department	Environmental Services
Contact Person	Susan Gray
Address	1001 Sarasota Ctr. Blvd.
City Sate Zip	Sarasota, FL 34240
Phone #	941-861-0900
Email	sgray@scgov.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 develop a holistic BMP Alternatives Analysis for the Sarasota Bay Watershed Management Plan that will integrate flood protection, natural systems, and water quality benefits within a watershed framework.

In the 1990's and early 2000's, Basin Master Plans were developed for the 26 basins in Sarasota County to evaluate the extent at which riverine storm events created flood protection levels of service (FPLOS) deficiencies. All projects that met the County's cost effective analysis were constructed and paid for through basin assessments. SWFWMD and the County through project N729 updated the County's ICPR model to 2007 LIDAR and added new development. This project will use the more accurate ICPR model to analyze basins for riverine FPLOS deficiencies and identify BMP alternatives for cost effective flood control projects.

SWFWMD and the County jointly developed the Sarasota Bay Water Quality Management Plan (W622) which included a detailed watershed analysis resulting in project concepts to improve the health of Sarasota Bay. The jointly developed Roberts Bay North Water Quality Management Plan (L610) also contained analysis for the Phillippi Basin that drains to Sarasota Bay. This analysis will include all basins that drain to Sarasota Bay. The County has successfully worked with partners, including SWFWMD and SBEP, to implement 12 of the 15 feasible projects from both Plans. Total project cost over $4,000,000, resulted in treating 467 acres to reduce 660 lbs/yr TN; 50 lbs/yr TP; 172,731 lbs/yr TSS and 16,000 cubic yards of sediment to improve the water quality in Sarasota Bay. This project will perform a surface water resource assessment to identify new hot spots using recent water quality and environmental resource data; the jointly developed SIMPLE pollutant load model W552; current regulatory standards; and management targets. This project will identify BMP alternatives for cost effective water quality improvements.

The holistic analysis of BMP alternatives will have a cost/benefit matrix and include data from recent canal, pond, and coastal flooding studies as well as mitigation recommendations identified in the County's recent Repetitive Loss Area Analysis. Future condition hydrology scenarios will be estimated using "intermediate-high" projection for 2100, as included in the report Global Sea Level Rise Scenarios for the United States National Climate Assessment (National Oceanic and Atmospheric Administration, 2012) as a CRS Program requirement.

An interactive GIS map will be developed and included on the Water Atlas. The County will submit future SWFWMD CFI applications to implement the recommended projects. Collaboration with SBEP, municipalities and stakeholders will occur throughout the project.

Benefit:

1. Holistic management plan incorporating flood protection, water quality and natural systems improvements throughout the watershed.
2. Maximize resources by creating a prioritized BMP Alternatives Analysis with a cost/benefit matrix.

Cost:

Total project cost is $600,000 with $400,000 in FY19 and $200,000 in FY20 split 50% between SWFWMD and County.

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

Sarasota County has extensive experience in providing public education on conservation through websites, exhibits, workshops, speaking engagements, brochures and incentive programs. Sarasota County has a Class 5 FEMA Community Rating System rating. The County received the James Lee Witt Local Award for Excellence by the State Floodplain Managers Association and FEMA in 2002. As a Community Technical Partner with FEMA, the County has entered into a 3-way Mapping Agreement Statement with FEMA and SWFWMD for the conversion of the county's digital floodplain maps and studies to Digital-Flood Insurance Rate Maps (D-FIRMs). The County received the Florida Stormwater Association's 2008 Excellence Award for having the best Stormwater Utility Program in Florida. This prestigious award concentrates on four major areas: Flood Protection, Water Quality, Operations & Maintenance, and the Capital Improvement Program. A Land Development Ordinance to further the objectives of floodplain management requires all new development have stormwater management systems and finished floor elevations designed at or above the 100 year flood elevation. Developments are required to demonstrate that they will not result in adverse increases in off-site flood stages within the appropriate county watershed model.

The Water-Efficient Landscape Ordinance won a statewide award for innovation. Irrigation restrictions that allow for once-a-week irrigation are enforced by code enforcement officers. Reduction of potable water use is encouraged with our rain barrel harvesting program. By Ordinance developers are required to install reuse lines throughout new development if a reuse system exists within one hundred and fifty feet of any property line of a subdivision, single or multi-family residence or any non-residential lot or use.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			200,000	100,000	300,000
Manasota			200,000	100,000	300,000
Total			400,000	200,000	600,000

Matching Fund Reduction

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

Timelines

August 1, 2020

Milestone	Projected Date
Final Plan	10/31/2020

February 1, 2019

Milestone	Projected Date
Consultant Selection	06/01/2019

July 1, 2019

Milestone	Projected Date
Draft Plan	07/01/2020

October 1, 2018

Milestone	Projected Date
Execute Agreement	01/01/2019

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	Conservation - City of Venice Toilet Rebate and Retrofit Project - Phase 6
Project Number	N992
Cooperator	City of Venice
Department	Utilities
Contact Person	Javier Vargas
Address	200 North Warfield Ave.
City Sate Zip	Venice, FL 34285
Phone #	941-882-7310
Email	jvargas@venicegov.com

Project Type:

[X] Water Supply [ ] Water Quality [ ] Flood Protection [ ] Natural Systems

Strategic Initiatives:

[ ] Water Quality Maintenance and Improvement	[ ] Water Quality Monitoring
[ ] Alternative Water Supply	[X] 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	[X] Sarasota	[ ] Sumter	[ ] Polk

Project Description/Benefit/Cost

Description:

The City of Venice Toilet Rebate and Retrofit Program consists of offering financial incentives to potable water customers for replacing conventional toilets and urinals with water-conserving equivalents, providing rebates for certain water saving improvements, providing do-it-yourself kits, and an educational component. The City will provide a $100 credit to the customer's water bill upon Water Sense toilet or urinal installation and inspection. In order to assure that the replaced conventional toilets or urinals will not be reinstalled al another location, the City will require permanent disposal of the conventional toilet or urinal as a condition of the rebate. It is estimated that 50 percent of the City's water customers are eligible for this component. The final component of the program consists of providing 400 water conservation do-it-yourself kits and educational materials at no charge to City potable water customers. These kits contain such items as low-flow showerhead, bath and kitchen faucet aerators, toilet flapper valve, toilet tank leak detection dye tablets, and water conservation educational materials. The total project cost is $58.900 and the City is requesting $29,450 from the District in FY2017. The City of Venice will match the funding request with funds within the Utilities Department water production budget. The City's per capita water usage for 2010 was 58.8 gpd per person. The estimated cost/benefit ratio, calculated over 20 years is $.12/1000 gallons. This cost/benefit ratio is based on the project cost of $65,000 a 20 year life of toilets, and an estimated savings of 97,453 gpd. The City plans to hire a consultant to administer the project. The consultant will perform the rebate qualifications, educational component, installation inspections, and customer surveys while the City will track actual pre and post water usage. Toilet installation, rebates and conservation kits distribution will begin by November 1, 2018. It is anticipated that the project will be complete by December 30, 2019 with project close out and final reporting occurring no later than April 1,2020.

Benefit:

The project will replace approximately 249 high-volume toilets and provide up to 400 water conservation DIY kits, production a water savings of approximately 16,330 gallons per day. The project's estimate ratio is $1.44 per thousand gallons (20 years at 8% interest).

Cost:

- 249 Toilet Rebates to Include, Single, & Multi-family, and Commercial toilets @ $100.00, with the total cost of $24,900.00
- 400 DIV Kits and Educational Material, with a total cost of $8,400.00
- Program Administration, 249 @ 50.00, with a total cost of $12,450.00
- Program Includes Promotion, Surveys, Printing, Assembly, and Postage, with a total cost of$13,150
- In no instance will the rebate exceed the actual cost of the related toilet(s) and installation(s)

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

The City of Venice makes water conservation a priority. The Utilities Department has in a place a comprehensive reclaimed water distribution and supply system with a tier water rate structure. Monthly water conservation tips and techniques are disseminated through messages printed on each bill or on separate bill inserts. The city also provides water conservation education and promotional materials, monthly leak detection accounting, and in prior years provided plumbing retrofit kits. Under the Water Conservation Plan, a team in considering other water conservation practices. The storm water division oversees flood protection ordinances. New subdivision regulations require all properties with a SWFWMD permit to recertify their system yearly. Public outreach, regular storm water system inspections and a capital improvement program are just a few of the flood protection and water quality improvement initiatives performed.

An educational brochure on storm water and the environment is available in City Hall and the Venice Public Library, and a biannual storm water management article is distributed in the citizen's monthly newsletter. The city, with funding assistance from SWFWMD, started a volunteer inlet-marking program in which volunteers mark storm water inlets and distribute written materials on how to reduce non-point pollution. The Utilities Department educates the public on water conservation and offers promotional materials (i.e. toilet leak tablets, water charts, contests and water saver gadgets). Yearly, Utilities sponsors a water conservation poster contest with the local schools. The city provides reclaimed water for commercial and residential properties in portions of the city. The watering restriction ordinance is regularly updated to be consistent with the restrictions implemented by SWFWMD and adopted by Sarasota County.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share	72,200		29,450		101,650
Manasota	72,200		29,450		101,650
Total	144,400		58,900		203,300

Matching Fund Reduction

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

Timelines

Continue plumbing retrofit program (6th phase)	11/01/2018
Project Complete	12/30/2019
Project Closeout and Final Reporting	04/01/2020

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	AWS-PRMRWAS Bachman Regional Pumping and Storage Facility
Project Number	N994
Cooperator	PRMRWSA
Department	
Contact Person	Mike Coates
Address	9415 Town Center Parkway
City Sate Zip	Lakewood Ranch, FL 34202
Phone #	941-316-1776
Email	mcoates@regionalwater.org

Project Type:

[X] Water Supply [ ] Water Quality [ ] Flood Protection [ ] Natural Systems

Strategic Initiatives:

[ ] Water Quality Maintenance and Improvement	[ ] Water Quality Monitoring
[X] 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:

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

Project Description/Benefit/Cost
Description:

The Bachman Regional Pumping and Storage facility is part of the Authority's Regional Integrated Loop Pipeline System providing a regional water transfer and delivery system for existing and future water sources within the Authority's service area. The Bachman Regional Pumping and Storage Facility will provide regional pumping, storage and chemical trim facilities supporting regional deliveries to Charlotte County and the City of North Port and support future regional supply to and from Sarasota and Manatee Counties as part of the southern loop to the Carlton Water Treatment facility. The project is proposed to include a 5 MG finished water storage tank and an initial 10 MGD in pumping capacity (with capability to expand), as well as chemical trim facilities for maintaining disinfectant residual. This project was included as part of the Phase 2B Regional Interconnect in the Authority's Integrated Regional Water Supply Plan 2015, and in the District's 2015 Regional Water Supply Plan (Southern Planning Region). It is being submitted as a stand-alone project in this application in the event the Phase 2B pipeline and this pump station are ultimately designed and constructed on different time schedules.

Benefit:

Development of the Regional Integrated Loop Pipeline System, which includes booster pumping, finished water storage and chemical trim facilities will promote regional resource management efforts and support water supply goals within the four county area including; maximizing use of alternative water sources such as seasonal surface water for public drinking water supply; improving rotational capacity and the ability to rest sources; providing reserve capacity for emergency transfers; limiting the development of groundwater in the Southern Water Use Caution Area (SWUCA); and optimizing financial investments in water supply infrastructure on a regional basis. The Bachman Regional Pumping and Storage Facility project is an important component in the southern portion of the Regional Loop to the Carlton Water Treatment Facility which will support Regional System reliability and transfer of supply to meet demands and resource management goals in the SWUCA. In addition to the benefits mentioned above, this project also will improve delivery and water system reliability to Charlotte County and the City of North Port. This Project is included in the Authority's *Integrated Regional Water Supply 2015*, the District's *2015 Regional Water Supply Plan (Southern Planning Region)*, as a component of the Phase 2C Regional Interconnect. It supports the SWUCA recovery strategy, and the Alternative Water Supplies, MFL Establishment and Recovery (in SWUCA) strategic initiatives laid out in the District's Strategic Plan.

Cost:

Total estimated cost for the Bachman Regional Pumping and Storage Facility is $12,000,000 Of that total, $750,000 is estimated for land acquisition and under current District policy is non-fundable. Remaining cost of $11,250,000 includes all design and construction costs for the pipeline. An associated section of the Regional Loop Pipeline (Phase 2B Interconnect) which would connect with this pumping station is being submitted as separate project for FY 2019 funding. The Authority is requesting 50% co-funding of eligible costs (equal to $5,625,000) in this application. Projected annual capital costs for construction of the facilities are identified in the funding section of the application as well as the attached Funding Letter.

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

The Authority is a wholesale supplier of potable water to our Customer Utilities of Charlotte, DeSoto, Manatee and Sarasota Counties and the City of North Port. These utilities are retail suppliers for their respective public water systems. The Authority cooperatively participates with Customer Utilities and the District in public awareness and education regarding water conservation including broadcast public service announcements, newspaper advertisements and inserts and public presentations. Authority Customers are leaders in water conservation showing aggregate gross per capita water use declining from 104 gpc/day in 2003 to 78 gpc/day in 2016 (based on the 2016 PS forms). Supporting this conservation ethic have been the Authority's Water Policy Summits with the Water Alliance in 2009, 2010, 2011, 2012, 2015 and 2016. The Water Alliance is a voluntary assembly of 13 local municipalities, including the Authority's Customers, dedicated to water conservation, and providing water customers/residents a cost effective, high-quality, reliable and environmentally sustainable drinking water supply. The Water Policy Summits have been well attended and focused on; water conservation/demand management; optimization of supply capacity, resource sharing and interconnecting supplies, and the value of high quality public water supply to the economic vitality of the region. In addition, the Authority's *Integrated Regional Water Supply Plan 2015* included recommendations for development of a predictive tool focused on quantifiable BMP's for the region to incorporate water conservation savings into future demand and supply planning; investigation of regional opportunities to reduce flushing in the consecutive potable system; and regional support for expansion and development of regional interconnections in the reclaimed system that will support more effective use of that resource.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			125,000	5,500,000	5,625,000
Peace River			125,000	6,250,000	6,375,000
Total			250,000	11,750,000	12,000,000

Matching Fund Reduction

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

Timelines

Bachman Regional Pumping & Storage

Milestone	Projected Date
Preliminary Design	09/30/2019
Third Party Review	11/30/2019
Land Acquisition	12/31/2019
Final Design & Permitting	01/31/2021
Bidding	04/30/2021
Construction	12/31/2022

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	Restoration - Tatum Sawgrass Restoration
Project Number	Q004
Cooperator	Conservation Foundation of the Gulf Coast
Department	
Contact Person	Debi Osborne
Address	400 Palmetto Avenue
City Sate Zip	Osprey, FL 34229
Phone #	941-918-2100
Email	debi@conservationfoundation.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 CFI request is to implement restoration activities for the Tatum Sawgrass system. This CFI request will build upon the existing efforts by both the Southwest Florida Water Management District (SWFWMD) and the Cooperator, Conservation Foundation of the Gulf Coast (CFGC), of the permanent protection and restoration of the Tatum Sawgrass system. Tatum Sawgrass is located in the upper portion of the Myakka River watershed within Manatee County. It was hydraulically altered (including separation from the main stem of the Myakka River) 40 to 50 years ago by dikes and drainage to promote agricultural uses. However, its historical extent is still generally intact on the landscape, representing one of the most significant former natural system and water resource signatures in the southern portion of the SWFWMD. Similar to other such features in the region, such as Celery Fields and Cow Pen Slough in Sarasota County, significant public and private investments in the acquisition of real property rights over the historical Tatum Sawgrass now presents the opportunity to consider the enhancement, if not restoration, of its natural system, flood protection and water quality values and functions.CFGC, as the Cooperator for this FY19 funding initiative, proposes to facilitate implementing the restoration of the Tatum Sawgrass system to enhance the natural resource, flood protection, and water quality benefits achievable through restoration. This restoration will be based on a multi-landowner basin-wide hydrological modeling study and design solution for which CFGC is now securing funding. It is anticipated that the modeling will begin in early 2018 and be completed by summer or early fall of 2018. The study will develop a baseline hydrology model of the entire Tatum Sawgrass system; evaluate restoration activities and determine the preferred restoration actions and costs for land and easement holders on three target properties: (1) the 1,243-acre Lettuce Lakes/Hollingsworth property protected with a U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) Wetlands Reserve Program easement, (2) the 1,143-acreTriangle Ranch protected with a conservation easement held by SWFWMD, and (3) the 543-acre Murphy Marsh property, for which CFGC has a binding legal agreement to purchase a conservation easement that allows for restoration of the Tatum Sawgrass marsh. NRCS is a strong supporter for the modeling effort and determining a multi-landowner solution that will benefit all properties. Lettuce Lakes is located in the northern portion of the historical Tatum Sawgrass and NRCS restoration modeling and evaluations revealed that implementing only on-site restoration actions would result in potential off-site impacts of increased water depths and/or duration. As a result, NRCS cannot implement restoration activities within their WRP easement alone and are partnering with CFGC to provide the match for this SWFWMD CFI application to restore the hydrology for multiple landowners within the core of the remaining Tatum Sawgrass system including the Clay Gully canal/diversion.Attachment 1: Location Map 1 (Regional Context) and Attachment 2: Location Map 2 (Close-Up of Target Properties) are provided for reference and indicate the location of Triangle Ranch, Murphy Marsh and Lettuce Lake properties within the context of the historical Tatum Sawgrass.

Benefit:

Restoration of the Tatum Sawgrass is anticipated to have measurable benefits including, individually or in combination: natural systems, flood protection and/or water quality. The modeling to be conducted in 2018 will determine the significant measurable benefits to human and wildlife populations that can be achieved through this CFI application. It is anticipated that the benefits of restoring the natural hydro-periods of the Myakka River wetlands, specifically the Tatum Sawgrass through its re-connection to the river, and modifications to the Clay Gully canal/diversion (which is part of this restoration proposal) will include: reducing flooding and improving water quality by promoting natural water storage; habitat enhancements through the removal of water retention dikes and allowing water dry-down promoting conditions that support annual seed-bearing plants and availability of prey species for wading birds, migratory birds and waterfowl; allowing the Florida Manatee to access foraging areas, and allowing the common snook to access waters infested with exotic invasive fish and predate them.

Cost:

The estimated cost for restoration is $900,000. CFGC and its partner NRCS will provide the $450,000 match for a 50% cost share through this CFI grant request for $450,000 from SWFWMD.

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

Conservation Foundation of the Gulf Coast does not administer any water conservation, water quality, or flood protection ordinances.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			450,000		450,000
Manasota			450,000		450,000
Total			900,000		900,000

Matching Fund Reduction

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

Timelines

Construction

Milestone	Projected Date
Commence Construction	12/01/2018
Construction Complete	04/30/2020

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name Reclaimed Water-Tropicana Industrial Reclaimed Water Construction Project
Project Number Q005
Cooperator Tropicana North America
Department
Contact Person Glenn Johnson
Address Tropicana, 1001 13th Ave East
City Sate Zip Bradenton, FL 34208
Phone # 941-742-2724
Email Glenn.Johnson@PepsiCo.com

Project Type:

[X] Water Supply [ ] Water Quality [ ] Flood Protection [ ] Natural Systems

Strategic Initiatives:

[ ] Water Quality Maintenance and Improvement
[ ] Water Quality Monitoring
[ ] Alternative Water Supply
[ ] Conservation
[X] 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 [X] Manatee [ ] Marion [ ] Pasco [ ] Pinellas [ ] Sarasota [ ] Sumter [ ] Polk

Project Description/Benefit/Cost

Description:

Design, construction, and commissioning of a reclaimed water system to treat and reuse on-site industrial wastewater that is currently deep well injected at the Tropicana beverage facility in Bradenton. Infrastructure will include two ultrafiltration systems and two 250 GPM each reverse osmosis treatment systems, disinfection components, numerous storage tanks, pumping stations, on-site piping, and other necessary appurtenances to supply reclaimed water for power generation, boiler feedwater, cooling water, and other process uses at the facility which require ultra-high quality water.

The project is ready to begin on or before October 1, 2018.

The strategic goal is to reduce Tropicana's use of potable water by 0.50+ mgd by reclaiming process wastewater and treating it (UF and RO) such that it can be used within the site's utility systems that require high purity (low conductivity) but non-potable water.

Benefit:

The project will supply 0.50 mgd of industrial, high purity reclaimed water in the MIA portion of the Southern Water Use Caution Area (SWUCA) thereby reducing Tropicana's potable water demand by a similar amount.

Cost:

Total project cost $4,800,000.
District Share: $2,350,000, with all requested in Funding Year 2019.
Tropicana Share: $2,450,000

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

Tropicana has pro-active environmental policies including reclaimed water expansion strategies which are intended to maximize utilization, water resource benefits, and environmental benefits. Tropicana has, for decades, used 85,000 gpd of City of Bradenton Reclaimed Water for non-potable applications at their facility. In Funding Year 2018 Tropicana fully funded on their own (no requested District funding) design and permitting for the requested Funding Year 2019 reclaimed water construction project.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding

Applicant Share	2,450,000	2,450,000
General Fund-District Wide	2,350,000	2,350,000
Total	4,800,000	4,800,000

Matching Fund Reduction

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

Timelines

Engineering

Milestone	Projected Date
Treatment Design	06/22/2018
Environmental Permits	06/22/2018
Process Structural Design	11/26/2018
Building Permit	01/21/2019

Fabrication

Milestone	Projected Date
Process/Structural	01/21/2019
Treatment System	04/01/2019

Funding Plan

Milestone	Projected Date
Scope/Cost Development	10/09/2017

Installation

Milestone	Projected Date
Structural	03/18/2019
Treatment System	05/27/2019
Process System	06/10/2019
Commissioning	07/08/2019
Punch List	07/22/2019
Close Out	07/22/2019

Procurement

Milestone	Projected Date
Treatment System	10/15/2018
Process/Structural	12/24/2018

Data Collection Assessment:

☒ Groundwater or Surface Water Level measurements

☒ Groundwater or Surface Water Quality measurements

☒ Aquifer Testing

☒ Other data collection: manufacturing water use, waste water discharge quantity and quality, water reuse treatment efficiency, ground water recharge flow rates, groundwater recharge quality.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	City of Bradenton Adopt a Catch Basin
Project Number	Q006
Cooperator	City of Bradenton
Department	Public Works
Contact Person	Kim Clayback
Address	1411 9th St W
City Sate Zip	Bradenton, FL 34205
Phone #	941-708-6300 ext224
Email	kim.clayback@cityofbradenton.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 west coast of Florida thrives on tourism at our beaches, spring baseball and the beauty of the Suncoast. The City completed its Watershed Management Plan in FY2017. Through this process, staff identified the need for a proactive program to improving water quality across the City. While only two waterbodies are identified as impaired by FDEP; Wares Creek for fecal coliform and Palma Sola Bay for fecal coliform, additional improvements are still needed. The first step in a Water Quality Improvement Program is Public Outreach and Education. The intent of the education and outreach is to provide the public the opportunity to become active in their neighborhoods, improve the environmental quality of the City they reside in, and foster stewardship of natural resources by providing constructive and meaningful activities for residents. The City has approximately 11,000 inlets and catch basins; the Adopt a Catch Basin outreach program will bring awareness to how important waterways are to life here on the Suncoast and give individuals, families and friends an opportunity to adopt a catch basin. The City will develop and maintain a website for residents to logon, search for catch basins in their neighborhood, register to “adopt” a catch basin, name the catch basin, and provide feedback to Public Works on maintenance needs.

Outreach efforts for adopt a catch basin will include:

• Elementary school presentations

• Name A Catch Basin Contests

• Annual awards for innovation

• Coordination with community partners

• Participation in “clean up” days

• Stenciling on catch basin lids

Benefit:

Having a clean environment is of primary importance for our health and economy. Clean waterways provide recreation, commercial opportunities, fish habitat, and add beauty to our landscape. All of us benefit from clean water - and all of us have a role in getting and keeping our waterways clean.

Nutrient removal is critical to improving the waterways in and around the City of Bradenton. Using land use categories, soil coefficients, annual rainfall data, and published EMC values for the Tampa Bay region, the City of Bradenton contributes approximately the following pollutant loads to the adjacent waterbodies:

• 11 lb/ac/yr of total nitrogen; 52,000 lb/yr from residential land use

• 1.5 lb/ac/yr of total phosphorus; 6500 lb/yr from residential land use

• 363 lb/ac/yr of total suspended solids; 1,277,000 lb/yr from residential land use

• 47 lb/ac/yr of biological oxygen demand; 242,400 lb/yr from residential land use

Using a study from Sarasota County, if 10% of residents are engaged in the program and take action, the pollutant loads could potentially be reduced by 5 – 10% annually. In TN alone the program may yield a decrease of 2600 – 5200 lb/yr.

Cost:

The total cost of this project will be $30,000 over two years, FY2019 and FY2020. The costs will be distributed evenly over the two year period.

Task Description Estimate ($)

Data Collection and Record Keeping 5,000

Printed Material 15,000

Miscellaneous Outreach Expenses 10,000

Total 30,000

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

The City of Bradenton has developed and implemented a Water Demand Management Plan (WDMP) to manage and protect the City's water supply in a way that ensures a safe and adequate supply of water for the citizens of Bradenton. The WDMP is driven by triggering mechanisms developed to initiate specific conservation measures. These conservation measures and District water shortage orders are enforceable pursuant to City Ordinance #2650. The City initially adopted inclining block rates for potable water in 1982. The average potable water use in Bradenton during 2016 was 88 gallons per person per day. City Ordinance #2679 is for reclaimed water use with provisions for user charges.

City Resolution #00-58 provides for adoption of a Floodplain Management Plan developed to comply with the National Flood Insurance Program (NFIP). Currently the City maintains a class 7 status as prescribed by the Community Rating System (CRS) of the NFIP. This favorable rating provides for a 15% reduction in flood insurance premium for City residents. City Land Use Development Regulations (Ordinance #2627) Section 400(c) provides for minimum requirements to be maintained in areas specified as special flood hazard areas. All new and retrofitted projects within the City are subject to the water quality standards as prescribed by 40D-4, 40D-40, and 40D-400, F.A.C.

The City continues to operate a stormwater utility (enacted in 1996) which funds primarily maintenance activities. Several activities directly impact water quality and are monitored in some cases weekly, continually updated for improved compliance and reported annually to FDEP. Activities include catch basin and storm pipe cleanout using a flush truck, operating two street sweepers, weekly inspection of storm structures, annual training for Public Works personnel, and partnering with Keep Manatee Beautiful. In addition, the City completed a Watershed Management Plan during FY2017 which identified and prioritized capital improvement projects.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			7,500	7,500	15,000
Manasota			7,500	7,500	15,000
Total			15,000	15,000	30,000

Matching Fund Reduction

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

Timelines

10/1/18 - 9/30/20

Milestone	Projected Date
Miscellaneous Outreach Expenses	09/30/2020
Data Collection and Record Keeping	09/30/2020
Rollout and Printed Materials	09/30/2020

Data Collection Assessment:

[X] Mapping/GIS data

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SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	Study - Upper Myakka Lake Water Control Structure and Restoration Options
Project Number	Q008
Cooperator	Florida Department of Environmental Protection
Department	Rec And Parks
Contact Person	James Oliver
Address	1843 South Tamiami Trail
City Sate Zip	Osprey, FL 34229
Phone #	941-882-7206
Email	james.oliver@dep.state.fl.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:

This FY19 application seeks to cooperatively fund a study of the feasibility of removing or modifying two existing water control structures (WCS) on the southern rim of the Upper Myakka Lake (UML). The study would include historic research of flows and levels, bathymetry, survey, ICPR and pollutant load modeling, alternatives analysis, and a cost and benefits analysis based on the District's metrics, resulting in recommendations to restore the hydrology, improve water quality and natural communities. A feasibility study is needed to investigate these WCS on the UML in Myakka River State Park (MRSP) with an objective to restore natural systems and improve water quality in the Myakka River before the water enters Charlotte Harbor, a SWIM priority water body. The UML and river segment below are on the 303(d) list as impaired for multiple parameters. These and other water quality impairments are discussed in supplemental documents.

The focus of the proposed project is the large floodplain lake with the surrounding marsh and the downstream floodplain marsh, known as Big Flats. This large project area within the Myakka River Watershed is a central ecological feature of MRSP and acts as holding basin much of the year. The WMD's 2000 SWIM Plan and 2005 MFL note an "increasing trend" in the water level "beginning in the late 1970s" in the dry season (Block 1). Reduction in dry season levels is needed as a first step in restoring 600 acres of wetlands closely hydrologically connected to the project area and potential benefiting further downstream habitats. The implementation of this project would aid ongoing multi-agency aquatic weed control programs, aquatic habitat restoration efforts and FPS fire program. A more natural hydroperiod would aid the return to a normal fire interval and a reduction in invasive grass bio-mass leading to healthier marshes and increased treatment capacities. These objectives would make progress towards water quality improvements in Charlotte Harbor, a recognized Southern Region Priority for the WMD and are consistent with the "Conservation and Restoration Goal Statement: Maintain and identify critical environmentally sensitive ecosystems and implement plans to protect and restore those systems" which recommends promoting "innovative restoration projects and partnerships" (SWFWMD SP 2016).

The Myakka River within Sarasota County is an Outstanding Florida Waterway and was designed by the Florida Legislature, in 1985, as a Wild and Scenic River. The 1990 adopted Myakka Wild and Scenic River Management Plan specifically identifies these water control structures on UML for study and potential restoration. As a part of the District's Myakka River Watershed Initiative (MRWI) modeling of the river was completed recently and options to modify the UML weir to replicate a more historic hydrology were examined. [MRWI product HO48 Final Restoration BMP Report (Singhofen, 2013).] This project could be an expanded effort based on the MRWI initiative that considers the recent hydrologic impacts to the by-pass area and benefits for water quality and natural systems that could result from reducing dry season levels to a more pre-alteration condition.

Benefit:

A feasibility study of potential options at the UML should consider modification or removal of water control structures, removing accumulated sediments, and shoreline restoration. The restoration benefits of these factors are numerous. Returning the system to a more natural hydrological regime (pre-1939) by reduction in dry season inundation would provide positive benefits for invasive aquatic plant control, improve adjacent marsh habitat, and transition ecotones towards the upland edge. The timing and distribution of freshwater would move closer to the historic natural pattern, affecting the river and adjacent natural communities southward to Charlotte Harbor. Spring dry period conditions should improve marshes associated with UML which would benefit from the increased opportunity for ecological/prescribed fire events, reduction in vegetative mass in the floodplain, and over time, and a return to a sandier bottom may be possible through reduction in muck accumulation from decaying aquatic plants. Structural removal options may include removing a physical barrier to the Florida Manatee. The study should calculate the potential measurable benefits for natural systems and water quality. The parameters that may be considered include nutrient reduction (TSS, TN, and TP), yards of sediment removed, and acres of natural habitat improved.

Cost:

Total project cost: $120,000 for a feasibility study. Additional funding request and potential partnerships with FWC AHRE will be considered for any design, permit, or construction elements that are pursued based on recommendations in the final feasibility study.

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

The FDEP and the FPS have extensive programs related to water monitoring and water quality; as well as, decades of experience in providing public education on conservation and restoration. This is done through speaking engagements, websites, brochures, programs, and often with staff led interpretive events. The FPS mission is to “provide resource-based recreation while preserving, interpreting, and restoring natural and cultural resources” and with 25 million visitors annually we have many opportunities. “The FPS manages its properties to provide for outdoor activities in such a manner as to ensure that the natural resources within the parks are preserved and protected. Properties are also managed to restore disturbed natural systems. Management techniques may include prescribed burning, reestablishment of natural hydro-cycles, removal of exotic species, reforestation, re-introduction of native species, erosion control, and species protection and management. Management of these resources also includes environmental education about their preservation through visitor centers, exhibits, interpretative programs…” (from FPS OM 2016). The FPS manages 174 parks with over 790,850 acres in conservation. Numerous restoration projects are planned or in progress. Regionally, District 4 Administration has 35 parks with 234,914 acres of which annually ~ 30,000 acres will be targeted for prescribed fire and about 9,000 acres of exotic plants are targeted for removal. Myakka River State Park (MRSP) is 37,199 acres. As one of the earliest parks in the state system it is considered an ecological gem. The Southern Black Water Stream is the core of the park has long been an important core wildlife corridor for the region. The floodplain marsh within MRSP is critical habitat of resident and migratory birds. MRSP has made many efforts toward improving the river and floodplain area including the construction of the UML weir by-pass in 1974. This year, a culvert replacement project was conducted along park drive which physically impedes the floodplain when culverts decline in function. This project is near completion with an estimated cost of $140,000. The Park has long been involved in habitat restoration with exotic and fire management programs. This year, 121 acres of exotic plants will be treated and 12,441 acres are planned for the prescribed fire program. The Florida Legislature designated by statute the Myakka River as wild and scenic stating that the river “possesses outstandingly remarkable ecological, fish and wildlife, and recreational values which are unique in the State of Florida. These values … should be permanently preserved and enhanced for the citizens of the State of Florida, both present and future”. Since then FDEP and FPS staff have created rules (62D-15), a Myakka Wild and Scenic River (MWSR) Management Plan, and worked in conjunction with the statutorily created advisory council toward preserving and enhancing the natural resource values in the river area. One of earliest identified priorities has been the study of water control structures for restoration. The MWSR Program routinely writes grants for restoration projects, monitor wildlife, and report potential water quality or other violations that may impact natural resource values. The Florida’s Park Service has been working “to provide recreational activities for the community, while preserving, protecting, interpreting and restoring natural resources in the area.” The Florida Park Service has won the prestigious National Gold Medal Award for Excellence in the management of state park system, three times. (See attachment Expanded Complementary Efforts.)

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			60,000		60,000
Manasota			60,000		60,000
Total			120,000		120,000

Matching Fund Reduction

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

Timelines

September 2019

Milestone	Projected Date
FY19 Feasibility Study	09/30/2019

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	WMP - Stormwater Utility Fee Rate Structure & Methodology
Project Number	Q009
Cooperator	Sarasota County
Department	Environmental Services
Contact Person	Susan Gray
Address	1001 Sarasota Ctr. Blvd.
City Sate Zip	Sarasota, FL 34240
Phone #	941-861-0900
Email	sgray@scgov.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 current Sarasota County Stormwater Environmental Utility non-ad valorem assessment rate structure includes three components: 1. customer service, 2. operations and planning, and 3. maintenance. Only part of the County is assessed the maintenance component. The assessment structure and methodology has not changes since it was implemented in 1994. With redevelopment increasing impervious area in urbanized areas and new development outside of the area assessed for maintenance, there is a need to review the rate structure and the methodology. In addition, the project will evaluate the credit system and verify credits for privately maintained systems are accurate and evaluate the option of adding an assessment component for infrastructure improvements to existing public stormwater management systems due to increase impervious area from redevelopment.

Benefit:

1. Adjust assessments based on increases in impervious areas in urbanized areas to address the impacts of increased runoff volumes on existing stormwater management systems.

2. Address the transition of areas from non-maintained (no assessment for maintenance) to maintained areas assessed for maintenance due to new developments in the non-maintained areas.

Cost:

Total project cost is $200,000 split 50% between SWFWMD and County.

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

Sarasota County has extensive experience in providing public education on conservation through websites, exhibits, workshops, speaking engagements, brochures and incentive programs. Sarasota County has a Class 5 FEMA Community Rating System rating. The County received the James Lee Witt Local Award for Excellence by the State Floodplain Managers Association and FEMA in 2002. As a Community Technical Partner with FEMA, the County has entered into a 3-way Mapping Agreement Statement with FEMA and SWFWMD for the conversion of the county's digital floodplain maps and studies to Digital-Flood

Insurance Rate Maps (D-FIRMs). The County received the Florida Stormwater Association's 2008 Excellence Award for having the best Stormwater Utility Program in Florida. This prestigious award concentrates on four major areas: Flood Protection, Water Quality, Operations & Maintenance, and the Capital Improvement Program. A Land Development Ordinance to further the objectives of floodplain management requires all new development have stormwater management systems and finished floor elevations designed at or above the 100 year flood elevation. Developments are required to demonstrate that they will not result in adverse increases in off-site flood stages within the appropriate county watershed model.

The Water-Efficient Landscape Ordinance won a statewide award for innovation. Irrigation restrictions that allow for once-a-week irrigation are enforced by code enforcement officers. Reduction of potable water use is encouraged with our rain barrel harvesting program. By Ordinance developers are required to install reuse lines throughout new development if a reuse system exists within one hundred and fifty feet of any property line of a subdivision, single or multi-family residence or any non-residential lot or use.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			100,000		100,000
Manasota			100,000		100,000
Total			200,000		200,000

Matching Fund Reduction

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

Timelines

March 1, 2019

Milestone	Projected Date
Draft Plan	08/31/2019

November 1, 2018

Milestone	Projected Date
Consultant Selection	03/01/2019

October 1, 2018

Milestone	Projected Date
Execute Agreement	01/01/2019

September 1, 2019

Milestone	Projected Date
Final Plan	10/31/2019

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	WMP - Spring Lake Stormwater Study
Project Number	Q015
Cooperator	DeSoto County
Department	Utilities Department
Contact Person	Michael Giardullo
Address	201 E. Oak Street, Suite 204
City Sate Zip	Arcadia, FL 34266
Phone #	941-916-8073
Email	m.giardullo@desotobocc.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 proposed project is for a feasibility study for a residential area of DeSoto County between Spring Lake and Deep Creek that experiences severe roadway and private property flooding. The project looks at localized basins within the Deep Creek Gully Watershed. The primary area of concern is located in DeSoto County; however, the Deep Creek Gully Watershed extends into DeSoto County, Charlotte County, and Sarasota County. The areas of concern share a common outfall ditch that begins west of Kings Highway in Spring Lake and extends 2.5 miles to the east where it discharges into Deep Creek. In one situation, the flooding was so severe that Cedar Avenue was impassable, thus not allowing emergency response vehicles access to the residents. SW Glenadine Avenue has a history of flooding as well. The flooding has been so severe that local streets and residential septic systems were flooded making them unusable and creating a public safety concern. Through the use of SWFWMD ICPR modeling data, GIS files, historic survey data, new project specific survey data, updated stormwater modeling, and coordination with SWFWMD; a feasibility report will be created to offer DeSoto County options to reduce flooding in this residential area. Additional project information, including a site location map and site photographs, has been attached within this submittal.

Benefit:

This feasibility study will assess the neighborhood outfall ditch and existing stormwater infrastructure within the project area. Once the study is completed, DeSoto County can move forward with upsizing culverts, widening channels, or any other appropriate measures to alleviate flooding from the neighboring community. Because of the existing public safety concern, steps taken to eliminate flooding will be a great benefit to the residents.

Cost:

Due to the urgent nature of this public safety concern, DeSoto County is requesting out of cycle funding. The cost of the project was evaluated for surveying and engineering. An estimate of 14 weeks of work at $150/hr would be $84,000 for engineering services. A 2 person survey crew and Professional Land Surveyor and Mapper for 6-8 weeks worth of time would add approximately $48,000 to the project cost. Based on these values, the total project cost would be $132,000. This project would be a single-year project. DeSoto County qualifies for a 25% reduction in matching funding requirements under the REDI provisions. The Districts funding

share of the $132,000 total project cost would be $99,000 with DeSoto County's financial responsibility being $33,000. The Milestones list the project beginning in January 2018 and finalizing in July 2018; however, this timeline is approximate based on funding available from the District. Desoto County is prepared to fast track this project and complete it as soon as that funding has been received. Please find attached a Funding Letter from Desoto County.

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

Desoto County has current provisions within the Land Development Regulations to protect against flooding concerns and maintaining water quality. This project will provide a feasibility study to alleviate the flooding in an existing residential area, but will also show that no adverse affects from the recommended changes will occur. Desoto County strives to maintain stormwater in a conscious manner that protects the residents and the environment.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			33,000		33,000
Peace River			99,000		99,000
Total			132,000		132,000

Matching Fund Reduction

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

Timelines

Notice to Proceed	01/02/2018
Feasibility Report	07/31/2018

Data Collection Assessment:

[X] Land Survey [X] LIDAR/Elevation data

[X] Mapping/GIS data

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	WMP - Little Sarasota Bay Watershed Management Plan Update
Project Number	Q016
Cooperator	Sarasota County
Department	Environmental Services
Contact Person	Susan Gray
Address	1001 Sarasota Ctr. Blvd.
City Sate Zip	Sarasota, FL 34240
Phone #	941-861-0900
Email	sgray@scgov.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 develop a holistic BMP Alternatives Analysis for the Little Sarasota Bay Watershed Management Plan that will integrate flood protection, natural systems, and water quality benefits within a watershed framework.

In the 1990's and early 2000's, Basin Master Plans were developed for the 26 basins in Sarasota County to evaluate the extent at which riverine storm events created flood protection levels of service (FPLOS) deficiencies. All projects that met the County's cost effective analysis were constructed and paid for through basin assessments. SWFWMD and the County through project N729 updated the County's ICPR model to 2007 LIDAR and added new development. This project will use the more accurate ICPR model to analyze basins for riverine FPLOS deficiencies and identify BMP alternatives for cost effective flood control projects.

SWFWMD and the County jointly developed the Little Sarasota Bay Water Quality Management Plan (W621) which included a detailed watershed analysis resulting in project concepts to improve the health of Sarasota Bay. This project will analyze all basins that drain to Little Sarasota Bay. The jointly developed Roberts Bay North Water Quality Management Plan (L610) also contained analysis for the Matheny Basin that drains to Little Sarasota Bay. The County has determined 6 of the 23 projects from the Plans may be feasible; however, additional evaluation and coordination is needed to fully develop the projects. This project will perform a surface water resource assessment to identify new hot spots using recent water quality and environmental resource data; the jointly developed SIMPLE pollutant load model W552; current regulatory standards; and management targets. This project will identify BMP alternatives for cost effective water quality improvements and the existing 6 feasible watershed plan projects will be incorporated.

The holistic analysis of BMP alternatives will have a cost/benefit matrix and include data from recent canal, pond, and coastal flooding studies as well as mitigation recommendations identified in the County's recent Repetitive Loss Area Analysis. Future condition hydrology scenarios will be estimated using "intermediate-high" projection for 2100, as included in the report Global Sea Level Rise Scenarios for the United States National Climate Assessment (National Oceanic and Atmospheric Administration, 2012) as a CRS Program requirement.

An interactive GIS map will be developed and included on the Water Atlas. The County will submit future SWFWMD CFI applications to implement the recommended projects. Collaboration with SBEP, municipalities and stakeholders will occur throughout the project.

Benefit:

1. Holistic management plan incorporating flood practitioner, water quality and natural systems improvements throughout the watershed.
2. Maximize resources by creating a prioritized BMP Alternatives Analysis with a cost/benefit matrix.

Cost:

Total project cost is $600,000 with $400,000 in FY19 and $200,000 in FY20 split 50% between SWFWMD and County.

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

Sarasota County has extensive experience in providing public education on conservation through websites, exhibits, workshops, speaking engagements, brochures and incentive programs. Sarasota County has a Class 5 FEMA Community Rating System rating. The County received the James Lee Witt Local Award for Excellence by the State Floodplain Managers Association and FEMA in 2002. As a Community Technical Partner with FEMA, the County has entered into a 3-way Mapping Agreement Statement with FEMA and SWFWMD for the conversion of the county's digital floodplain maps and studies to Digital-Flood Insurance Rate Maps (D-FIRMs). The County received the Florida Stormwater Association's 2008 Excellence Award for having the best Stormwater Utility Program in Florida. This prestigious award concentrates on four major areas: Flood Protection, Water Quality, Operations & Maintenance, and the Capital Improvement Program. A Land Development Ordinance to further the objectives of floodplain management requires all new development have stormwater management systems and finished floor elevations designed at or above the 100 year flood elevation. Developments are required to demonstrate that they will not result in adverse increases in off-site flood stages within the appropriate county watershed model.

The Water-Efficient Landscape Ordinance won a statewide award for innovation. Irrigation restrictions that allow for once-a-week irrigation are enforced by code enforcement officers. Reduction of potable water use is encouraged with our rain barrel harvesting program. By Ordinance developers are required to install reuse lines throughout new development if a reuse system exists within one hundred and fifty feet of any property line of a subdivision, single or multi-family residence or any non-residential lot or use.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			200,000	100,000	300,000
Manasota			200,000	100,000	300,000
Total			400,000	200,000	600,000

Matching Fund Reduction

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

Timelines

August 1, 2020

Milestone	Projected Date
Final Plan	10/31/2020

February 1, 2019

Milestone	Projected Date
Consultant Selection	06/01/2019

July 1, 2019

Milestone	Projected Date
Draft Plan	07/01/2020

October 1, 2018

Milestone	Projected Date
Execute Agreement	01/01/2019

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	Conservation-Braden River Utilities Soil Moisture Sensor Rebate Program Phase 2
Project Number	Q020
Cooperator	Braden River Utilities
Department	Progessive Water Resources Llc
Contact Person	Stephen Suau
Address	6561 Palmer Park Circle, St. D
City Sate Zip	Sarasota, FL 34238
Phone #	941-552-5657
Email	ssuau@prowatersource.com

Project Type:

[X] Water Supply [ ] Water Quality [ ] Flood Protection [ ] Natural Systems

Strategic Initiatives:

[ ] Water Quality Maintenance and Improvement
[ ] Water Quality Monitoring
[ ] Alternative Water Supply
[X] 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 [X] Manatee [ ] Marion [ ] Pasco [ ] Pinellas [X] Sarasota [ ] Sumter [ ] Polk

Project Description/Benefit/Cost

Description:

Bradenton River Utilities (BRU) is the private irrigation provider for the Lakewood Ranch Development and provides non-potable landscape irrigation to ultimate service area of +47 square miles including several Community Development Districts in Lakewood Ranch as well as the Lakewood Ranch Stewardship District. Source water for the BRU irrigation system currently consists of a diverse set of resources including ground water, surface water, and reclaimed water. Over the years, BRU and Lakewood Ranch Development have continually endeavored to provide responsible development and water management. Due to interest from existing BRU customers (and a current sign up list of 506), BRU wishes to implement a soil moisture sensor (SMS) rebate program with the Southwest Florida Water Management District (SWFWMD) for residential landscapes. Based upon previous research from UF and BRU's experience, soil moisture sensors are conservatively expected to reduce normal irrigation water use by 25%. In addition, BRU proposes to implement a SMS promotion/education program and install meters to estimate water use reductions. Therefore, BRU is requesting that SWFWMD provide cooperative funding in the form a rebate program to cover 50% of the cost for up to 600 soil moisture sensors, the SMS promotional/education program and 20 meters.

Benefit:

Based upon previous research from UF and BRU's experience, soil moisture sensors (SMS) are conservatively expected to reduce normal irrigation water use by 25%. In particular, BRU conducted a site specific, 2-year monitoring program for residential lots with and without SMSs and found that the lots with SMSs used between 34% and 39% less water than those without. Using an average lot size with an irrigated area of 0.193 acres in Lakewood Ranch, AGMOD would indicate and average annual water use of 147,265 gallons. If soil moisture sensors were to be installed in 600 lots, a 25% would yield an average annual reduction of approximately 22 million gallons.

Cost:

The cost of the proposed SMS rebate program is $308,000 which is based upon the following breakdown: · 600 soil moisture sensors @ $495/each = $297,000 · Community outreach and awareness = $5,000 (budget) · 20 water meters @ $300/each = $6,000

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

Lakewood Ranch became one of the first communities to adopt Florida Green Building Coalition standards which include several water management and water conservation strategies, such as Floirda Friendly landscaping and irrigation system efficiency as well as potable water indoor water conservation devices and appliances. BRU is the associated private irrigation utility for Lakewood

Ranch and also provides water conservation educational materials to its customers. BRU is not charged with developing, implementing or enforcing flood protection ordinances.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			154,000		154,000
Manasota			154,000		154,000
Total			308,000		308,000

Matching Fund Reduction

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

Timelines

January 1, 2021

Milestone	Projected Date
Completre and submit 1 year of meter readings to District	01/01/2021

October 1, 2018

Milestone	Projected Date
Complete solicitation of committed program participants	10/01/2018

October 1, 2019

Milestone	Projected Date
Complete program (installation of 600 soil moisture sensors)	10/01/2019

Data Collection Assessment:

☒ Other data collection: It is anticiapted that the project may collect water meter data

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	Reclaimed Water- North Port Reclaim Water Transmission Main - Phase 4
Project Number	Q030
Cooperator	City of North Port - Public Utilities
Department	
Contact Person	Michelle Tipp
Address	6644 W Price Blvd
City Sate Zip	North Port, FL 34291
Phone #	941-240-8007 ext8007
Email	mtipp@cityofnorthport.com

Project Type:

[X] Water Supply [ ] Water Quality [ ] Flood Protection [ ] Natural Systems

Strategic Initiatives:

[ ] Water Quality Maintenance and Improvement	[ ] Water Quality Monitoring
[X] Alternative Water Supply	[ ] Conservation
[X] 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:

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

Project Description/Benefit/Cost
Description:

This request is for the completion of Phase 4 of the City's 2008 Reuse Master Plan. The FY19 portion of Phase 4 is construction of approximately 5,700 linear feet of 12-inch diameter and 1,300 linear feet of 18-inch diameter reuse water main, valves, fittings and

appurtenances for reclaim transmission to extend parallel transmission lines along Sumter Blvd from the intersection of West Price Blvd. and Sumter Blvd. to City Center Blvd. This project also consists of construction of a tank and booster pump station at the City Center to improve the operation of the system and enable the connection of future customers to the east of Sumter. A reuse water line needs to be extended along Sumter Blvd. to the proposed City Center Tank. Additionally, a reuse water line needs to be constructed from the City Center Tank to West Price Blvd. In 2007 the City and SWFWMD entered into an agreement to fund the City of North Port Reuse Master Plan, Project L629. The City adopted the 2008 Reuse Master Plan, which set forth a program of capital improvements designed to expand and improve the reliability of the reclaimed water transmission system. The City is now in the process of designing a reuse tank and transmission lines for phase 4. This FY2019 request is for the development of a hydraulic model, extension of the transmission lines along Sumter Blvd and construction of a reuse tank.

Benefit:

The primary goal of a reuse water transmission system is to provide an adequate capacity of reuse water at the desired pressure for customer usage, which can meet future hourly and peak demands. Currently, the City's reuse water transmission system can be characterized as a "tree system type", rather than the more reliable "loop" or "grid" system. The phases of reclaimed transmissions that the City has been working on are necessary to make the system more of a looping system. Using reclaimed water creates a new water source for non—potable uses, it helps to meet water conservation goals, and has economic advantages. Having a reuse system is helpful to the environment as a whole to reduce the depletion of the region's water source and keeps water from being discharged into the deep injection well. This project will enable us to re-pump reuse water from the City Center tank to the Northeast Wastewater Treatment Facility that will be constructed in the near future and serve future customers.. The projected water reuse demands for the area of North East WWTF total 5.90 MGD.

Cost:

The total estimated cost of this project is $3,500,000, with $1,750,000 requested for construction of the reuse lines and the reuse tank in FY19.

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

The City of North Port has one of the lowest per-capita water use rates in the region. This can be attributed to an extensive conservation program which includes a tiered rate structure, reuse water program, irrigation enforcement, floodplain management both locally and regionally; and, a comprehensive public education and outreach program that promotes water conservation, protection of City and regional resources, and encourages public participation in flood control efforts. The City's outreach program is a year round effort to involve, inform and inspire all ages to conserve and protect water in their daily activities. The program offers education for all ages through participation at school and community events locally and regionally as well as hosting its own workshops, contests – including a "rain barrel" contest, and annual environmental fair. These efforts are complimented by print and web based literature including the City's award winning web site and its annual Consumer Confidence Report, which provide practical, useful information on water conservation and protection. The City's public education and outreach efforts earned the City the internationally recognized 2014 "WateReuse Public Education Program of the Year" award from the WateReuse organization out of Alexandria, Virginia. The City continues acquisition of land as a protective conservation buffer for the Class I waters of the Myakkahatchee Creek, a potable water and recreational resource. This initiative also helps reduce damage from flooding events. The City's water conservation efforts and other sustainable development activities earned North Port the Florida Green Building Coalition's "Silver" level local government certification in 2016. In accordance with the City's 2008 Reuse Master Plan, the City continues planned expansion of the system to offset potable water use. In addition, the City's Unified Land Development Code (ULDC) includes the following requirement for new developments: "A reuse water system shall be provided in all new subdivisions, and connection shall be required with the City's reuse water system where the City system is within 1/4 mile from a point on the perimeter of the subdivision closest to the source of service and measured along an accessible right-of-way or easement. The order of supply sources of water for irrigation purposes shall be reuse water, storm water then well water." Owing to the City's extensive efforts in stormwater system management, maintenance, information dissemination and outreach efforts, the May 2011 Community Rating System (CRS) audit resulted in North Port receiving an improved CRS rating from 7 to 6. The City is an active participant in the Federal Emergency Agency (FEMA) and SWFWMD's Flood Insurance Rate Map (FIRM) revision activity. The City has adopted new FIRMs which are effective November 4,2016. The City requires that all applicable Federal and State permits be approved prior to the start of construction.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share		120,000	1,630,000		1,750,000
Manasota			1,750,000		1,750,000
Total		120,000	3,380,000		3,500,000

Matching Fund Reduction

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

Timelines

Construction

Milestone	Projected Date
Bid Construction	09/01/2018
Select Contractor	12/01/2018
Begin Construction	02/01/2019
Complete Construction	02/28/2020

Data Collection Assessment:

☒ Mapping/GIS data

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name WMP - Dona Bay Watershed Management Plan BMP Analysis
Project Number Q031
Cooperator Sarasota County
Department Environmental Services
Contact Person Susan Gray
Address 1001 Sarasota Ctr. Blvd.
City Sate Zip Sarasota, FL 34240
Phone # 941-861-0900
Email sgray@scgov.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 develop a holistic BMP Alternatives Analysis for the Dona Bay Watershed Management Plan that will integrate flood protection, natural systems, and water quality benefits within a watershed framework.

In the 1990's and early 2000's, Basin Master Plans were developed for the 26 basins in Sarasota County to evaluate the extent at which riverine storm events created flood protection levels of service (FPLOS) deficiencies. All projects that met the County's cost effective analysis were constructed and paid for through basin assessments. The County independently updated the County's ICPR model to 2007 LIDAR and added new development. This project will use the more accurate ICPR model to analyze basins for riverine FPLOS deficiencies and identify BMP alternatives for cost effective flood control projects. The County and District partnered on L019 for water quantity modeling.

SWFWMD and the County jointly developed the Dona Bay Water Quality Management Plan (L493) which included a detailed watershed analysis resulting in 9 recommended restoration elements. The County has successfully worked with partners, including SWFWMD, CHNEP and FDEP, to implement 5 of the 6 feasible elements. Approximately $12,000,000 was spent to construct improvements that reduced freshwater entering Dona Bay. The project created approximately 1,000 acres of watershed attenuation, wet detention and wetland enhancement and reduced 18,251 lbs/yr TN. Through N786 in FY18, an additional $8,000,000 will add a water storage facility and remove 7,500 lb/yr TN and 674 lbs/yr TP. This project will perform a surface water resource assessment to identify hot spots using recent water quality and environmental resource data; the jointly developed SIMPLE pollutant load model W552; current regulatory standards; and management targets. This project will identify BMP alternatives for cost effective water quality improvements.

The holistic analysis of BMP alternatives will have a cost/benefit matrix and include data from recent canal, pond, and coastal flooding studies as well as mitigation recommendations identified in the County's recent Repetitive Loss Area Analysis. Future condition hydrology scenarios will be estimated using "intermediate-high" projection for 2100, as included in the report Global Sea Level Rise Scenarios for the United States National Climate Assessment (National Oceanic and Atmospheric Administration, 2012) as a CRS Program requirement

An interactive GIS map will be developed and included on the Water Atlas. The County will submit future SWFWMD CFI applications to implement the recommended projects. Collaboration with CHNEP, municipalities and stakeholders will occur throughout the project.

Benefit:

1. Holistic management plan incorporating flood protection, water quality and natural systems improvements throughout the watershed.
2. Maximize resources by creating a prioritized BMP Alternatives Analysis with a cost/benefit matrix.

Cost:

Total project cost is $600,000 with $400,000 in FY19 and $200,000 in FY20 split 50% between SWFWMD and County.

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

Sarasota County has extensive experience in providing public education on conservation through websites, exhibits, workshops, speaking engagements, brochures and incentive programs. Sarasota County has a Class 5 FEMA Community Rating System rating. The County received the James Lee Witt Local Award for Excellence by the State Floodplain Managers Association and FEMA in 2002. As a Community Technical Partner with FEMA, the County has entered into a 3-way Mapping Agreement Statement with FEMA and SWFWMD for the conversion of the county's digital floodplain maps and studies to Digital-Flood Insurance Rate Maps (D-FIRMs). The County received the Florida Stormwater Association's 2008 Excellence Award for having the best Stormwater Utility Program in Florida. This prestigious award concentrates on four major areas: Flood Protection, Water Quality, Operations & Maintenance, and the Capital Improvement Program. A Land Development Ordinance to further the objectives of floodplain management requires all new development have stormwater management systems and finished floor elevations designed at or above the 100 year flood elevation. Developments are required to demonstrate that they will not result in adverse increases in off-site flood stages within the appropriate county watershed model.

The Water-Efficient Landscape Ordinance won a statewide award for innovation. Irrigation restrictions that allow for once-a-week irrigation are enforced by code enforcement officers. Reduction of potable water use is encouraged with our rain barrel harvesting program. By Ordinance developers are required to install reuse lines throughout new development if a reuse system exists within one hundred and fifty feet of any property line of a subdivision, single or multi-family residence or any non-residential lot or use.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			200,000	100,000	300,000
Manasota			200,000	100,000	300,000
Total			400,000	200,000	600,000

Matching Fund Reduction

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

Timelines

August 1, 2020

Milestone	Projected Date
Final Plan	10/31/2020

February 1, 2019

Milestone	Projected Date
Consultant Selection	06/01/2019

July 1, 2019

Milestone	Projected Date
Draft Plan	07/01/2020

October 1, 2018

Milestone	Projected Date
Execute Agreement	01/01/2019

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	AWS Interconnect- PRMRWSA Regional Integrated Loop System Phase 2B
Project Number	Q032
Cooperator	PRMRWSA
Department	
Contact Person	Mike Coates
Address	9415 Town Center Parkway
City Sate Zip	Lakewood Ranch, FL 34202
Phone #	941-316-1776
Email	mcoates@regionalwater.org

Project Type:

[X] Water Supply [ ] Water Quality [ ] Flood Protection [ ] Natural Systems

Strategic Initiatives:

[ ] Water Quality Maintenance and Improvement	[ ] Water Quality Monitoring
[X] 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:

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

Project Description/Benefit/Cost
Description:

The Regional Phase 2B Interconnect project [Serris Blvd to Myakkahatchee Creek WTP] is part of the Authority's Regional Integrated Loop Pipeline System providing a regional water transfer and delivery system for existing and future water sources within the Authority's service area. Specifically the Phase 2B Interconnect project will extend the Phase 2 Interconnect from its current western terminus at the Serris Boulevard regional delivery meter to North Port, approximately 10 miles west to approximately U.S. 41. This new transmission main extension is projected to be 36 to 42 inches in diameter. It will support improved regional service to growing areas in western Charlotte County and the City of North Port, establish a direct regional connection with the Myakkahatchee Creek WTP, and provide the southern portion of a regional pipeline loop to the Carlton WTP in Sarasota County supporting future regional deliveries to and from Sarasota and Manatee Counties. The Project is included in the Authority's Integrated Regional Water Supply Plan 2015, and in the District's 2015 Regional Water Supply Plan (Southern Planning Region).

Benefit:

Development of the Regional Integrated Loop Pipeline System will promote regional resource management efforts and support water supply goals within the four county area including; maximizing use of alternative water sources such as seasonal surface water for public drinking water supply; improving rotational capacity and the ability to rest sources; providing reserve capacity for emergency transfers; limiting the development of groundwater in the Southern Water Use Caution Area (SWUCA); and optimizing financial investments in water supply infrastructure on a regional basis. In addition to the benefits mentioned for the Regional Integrated Loop Pipeline System, specific benefits of the Phase 2B Interconnect project include improved regional service to growing areas in western Charlotte County and the City of North Port, establishment of a direct regional connection with the Myakkahatchee Creek WTP, and development of the southern portion of a regional pipeline loop to the Carlton WTP in Sarasota County supporting future regional deliveries to and from Sarasota and Manatee Counties. This Project is included in the Authority's *Integrated Regional Water Supply 2015*, the District's *2015 Regional Water Supply Plan (Southern Planning Region)*, and it supports the SWUCA recovery strategy, and the Alternative Water Supplies, MFL Establishment and Recovery (in SWUCA) strategic initiatives laid out in the District's Strategic Plan.

Cost:

Total estimated cost for the Phase 2B Interconnect Pipeline is estimated at $30,400,000 (see *Integrated Regional Water Supply Plan 2015*, page 8-7, Table 8.4 – pipeline component only). Out of that total, $555,000 is estimated for easement acquisition and under current District policy is non-fundable. Remaining cost of $29,845,000 includes all design and construction costs for the pipeline. An associated regional pumping station connected to this pipeline is being submitted as separate project for FY 2019 funding (see application for Bachman Regional Pumping and Storage Facility). The Authority is requesting 50% co-funding of eligible costs that (equal to $14,922,500) in this application. Projected costs for design and construction of the facilities are identified in the funding section of the application, and Authority commitment of funds is discussed in the attached Funding Letter.

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

The Authority is a wholesale supplier of potable water to the customers of Charlotte, DeSoto, Manatee and Sarasota Counties and the City of North Port. These utilities are retail suppliers for their respective public water systems. The Authority cooperatively participates with Customer Utilities and the District in public awareness and education regarding water conservation including broadcast public service announcements, newspaper advertisements and inserts and public presentations. Authority Customers are leaders in water conservation, showing aggregate gross per capita water use declining from 104 gpc/day in 2003 to 78 gpc/day in 2016 (based on the 2016 PS forms). Supporting this conservation ethic have been the Authority's Water Policy Summits with the Water Alliance in 2009, 2010, 2011, 2012, 2015 and 2016. The Water Alliance is a voluntary assembly of 13 local municipalities, including the Authority's Customers, dedicated to water conservation, and providing water customers/residents a cost effective, high-quality, reliable and environmentally sustainable drinking water supply. The Summits have been well attended and focused on; water conservation/demand management; optimization of supply capacity, resource sharing and interconnecting supplies, and the value of high quality public water supply to the economic vitality of the region. In addition, the Authority's *Integrated Regional Water Supply Plan 2015* included recommendations for development of a predictive tool focused on quantifiable BMP's for the region to incorporate water conservation savings into future demand and supply planning; investigation of regional opportunities to reduce flushing in the consecutive potable system; and regional support for expansion and development of regional interconnections in the reclaimed system that will support more effective use of that resource.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			225,000	15,252,500	15,477,500
Peace River			225,000	14,697,500	14,922,500
Total			450,000	29,950,000	30,400,000

Matching Fund Reduction

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

Timelines

Phase 2B Interconnect

Milestone	Projected Date
Preliminary Design	09/30/2019
Third Party Review	11/30/2019
Final Design & Permitting	05/31/2021
Land Acquisition	06/30/2021
Bidding	10/30/2021
Construction	05/31/2023

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	SW IMP - Water Quality - Rubonia Subdivision Stormwater Management Improvement Project
Project Number	W213
Cooperator	Manatee County
Department	Public Works Department
Contact Person	John Pari
Address	1022 26th Ave East
City Sate Zip	Bradenton, FL 34208
Phone #	941-708-7450 ext7610
Email	john.pari@mymanatee.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:

Rubonia Subdivision is a more than one hundred year old residential subdivision designed and constructed in 1913 when there was very little to no regulation regarding roadways and drainage that would otherwise be required today.

Rubonia currently consists of a 50 ft. wide road Right-of-Way with about 20-to 22 ft. wide paved section. The drainage design consists of road side ditches on both sides of the road and residential home sites on 50 ft. to 82 ft. lot sizes. The subdivision discharges directly to

McMullen Creek which is part of the Terra Ceia Bay Aquatic Preserve (WBID1797A), and designated as an OFW and part of the Tampa Bay Estuary Reasonable Assurance program.

The existing roadway system and its over 100 year old antiquated drainage design are prone to routine flooding and lacks any water quality features before discharge to McMullen Creek. Detailed project information for this project is provided in the attached Rubonia Subdivision CFI Report and conceptual plans.

Currently, wet roadside swales provide stormwater conveyance and minimal water quality treatment in terms of nutrient / TSS removal. This 40.4 acre site is divided into three (3) sub-basins that discharge into McMullen Creek.

At each sub-basin, pollutant loading and collection / conveyance of stormwater will be addressed by one or more of the following BMP's.

1. Dry ponds with exfiltration
2. Two (2) wet treatment ponds (rain garden).
3. A baffle box (manufactured by Suntree®)
4. Shallow swales w/ interconnecting ditch bottom inlets that collect offsite runoff.

Benefit:

The benefits of this project include drainage improvements and the removal of approximately 2,079 lbs. of Nitrogen over a 20 year period. Additional benefits include the addition of 5' wide concrete sidewalk that promotes health and pedestrian safety. This project also benefits Tampa Bay Watershed. The McMullen Creek watershed is also part of the Tampa Bay watershed. The entire Tampa Bay watershed – not just the impaired WBIDs - has a Category 4b plan or "Reasonable Assurance" – which is an alternative to a TMDL to address the impaired WBIDs. This is where the Nitrogen Management Consortium enters the picture. Nutrient reductions are important. County quantitatively tracks nitrogen reductions realized by stormwater improvements.

Cost:

The total estimated cost of the water quality improvements is $1,569,370.00.

Detailed cost/project information for this project is provided in the attached Rubonia Subdivision CFI Report and conceptual plans.

The cost of 1.0 lb. of Nitrogen removal over 20 years is $1,569,370.00 / 2,079 Lbs. = $754.87/lb.
The cost to remove 1.0 lb. of Phosphorus over 20 years is $1,569,370.00 / 501.3 Lbs. = $3,130.60/lb.
The cost to remove 1.0 lb. of TSS over 20 years is $1,569,370.00 / 233,248 Lbs. = $6.73/lb.

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

To improve water quality for McMullen Creek, the County proposes construction of four (4) dry ponds with exfiltration and Biosorption Activated Media (12" BAM Layer) and two (2) wet treatment ponds (various plantings / trees). A baffle box (manufactured by Suntree®) is proposed for one of the three drainage basins. Pollutant load % reduction values are based on FDOT / UCF BMPTRAINS® Model Version 8.6. This project also proposes valley gutter inlets to collect roadway runoff and ditch bottom inlets to collect offsite runoff, where necessary. Scheduled Maintenance of inlets and street sweeping (BMP) that will reduce TSS. 5' wide concrete sidewalk is proposed on one side of roadway that will promote community interaction and heath.

Manatee County Land Development Code protects quantity and quality of ground and surface waters, groundwater recharge, prevent and reduce salt water intrusion, prevents adverse impacts on adjacent property from diverting flow of surface water, and prevent flood hazards and flood proofing to prevent property damage and loss of life. In addition to reductions noted above, County requires conformance with SWFWMD ERP regulations and provides special water quality protections within the watersheds of potable water reservoirs such as the Evers Reservoir and Lake Manatee. The County also implements all elements of a Phase-I NPDES MS4 permit which includes various BMPs, protection from illicit discharges and requires routine inspections and enforcement for compliance with applicable water quality standards including those relating to impaired waters and TMDLs. County Ordinance 11-21 (Fertilizer) was adopted to limit nutrient inputs to receiving waters. Long-term environmental monitoring programs provide the data used to evaluate the success of regional environmental management initiatives. The County maintains GIS database including stormwater inventory and FEMA floodplain areas. The County cooperatively assists with precipitation and stream gages in the County and area including 18 stream/rain gauges that will provide information for watershed studies and related water quality and drainage improvements.

Implementation of the Stormwater Management Program (SWMP) of the Phase-1 NDPES-MS4 permit provides the following water quality improvement services: 1) County-wide (jurisdictional Manatee County) street sweeping and data collection and analyses to estimate pollutant load reduction benefits from this program; 2) County wide MS4 inspection and maintenance program for structural controls and roadway collection systems, 3) Public education and outreach elements including storm drain stenciling, support for Florida Friendly Landscaping ™ and specialized outreach channels such as the Manatee Water Atlas and 5) Miscellaneous services such as Adopt-a-Road, litter collection and household hazardous waste collection. SWMP effectiveness is evaluated annually. The County has adopted Ordinances regulating Illicit Connections and Discharges through the MS4 (00-02), Fertilizer use (11-21) and Solid Waste (Pet Waste) disposal (85-11) that limit nutrients to receiving water bodies. Manatee County is a participant in the Tampa Bay Nitrogen Management Consortium.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			784,685		784,685
Manasota			784,685		784,685
Total			1,569,370		1,569,370

Matching Fund Reduction

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

Timelines

1 month

Milestone	Projected Date

Cooperative Funding Award	11/03/2017

12 month

Milestone	**Projected Date**
Complete Construction	11/01/2019

3 month

Milestone	**Projected Date**
90% Construction Plans	08/03/2018
100% Construction Plans	11/02/2018

6 month

Milestone	**Projected Date**
60% Permit Plans	05/04/2018

Data Collection Assessment:

[X] LIDAR/Elevation data [X] Aerial Imagery

[X] Mapping/GIS data [X] Other data collection: water quality-nutrient and TSS from the development

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SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	SW IMP - Water Quality - COAM North Island Flood Reduction - BMPS
Project Number	W215
Cooperator	City of Anna Maria
Department	Public Works
Contact Person	Lynn Burnett
Address	Po Box 779
City Sate Zip	Anna Maria, FL 342160779
Phone #	941-708-6130
Email	amengineer@cityofannamaria.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 first year of a multi year funding agreement for Flood Protection and Best Management Practices Improvements within the City of Anna Maria. The objective of the PROJECT is to improve both the water quality of non-point source stormwater runoff which discharges into downstream receiving waterbodies and the flood protection level of service (LOS) provided by the CITY'S surface water management system. The PROJECT is located in a coastal watershed and will impact several areas within the CITY where BMPS have not yet been installed including the North Bay, Fern, Hammock and Sycamore basins. The basins have multiple outfall locations that discharge directly into Tampa Bay and/or the man-made canals which are directly connected to Tampa Bay. The Implementation of BMPs will include the following project components: survey, design, public involvement, development of construction documents, permitting, construction inspections, and construction of the PROJECT. The flood protection and water quality improvements proposed for this project will be made in CITY owned alleys, rights of way, and within drainage easements granted to the CITY. Improvements will include stormwater infiltration trenches and tide valves. The proposed stormwater infiltration trenches will provide treatment through sedimentation and filtration/percolation. The basis for the design of the BMPs is through ongoing coordination with CITY residents, CITY staff, review of the DISTRICT'S City of Anna Maria Stormwater Runoff Investigation (1996) and evaluation of other existing conditions information including the CITY Master Drainage Plans. The improvements consist of new LID stormwater management improvements that will provide increased flood protection and water quality benefits on a regional level. The design of the infiltration trench systems results in rainwater harvesting by allowing for storm water to recharge the freshwater lens which lies beneath the island. The design also provides for an efficient means to accommodate long term sea level rise.

This project furthers the strategic initiatives of Floodplain Management by installing upgrades to the water management structures. It also furthers the Tampa Bay Regions Regional Priorities. Tampa Bay is designated as an Estuary of National Significance and a SWIM priority water body. The goals of the SWIM plan include improvement of water quality by reduction of pollutant loads which ultimately lead to increase in seagrass coverage. This project will accomplish all of those objectives and increase the overall health, welfare, and safety of the residents living within these basins by reducing the threat of flooding caused by sea level rise and severe climate events.

Benefit:

The Resource Benefit of the Water Quality project is the reduction of pollutant loads to Tampa Bay, a SWIM priority water body, by an estimated 1,468 lb/yr TN, 329 lb/yr TP, and 63,582 lb/yr TSS. The Measurable Benefit is the construction of LID BMPs to treat approximately 75 acres of highly urbanized stormwater runoff.

Cost:

The total cost for the project is $913,500 split equally between the Manasota Basin and the City, with $207,036 requested during FY2019 from the Manasota Basin, $124,857 requested during FY2020, and the remaining $124,857 requested during FY2021. The estimated cost/lb of TSS and TN removed is lower than the historical average of $20/lb TSS and $646/lb TN, and the cost/acre treated is estimated below the historical average of $46,947/acre treated for Coastal/LID projects. The cost effectiveness is solely an analysis of the estimated project cost as compared to the costs of similar projects; while the estimated project costs are based on similar projects recently completed on Anna Maria Island.

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

The City of Anna Maria has an adopted Stormwater Utility Fee which is collected annually and is designated for new stormwater related capital improvement projects. With the Stormwater Utility Fee as the foundation, the City has adopted a 5 year Capital Improvement Plan for Stormwater Improvements which incorporate LID measures to reduce pollutant loads to Tampa Bay, and to systematically and incrementally elevate the publicly owned lands to account for sea level rise and severe climate events. The City works closely with private property owners to help them develop individual plans to elevate their properties and implement flood protection measures for their structures. The City also adopted more stringent Land Development Regulations in 2013 which were established to implement flood reduction and protection measures and to reduce pollutant loadings into Tampa Bay by requiring individual properties to retain the 10 year, 24 hour storm event. With the overdevelopment of the island in recent decades - this has become a critical piece to the long term solution.

The City performs maintenance on their systems on an annual basis and tracks the progress through their reporting efforts with the NPDES MS4 permit. The City also adopted for the Florida Friendly Yards Ordinance which regulates the use of fertilizers and pesticides. Finally, the City partners with the non-profit organization of Keep Manatee Beautiful to provide education campaigns and maintain drain labels on all of their outfalls.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			307,231	149,519	456,750
Manasota			207,036	249,714	456,750
Total			514,267	399,233	913,500

Matching Fund Reduction

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

Timelines

FY2019

Milestone	Projected Date
PERMITTING PHASE H	02/28/2019
DESIGN PHASE H	02/28/2019
RFB ADVERTISEMENT AND AWARD PHASE H	04/26/2019
CONSTRUCTION AND CEI PHASE H	09/30/2019

FY2020

Milestone	Projected Date
PERMITTING PHASE J	02/28/2020
DESIGN PHASE J	02/28/2020
RFB ADVERTISEMENT AND AWARD	04/30/2020
CONSTRUCTION AND CEI PHASE J	09/30/2020

FY2021

Milestone	Projected Date
ASBUILT SURVEY AND RECORD DRAWINGS PHASE H AND J	11/30/2020
PROJECT CLOSE-OUT PHASE H AND J	12/31/2020

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	SW IMP - Water Quality - Anna Maria BMPs North Shore
Project Number	W218
Cooperator	City of Anna Maria
Department	Public Works
Contact Person	Lynn Burnett
Address	Po Box 779
City Sate Zip	Anna Maria, FL 342160779
Phone #	941-708-6130
Email	amengineer@cityofannamaria.com

Project Type:

[ ] Water Supply [X] Water Quality [X] Flood Protection [X] Natural Systems

Strategic Initiatives:

[X] Water Quality Maintenance and Improvement	[ ] Water Quality Monitoring
[ ] Alternative Water Supply	[ ] Conservation
[ ] Reclaimed Water	[ ] Regional Water Supply Planning
[ ] Emergency Flood Response	[X] Floodplain Management
[ ] Minimum Flows and Level Establishment and Monitoring	[ ] Minimum Flows and Levels Recovery
[X] 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	[X] Manatee	[ ] Marion	[ ] Pasco	[ ] Pinellas	[ ] Sarasota	[ ] Sumter	[ ] Polk

Project Description/Benefit/Cost

Description:

This application is for the third year of a three year funding agreement for Best Management Practices and includes design, permitting, and construction of stormwater retrofits in the City. The objective of the PROJECT is to improve both the water quality of non-point source stormwater runoff which discharges into downstream receiving waterbodies and the flood protection level of service (LOS) provided by the CITY'S surface water management system. The PROJECT is located in a coastal watershed and will impact several areas within the CITY. The basins have multiple outfall locations that discharge into the man-made canals which are directly connected to Tampa Bay, a SWIM waterbody. The Implementation of BMPs will include the following tasks: survey, design, public involvement, development of construction documents, permitting, construction inspections, and construction of the PROJECT. The flood protection and water quality improvements proposed for this project will be made in CITY owned alleys, rights of way, and within drainage easements granted to the CITY. Improvements will include various diameter pipe, inlet/control structures and stormwater infiltration trenches. The proposed stormwater infiltration trenches will provide treatment through sedimentation and filtration/percolation. They will remove a wide range of pollutants carried by urban stormwater runoff reducing the loading of sediment, debris, oils, and greases, to the receiving waterbodies. The nature of the BMPs is based on coordination with CITY residents, CITY staff, review of the DISTRICT'S City of Anna Maria Stormwater Runoff Investigation (1996) and evaluation of other existing conditions information including the CITY Master Drainage Plans. The nature of these improvements will allow for new stormwater management systems that will provide increased flood protection and water quality benefits on a regional level. The design of the infiltration trench systems allow for storm water to recharge the freshwater lens which lies beneath the island. The design also provides for an efficient means to accommodate long term sea level rising.

Benefit:

The Resource Benefit of the Water Quality project is the reduction of pollutant loads to Tampa Bay, a SWIM priority water body, by an estimated 68,238 lb/yr TSS, and 1,452 lb/yr TN. The Measurable Benefit is the construction of LID BMPs to treat approximately 77 acres of highly urbanized stormwater runoff.

Cost:

The total cost for the project is $936,000 split equally between the Manasota Basin and the City, with $117,000 requested during FY2017 from the Manasota Basin and $196,000 requested during FY2018. The remaining $155,000 is being requested from the Manasota Basin for FY2019. The estimated cost/lb of TSS and TN removed is lower than the historical average of $20/lb TSS and $646/lb TN, and the cost/acre treated is estimated below the historical average of $46,947/acre treated for Coastal/LID projects. The cost effectiveness is solely an analysis of the estimated project cost as compared to the costs of similar projects.

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

The City of Anna Maria has an adopted Stormwater Utility Fee which is collected by the residents and is designated for new stormwater related capital improvement projects. The City has also adopted Land Development Regulations which are established to implement flood reduction and protection measures and to reduce pollutant loadings into Tampa Bay. The State of Florida has designated Tampa Bay as an OFW. In 1999, a Tampa Bay Surface Water Improvement and Management (SWIM) Plan was created to outline a series of research and/or restoration projects that will allow for the preservation and continued restoration of the health of Tampa Bay. The goals of the SWIM plan include improvement of water transparency in Tampa Bay, to decrease the quantity and increase the quality of stormwater runoff to Tampa Bay, to restore shoreline habitats in Tampa Bay, and to continue monitoring programs in Tampa Bay. This project will accomplish all of those objectives and increase the overall health, welfare, and safety of the residents living within these basins.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share	117,000	196,000	155,000		468,000
Manasota	117,000	196,000	155,000		468,000
Total	234,000	392,000	310,000		936,000

Matching Fund Reduction

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

Timelines

FY 2017

Milestone	Projected Date
Construction and Construction Engineering & Inspection (CEI) Phase E (FY17)	09/30/2017

FY 2018

Milestone	Projected Date
Design Phase F (FY18)	04/30/2018
Permitting Phase F (FY18)	05/31/2018
Construction and Construction Engineering & Inspection (CEI) Phase F (FY18)	08/31/2018

FY 2019

Milestone	Projected Date
Design Phase G (FY19)	04/30/2019
Permitting Phase G (FY19)	05/31/2019
Construction and Construction Engineering & Inspection (CEI) Phase G (FY19)	08/31/2019

FY 2020

Milestone	Projected Date
Record Drawings & Completion Certification ALL PHASES	12/31/2019

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	SW IMP – Water Quality – Southeast Riverside Water Quality Improvements
Project Number	W302
Cooperator	Palmetto
Department	Community Redevelopment Agency
Contact Person	Jeff Burton
Address	715 4th Street West
City Sate Zip	Palmetto, FL 34221
Phone #	941-723-4988
Email	jburton@palmettofl.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:

Project Objective: This project will reduce the total nitrogen being discharged from the site to the Manatee River and ultimately to Lower Tampa Bay.

Project Summary: The City of Palmetto's Community Redevelopment Agency (CRA) has been a leader, and a successful partner with SWFWMD, in the advocacy and implementation of Low Impact Development (LID) projects and the promotion of smart growth in urban infill and retrofit projects. The City has a successful track record in cooperative funding, through design, permitting and construction of a number of projects, including the award winning 5th Street LID Street Scaping Project, the Boat Ramp LID Improvements, and the MLK Park Habitat Restoration and LID Project. These projects, and the one we are currently applying for, are part of the City's continued investments as a model "green" city offering environmentally sound alternatives to redeveloping a historical downtown, providing incentives to businesses and the public, protecting receiving waterbodies, providing mixed use facilities, educating the population on conservation and the use of native vegetation, reducing impervious footprint, and, ultimately, attracting businesses and residents to invest in the City of Palmetto. This site is located between US Highway 41 and US Highway 301 just south of 7th Street West. The site discharges untreated runoff from approximately 70 acres of highly urbanized land directly to the Manatee River just upstream from where the river discharges to Lower Tampa Bay. The project limits are shown in the attached graphics and are generally along 4th Street, from US Hwy 41 east to the RR tracks and along the west side of the RR tracks from 5th Street to the River. The project as shown on the concept figure includes a roughly 1.5-acre stormwater treatment facility (rain garden and treatment wetland), approximately 300 feet of stream restoration, replacement of an existing sidewalk with pervious pavers, on-street pervious parking, and a stormwater collection system to route runoff to the proposed treatment area. Additionally, the project would provide water quality related educational components consisting of a walking path boardwalk through the proposed treatment area with signage outlining the benefit of the project. This project will reduce total nitrogen loading to the Manatee River and ultimately to Lower Tampa Bay. This will help further the implementation of the SWIM Plan and the Tampa Bay Estuary Program Comprehensive Conservation and Management Plan for Lower Tampa Bay.

Benefit:

The Tampa Bay Estuary Program (TBEP) has identified Total Nitrogen as the limiting nutrient for Tampa Bay. Due to the fact that the project site currently directly discharges to the Manatee River without any treatment means that runoff from this site does not have the opportunity for settling, denitrification, or assimilation prior to discharge to the river, and subsequently Lower Tampa Bay.

The rain gardens and pervious paving will be designed to treat 70 acre drainage basin and maximize the reduction in Total Nitrogen being discharged to the river by approximately 155 pounds per year.

Cost:

The total Applicant share of the LID and shoreline restoration portions of the project cost are $700,000 and the District share is also $700,000. The breakdown of the total project cost of $1,400,000 is as shown in the attached documents.

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

The City of Palmetto Community Redevelopment Agency (CRA) has been a leader in West Central Florida in the advocacy and implementation of Low Impact Development (LID) projects and the encouragement of smart growth for urban infill and retrofit projects. The City of Palmetto's Comprehensive plan has been a blueprint for water conservation and stormwater quality efforts. The City has also adopted "Downtown Development Guidelines" that encourage redevelopment and public uses for a more sustainable urban design model. The CRA is currently implementing an incentive based program that would provide funding for businesses to upgrade their properties through store front grants, landscaping to meet Florida Friendly standards, providing for reclaimed irrigation and enhancing storm water treatment among many other positive "Green" initiatives. State, City and NPDES standards establish the baseline minimum but the City is looking beyond this to improve the water quality in our surrounding waterways including the Manatee River, Terra Ceia Bay, and Lower Tampa Bay – objectives that are also shared with the Tampa Bay Estuary Program Comprehensive Conservation and Management Plan (CCMP). Finally, over the last five (5) years, the City of Palmetto CRA, along with the SWFWMD CFI program, have successfully partnered and invested in a number of LID projects in the City that will complement the efforts and benefits of this proposed project.

The City has a stormwater utility assessment in place.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			100,000	600,000	700,000
Manasota			100,000	600,000	700,000
Total			200,000	1,200,000	1,400,000

Matching Fund Reduction

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

Timelines

Construction

Milestone	Projected Date
Commence Construction	10/01/2019
Complete Construction	09/30/2020

Design

Milestone	Projected Date
Commence Design	11/30/2018
Complete Design	08/01/2019

Data Collection Assessment:

☒ Land Survey

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	SW IMP - Water Quality - Holmes Beach BMPs Basins 1,2,6,7 and 10
Project Number	W638
Cooperator	Holmes Beach
Department	Public Works
Contact Person	Lynn Burnett
Address	5801 Marina Drive
City Sate Zip	Holmes Beach, FL 34217
Phone #	941-708-5800
Email	cityengineer@holmesbeachfl.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 application is for the third year of a three year funding agreement for Best Management Practices and includes design, permitting, and construction of stormwater retrofits in the City. The objective of the PROJECT is to improve both the water quality of non-point source stormwater runoff which discharges into downstream receiving waterbodies and the flood protection level of service (LOS) provided by the CITY'S surface water management system. The PROJECT is located in a coastal watershed and will impact several areas within the CITY. The basins have multiple outfall locations that discharge into the man-made canals which are directly connected to Tampa Bay, a SWIM waterbody. The Implementation of BMPs will include the following tasks: design, development of construction documents, permitting, construction inspections, and construction of the PROJECT. The flood protection and water quality improvements proposed for this project will be made in CITY owned alleys, rights of way, and within drainage easements granted to the CITY. Improvements will include various diameter pipe, inlet/control structures and stormwater infiltration trenches. The proposed stormwater infiltration trenches will provide treatment through sedimentation and filtration/ percolation. They will remove a wide range of pollutants carried by urban stormwater runoff reducing the loading of sediment, debris, oils, and greases, to the receiving waterbodies. The nature of the BMPs is based on coordination with CITY residents, CITY staff, review of the DISTRICT'S City of Holmes Beach Stormwater Runoff Investigation (1996) and evaluation of other existing conditions information including the CITY Master Drainage Plans adopted in 2006. The nature of these improvements will allow for new stormwater management systems that will provide increased flood protection and water quality benefits on a regional level. The design of the infiltration trench systems allow for storm water to recharge the freshwater lens which lies beneath the island. The design also provides for an efficient means to accommodate long term sea level rising.

Benefit:

The Resource Benefit of the Water Quality project is the reduction of pollutant loads to Sarasota Bay and Tampa Bay, SWIM priority water bodies, by an estimated 111,664 lb/yr TSS, and 2,377 lb/yr TN. The Measurable Benefit is the construction of LID BMPs to treat approximately 127 acres of highly urbanized stormwater runoff.

Cost:

The total cost for the project is $1,473,152 split equally between the Manasota Basin and the City, with $184,144 requested during FY2017 and $276,216 requested during FY2018 from the Manasota Basin. The remaining $276,216 is being requested from the Manasota Basin for FY2019. The estimated cost/lb of TSS and TN removed is lower than the historical average of $20/lb TSS and $646/lb TN, and the cost/acre treated is estimated below the historical average of $46,947/acre treated for Coastal/LID projects. The cost effectiveness is solely an analysis of the estimated project cost as compared to the costs of similar projects.

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

The City of Holmes Beach has an approved and adopted Stormwater Capital Improvement Program which is funded by a Stormwater Utility Fee. The City has also incorporated Land Development Regulations which were established to implement flood reduction and protection measures and to reduce pollutant loadings into Sarasota Bay. The State of Florida has designated Sarasota Bay as an OFW. In 1997, a Sarasota Bay Surface Water Improvement and Management (SWIM) Plan was created to outline a series of research and/or restoration projects that will allow for the preservation and continued restoration of the health of Sarasota Bay. The goals of the SWIM plan include improvement of water transparency in Sarasota Bay, to decrease the quantity and increase the quality of stormwater runoff to Sarasota Bay, to restore shoreline habitats in Sarasota Bay, and to continue monitoring programs in Sarasota Bay. This project will accomplish all of those objectives and increase the overall health, welfare, and safety of the residents living within these basins.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share	184,144	276,216	276,216		736,576
Manasota	184,144	276,216	276,216		736,576
Total	368,288	552,432	552,432		1,473,152

Matching Fund Reduction

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

Timelines

FY 2017

Milestone	Projected Date
Construction and Construction Engineering & Inspection (CEI) Phase A	09/30/2017

FY 2018

Milestone	Projected Date
Design Phase B (FY18)	12/31/2017
Permitting Phase B (FY18)	01/31/2018
Construction and Construction Engineering & Inspection (CEI) Phase B (FY18)	09/30/2018

FY 2019

Milestone	Projected Date
Design Phase C (FY19)	04/30/2019
Permitting Phase C (FY19)	05/31/2019
Construction and Construction Engineering & Inspection (CEI) Phase C (FY19)	08/31/2019
Record Drawings & Completion Certification ALL PHASES	12/31/2019

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2019 Cooperative Funding Initiative Application Form

Project Name	SW IMP - Water Quality - COBB FLOOD REDUCTION-BMPs Avenues B and C
Project Number	W639
Cooperator	Bradenton Beach
Department	Public Works
Contact Person	Lynn Burnett
Address	107 Gulf Drive North
City Sate Zip	Bradenton Beach, FL 34217
Phone #	941-778-1005
Email	lburnett@cityofbradentonbeach.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 the first year of a multi year funding agreement for Flood Reduction and Best Management Practices Implementation with the City of Bradenton Beach. The objective of the PROJECT is to improve both the water quality of non-point source stormwater runoff which discharges into downstream receiving waterbodies and the flood protection level of service (LOS) provided by the CITY'S surface water management system. The PROJECT is located in a coastal watershed and will benefit several of the remaining basin areas within the CITY where BMPs have not yet been installed. The basins have multiple outfall locations that discharge directly into Sarasota Bay. The Implementation of BMPs will include the following project components: survey, design, public involvement, development of construction documents, permitting, construction inspections, and construction of the PROJECT. The flood protection and water quality improvements proposed for this project will be made in CITY owned alleys, rights of way, and within drainage easements granted to the CITY. Improvements will include stormwater infiltration trenches and tide valves. The proposed stormwater infiltration trenches will provide treatment through sedimentation and filtration/percolation. The basis for the design of the BMPs is through ongoing coordination with CITY residents, CITY staff, review of the DISTRICT'S City of Bradenton Beach Stormwater Runoff Investigation (1996) and evaluation of other existing conditions information including the CITY Master Drainage Plans. The improvements consist of new LID stormwater management improvements that will provide increased flood protection and water quality benefits on a regional level. The design of the infiltration trench systems results in rainwater harvesting by allowing for storm water to recharge the freshwater lens which lies beneath the barrier island. The design also provides for an efficient means to accommodate long term sea level rise.
The State of Florida has designated Sarasota Bay as an OFW. In 1997, a Sarasota Bay Surface Water Improvement and Management (SWIM) Plan was created to outline a series of research and/or restoration projects that will allow for the preservation and continued restoration of the health of Sarasota Bay. The goals of the SWIM plan include improvement and expansion in seagrass beds which is accomplished by decreasing the pollutant loadings and increasing the quality of stormwater runoff to Sarasota Bay. This project will accomplish all of those objectives and increase the overall health, welfare, and safety of the residents living within these basins by implementing flood reduction/protection measures.

Benefit:

The Resource Benefit of the Flood Reduction/Water Quality project is the reduction of pollutant loads to Tampa Bay, a SWIM priority water body, by an estimated 878.5 lb/yr TN, 196.9 lb/yr TP, and 29,635 lbs/yr TSS. The Measurable Benefit is the

construction of LID BMPs to treat approximately 44 acres of highly urbanized stormwater runoff as well as implementation of a tide valve system region wide which provides protection against sea level rise.

Cost:

The total cost for the project is $530,930 split equally between the Manasota Basin and the City, with $70,465 requested during FY2019 from the Manasota Basin, $97,500 requested during FY2020, and the remaining $97,500 requested during FY2021. The estimated cost/lb of TSS and TN removed is lower than the historical average of $20/lb TSS and $646/lb TN, and the cost/acre treated is estimated below the historical average of $46,947/acre treated for Coastal/LID projects. The cost estimates are based on similar projects recently completed on Anna Maria Island.

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

The City of Bradenton Beach has an adopted Stormwater Utility Fee which is collected annually and is designated for new stormwater related capital improvement projects. With the Stormwater Utility Fee as the foundation, the City has adopted a 5 year Capital Improvement Plan for Stormwater Improvements which incorporate LID measures to reduce pollutant loads to Sarasota Bay, and to systematically and incrementally elevate the publicly owned lands to account for sea level rise and severe climate events. The City works closely with private property owners to help them develop individual plans to elevate their properties and implement flood protection measures for their structures. The City also adopted more stringent Land Development Regulations in 2016 which were established to implement flood reduction and protection measures and to reduce pollutant loadings into Sarasota Bay by requiring individual properties to retain the 10 year, 24 hour storm event. With the over-development of the island in recent decades - this has become a critical piece to the long term solution to sea level rise and severe climate change.

The City performs maintenance on their systems on an annual basis and tracks the progress through their reporting efforts with the NPDES MS4 permit. The City also adopted for the Florida Friendly Yards Ordinance which regulates the use of fertilizers and pesticides. Finally, the City partners with the non-profit organization of Keep Manatee Beautiful to provide education campaigns and maintain drain labels on all of their outfalls.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			70,465	195,000	265,465
Manasota			70,465	195,000	265,465
Total			140,930	390,000	530,930

Matching Fund Reduction

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

Timelines

FY2019

Milestone	Projected Date
PERMITTING	04/30/2019
DESIGN	04/30/2019
RFB ADVERTISEMENT AND AWARD	06/30/2019

FY2020

Milestone	Projected Date
CONSTRUCTION AND CEI	03/31/2021

FY2021

Milestone	Projected Date
ASBUILT SURVEY AND RECORD DRAWINGS	04/30/2021
PROJECT CLOSE-OUT	05/30/2021

Data Collection Assessment:

☒ No data will be collected for this project

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