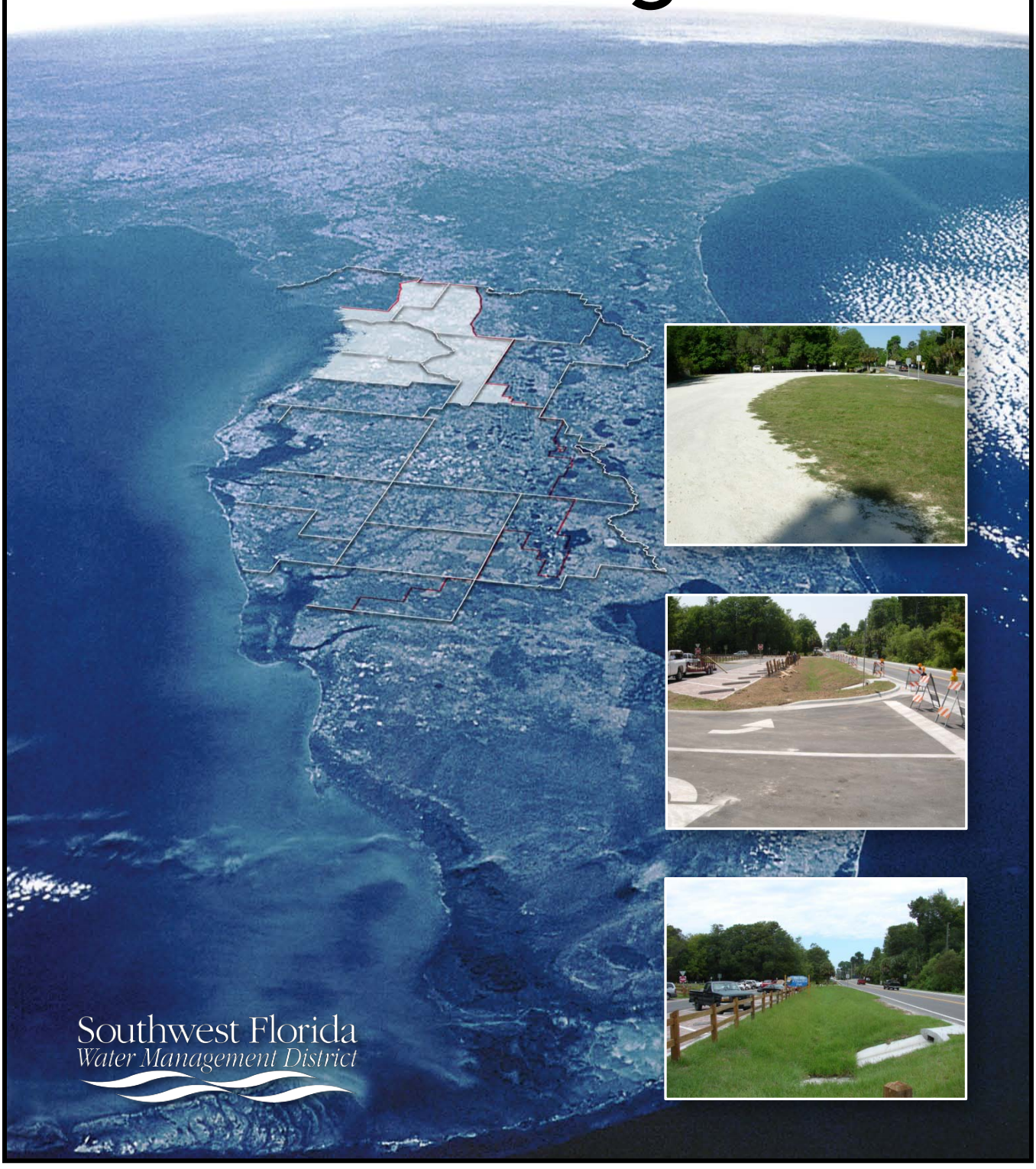
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

Fiscal Year 2020

Cooperative Funding Initiative Applications

Northern Region



Coop Funding By Region For FY2020

Northern Region

Project	Project Name		Project Cost
N873	WMP - Chassahowitzka River Watershed Management Plan		$925,000
N891	WMP - North Citrus Withlacoochee River Watershed Management Plan		$825,000
N919	WMP - Little Jones Creek Watershed Management Plan		$960,000
N981	Culbreath Road Area Flood Relief		$4,775,000
N986	Stormwater Utiulity - Feasibility Study		$300,000
Q047	Hernando County-Anderson Snow Park Reclaimed Water Irrigation		$400,000
Q051	50th st County 40 Stormwater Drainage		$270,000
Q058	SR 200 Watershed Management Plan Update		$425,000
Q060	Northwest Regional WWTF Expansion		$15,383,033
Q062	Regional Irrigation System Audit Program Phase 6		$136,000
Q065	Hernando County Airport WRF Total Nitrogen Reduction		$10,000,000
Q069	Hernando Beach Water System Improvements		$250,000
Q070	Water Sense Labeled Irrigation Controller Install - Phase 3		$90,000
Q075	Pasture Reserve		$1,000,000
Q082	Wildwood WMP		$170,000
Q086	Dunnellon Watershed Management Project		$275,000
Q092	67th and Riverside infrastructure improvements		$195,000
Q093	WMP - Tsala Apopka Watershed Management Plan		$500,000
Q103	Hernando County Landfill Leachate Pretreatment		$3,850,000
Q105	SWRWRF Reclaimed Water Project		$3,918,000
Q110	Conservation - Marion County Utilities Toilet Rebate Program - Phase 6		$64,000
Q120	Package Wastewater Plant Removal Program		$3,119,876
Q123	Rainbow Springs/Rainbow River Sewer Master Plan		$200,000
Q124	US27/NW 70th Ave Septic to Sewer		$558,973
Q131	State Road 200 Septic to Sewer Program		$4,014,096
Q134	Homosassa East STS		$15,000,000
W430	Crystal River Indian Waters Septic to Sewer Phase II		$4,000,000
W432	Cambridge Greens Septic to Sewer		$6,500,000
W433	Hunter Springs Stormwater Modification		$150,000
W434	Crystal River Southern Septic to Sewer Project		$6,500,000
WH04	Old Homosassa West Septic to Sewer		$6,000,000
WW05	Weeki Wachee Springshed Nitrogen Removal Stormwater Retrofits		$2,000,000
		Region Total	**$92,753,978**

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	WMP - Chassahowitzka River Watershed Management Plan
Project Number	N873
Cooperator	Citrus County
Department	Public Works
Contact Person	Mark Schroder
Address	3600 W Sovereign Path
City Sate Zip	Lecanto, FL 34461
Phone #	352-527-5443
Email	mark.schroder@citrusbocc.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 [X] Citrus [ ] Desoto [ ] Hardee [ ] Hernando [ ] Highlands [ ] Hillsborough [ ] Lake
[ ] Levy [ ] Manatee [ ] Marion [ ] Pasco [ ] Pinellas [ ] Sarasota [ ] Sumter [ ] Polk

Project Description/Benefit/Cost

Description:

This Watershed Management Plan Project covers 40.7 square miles in the southwestern portion of the County, including Chassahowitzka, Little Chassahowitzka, and parts of Sugarmill Woods. The project area extends west-east from the coast to the center of the County and is dissected by US Hwy 19 and CR 491. The watershed falls predominantly within the Chassahowitzka and Homosassa springsheds as determined by SWFWMD ESRI. TMDLs and BMAPs are currently being developed for the Homosassa and Chassahowitzka Springs and this project will provide critical information regarding water quality improvements for these springsheds. This project is a continuation of the Homosassa River Management Plan, which produced a watershed model and floodplain mapping.

The objective of this project is to analyze the watershed to identify and rank flooding and water quality problem areas and to determine where appropriate BMPs can be implemented to reduce the negative impacts associated with these areas. This project addresses the District's Strategic Initiatives of Flood Plain Management and Water Quality and also complements the District's Springs Initiative program. The project will be completed using District GWIS guidelines and analytical methodology. County GIS staff have developed methods to identify structure floor elevations and footprints and roadway centerlines and areas. Water quality simulation models will be run using the SIMPLE model. Capital Improvement projects resulting from this project will be designed and constructed using the most recent Best Management Practices and technology.

This is for the third year of funding for this four-year project. The Board has approved the two previous years of funding.

Benefit:

The project includes a surface water resource assessment, water quantity modeling/analysis, water quality analysis (SWRA), establishment of existing level of service (LOS), and a best management practice (BMP) alternative analysis. The SWRA identifies water quality problems which, when addressed, improve the quality of aquifer recharge and availability of cleaner water for potable supply and natural systems. The project lies within the Chassahowitzka and Homosassa Springs springsheds and the results of the SWRA will enhance our understanding of residential septic system and lawn fertilizer nitrate contributions and complement the District's ongoing Springs Initiative. The LOS analysis identifies flood prone areas and LOS deficiencies and quantifies costs associated with each problem area. Final deliverables will include electronic versions of the updated GWIS geodatabase and tables, modeling files, the map atlas, the SIMPLE Model report, the BMP database, and a proposed BMP list with preliminary comments from District. The BMP alternative analysis will provide prioritized conceptual solutions addressing floodplain LOS deficiencies and surface and groundwater quality improvements using a cost/benefit analysis approach.

Cost:

The cost of this Watershed Management Plan, for Phases 1 and 2, comes in at $22,727 per sq. mile. Tasks associated with this project are expected to start before February1, 2018 and continue through FY22. This is the third year application of four years of funding applications.

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

Citrus County has partnered with the District to study and develop Watershed Management Plans for eight of the County's watersheds. The County has completed the Hunter Springs Water Quality Improvement Project in cooperation with the District. The County has also worked with the District to design and is constructing the Homosassa South Fork Water Quality Improvement Project to improve quality of stormwater entering the Homosassa River. The County sought and received FEMA approval of new Flood Insurance Rate Maps based on basin studies conducted in cooperation with the District. The County is cooperating with the FDEP to develop the Kings Bay/Crystal River, Homosassa Springs and Chassahowitzka Springs Basin Management Action Plans (BMAP) aimed at reducing nutrient loadings within the springsheds. This effort compliments and supports the District's Springs Initiative. Citrus County has adopted floodplain, stormwater ordinances and fertilizer ordinances and is now covered under a NPDES Phase II permit for the county's Municipal Separate Storm Sewer System (MS4). As part of the NPDES permit the County has developed a stormwater education program, and is working on storm drain stenciling and street sweeping programs. The Citrus County Utility Department has successfully implemented a series of water conservation incentive programs that include, a rain sensor rebate program, low flow toilet programs, and irrigation evaluation and audit projects. Other incentive programs include various rebate opportunities in conjunction with the Florida Friendly Landscaping program. The water conservation program also provides water conservation information and has Enforcement Officers to enforce watering restrictions set forth by Southwest Florida Water Management District.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share	100,000	150,000	150,000	62,500	462,500
Coastal Rivers	100,000	150,000	150,000	62,500	462,500
Total	200,000	300,000	300,000	125,000	925,000

Matching Fund Reduction

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

Timelines

Project Closeout

Milestone	Projected Date
Close Agreement with SWFWMD	12/31/2022

Report Preparation

Milestone	Projected Date
Final Report Submitted	12/31/2022

Data Collection Assessment:

☒ Land Survey ☒ LIDAR/Elevation data

☒ Mapping/GIS data

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	WMP - North Citrus Withlacoochee River Watershed Management Plan
Project Number	N891
Cooperator	Citrus County
Department	Public Works
Contact Person	Mark Schroder
Address	3600 W Sovereign Path
City Sate Zip	Lecanto, FL 34461
Phone #	352-527-5443
Email	mark.schroder@citrusbocc.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 Watershed Management Plan Project covers 35 square miles in the north-central portion of the County, including parts of south Dunnellon, Holder, and Citronelle. The watershed project area extends west-east from the coast to the center of the County and is dissected by US Hwy 41 and CR 491. The watershed falls predominantly within the Crystal River springshed. TMDLs and a BMAPs are currently being developed for the Crystal River Springs and this project will provide critical information regarding water quality improvements for the springshed.

The objective of this project is to analyze the watershed to identify and rank flooding and water quality problem areas and to determine where appropriate BMPs can be implemented to reduce the negative impacts associated with these areas. This project addresses the District's Strategic Initiatives of Flood Plain Management and Water Quality and also complements the District's Springs Initiative program. The project will be completed using District GWIS guidelines and analytical methodology. County GIS staff has developed methods to identify structure floor elevations and footprints and roadway centerlines and areas. Water quality simulation models will be run using the SIMPLE model. Capital Improvement projects resulting from this project will be designed and constructed using the most recent Best Management Practices and technology.

Benefit:

The project includes a surface water resource assessment, water quality analysis (SWRA), establishment of existing level of service (LOS), and a best management practice (BMP) alternative analysis. The SWRA identifies water quality problems which, when addressed, improve the quality of aquifer recharge and availability of cleaner water for potable supply and natural systems. The project lies within the Kings Bay/Crystal River springshed and the results of the SWRA will enhance our understanding of residential septic system and lawn fertilizer nitrate contributions and complement the District's ongoing Springs Initiative. The LOS analysis identifies flood prone areas and LOS deficiencies and quantifies costs associated with each problem area.

Final deliverables will include electronic versions of the updated GWIS geodatabase and tables, modeling files, the map atlas, the SIMPLE Model report, the BMP database, and a proposed BMP list with preliminary comments from District. The BMP alternative analysis will provide prioritized conceptual solutions addressing floodplain LOS deficiencies and surface and groundwater quality improvements using a cost/benefit analysis approach.

Cost:

The cost of this Watershed Management Plan, for Phases 1 & 2, comes in at $23,571 per sq. mile. Tasks associated with this project started before February 1, 2018 and will continue through FY21. This is the third year application of three years of funding applications.

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

Citrus County has partnered with the District to study and develop Watershed Management Plans for eight of the County's watersheds. The County has completed the Hunter Springs Water Quality Improvement Project in cooperation with the District. The ounty has also worked with the District to design and is preparing to construct the Homosassa South Fork Water Quality Improvement Project to improve quality of stormwater entering the Homosassa River. The County sought and received FEMA approval of new Flood Insurance Rate Maps based on basin studies conducted in cooperation with the District. The County is cooperating with the FDEP to develop the Kings Bay/Crystal River, Homosassa Springs and Chassahowitzka Springs Basin Management Action Plans (BMAP) aimed at reducing nutrient loadings within the springsheds. This effort compliments and supports the District's Springs Initiative. Citrus County has adopted floodplain, stormwater ordinances and fertilizer ordinances and now covered under a NPDES Phase II permit for the county's Municipal Separate Storm Sewer System (MS4). As part of the NPDES permit the County has developed a stormwater education program, and is working on storm drain stenciling and street sweeping programs. The Citrus County Utility Department has successfully implemented a series of water conservation incentive programs that include, a rain sensor rebate program, low flow toilet programs, and irrigation evaluation and audit projects. Other incentive programs include various rebate opportunities in conjunction with the Florida Friendly Landscaping program. The water conservation program also provides water conservation information and has Enforcement Officers to enforce watering restrictions set forth by Southwest Florida Water Management District.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share	150,000	150,000	112,500		412,500
Withlacoochee River	150,000	150,000	112,500		412,500
Total	300,000	300,000	225,000		825,000

Matching Fund Reduction

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

Timelines

Consultant

Milestone	Projected Date
Execute COnsultant Contract	01/31/2019

Project Closeout

Milestone	Projected Date
Close Agreement with SWFWMD	12/31/2021

Report Preparation

Milestone	Projected Date
Final Report Submitted	12/31/2021

Data Collection Assessment:

☒ Land Survey ☒ LIDAR/Elevation data

☒ Mapping/GIS data

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	WMP - Little Jones Creek Watershed Management Plan
Project Number	N919
Cooperator	Sumter County BOCC
Department	Public Works Division
Contact Person	Deborah Snyder
Address	319 E. Anderson Avenue
City Sate Zip	Bushnell, FL 33513
Phone #	352-689-4400
Email	deborah.snyder@sumtercountyfl.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:

This is a multi-year funded project to perform the Watershed Evaluation and Watershed Management Plan elements of the District's Watershed Management Program (WMP) for the Little Jones Creek Watershed in Sumter County. The project initially received funding in 2018. The project is currently funded for FY 2018 and FY 2019, and work on the Watershed Evaluation is ongoing. LiDAR Acquisition has been completed, and the assembly and evaluation of watershed data is scheduled to begin soon. This funding request is for FY 2020, and it will be the final year of request. The project watershed is 39.8 square miles. A Watershed Management Plan provides a method to evaluate the capacity of a watershed to protect, enhance, and restore water quality and natural systems while achieving flood protection. The Watershed Evaluation element is the collection and organization of detailed information such as land elevation, conveyance features such as ditches, culverts and other stormwater management features that affect how water moves within a watershed. The Watershed Evaluation tasks include the collection of existing data, development of preliminary model features and initiation of formal Peer Review. The information is organized as a geodatabase that defines the watershed's natural conveyance, storage features and stormwater infrastructure. The Watershed Evaluation is the foundation for the Watershed Management Plan, the final element in the Watershed Management Program. The Watershed Management Plan includes model parameterization, computer modeling, floodplain analysis, Peer Review of floodplain results, public notification, public meeting, Governing Board approval of floodplain results, surface water resource assessment (SWRA), the establishment of a level of service (LOS), and Best Management Practices (BMP) alternative analysis.

Benefit:

The project benefits will be the refinement and updating of floodplains, a comprehensive Geographic Information System (GIS) based inventory of pipes, culverts and conveyances, and a hydraulic model that simulates the system response to varying rainfall events. This tool can be used to assess the LOS for roads and structures. The geodatabase also provides the basis for assessing the SWRA of the watershed. This information is used to develop BMP's to address flooding or water quality concerns. The information is also used in review and approval of development within the watershed. The ability to prevent flooding by identifying floodplains and keeping development out of those areas or constructed above flood levels provides a much greater cost benefit than having to implement BMP's to reduce or eliminate flooding of existing infrastructure. Additionally, having a model allows for the continuous updating of the model as development occurs and can be used in the planning process to assess future growth and land use changes for not only flood protection but water quality loading, which is vital in ensuring compliance with Total Maximum Daily Load (TMDL) regulation.

Cost:

The total project cost is $960,000, split equally between SWFWMD and Sumter County. Project costs and allocation through Task Work Assignments (TWA) are controlled by SWFWMD, which manages the agreement. The allocation through TWAs is based on approved staffing rates and allocated hours to specific tasks, which are closely tied to approved guidelines and specifications standards.

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

Sumter County has in its Comprehensive Plan a water conservation element to protect and manage water resources within the County. This includes criteria for water conservation and water shortage. The County is eligible for emergency relief under the Federal Emergency Management Agency (FEMA) program as it has adopted building guidelines conformant to FEMA requirements for limiting building in flood hazard areas. For instance, all new homes' finished floor elevations are constructed one foot above the 100-year flood elevation. In addition, County codes provide language to protect against development wetlands, seeks preservation of floodplain storage, and protection of aquifer recharge and promotes water conservation, as it references SWFWMD's water conservation and water shortage regulations and guidelines. The County is in cooperation with the Withlacoochee Regional Water Supply Authority (WRWSA) to identify potential sources of water supply. The County has recognized the value of preventive flood protection and has implemented a capital improvement plan (CIP) addressing stormwater issues. This will be used to undertake updating of flood elevations (FEMA Flood Insurance Rate Map) throughout the County. The CIP program relies upon the findings of the WMP. The County has budgeted monies for implementation of BMP's to address existing problem areas.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share	160,000	160,000	160,000		480,000
Withlacoochee River	160,000	160,000	160,000		480,000
Total	320,000	320,000	320,000		960,000

Matching Fund Reduction

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

Timelines

Watershed Evaluation	12/31/2019
Watershed Management Plan	12/31/2021

Data Collection Assessment:

☒ Land Survey ☒ Mapping/GIS data

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Culbreath Road Area Flood Relief
Project Number	N981
Cooperator	Hernando County
Department	Public Works
Contact Person	Clay Black
Address	1525 E Jefferson St
City Sate Zip	Brooksville, FL 34601
Phone #	352-754-4062 ext17012
Email	CBlack@co.hernando.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:

The County proposes design improvements to an existing one mile section of Culbreath Road which frequently floods. The roadway will be designed to modern standards, elevated above the floodplain, and provide water quality treatment for the project area. Culbreath Road serves as a primary connection between the City of Brooksville and State Road 52 and Interstate 75 in northern Pasco County. Many Hernando residents utilize Culbreath Road for daily commutes to jobs in Tampa. When flooding occurs the road is underwater for months at a time, necessitating costly and time consuming detours for commuters. This project will eliminate road closures, provide flood relief, provide water quality treatment for untreated pavement, provide enhanced traffic safety, and reduce nutrient loading into the Weeki Wachee Springshed groundwater basin. Hernando County recently added this project to its 5 year Capital Improvement Plan. County staff presented the project to the Southwest Florida Water Management District (SWFWMD) for preliminary review. SWFWMD indicated the design concepts and locations were acceptable and could qualify for Environmental Resource Permit issuance once final plans were submitted. .

This CFI application seeks year-two funding for a multi-year project. Previous funding was approved in 2019 for a feasibility study and 30% plan review of the project proposal. Year-two provides continued funding of the project and allows completion of the engineering design and permitting of the roadway and storm water improvements. This includes all necessary survey work, all necessary geo-technical work, all required environmental and archaeological studies, and applicable permits from the Southwest Florida Water Management District, the Florida Department of Environmental Protection, and the US Army Corps of Engineers. Design fees are estimated to be $500,000.

Benefit:

This proposal includes complete design plans and permitting for roadway and storm water improvements providing roadway flood relief, water quality treatment for untreated pavement, and enhanced traffic safety. Detailed construction costs and benefits developed by the consultant as part of year-one funding will be used in evaluation and selection of the final design.

Cost:

Design fees are estimated to be $500,000. Final fees will be negotiated per the County's qualification based procurement policy.

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

Hernando County has partnered with the District to study and develop Watershed Management Plans for 22 watersheds throughout the County. The County designed and constructed the Peck Sink Stormwater Project, the South Brooksville Dauson Property Stormwater Project, and the BMP 7 Russell Street Project in cooperation with the District and has recently completed the BMP 6 Josephine Street Stormwater Improvement Project in South Brooksville and the Rogers Park Stormwater Retrofit water quality improvement project on the Weekiwachee River in cooperation with the District. The County has a dedicated stormwater funding mechanism in the form of a MSTU that assures funding will be available to implement approved projects.

Hernando County implemented a floodplain ordinance in 1986 and signed a joint Flood Protection Coordination Agreement with the District in September 2000. The County sought and received FEMA approval of new Flood Insurance Rate Maps (FIRM) on February 2, 2012 based on basin studies conducted in cooperation with the District. The County is working with the FDEP to develop the Weekiwachee Spring Basin Management Action Plan (BMAP) aimed at reducing nutrient loadings within that springshed. This effort compliments and supports the District's Springs Initiative. Hernando County has instituted a series of public meetings seeking citizen input regarding proposed water management improvements in the community.

Hernando County is covered under a NPDES Phase II MS$ permit and the County adopted a Stormwater Ordinance addressing water quality in June 2006. The County has recently instituted several measures under it's MS4 permit to improve water quality within the community including a stormwater education program (2003), a stormwater utility (2006), a pet waste ordinance (2012), a storm drain stenciling program (2013), a fertilizer ordinance (2013), a street sweeping program (2014), and a water quality testing and monitoring program (2014).

The Hernando County Utility Department has successfully implemented a series of water conservation incentive programs that include, a rain sensor rebate program, low flow toilet programs (2003-2012) and irrigation evaluation and audit projects. Other incentive programs include various rebate opportunities in conjunction with the Florida Friendly Landscaping program. The water conservation program also provides water conservation information in their Hernando County Water Awareness Series and Groundwater Guardians program, through bill inserts and information provided at each HCUD office.

Hernando County Code Enforcement Officers enforce watering restrictions set forth by Southwest Florida Water Management District and the more stringent regulations implemented by Hernando County Board of County Commissioners. Code Enforcement Officers also inspect construction sites and stormwater management systems for compliance with the water quality provisions of the County's NPDES MS4 permit.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share		137,500	250,000	2,000,000	2,387,500
Coastal Rivers		137,500	250,000	2,000,000	2,387,500
Total		275,000	500,000	4,000,000	4,775,000

Matching Fund Reduction

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

Timelines

Design Consultant Selection Nov 1, 2019 - Dec 1, 2019

Milestone	Projected Date
Design Contract Signed	12/01/2019

Performance of Design Contract Dec 2, 2019 - Aug 31, 2020

Milestone	Projected Date
Construction Plans and Permitting Complete	08/31/2020

Plan Review and Acceptance Sept 1, 2020 - Sept 30, 2020

Milestone	Projected Date
Construction Plans Accepted	09/30/2020

Data Collection Assessment:

☒ Groundwater or Surface Water Level measurements ☒ Land Survey

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Stormwater Utiulity - Feasibility Study
Project Number	N986
Cooperator	Citrus County
Department	Public Works
Contact Person	Mark Schroder
Address	3600 W Sovereign Path
City Sate Zip	Lecanto, FL 34461
Phone #	352-527-5443
Email	mark.schroder@citrusbocc.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 initial efforts in the development of a Stormwater Utility (SWU) will focus on developing the approach and methodologies to address and resolve the existing and future stormwater challenges on a sustainable long term basis. This effort will require a clear vision of the program priorities, appropriate professional analysis of needs and resources, and a proper understanding of community's perceptions, expectations and priorities. Citrus County staff has recommended that the Board of County Commissioners (BOCC) hire a consultant to assist staff with the establishment of a Stormwater Utility. The BOCC has agreed with the recommendation. This is expected to take place in three steps over three years The first year is for an overall condition assessment and funding alternatives evaluation. This second year will be the performance of a rate study and development of billing methodologies. The third year will be community outreach, public presentations and a final presentation to the Board of the available options.

Benefit:

A dedicated funding mechanism through the establishment of a Stormwater Utility would significantly improve the Citrus County's ability to fund stormwater capital improvement projects and address operational needs on a long term sustainable basis.

Cost:

Year 2 of the Feasibility Study will cost $100,000. Each year of the study will be presented to the BOCC for approval. After BOCC Approval that year's portion of the study will be submitted for CFI funding.

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

Citrus County has partnered with the District to study and develop Watershed Management Plans for eight of the County's watersheds. The County has completed the Hunter Springs Water Quality Improvement Project in cooperation with the District. The County has also worked with the District to design and is preparing to construct the Homosassa South Fork Water Quality Improvement Project to improve quality of stormwater entering the Homosassa River. The County sought and received FEMA approval of new Flood Insurance Rate Maps based on basin studies conducted in cooperation with the District. The County is cooperating with the FDEP to develop the Kings Bay/Crystal River, Homosassa Springs and Chassahowitzka Springs Basin Management Action Plans (BMAP) aimed at reducing nutrient loadings within the springsheds. This effort compliments and supports the District's Springs Initiative. Citrus County has adopted floodplain, stormwater ordinances and fertilizer ordinances and is now covered under a NPDES Phase II permit for the county's Municipal Separate Storm Sewer System (MS4). As part of the NPDES permit the County has developed a stormwater education program, and is working on storm drain stenciling and street

sweeping programs. The Citrus County Utility Department has successfully implemented a series of water conservation incentive programs that include, a rain sensor rebate program, low flow toilet programs, and irrigation evaluation and audit projects. Other incentive programs include various rebate opportunities in conjunction with the Florida Friendly Landscaping program. The water conservation program also provides water conservation information and has Enforcement Officers to enforce watering restrictions set forth by Southwest Florida Water Management District.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share		50,000	50,000	50,000	150,000
Withlacoochee River		50,000	50,000	50,000	150,000
Total		100,000	100,000	100,000	300,000

Matching Fund Reduction

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

Timelines

Phase 1 - Begin

Milestone	Projected Date
Condition Assessment & Funding Alternatives	11/01/2019

Phase 1 - Deliverables

Milestone	Projected Date
Condition Assessment & Funding Alternatives	03/01/2020

Phase 2 - Begin

Milestone	Projected Date
Rate Study & Billing Methodology	10/01/2020

Phase 2 - Deliverables

Milestone	Projected Date
Rate Study & Billing Methodology	03/01/2021

Phase 3 - Begin

Milestone	Projected Date
Community Outreach, Presentations and Final Presentation to the BOCC	10/01/2021

Phase 3 - Deliverables

Milestone	Projected Date
Community Outreach, Presentations and Final Presentation to the BOCC	03/01/2022

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Hernando County-Anderson Snow Park Reclaimed Water Irrigation
Project Number	Q047
Cooperator	Hernando County
Department	Utilities Department
Contact Person	Richard Kirby
Address	12365 Cortez Boulevard
City Sate Zip	Brooksville, FL 34613
Phone #	352-754-4769
Email	Rkirby@hernandocounty.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:

Hernando County Utilities Department (HCUD) is in the process of finalizing an updated Reclaimed Water Master Plan (RWMP). The RWMP was funded through enterprise dollars and SWFWMD Cooperative Funding Project N781. Potential reclaimed water customers were identified and the top three were ranked. One of these is reclaimed water irrigation for Anderson Snow Park. The park is an existing publicly owned sports complex consisting of baseball and soccer fields. This project will consist of 2500 ft 6-inch diameter pipe, pumps, and appurtenances.

Benefit:

This site can utilize up to 200,000 gallons per day of reclaimed water for irrigation with anticipated offset of 120,000 gallons per day. The availability of reclaimed water combined with the central location, close to the Suncoast Parkway, will allow this park to become a showpiece demonstrating results of cooperative efforts between the Southwest Water Management District and Hernando County. Improved turf through reclaimed water irrigation combined with its easy access central location will increase the park's desirability drawing more sporting events, potentially creating the need for new jobs in the area.

Cost:

Total project cost $400,000 (Design, permitting, and construction);Hernando County Utilities Department share $200,000; District share $200,000;
$400,000/200,000 GPD = $2.00 per gallon per day capital cost.

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

Hernando County Utilities Department (HCUD) has successfully implemented their water conservation/water resource protection program for over a decade. Conservation programs such as rain sensor installations, irrigation evaluations, low flow toilet replacements, along with innovative and bold education programs have led HCUD to meet Water Use Permit regulatory requirements both in annual gallons of water pumped and per capita requirements. HCUD was the first utility in the Northern Region of SWFWMD to establish water conservation rate structures. HCUD continues to work closely with Code Enforcement in watering restrictions education and enforcement efforts.
HCUD is currently finalizing a Reclaimed Water Master Plan. This Master Plan included a comprehensive analysis of all available alternatives to maximize benefits to the environment, the local water supply, and local economy. This project has been ranked as one of the top three potential reuse customers.
Additionally, HCUD is in the process of upgrading both subregional water reclamation facilities in the western service area to

advanced waste water treatment for nitrogen. This highly treated reclaimed water will be used to recharge the aquifer in the Weeki Wachee Springs Priority Focus Area.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			200,000		200,000
Coastal Rivers			200,000		200,000
Total			400,000		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
Completion	08/26/2021

Design and Permitting

Milestone	Projected Date
Completion	02/25/2020

Procure Construction

Milestone	Projected Date
Completion	02/26/2020

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name 50th st County 40 Stormwater Drainage
Project Number Q051
Cooperator Yankeetown
Department Mayor
Contact Person Jack Schofield
Address 6241 Harmony Ln
City Sate Zip Yankeetown, FL 34498
Phone # 352-447-2511
Email Ytmayor@bellsouth.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 Town of Yankeetown is a small coastal village in southwestern Levy County. During Hurricanes Hermine and Irma, as well as during many unnamed storm events in recent years, residents in Yankeetown have experienced significant flooding due to both rainfall and storm surge. Residential properties, vacant lots, and commercial businesses have all experienced repetitive flood losses. The neighborhood around 50th Street, between Riverside Drive and County Road 40, experienced notable flooding during Hurricane Irma. The Town documented complete inundation of at least 3 properties with houses as well as flooding over Nancy Parkway, 50th Street, 51st Street, and Riverside Drive. In addition to the economic losses and threat to human health and safety, each occupied property that was affected by flooding has an on-site sewage treatment and disposal system. Septic tank flooding can cause water quality and environmental degradation in the area. Repetitive flooding also leads to erosion and sedimentation into the river with the potential for cumulative impacts, threatening delicate coastal zones, fisheries, and wetland systems.

Benefit:

The proposed project will alleviate area flooding through the construction of a new stormwater conveyance system and improvement of an existing stormwater conveyance system, diverting floodwaters away from the affected area

and toward an existing drainage system along County Road 40. A series of bioswales and culverts will route water through adjacent to vacant property along the Town right-of-way. The use of bioswales in lieu of standard roadside ditches will provide water quality improvements. Sending floodwater away from the river will reduce sedimentation and erosion, protecting coastal zones and delicate local fisheries. Mitigating flood impacts will also temper the economic losses felt by residents and businesses during large storm events and help protect human health and safety.

Cost:

Please see cost Estimate in Documents

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

The town has a Flood Plain Ordinance that we just revised Ordinance 2018-06 see Documents

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			5,000		5,000
Withlacoochee River			265,000		265,000
Total			270,000		270,000

Matching Fund Reduction

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

Timelines

Construction

Milestone	Projected Date
Bidding and qualification	05/31/2021
Award Construction Bid	07/31/2021

Planning

Milestone	Projected Date
Engineering Design	10/31/2020
Easement Acquistion	02/28/2021

Data Collection Assessment:

[X] Land Survey

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name SR 200 Watershed Management Plan Update
Project Number Q058
Cooperator Marion County
Department Office Of The County Engineer
Contact Person Gail Mowry
Address 412 Se 25th Avenue
City Sate Zip Ocala, FL 34471
Phone # 352-671-8686
Email gail.mowry@marioncountyfl.org

Project Type:

☐ Water Supply ☒ Water Quality ☒ Flood Protection ☐ Natural Systems

Strategic Initiatives:

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

Indicate All Counties to Benefit From Project:

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

Project Description/Benefit/Cost

Description:

This project will update the Watershed Management Plans (WMP) for the SR 200 watershed. The WMP for this watershed, 21.6 square miles in total area, was completed in 2011 as project numbers L463. FY 2020 funding will be used to update the WMP using new LiDAR to the current District schema and also provide an updated assessment of flood risks by reclassifying the modeled floodplains based on current FEMA depth criteria.

Benefit:

The primary benefit of this project is to update the assessment of flood risks based on current FEMA depth criteria. In addition, the update will allow the WMP data to be provided to engineers and other interested parties in an ICPR4 format that interfaces directly with ArcGIS.

Cost:

The cost of the WMP maintenance is estimated at $425,000 based on historic costs provided by SWFWMD of $19,675.93 per square mile. Marion County has identified funds in the FY 18/19 Stormwater Implementation Plan (SIP), approved by the Board of County Commissioners on June 5, 2018 (Table 1 of the Plan is attached with this application). Due to timing of the SIP and obtaining an accurate cost per square mile, adjustments will be made during the FY 19/20 budget process to set aside the full cost of the proposed maintenance. Also attached to this application is the a copy of the approved FY 18/19 Stormwater Program budget showing the commitment of funds to the Contract Services - Watershed line item which will fund this project. Marion County will be the lead agency for the project.

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

The Marion County Stormwater Program is funded by a yearly stormwater assessment. The program is responsible for NPDES/ TMDL compliance, watershed management, flood protection studies as well as, management & maintenance of the stormwater system associated with the transportation network. The Marion County Land Development Code requires stormwater design and

permitting on all development activities that exceed 9,000 square feet of impervious surface and includes compensating storage requirements for placement of fill in a floodplain. Marion County maintains Community Rating System Class 7.

In 2008 and 2009, Marion County adopted springs protection, fertilizer, and irrigation ordinances, as well as new land development code for springshed protection. The Board of County Commissioners (Board) established a staff position to promote proactive steps that each citizen can take to reduce consumption of our water supply. Through community outreach efforts and water conservation workshops, Marion County citizens are learning about proper use of low-flow devices, Florida-friendly landscaping and compliance with the County's irrigation schedule.

The Board also approved the 2017-2018 Stormwater Public Education Plan (SEP) and, with it, goals to increase local awareness of stormwater pollution and promote a reduction in contributing behaviors. The SEP outlines a multi-media approach that consists of a public service announcement (PSA) campaign encompassing radio advertisements coupled with an on-line survey assessing the radio PSA; billboards encouraging proper fertilizer use; creation and implementation of a fertilizer education program in partnership with area businesses; and implementation of other initiatives necessary to meet the NPDES permit requirements for stormwater education and outreach. The planned effort for FY 2018-2019 is over 4 million educational impressions to our community.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			212,500		212,500
Withlacoochee River			212,500		212,500
Total			425,000		425,000

Matching Fund Reduction

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

Timelines

Initial Project Contract	09/02/2019
Notice to Proceed	10/01/2019
Final Project Deliverables	09/30/2020

Data Collection Assessment:

☒ Other data collection: Miscellaneous survey of structures.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Northwest Regional WWTF Expansion
Project Number	Q060
Cooperator	Marion County
Department	Marion County Utilities Department
Contact Person	Christine Vrabic
Address	11800 S Us Hwy 441
City Sate Zip	Belleview, FL 34420
Phone #	352-307-4624
Email	Christine.Vrabic@marioncountyfl.org

Project Type:

☐ Water Supply ☒ Water Quality ☐ Flood Protection ☐ Natural Systems

Strategic Initiatives:

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

Indicate All Counties to Benefit From Project:

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

Project Description/Benefit/Cost

Description:

The NWRWWTF expansion project is an initiative by the County to improve wastewater treatment and expand the capacity at the existing WWTF. This project consists of constructing a new 1.50 MGD treatment process with biological nutrient removal, two 0.750 MGD clarifiers, two flow splitting structures for future oxidation ditches, a 0.500 MG equalization basin, new headworks and screening structure, rehabilitation of the existing lift station, retro-fitting the existing sand filter structure with disc filters with 2.00 MGD capacity, expansion of the existing chlorine contact basins to 2.00 MGD, constructing a new dewatering area for the County to bring in their existing mobile centrifuge unit, new RAS/ WAS pumping system, new MCC room, new automatic generator, new effluent pump station, and associated yard piping. The existing 0.200 MGD plant would be retrofitted into an aerobic digester or a sludge holding tank. This facility produces reclaim water and would continue to produce it with this expansion. The existing facility currently treats to an average 46.95 mg/L of Nitrogen as total nitrogen (TN). The new facility will be designed to treat to advanced water treatment (AWT) standards of 5 mg/L of biochemical oxygen demand (BOD), 5 mg/L of total suspended solids (TSS), and 3 mg/L of TN. This will result in a net decrease in nitrogen loading to the springshed. Since the last grant application submission, the County has (1) completed an alternatives analysis for expanding and improving the facility, (2) bid and started the construction of the disc filters and (3) gone through the RFQ process for design and has a consultant under contract to design the expansion. The increased capacity at the WWTF will allow Marion County to move forward and accomplish package wastewater plant removals and septic to sewer initiatives in the area. The County will be moving forward with design in fiscal year (FY) 2018-2019 with construction anticipated to begin in FY 2020.

Benefit:

This project will reduce nutrient loading to the Rainbow Springs springshed. The springshed has an established total maximum daily loading (TMDL) and adopted basin management action plan (BMAP) as of December 2015. The nitrogen loading from the facility at the Average Daily Flow of 0.058 million gallons per day is approximately 8,321 pounds per year. Assuming we treat the same amount of wastewater per day (no growth in the springshed) the nitrogen loading for the improved facility will be about 531.6 pounds per year. Therefore the overall anticipated reduction of total nitrogen, according to FDEP Guidelines, will be approximately 1,774 pounds per year. This area of the County is experiencing growth from development, so the actual benefit to the springshed should increase over time.

Cost:

The estimated cost for the WWTF expansion and nutrient removal improvements is approximately $15.4 million. Of this, approximately $1.9 million has either been spent or encumbered by the County as match to begin the project. Marion County is

also applying for FDEP State Springs Funding (as shown in the Funding Table). The County acknowledges that if State Springs Funding is not awarded, the requested SWFWMD Cost Share Funding may be increased to 50% as well as the County's contributing match.

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

In 2013, the Marion County Land Development Code (LDC) was modified to require WWTFs to meet the following annual average reclaimed water limitation for total nitrogen by 2019: (a) 3.0 mg/L for facilities having a design average daily flow (DADF) equal to or greater than 100,000 gallons per day; or (b) 6.0 mg/L for facilities having a DADF less than 100,000 gallons per day. Marion County's Water Use Efficiency efforts are achieved through a comprehensive, goal based program which includes regulations; public education and distribution of materials and products to realize measurable water savings. The current program includes: Regulation - Landscape Irrigation Restrictions (Ordinance 09-13), Tiered Utility Rate Structure (Resolution 09-R-87), Land Development Code Landscape Standards (Ordinance 09-17); Public Education - Targeted messaging to Marion County Utility customers, Participation in community events; Tangible Products and Programs -Toilet rebates, Distribution of water conservation kits (indoor and outdoor fixture retrofits), Cooperative program with WRWSA to provide landscape irrigation evaluations/audits to high water users, Landscape and Irrigation Retrofit Rebate Program.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share	199,834	1,683,199	3,375,000		5,258,033
FDEP State Springs Funding			6,750,000		6,750,000
Withlacoochee River			3,375,000		3,375,000
Total	199,834	1,683,199	13,500,000		15,383,033

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	05/01/2020
Substantial Completion	10/01/2021
Construction Complete	11/30/2021

Design

Milestone	Projected Date
Preliminary Engineering Report	12/31/2018
30% Design	03/31/2019
60% Design	06/30/2019
90% Design (includes draft RFB)	08/31/2019
Proposed Final Design (includes final RFB)	09/30/2019
District Verifications	10/15/2019

Request for Bids

Milestone	Projected Date
RFB Advertisement	11/15/2019
RFB Evaluation and Award	02/15/2020
Notice to Proceed to Contractor	04/01/2020

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Regional Irrigation System Audit Program Phase 6
Project Number	Q062
Cooperator	WRWSA
Department	
Contact Person	Richard Owen
Address	3600 W Sovereign Path
City Sate Zip	Lecanto, FL 34461
Phone #	352-527-5796
Email	richardowen@wrwsa.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	[X] Citrus	[ ] Desoto	[ ] Hardee	[X] Hernando	[ ] Highlands	[ ] Hillsborough	[ ] Lake
[ ] Levy	[ ] Manatee	[X] Marion	[ ] Pasco	[ ] Pinellas	[ ] Sarasota	[X] Sumter	[ ] Polk

Project Description/Benefit/Cost

Description:

This is a continuation (sixth phase) of the program that has been co-funded by the SWFWMD in fiscal years 2011, 2013, 2015 and 2017, with additional funding scheduled for 2019. The project includes an education strategy; marketing; the administration of irrigation audits in Citrus and Hernando counties, eligible portions of Marion County, the Village Center Development District (VCDD) and the North Sumter County Utility Development District (NSCUDD) located in Sumter County within the SWFWMD; examination of pre- and post-audit water consumption by participants; follow-up site visits of approximately 25% of participants and a survey of participants to gauge implementation of recommendations; and preparation of a project report. Similar to past phases of the program, this phase will provide a base level of services (Core Program) to all participants. In addition to the Core Program this sixth phase may also offer enhanced program elements that were introduced in the currently ongoing fourth phase. These enhancements allow the contractor, in consultation with the local conservation coordinators, to offer implementation of select site-specific recommendations to homeowners. Because the phase four project is still underway with a final report due date of 03/31/2020, and the need to collect one year of post-audit water use data, not enough experience has been gained to fully understand the costs and benefits of the enhanced program. A greater understanding will exist before the audits for this sixth phase are initiated. Therefore, it is proposed the scope of work for this project allow flexibility at this time for the exact composition of core and enhanced audits. The District project manager, with the input and advice of the WRWSA project manager and the local utility representatives, will have final authorization for the composition of core and enhanced audits. The proposed total program budget for FY 2019-20 is $136,000. The number of homeowner audits that will be completed based on this budget will be a function of the number of Core or Enhanced audits selected. To estimate a range of potential audits based upon 100% core versus 100% enhanced, the average total costs per core audit and enhanced audits conducted through August 2018 in phase 4 were examined. Additional costs for follow-ups were added to these costs. These costs were then inflated to reflect the cost increases experienced in the selected contractor bid for phase 5. If only core audits (with an average cost of approximately $412) are conducted, up to approximately 330 audits could be performed. If only enhanced audits (with an average cost of approximately $712) are conducted, it is estimated approximately 191 audits could be performed. The actual number of audits to be completed should lie within this range. For project planning purposes, it is assumed all audits completed in Citrus, Hernando and Marion counties will be enhanced audits and all audits in the Villages will be core, resulting in a total number of audits of 216. The project will include verification through inspection of the proper installation of efficiency devices by way of follow-up site visits and surveys concerning landscaping practices of a selection of participants. Twelve months of pre-audit water use will be compared to 12 months post-audit water use for all participants as a primary means of estimating water savings. The water savings will favorably affect groundwater and public water supply water demand. The project is located within the District's Northern Planning Area. The project is consistent with

District priorities for cost-effectively reducing water demand. Water supply will be enhanced by providing residential users with rain sensors, where appropriate, thereby reducing the demand for potable water by implementing Florida-friendly landscaping practices.

Benefit:

Through Phase 4 to-date, the program has reached over 638 homeowners in Citrus, Hernando, Marion and Sumter counties. Through Phase 3, the program is estimated to have saved over 48.4 million gallons per year, or 132,000 gallons per day, with an average savings per home of 54,533 gallons per year and 149.4 gallons per day. The estimated cost/benefit ratio for the project calculated at an 8% annual rate of interest over five years is $1.86 per 1,000 gallons, based on a total eligible project cost of $136,000. Any Enhanced audit portion of the project is projected to save even more water based on average percentage savings generated by the SJRWMD FAWCET Model. Operational based residential irrigation audits (Core Program) average an approximate 25% outdoor water savings. A repair based irrigation audit (Enhanced Program) can generate up to a 40% outdoor water savings. Savings rates associated with the Phase 4 enhanced audits will be available by December 2019. The project is consistent with the District's Strategic Plan. It supports the District's Conservation Strategic Initiative, specifically including: Promote water conservation through public engagement programs; Support research and implementation of conservation techniques and practices; and Utilize financial incentives to further encourage effective conservation practice. It also supports the District's Regional Priorities and Objectives for the Northern Region to "Ensure long-term sustainable water supply" and the specific objective to "increase conservation" in the region. The long-term benefits that can be derived from this project include: a reduction in potable water consumed in the region; reduction in the future demands of the region; and improved ground and surface water quality in the region. Conservation also helps to maximize the utilization of existing water supply infrastructure. The project may also have additional benefits of reducing the use of fertilizer for lawns and landscapes through the project's promotion of Florida Friendly Landscaping.

Cost:

The total project cost is $136,000, with the WRWSA contributing $68,000 and the SWFWMD contributing $68,000. The cost per irrigation audit will depend upon the number of Core versus Enhanced audits selected by the participating utilities as approved by the District and the composition of any Enhanced audits.

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

The WRWSA has historically and is currently actively engaged in water conservation within its four-county region. The WRWSA has a Water Conservation Grants Program and has been co-funding water conservation initiatives since 1999 for its member governments. In its 2017-18 fiscal year, the WRWSA awarded over $126,000 in water conservation grants to three member governments that funded a multitude of projects at each government, such as toilet rebates, public education, etc. Comprehensive public supply water conservation programs are being partially co-funded by the Authority with Citrus, Hernando and Marion counties through the Authority's grant program. The WRWSA is currently co-funding with the District the Regional Irrigation System Audit Program. This program targets inefficient landscaping practices and irrigation systems for optimization leading to measurable water savings. Education and information is provided by a professional certified irrigation contractor. Participants currently include Citrus, Hernando and Marion counties and several utilities within The Villages in Sumter County, a major water utility in Sumter County. Sumter County does not operate its own water utility. This effort is currently in Phase 4, which is the largest phase to-date and includes enhancements to the program whereby participants can have irrigation system efficiencies implemented. The Authority also serves as a facilitator and participant in coordination and collaboration among the various public supply utilities in its region for water conservation and other activities. The Authority owns the Charles A. Black (CAB) water supply facilities in Citrus County, a major water supply source in the county. The CAB facilities are operated and maintained by Citrus County pursuant to a water supply contract. The Authority maintains a renewal and replacement fund to ensure the CAB facilities are capable of meeting growing water supply demands.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			68,000		68,000
General Fund-District Wide			68,000		68,000
Total			136,000		136,000

Matching Fund Reduction

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

Timelines

April 2023 - May 2023

Milestone	Projected Date
Prepare Final Report	05/31/2023

August 2022 - December 2022

Milestone	Projected Date
Pre- and Post-audit Water Use Analysis	12/30/2022

December 2020 - June 2022

Milestone	Projected Date
Conduct Follow-ups and Survey	06/30/2022

January 2023 - March 2023

Milestone	Projected Date
Prepare Draft Report	03/31/2023

July 2019 - September 2019

Milestone	Projected Date
Select Contractor	09/30/2019

November 2019 - May 2021

Milestone	Projected Date
Conduct Audits	05/31/2021

Data Collection Assessment:

[X] Other data collection: Pre- and post-audit water use, customer survey data

This page intentionally left blank

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Hernando County Airport WRF Total Nitrogen Reduction
Project Number	Q065
Cooperator	Hernando County
Department	Utilities Department
Contact Person	Richard Kirby
Address	12365 Cortez Boulevard
City Sate Zip	Brooksville, FL 34613
Phone #	352-754-4769
Email	Rkirby@hernandocounty.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:

Hernando County's Airport Water Reclamation Facility (WRF) and its aquifer recharge basins (ARB) are located within the Weeki Wachee Priority Focus Area, as determined by the Florida Department of Environmental Regulation in the Weeki Wachee Basin Management Action Plan (BMAP). This BMAP was developed in response to the USEPA's established total maximum daily load (TMDL). Weeki Wachee Springs and River have been determined to be impaired for nitrate. This project will include construction of all assets needed to reach advanced wastewater treatment (AWT) for total nitrogen reduction. These assets include denitrification basins, additional carbon feed system, effluent filters, and a compressed air system.

Benefit:

Approximately 1/2 of the flow from the Spring Hill WRF will be rerouted to the Airport WRF. The reduction in total nitrogen from this transfer and the upgrade of the Airport to AWT for TN is 37,096 pounds/year. After applying FDEP factors the reduction is 25,040 pounds/year. Currently, the Airport WRF is required to meet nitrogen limits for secondary wastewater treatment, 12 mg/l nitrate. The permitted limit is for nitrates alone, and does not establish a cap for total nitrogen. This project will ensure the WRF can achieve AWT. The potential reduction in total nitrogen in reclaimed water, from the current limit to AWT level at the proposed 6 Million Gallon per Day plant capacity,after removing the Spring Hill WRF flow, will be 140,820 pounds/year. After applying FDEP factors, the reduction is reduced to 95,054 pounds/year. At the present time, the plant flow is significantly below design capacity and is able to achieve high level nitrogen removal. This project will ensure the facility will continue to meet the requirement at design capacity.

Cost:

Total Project Cost; $10,000,000 Two years, $5,000,000 First Year
Hernando County Share; $1,250,000 First Year, FDEP Springs Share; $2,500,000 First Year, District Share; $1,250,000 First Year

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

Hernando County Utilities Department (HCUD) has successfully implemented their water conservation/water resource protection program for over a decade. Conservation programs such as rain sensor installations, irrigation evaluations, low flow toilet replacements, along with innovative and bold education programs have led HCUD to meet Water Use Permit regulatory

requirements both in annual gallons of water pumped and per capita requirements. HCUD was the first utility in the Northern Region of SWFWMD to establish water conservation rate structures. HCUD continues to work closely with Code Enforcement in watering restrictions education and enforcement efforts.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			1,250,000	1,250,000	2,500,000
Coastal Rivers			1,250,000	1,250,000	2,500,000
FDEP Springs			2,500,000	2,500,000	5,000,000
Total			5,000,000	5,000,000	10,000,000

Matching Fund Reduction

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

Timelines

Construction

Milestone	Projected Date
Completion	08/26/2021

Design

Milestone	Projected Date
Completion	02/25/2020

Permitting

Milestone	Projected Date
Completion	02/25/2020

Procure Construction

Milestone	Projected Date
Completion	02/26/2020

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Hernando Beach Water System Improvements
Project Number	Q069
Cooperator	Hernando County
Department	Utilities Department
Contact Person	Richard Kirby
Address	12365 Cortez Boulevard
City Sate Zip	Brooksville, FL 34613
Phone #	352-754-4769
Email	Rkirby@hernandocounty.us

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	[X] Hernando	[ ] Highlands	[ ] Hillsborough	[ ] Lake
[ ] Levy	[ ] Manatee	[ ] Marion	[ ] Pasco	[ ] Pinellas	[ ] Sarasota	[ ] Sumter	[ ] Polk

Project Description/Benefit/Cost

Description:

This project includes design, construction, tracking, and analysis of water use and water loss in the coastal community, Hernando Beach. This is an area within our water distribution system that has been susceptible to problematic water leaks. In an area with a high-water table, sandy soils, and shallow karst limestone, leak detection in this area is challenging and we currently have no way to quantify the amount of water loss that is occurring.The water distribution system in this area is supplied by two large diameter water mains (Osowaw Blvd and Cortez Blvd). By installing master meters at these two locations, we will be able to calculate the amount of water flowing on a real-time basis and balance that with the amount of water served to our customers. The existing customers' water meters will be retrofitted with a flush mounted antenna, and the existing Hernando Beach water tower will be retrofitted with a data collector to read the meters. Except for servicing the meters, we would no longer require a vehicle to travel the roads and read the meters.The water meters could be read real-time collecting data to quantify the amount of water loss and alerting us of any issues. Construction also includes pressure reducing valves at the master meters to better regulate pressures in the Hernando Beach community.

Benefit:

The measurable benefit will be the identification of location and amount of water loss sources and the correction of infrastructure deficiencies to mitigate or eliminate water loss. Current water loss in this area is estimated to be above 12%, or 14,900,000 gallons per year. Twelve percent was chosen as a conservative estimate.Given the age and material of water distribution pipes in this area, as well as history of breaks and leaks, actual leakage could be higher.

Cost:

Total Project Cost; $250,000
Hernando County Share; $125,000
District Share; $125,000
This cost covers expected desing and construction. No additional funding request is expected for this project.

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

Hernando County Utilities Department (HCUD) has successfully implemented their water conservation/water resource protection program for over a decade. Conservation programs such as rain sensor installations, irrigation evaluations, low flow toilet replacements, along with innovative and bold education programs have led HCUD to meet Water Use Permit regulatory requirements both in annual gallons of water pumped and per capita requirements. HCUD was the first utility in the Northern

Region of SWFWMD to establish water conservation rate structures. HCUD continues to work closely with Code Enforcement in watering restrictions education and enforcement efforts.
HCUD is currently finalizing a Reclaimed Water Master Plan. This Master Plan included a comprehensive analysis of all available alternatives to maximize benefits to the environment, the local water supply, and local economy.
Additionally, HCUD is in the process of upgrading both subregional water reclamation facilities in the western service area to advanced waste water treatment for nitrogen. This highly treated reclaimed water will be used to recharge the aquifer in the Weeki Wachee Springs Priority Focus Area and for golf course irrigation..

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			125,000		125,000
Coastal Rivers			125,000		125,000
Total			250,000		250,000

Matching Fund Reduction

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

Timelines

Acquisition of Design services	01/21/2020
Design and permitting	04/01/2020
Procure construction	07/31/2020
Construction	01/01/2021

Data Collection Assessment:

☒ Other data collection: Water loss

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Water Sense Labeled Irrigation Controller Install - Phase 3
Project Number	Q070
Cooperator	Citrus County
Department	Water Resources
Contact Person	Debra Burden
Address	3600 W Sovereign Path, Ste 202
City Sate Zip	Lecanto, FL 34661
Phone #	352-527-7684
Email	Debra.Burden@citrusbocc.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	[X] Citrus	[ ] Desoto	[ ] Hardee	[ ] Hernando	[ ] Highlands	[ ] Hillsborough	[ ] Lake
[ ] Levy	[ ] Manatee	[ ] Marion	[ ] Pasco	[ ] Pinellas	[ ] Sarasota	[ ] Sumter	[ ] Polk

Project Description/Benefit/Cost

Description:

Phase three of the Water Sense (WS) labeled irrigation controller project will incentivize replacing 180 traditional irrigation controllers with WS labeled models at dwellings that average more than 20 thousand gallons of water per month for a 12-month period. To qualify for the Project, dwellings shall have an in-ground automatic irrigation system connected to the utility's potable water supply and an existing traditional non-WS labeled controller. Water Sense labeled irrigation controllers use local weather and landscape conditions to tailor watering schedules to each site, which better match plant water needs while reducing water consumption. WS labeled products are backed by independent, third–party certification and meet EPA's specifications for water efficiency and performance. Project participants will be invited to participate via direct mail and email. Each solicitation letter will be tailored to site-specific water use. In the past, these individualized letters alone have resulted in a 28 percent average decrease in water use of recipients that ultimately did not participate in the program. Each participant will either have a controller installed by a county-hired contractor or shall be issued an account credit of up to $500, if they choose to use their own contractor for installation. Reimbursement shall not exceed product costs and installation. Applications will require owners identify their existing irrigation controller brand and model to ensure the existing fixture is not Water Sense labeled. The application will also ask owners about their current irrigation behaviors to better direct education during the inspection process.After a WS labeled controller has been installed, the County will conduct an inspection to ensure controllers are functioning correctly. During the inspection, each homeowner will receive education on how the new controller operates and its water-saving features. Additionally, a zone by zone irrigation checkup will be performed with homeowner to examine the system for inefficiencies, breaks and other system issues. Lastly, the controller settings will be evaluated, and updated when necessary and possible, to meet the watering needs of the landscape.The Project is within a District Priority Focus Area and will positively affect water quantities in the Crystal River/Kings Bay, Homosassa and Chassahowitzka Springs and Rivers. This project furthers implementation of irrigation audits, a conservation best management practice identified in the Regional Water Supply Plan. Additionally, installation of Water Sense labeled irrigation controllers is identified as an Ongoing Water Quantity Project within the Crystal River/Kings Bay, Homosassa and Chassahowitzka SWIM Plans. The project is within service territories associated with Citrus County Utilities Water Use Permits, including No. 9791, with a 2017 per capita rate of 199; No. 7121 with a 2017 per capita rate of 155; and No. 2842 with a 2017 per capita rate of 144. The completed project will serve the following goals:

- Reduce participating customers' water use by 20%
- Assist Citrus County and the District in meeting existing and future water demands
- Reduce the amount of fresh water being withdrawn from the aquifer
- Reduce the utility's per capita water usage

The County project administrator shall provide quarterly status reports and invoices, as well as a final report. The final report shall contain the irrigation controller models and quantity installed; a full accounting of funds expended during and in relation to the Project; customer surveys to determine satisfaction with the controllers and Project; and calculation of water savings using 12-months pre- and post-water usage data of each participant.

Benefit:

Research shows that evapotranspiration controllers, such as those labeled Water Sense, have a potential water savings of 18% to 32 % compared to traditional irrigation controllers. Savings trend towards the higher percentage range when installation is coupled with participant education.The Project is anticipated to produce water savings of approximately 26,474 gallons per day, 9,663,156 gallons annually for the next 5 years and nearly 50 million gallons of saving during the life of the project. The following methodology was used to calculate savings:

- Averaged combined water use of all customers with 12-month average use greater than 20,000 from June 2017 through July 2018 = 881 GPD
- EPA estimates average 4-person family use = 400 GPD
- EPA estimates 70% use indoors (400 x 70%) = 280 GPD
- Average per person indoor water use (280 / 4 persons) = 70 GPD
- Citrus County indoor water use (70 GPD x 2.08 PPH. PPH is an average of WUPs #9791, 7121, and 2842 service areas) = 145.6 GPD
- Outdoor water use (881 – 145.6) = 735.4 GPD
- ET Controller savings per day (735.4 x 20%) = 147.08 GPD
- # of implementations = 180
- Project gallons per day savings (147.08 x # implementations) = 26,474.4 GPD
- Annual Project water savings (daily savings x 365) = 9,663,156 GPD

Cost:

The total eligible cost of the project is $90,000. Citrus County is requesting 50% of project cost reimbursement for a total of $45,000. The County is proposing its match be equally split between the County and the Withlacoochee Regional Water Supply Authority similar to previous CFI projects. The estimated cost benefit ratio is $2.27 per thousand gallons (5 years at 8% interest). The project is consistent with District priorities for cost-effectively reducing water demand.

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

Water Conservation
Citrus County has a comprehensive water conservation program that compliments the Phase 3 Water Sense Labeled Irrigation Controller Installation program. • A similar effort now in its fifth year also incentivizes the installation of WS labeled irrigation controllers through an account credit. However, the program differs from the proposed CFI application as it is available to all customers without requiring the customer be a high water user and the incentive is only $150. • Another complimentary effort the County offers is a free irrigation system checkup that provides a zone by zone walk of the citizen's system, as well as a rain sensor test, and irrigation controller scheduling training. • Other rebates the county offers include $50 for replacing a non-functioning rain sensor and $100 for replacing up to two pre-1995 toilets with WS labeled models. • Through patrol and advanced metering data, Citrus County enforces Year-round Water Conservation Measures and Water Shortage Orders for all properties within its service territory. • Lastly, Citrus County continues to partner with the WRWSA and the SWFWMD for the Irrigation Evaluation program now entering its fifth year. Evaluations provide an in-depth assessment of an irrigation system and a written report of suggested modifications. Phase 6 of the irrigation evaluation program is anticipated to run simultaneous to the Phase 3 WS labeled controller installation project. Citrus County will coordinate closely with the WRWSA to ensure there is no duplication of efforts between the two programs. • Citrus County continues to develop and update ordinances geared toward conserving its water resources. The County's water restriction ordinance requires all automatic irrigation systems to use technology that inhibits or interrupts landscape irrigation during or shortly after a significant rainfall.
Water Quality
• The Southwest Regional Water Reclamation Facility is currently under construction. The 1.5 million gallons per day plant will serve customers within the Chassahowitzka and Homosassa rivers Springsheds. The facility will produce reclaimed water at 3 mg/L total nitrogen to reduce negative impacts to water quality.
Flood Protection • Citrus County has adopted a Floodplain Ordinance as required to participate in the National Flood Insurance Program (NFIP). The regulations are part of the Citrus County Land Development Code. The floodplain regulations are contained in Section 4160 "Floodplain Protection". All development is required to be in compliance with this Section.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			45,000		45,000
Coastal Rivers			45,000		45,000
Total			90,000		90,000

Matching Fund Reduction

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

Timelines

Phase 1: 10/01/2019

Milestone	Projected Date
Implementation Period	09/30/2020

Phase 2: 10/01/2020

Milestone	Projected Date
Savings Analysis	12/31/2021

Phase 3: 01/01/2022

Milestone	Projected Date
Final Report	02/28/2022

Data Collection Assessment:

[X] No data will be collected for this project

This page intentionally left blank

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Pasture Reserve
Project Number	Q075
Cooperator	Lake County
Department	Public Works
Contact Person	Wendy Poag
Address	Po Box 4800
City Sate Zip	Tavares, FL 32778
Phone #	352-516-7456
Email	wpoag@lakecountyfl.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:

The Pasture Reserve is roughly 810 acres of conservation land consisting of a mosaic of uplands and wetlands, including cypress strands, marsh, mixed forested wetlands, pasture and pine flatwoods. This is a natural systems project involving hydrologic and ecosystems enhancement and restoration. The restoration goal is to create sustainable surficial connections to wetlands which are currently connected by culverts and bisected by ditches/dikes and improve natural sheet flow as much as is feasible. Hydrologic connections utilizing constructions materials that are as inert to the ecosystems as possible, are as maintenance free as possible and that facilitate the use of prescribed fire as a management tool are preferable. Exotic species removal and native plant biodiversity enhancement via ground cover plantings/seeding will be a component of restoration. Wetland plant species and longleaf and slash pine plantings are also to be undertaken to maximize the health and resiliency of the whole system and its resident animal species.This project will be phased to allow for design and construction of hydrological improvements, with SWFWMD as the lead, followed by the ecosystem enhancement and restoration activities. The entire project is anticipated to be multiple years (5).

Benefit:

Re-connection of more natural water regimes, flows and levels across the entire site, leading to more balance, health and resiliency of the historic ecosystems. Enhancement of ecosystem services such as water storage, infiltration and quality.
Facilitation of exotic species removal and prescribed fire regimes (reduction in wildfire hazards).Opportunities for public environmental education through interpretation of the restoration processes.Biodiversity enhancement via plantings and natural immigration due to corridor improvements.Creates a future timber resource.

Cost:

Total project cost for hydrologic and ecosystem restoration should be $1,000,000.

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

The Pasture Reserve was purchased as part of Lake County's Public Lands 2004 referendum allowing the County to acquire land to protect drinking water, improve water quality of rivers and lakes, protect open space and provide passive recreation areas. It consists of over 810 acres located in the Green Swamp Area of Critical State Concern.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding

Applicant Share	50,000	450,000	500,000
Withlacoochee River	50,000	450,000	500,000
Total	100,000	900,000	1,000,000

Matching Fund Reduction

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

Timelines

FY2020-FY2021

Milestone	Projected Date
Complete conversion of failing culverts to low water crossings	09/01/2021

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Wildwood WMP
Project Number	Q082
Cooperator	Wildwood
Department	Public Works
Contact Person	Jeremy Hockenbury
Address	743 Huey Street
City Sate Zip	Wildwood, FL 34785
Phone #	352-330-1343 ext202
Email	Jhockenbury@wildwood-fl.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:

This is a multi-year funded project to perform a watershed management plan for the City of Wildwood in Sumter County. This funding request is for FY 2020. Future requests are expected for FY 2021 and FY 2022. The project watershed is 5 square miles. A Watershed Management Plan provides a method to evaluate the capacity of a watershed to protect, enhance, and restore water quality and natural systems while achieving flood protection. The Watershed Evaluation element is the collection and organization of detailed information such as land elevation, conveyance features such as ditches, culverts and other stormwater management features that affect how water moves within a watershed. The Watershed Evaluation tasks include the collection of existing data, and development of preliminary model features. The information is organized as a geodatabase that defines the watershed's natural conveyance and storage features and stormwater infrastructure. The Watershed Evaluation is the foundation for the Floodplain Analysis. The Floodplain Analysis includes model parameterization, computer modeling, floodplain mapping, peer review of floodplain results, public notification, public meeting, and Governing Board approval of floodplain results. The project will also include the Alternatives Analysis that is made up of a surface water resource assessment (SWRA), the establishment of a level of service (LOS), and best management practices (BMP) alternative analysis.

Benefit:

The first year of the project will include the development of a comprehensive Geographic Information System (GIS) based inventory of stormwater pipes, culverts, and conveyances and the completion of a Watershed Evaluation. The inventory and Watershed Evaluation will improve the knowledge available for the watershed and will facilitate the future phases of the project including the development of the hydrologic and hydraulic model that simulates the system response to varying rainfall events. This tool can be used to assess flood risk and LOS for roads and structures. The geodatabase also provides the basis for assessing the SWRA of the watershed. This information will be used to develop BMP's to address flooding or water quality concerns. The information is also used in review and approval of development within the watershed. The ability to prevent flooding by identifying floodplains and keeping development out of those areas or constructed above flood levels provides a much greater cost benefit than having to implement BMPs to reduce or eliminate flooding of existing infrastructure. Additionally, having a model allows for the continuous updating of the model as development occurs, and can be used in the planning process to assess future growth and land use changes. The measurable benefits of the project include the development of a detailed GIS inventory of stormwater infrastructure, a Watershed Evaluation, a Floodplain Analysis, and an Alternatives Analysis including a hydrologic and hydraulic model, a floodplain delineation, and alternative BMPs to reduce flooding and improve water quality.

Cost:

The estimated total project cost is $170,000, split equally between SWFWMD and the City of Wildwood. Project costs and allocation through Task Work Assignment (TWA) are controlled by SWFWMD, which will manage the agreement. The allocation through TWAs is based on approved staffing rates and allocated hours to specific tasks that are closely tied to approved guidelines and specifications standards.The following is a summary of the expected costs. For Fiscal Year 2020 the City of Wildwood would contribute $36,000 and SWFWMD would contribute $36,000. For Fiscal Year 2021 the City of Wildwood would contribute $34,000 and SWFWMD would contribute $34,000. For Fiscal Year 2022 the City of Wildwood would contribute $15,000 and SWFWMD would contribute $15,000.The cost effectiveness of the Watershed Evaluation is estimated to be $14,400 per square mile.The cost effectiveness of the Floodplain Analysis, Alternatives Analysis, and Peer Review is estimated to be $19,600 per square mile.The overall cost effectiveness is estimated to be $34,000 per square mile.

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

The City of Wildwood has policies and objectives in its Comprehensive Plan to protect and manage water resources within the City. The Comprehensive Plan's policies and objectives identify the criteria for water conservation, flood mitigation, and ground water recharge. City codes provide language that protects against development of wetlands, preserves floodplain storage, improves aquifer recharge and promotes water conservation. For example, the adopted building codes conform to FEMA requirements to limit building in flood hazard areas. Also, the City is in cooperation with Withlacoochee Regional Water Supply Authority to coordinate water supply resources. The City has recognized the value of water conservation and flood protection through it funding commitment to complete a Watershed Management Plan (WMP). The City will be dependent on the findings of the WMP to address future stormwater BMP projects.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			36,000	49,000	85,000
Withlacoochee River			36,000	49,000	85,000
Total			72,000	98,000	170,000

Matching Fund Reduction

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

Timelines

Data Acquisition	03/31/2020
Geodatabase of Model Features	04/30/2020
Watershed Evaluation	06/30/2020
WMP Project Development	08/31/2020
Watershed Model Development	10/30/2020
Peer Review	12/31/2020
Floodplain Results	05/31/2021
LOS Determination	09/30/2021
Surface Water Resource Assessment	10/29/2021
BMP Alternative Analysis	01/31/2022
Final Approved Deliverables	02/28/2022

Data Collection Assessment:

☒ Mapping/GIS data

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name Dunnellon Watershed Management Project
Project Number Q086
Cooperator Dunnellon
Department Finance
Contact Person Jan Smith
Address 20750 River Drive
City Sate Zip Dunnellon, FL 344316744
Phone # 352-465-8500 ext1003
Email jsmith@dunnellon.org

Project Type:

☐ Water Supply ☐ Water Quality ☒ Flood Protection ☐ Natural Systems

Strategic Initiatives:

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

Indicate All Counties to Benefit From Project:

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

Project Description/Benefit/Cost Description:

This project will perform the Watershed Evaluation and and develop a Watershed Management Plan for the City of Dunnellon in Marion County. This funding request is for FY 2020. The project watershed is 11.5 square miles. A Watershed Management Plan provides a method to evaluate the capacity of a watershed to protect, enhance, and restore water quality and natural systems while achieving flood protection. The Watershed Evaluation element is the collection and organization of detailed information such as land elevation, conveyance features such as ditches, culverts and other stormwater management features that affect how water moves within a watershed. The Watershed Evaluation tasks include the collection of existing data, and development of preliminary model features. The information is organized as a geodatabase that defines the watershed's natural conveyance and storage features and stormwater infrastructure. The Watershed Evaluation is the foundation for the Watershed Management Plan , the final element in the Watershed Management Program . The Watershed Management Plan includes model parameterization, computer modeling, floodplain analysis, Peer Review of floodplain results, public notification, public meeting, Governing Board approval of floodplain results, surface water resource assessment (SWRA), the establishment of a level of service (LOS), and Best Management Practices (BMP) alternative analysis.

Benefit:

The project will include the development of a comprehensive Geographic Information System (GIS) based inventory of stormwater pipes, culverts and conveyances and the completion of a Watershed Evaluation. The inventory and Watershed Evaluation will improve the knowledge available for the watershed, including the development of the hydrologic and hydraulic model that simulates the system response to varying rainfall events. This tool can be used to assess flood risk and LOS for roads and structures. The geodatabase also provides the basis for assessing the SWRA of the watershed. This information will be used to develop BMP's to address flooding or water quality concerns. The information is also used in review and approval of development within the watershed. The ability to prevent flooding by identifying floodplains and keeping development out of those areas or constructed above flood levels provides a much greater cost benefit than having to implement BMPs to reduce or eliminate flooding of existing infrastructure. Additionally, having a model allows for the continuous updating of the model as development occurs, and can be used in the planning process to assess future growth and land use changes.The measurable benefits of the project include the development of a detailed GIS inventory of stormwater infrastructure, a Watershed Evaluation, a Watershed Management plan

including a hydrologic and hydraulic model, a floodplain delineation, and alternative BMPs to reduce flooding and improve water quality.

Cost:

The total project cost is $275,000, split equally between SWFWMD and the City of Dunnellon.

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

The City of Dunnellon watershed is generally within the Rainbow River watershed that is currently being studied as part of the Rainbow River WMP. However, the Rainbow River WMP is focused on the unincorporated portions of the watershed and will likely not include the level of detail necessary to develop alternatives for the City of Dunnellon. This proposed project will be completed in conjunction with the Rainbow River WMP and will update the Rainbow River WMP to include sufficient focus on the City of Dunnellon watershed.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			34,375	103,125	137,500
General Fund-District Wide			137,500		137,500
Total			171,875	103,125	275,000

Matching Fund Reduction

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

Timelines

Data Acquisition	03/01/2020
Geodatabase of Model Features	04/01/2020
Watershed Evaluation	06/01/2020
WMP Project Development	08/01/2020
Watershed Model Development	10/01/2020
Peer Review	12/01/2020
Floodplain Results	05/01/2021
LOS Determination	09/01/2021
Surface Water Resource Assessment	10/01/2021
BMP Alternative Analysis	01/01/2022
Final Approved Deliverables	02/01/2022

Data Collection Assessment:

☒ Land Survey ☒ LIDAR/Elevation data

☒ Aerial Imagery ☒ Mapping/GIS data

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name 67th and Riverside infrastructure improvements
Project Number Q092
Cooperator Yankeetown
Department Mayor
Contact Person Jack Schofield
Address 6241 Harmony Ln
City Sate Zip Yankeetown, FL 34498
Phone # 352-447-2511
Email Ytmayor@bellsouth.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 Town of Yankeetown is a small coastal village in southwestern Levy County. During Hurricanes Hermine and Irma, as well as during many unnamed storm events in recent years, residents in Yankeetown have experienced significant flooding due to both rainfall and storm surge. Residential properties, vacant lots, and commercial businesses have all experienced repetitive flood losses. The neighborhood around the intersection of 67th Street and Riverside Drive, south of County Road 40, is more broadly situated between the Withlacoochee River and the Withlacoohcee Gulf Preserve. The area experienced notable flooding during Hurricane Irma. The Town documented complete inundation of at least 11 properties with housing and flooded roads completely blocked access to the RV park on Riverside Drive. In addition to the economic losses and threat to human health and safety, each occupied property that was affected by flooding has an on-site sewage treatment and disposal system. Septic tank flooding can cause water quality and environmental degradation in the area. Repetitive flooding also leads to erosion and sedimentation into the river with the potential for cumulative impacts, threatening delicate coastal zones, fisheries, and wetland systems.

Benefit:

The proposed project will alleviate area flooding through the construction of a new stormwater conveyance system and improvement of an existing stormwater conveyance system, diverting floodwaters away from the affected area and toward an existing drainage system along County Road 40. A series of bioswales and culverts will route water through vacant property and into a natural, isolated wetland system. The combination of bioswales and wetland treatment will provide water quality improvements. Sending floodwater away from the river will reduce sedimentation and erosion, protecting coastal zones and delicate local fisheries. Mitigating flood impacts will also temper the economic losses felt by residents and visitors during large storm events and help protect human health and safety.

Cost:

See attached documents project cost estimates

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

We enacted in our community an updated floodplain management ordianace 2018-06 please see attached in document

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			5,000		5,000
Withlacoochee River			190,000		190,000
Total			195,000		195,000

Matching Fund Reduction

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

Timelines

planning and design

Milestone	Projected Date
easement and acquistion	03/31/2021

Milestone	Projected Date
planning and design	10/01/2020
bidding and contractor	05/31/2021
construction	12/31/2021

Data Collection Assessment:

☒ Land Survey

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	WMP - Tsala Apopka Watershed Management Plan
Project Number	Q093
Cooperator	Citrus County
Department	Public Works
Contact Person	Mark Schroder
Address	3600 W Sovereign Path
City Sate Zip	Lecanto, FL 34461
Phone #	352-527-5443
Email	mark.schroder@citrusbocc.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 Watershed Management Plan Project covers 79.2 square miles in the southeastern portion of the County and is part of an overall 173.3 square mile watershed in Citrus and Hernando Counties. The Citrus County portion of the project consists of the City of Inverness, Floral City, residential areas, agricultural areas and many marshes and lakes. The project area extends east of the center of the County to the Withlacoochee River. The watershed falls within the Crystal River/Kings Bay, Chassahowitzka and Homosassa springsheds as determined by SWFWMD ESRI. This project will provide critical information regarding water quality improvements for these springsheds. This project is a continuation of the Tsala Apopka Watershed Management Plan started in 2010, which produced a watershed model and floodplain mapping.

The objective of this project is to analyze the watershed to identify and rank flooding and water quality problem areas and to determine where appropriate BMPs can be implemented to reduce the negative impacts associated with these areas. This project addresses the District's Strategic Initiatives of Flood Plain Management and Water Quality and also complements the District's Springs Initiative program. The project will be completed using District GWIS guidelines and analytical methodology. County GIS staff have developed methods to identify structure floor elevations and footprints and roadway centerlines and areas. Water quality simulation models will be run using the SIMPLE model. Capital Improvement projects resulting from this project will be designed and constructed using the most recent Best Management Practices and technology.

Benefit:

This phase of the project includes a surface water resource assessment, water quantity modeling/analysis, water quality analysis (SWRA), establishment of existing level of service (LOS), and a best management practice (BMP) alternative analysis. The SWRA identifies water quality problems which, when addressed, improve the quality of aquifer recharge and availability of cleaner water for potable supply and natural systems. The project lies within the Chassahowitzka and Homosassa Springs springsheds and the results of the SWRA will enhance our understanding of residential septic system and lawn fertilizer nitrate contributions and complement the District’s ongoing Springs Initiative. The LOS analysis identifies flood prone areas and LOS deficiencies and quantifies costs associated with each problem area. Final deliverables will include electronic versions of the updated GWIS geodatabase and tables, modeling files, the map atlas, the SIMPLE Model report, the BMP database, and a proposed BMP list with preliminary comments from District. The BMP alternative analysis will provide prioritized conceptual solutions addressing floodplain LOS deficiencies and surface and groundwater quality improvements using a cost/benefit analysis approach.

Cost:

Phase 1 of the project was completed in 2011. The cost of this Watershed Management Plan, for Phase 2, comes in at $3,157 per sq. mile. Tasks associated with this project are expected to start before February1, 2019 and continue through FY21. This is the first year application of two years of funding applications.

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

Citrus County has partnered with the District to study and develop Watershed Management Plans for eight of the County's watersheds. The County has completed the Hunter Springs Water Quality Improvement Project in cooperation with the District. The County has also worked with the District to design and is preparing to construct the Homosassa South Fork Water Quality Improvement Project to improve quality of stormwater entering the Homosassa River. The County sought and received FEMA approval of new Flood Insurance Rate Maps based on basin studies conducted in cooperation with the District. The County is cooperating with the FDEP to develop the Kings Bay/Crystal River, Homosassa Springs and Chassahowitzka Springs Basin Management Action Plans (BMAP) aimed at reducing nutrient loadings within the springsheds. This effort compliments and supports the District's Springs Initiative. Citrus County has adopted floodplain, stormwater ordinances and fertilizer ordinances and is now covered under a NPDES Phase II permit for the county's Municipal Separate Storm Sewer System (MS4). As part of the NPDES permit the County has developed a stormwater education program, and is working on storm drain stenciling and street sweeping programs. The Citrus County Utility Department has successfully implemented a series of water conservation incentive programs that include, a rain sensor rebate program, low flow toilet programs, and irrigation evaluation and audit projects. Other incentive programs include various rebate opportunities in conjunction with the Florida Friendly Landscaping program. The water conservation program also provides water conservation information and has Enforcement Officers to enforce watering restrictions set forth by Southwest Florida Water Management District.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			100,000	150,000	250,000
Coastal Rivers			100,000	150,000	250,000
Total			200,000	300,000	500,000

Matching Fund Reduction

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

Timelines

Consultant Contract

Milestone	Projected Date
Execute Consultant Contract	01/31/2019

Project Closeout

Milestone	Projected Date
Close Agreement with SWFWMD	12/31/2021

Report Preparation

Milestone	Projected Date
Final Report Submitted	12/31/2021

Data Collection Assessment:

☒ Land Survey ☒ Mapping/GIS data

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Hernando County Landfill Leachate Pretreatment
Project Number	Q103
Cooperator	Hernando County
Department	Utilities Department
Contact Person	Richard Kirby
Address	12365 Cortez Boulevard
City Sate Zip	Brooksville, FL 34613
Phone #	352-754-4769
Email	Rkirby@hernandocounty.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:

Hernando County's solid waste landfill produces leachate, which is collected and conveyed to the Glen Water Reclamation Facility (WRF). Landfill leachate contains highly concentrated pollutants, such as nitrogen components. Hernando County's Glen WRF and its aquifer recharge basins (ARB) are located within the Weeki Wachee Priority Focus Area, as determined by the Florida Department of Environmental Regulation (FDEP) in the Weeki Wachee Basin Management Action Plan (BMAP). This BMAP was developed in response to the USEPA's established total maximum daily load (TMDL) for nitrate. Weeki Wachee Springs and River have been determined to be impaired for nitrate. This project includes design and construction of a leachate pretreatment plant at the landfill. Pretreatment of leachate will help ensure the Glen WRF can receive and treat landfill leachate while still complying with FDEP mandated nitrogen reduction limits for reclaimed water used to recharge the aquifer. This application is for design phase. Construction funding will be sought in future years.

Benefit:

The significant concentration of nitrogen and other pollutants in landfill leachate is extremely disruptive to the biological processes used to treat sewage. Pretreatment of leachate will help ensure the Glen WRF is capable of achieving the FDEP mandated advanced wastewater treatment (AWT) for total nitrogen. Currently, the WRF is only able to achieve 8.44 mg/l total nitrogen while the flow is significantly below design capacity. The potential nitrogen reduction at design flow and maximum permitted limit for nitrate (12 mg/l) is 82,191 pounds/year in effluent discharged from the plant. Using FDEP factors, the reduction in TN is reduced to 51,780 pounds/year.

Cost:

Construction cost of this project is estimated to be $3,500,000. Engineering cost is estimated to be $350,000, Hernando County share; $175,000, District Share; $175,000, Construction funding will be sought in future years.

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

Hernando County Utilities Department (HCUD) has successfully implemented their water conservation/water resource protection program for over a decade. Conservation programs such as rain sensor installations, irrigation evaluations, low flow toilet replacements, along with innovative and bold education programs have led HCUD to meet Water Use Permit regulatory requirements both in annual gallons of water pumped and per capita requirements. HCUD was the first utility in the Northern

Region of SWFWMD to establish water conservation rate structures. HCUD continues to work closely with Code Enforcement in watering restrictions education and enforcement efforts.
HCUD is currently finalizing a Reclaimed Water Master Plan. This Master Plan included a comprehensive analysis of all available alternatives to maximize benefits to the environment, the local water supply, and local economy.
Additionally, HCUD is in the process of upgrading both subregional water reclamation facilities in the western service area to advanced waste water treatment for nitrogen. This highly treated reclaimed water will be used to recharge the aquifer in the Weeki Wachee Springs Priority Focus Area.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			175,000	1,750,000	1,925,000
Coastal Rivers			175,000	1,750,000	1,925,000
Total			350,000	3,500,000	3,850,000

Matching Fund Reduction

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

Timelines

Design of Leachate Treatment Plant

Milestone	Projected Date
Completion	04/30/2020

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	SWRWRF Reclaimed Water Project
Project Number	Q105
Cooperator	Citrus County
Department	Operations And Projects
Contact Person	Christina Malmberg
Address	3600 W. Sovereign Path
City Sate Zip	Lecanto, FL 344619014
Phone #	352-527-7616
Email	Christina.Malmberg@citrusbocc.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	[X] Citrus	[ ] Desoto	[ ] Hardee	[ ] Hernando	[ ] Highlands	[ ] Hillsborough	[ ] Lake
[ ] Levy	[ ] Manatee	[ ] Marion	[ ] Pasco	[ ] Pinellas	[ ] Sarasota	[ ] Sumter	[ ] Polk

Project Description/Benefit/Cost

Description:

Design, permitting and construction of approximately 3,000 feet of 12 to 16 inch and 19,000 feet of 8 to 12 inch reclaimed water transmission mains, a 1.0 million gallon storage tank, a 1.0mgd pump station, a 0.5 mgd booster station and other necessary appurtenances to supply 0.5 mgd of reclaimed water to replace 0.375 mgd of groundwater used for irrigation at the Sugarmill Woods golf course within the Chassahowitzka Springs Springshed.

Benefit:

The purpose of the proposed project is to provide additional improvements at the Southwest Regional Water Reclamation Facilityso that the high quality reclaimed water produced at the plant can be made available for beneficial reuse. The necessary improvements include a one-million gallon ground storage tank, a high service pump station, a booster pump station at the Sugarmill Woods Golf Course, four miles of reclaimed water transmission main to connect from the plant site to the golf course irrigation system, and associated instrumentation and control systems.
Water Quantity Benefits: This project would offset the need for groundwater withdrawals for irrigation purposes. In addition, the supply of 0.50 mgd of reclaimed water to one golf course irrigation customer for an anticipated 0.375 mgd of traditional water benefits within Chasszhowitzka Springs Springshed. Southern Woods golf course could potentially be connected in the future.

Cost:

The SWRWRF Reclaimed Water project would cost an estimated $3,918,000. Costs include $300,000 for engineering (design, bidding and construction administration), $3,618,000 for construction (ground storage tank, high service pump station, reclaimed transmission main, and booster station at GC).

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

Citrus County's 1.5 million gallons per day (MGD) Southwest Regional Water Reclamation Facility is currently under construction. The plant and its service area are contained within the Chassahowitzka and Homosassa Springsheds, both of which have been identified as being impaired waters due to high nutrient levels. The State is currently developing Basin Management Action Plans (BMAPs) for both the Chassahowitzka and Homosassa Springsheds. In anticipation of the BMAP requirements, the Southwest Regional Water Reclamation Facility has been designed to produce reclaimed water meeting the typical BMAP requirement of 3 mg/L total nitrogen. In support of the County's effort to improve water quality within the Chassahowitzka and Homosassa Springsheds, a portion of the design and construction costs associated with the Southwest Regional Water Reclamation Facility Project were funded through the State of Florida's Springs Initiative.

Citrus County Water Resources Department has successfully implemented water conservation incentive programs including rain sensor rebates, low flow toilet programs and the irrigation evaluation and audit project. Other incentive programs include various rebate opportunities in conjunction with the Florida Yards and Neighborhoods programs. The water conservation program also provides water conservation information through bill inserts and information provided at the Citrus County Water Resources office. Citrus County Water Conservation division is charged with enforcing the watering restrictions as set forth by Southwest Florida Water Management District, and has issued citations and gone to Court over violations.Citrus County has adopted a Floodplain Ordinance as required to participate in the National Flood Insurance Program (NFIP). The regulations are part of the Citrus County Land Development Code. The floodplain regulations are contained in Section 4160 “Floodplain Protection”. All development is required to be in compliance with this Section.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			1,959,000		1,959,000
General Fund-District Wide			1,959,000		1,959,000
Total			3,918,000		3,918,000

Matching Fund Reduction

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

Timelines

Bid Advertisement

Milestone	Projected Date
Bid Advertisement	01/15/2022

Bid Opening

Milestone	Projected Date
Bid Opening	02/28/2022

Construction

Milestone	Projected Date
Construction NTP	05/15/2022
Construction Completion	12/30/2023

Design and Permitting

Milestone	Projected Date
Design and Permitting	11/30/2021

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Conservation - Marion County Utilities Toilet Rebate Program - Phase 6
Project Number	Q110
Cooperator	Marion County
Department	Marion County Utilities Department
Contact Person	Christine Vrabic
Address	11800 S Us Hwy 441
City Sate Zip	Belleview, FL 34420
Phone #	352-307-4624
Email	Christine.Vrabic@marioncountyfl.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	[ ] Manatee	[X] Marion	[ ] Pasco	[ ] Pinellas	[ ] Sarasota	[ ] Sumter	[ ] Polk

Project Description/Benefit/Cost

Description:

This is the continuation of a project started in FY 2011, offering financial incentives to water customers within the Marion County Utilities' service area for replacement of existing high-volume toilets (3.5 gallons per flush (gpf) or greater) with WaterSense labeled dual-flush and high-efficiency toilets. In FY 2019 and FY 2020, Marion County Utilities expects to distribute 400 rebates to qualified homes and commercial facilities through an outside contracted consultant. Single-family residences will be offered up to two toilet rebates per home while multi-family and commercial dwellings will be encouraged to replace all devices at one time. Participants will be given rebates of up to $100 for the first toilet installed, and $80 for the second, at an eligible residence. The contracted consultant will ensure 90 percent inspection of retrofitted toilets. Educational information about water conservation will also be distributed to rebate participants and a follow-up survey will be used to assess customer satisfaction and water savings. This program will be marketed through billing inserts and fliers that will be posted at the utility office. The program aligns itself with the Southwest Florida Water Managements District's strategic initiative of water conservation. This total cost of this project will be $64,000 and will show an estimated savings of 10,190 gallons per day. The cost per 1,000 gallons is $1.73, well under the estimated costs of alternative water supply.

Benefit:

Conserves approximately 10,190 gpd of potable water in the Northern Planning Region.

Cost:

Total project cost is $64,000. The cost allocated for this FY is $32,000.

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

Marion County's Water Use Efficiency efforts are achieved through a comprehensive, goal based program which includes regulations; public education and distribution of materials and products to realize measurable water savings. The current program includes: Regulation - Landscape Irrigation Restrictions (Ordinance 09-13), Tiered Utility Rate Structure (Resolution 09-R-87), Land Development Code Landscape Standards (Ordinance 09-17); Public Education - Targeted messaging to Marion County Utility customers, Participation in community events; Tangible Products and Programs -Toilet rebates, Distribution of water conservation kits (indoor and outdoor fixture retrofits), Cooperative program with WRWSA to provide landscape irrigation evaluations/audits to high water users, Landscape and Irrigation Retrofit Rebate Program.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share		16,000	16,000		32,000
Withlacoochee River		16,000	16,000		32,000
Total		32,000	32,000		64,000

Matching Fund Reduction

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

Timelines

Project Start Date 10/01/2019

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Package Wastewater Plant Removal Program
Project Number	Q120
Cooperator	Marion County
Department	Marion County Utilities Department
Contact Person	Christine Vrabic
Address	11800 S Us Hwy 441
City Sate Zip	Belleview, FL 34420
Phone #	352-307-4624
Email	Christine.Vrabic@marioncountyfl.org

Project Type:

☐ Water Supply ☒ Water Quality ☐ Flood Protection ☐ Natural Systems

Strategic Initiatives:

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

Indicate All Counties to Benefit From Project:

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

Project Description/Benefit/Cost

Description:

This is a series of six projects to connect developments with existing package plants to the Marion County wastewater system and decommission the package plants. There are six package plants included in this application. Combined, they represent a total permitted capacity of 261,200 gallons per day (gpd), and a present day treatment of 85,833 gpd (average). Presently, none of these facilities produce or distribute reclaim water to customers. Once connected to the Marion County wastewater system, the flow will be treated at either the Oak Run WWTF (FLA012697) or the Northwest Regional WWTF (FLA272060). Both of these Marion County facilities produce and deliver reclaim water. The project scope at each package plant site would include constructing a new master lift station (or retrofitting an existing on-site lift station), constructing a forcemain to connect to the County’s forcemain network, decommissioning of the package plant, and demolition of the existing package WWTF.

Benefit:

As part of the Northern Region, this project bolsters the District's priority and objective of eliminating package plants within the region and also upholds the District's Strategic Initiative for the Maintenance and Improvement of Water Quality. The project will accomplish this by connecting six package plants to the County's central wastewater system. Based on DMR data for the past twelve months (Aug 2017 - Jul 2018), the six facilities treated a total of approximately 31,329,000 gallons of wastewater, with five of the facilities exceeding an effluent concentration of 3 mg/L of total nitrogen. This project will uphold the District's Strategic Plan by reducing the nutrient loading within the Rainbow Springs springshed. A byproduct of the project would be the increased availability of wastewater to produce reclaim water at the County's WWTFs. With the additional flows from the six package plants, the County will have the ability to produce more reclaim water which in turn will uphold the District's initiative to increase alternative water supply within the region. By producing reclaim water as an alternative water supply for customer use, such as for irrigation, there will be a reduction in groundwater withdrawals. As an indirect benefit, calculated using FDEP Guidelines, approximately 0.0457 MGD of reclaim water will be made available by the project. The nutrient loading benefits can be seen by the proposed reduction in nutrients by connecting the package plants to central sewer. Currently, the six package plants release approximately 2,380 pounds of nitrogen and 800 pounds of phosphorus per year to RIBs. By connecting them to the County's WWTFs, there will be a direct nutrient loading reduction of approximately 1,210 pounds of nitrogen and 138 pounds of phosphorus per year based on the treatment capabilities of Oak Run and Northwest Regional. Using FDEP's Guidelines, this would result in approximately 1,156 pounds of nitrogen reduction per year due to a change in land application from RIBs to reuse, RIBs, and sprayfields.

Cost:

Please see the attached Package Wastewater Plant Removal Program - Cost Estimate file to see the cost breakdown by package plant and task. The total estimated cost is about $3.12 million. The County acknowledges that if State Springs Funding is not awarded, the requested SWFWMD Cost Share Funding may be increased to 50%.

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

In 2013, the Marion County Land Development Code (LDC) was modified to require WWTFs to meet the following annual average reclaim water limitation for total nitrogen by 2019: (a) 3.0 mg/L for facilities having a design average daily flow (DADF) equal to or greater than 100,000 gallons per day; or (b) 6.0 mg/L for facilities having a DADF less than 100,000 gallons per day. Marion County's Water Use Efficiency efforts are achieved through a comprehensive, goal based program which includes regulations; public education and distribution of materials and products to realize measurable water savings. The current program includes: Regulation - Landscape Irrigation Restrictions (Ordinance 09-13), Tiered Utility Rate Structure (Resolution 09-R-87), Land Development Code Landscape Standards (Ordinance 09-17); Public Education - Targeted messaging to Marion County Utility customers, Participation in community events; Tangible Products and Programs -Toilet rebates, Distribution of water conservation kits (indoor and outdoor fixture retrofits), Cooperative program with WRWSA to provide landscape irrigation evaluations/audits to high water users, Landscape and Irrigation Retrofit Rebate Program.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			283,625		283,625
FDEP State Spings Funding			1,559,938		1,559,938
Withlacoochee River			1,276,313		1,276,313
Total			3,119,876		3,119,876

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	08/24/2020
Substantial Completion	07/30/2021
Construction Complete and Certifications	08/27/2021

Design

Milestone	Projected Date
30% Design	01/03/2020
60% Design	02/07/2020
90% Design (includes draft RFB)	03/06/2020
Proposed Final Design (includes final RFB and Permitting)	04/10/2020
District Verifications	04/24/2020

Request for Bids

Milestone	Projected Date
RFB Advertisement	06/25/2020
RFB Evaluation and Award	07/21/2020
Notice to Proceed to Contractor	08/03/2020

Study/Feasibility

Milestone	Projected Date
Contact and Negotiate with Package Plant Owners	02/25/2019

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Rainbow Springs/Rainbow River Sewer Master Plan
Project Number	Q123
Cooperator	Marion County
Department	Marion County Utilities Department
Contact Person	Christine Vrabic
Address	11800 S Us Hwy 441
City Sate Zip	Belleview, FL 34420
Phone #	352-307-4624
Email	Christine.Vrabic@marioncountyfl.org

Project Type:

☐ Water Supply ☒ Water Quality ☐ Flood Protection ☐ Natural Systems

Strategic Initiatives:

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

Indicate All Counties to Benefit From Project:

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

Project Description/Benefit/Cost

Description:

The intent of this project is to perform a master plan study for septic to sewer in the Rainbow Springs/Rainbow River area. The study will identify the best option for converting both residential and commercial parcels, currently served by septic systems or package plants, to a central sewer system. The master plan will address issues such as sewer technologies, existing wastewater infrastructure, a phased conversion plan, and the financial feasibility (including capacity charges for new customers) of the project. The study will focus on estimating the construction costs for new infrastructure and system updates which will include lift stations, gravity sewer mains, forcemains, sewer laterals, septic tank abatement, upgrading existing WWTFs, providing due diligence at a new possible WWTF site at property in the area currently owned by Marion County, decommissioning package plants, and determining operation and maintenance costs of the new infrastructure that will be put in place. The study will take into account infrastructure currently in place by the City of Dunnellon and maintained by FGUA. There will be coordination between the three organizations in order to provide the most efficient plan to removing septic systems in the PFA for Rainbow Springs.

Benefit:

The master plan for the Rainbow Springs area will allow the County, as well as the City of Dunnellon and FGUA, to prioritize the septic to sewer conversion areas to phase the project. They master plan study will also help to quantify the costs that will be required to update the existing infrastructure and proposed infrastructure needed to divert wastewater flows from septic systems to central sewer, as well as the costs associated with designing and constructing a new AWT WWTF on a 196 acre site west of US 41 and just north of SW Marine Boulevard.

Cost:

The estimated project costs for the septic to sewer master plan study for Rainbow Springs is approximately $200,000.

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

In 2013, the Marion County Land Development Code (LDC) was modified to require WWTFs to meet the following annual average reclaimed water limitation for total nitrogen by 2019: (a) 3.0 mg/L for facilities having a design average daily flow (DADF) equal to or greater than 100,000 gallons per day; or (b) 6.0 mg/L for facilities having a DADF less than 100,000 gallons per day. Marion County's Water Use Efficiency efforts are achieved through a comprehensive, goal based program which includes regulations; public education and distribution of materials and products to realize measurable water savings. The current program includes: Regulation - Landscape Irrigation Restrictions (Ordinance 09-13), Tiered Utility Rate Structure (Resolution 09-R-87), Land Development Code Landscape Standards (Ordinance 09-17); Public Education - Targeted messaging to Marion County Utility

customers, Participation in community events; Tangible Products and Programs -Toilet rebates, Distribution of water conservation kits (indoor and outdoor fixture retrofits), Cooperative program with WRWSA to provide landscape irrigation evaluations/audits to high water users, Landscape and Irrigation Retrofit Rebate Program.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			100,000		100,000
Withlacoochee River			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

Develop a Scope of Work	11/01/2019
Engineering Consultant Proposal	11/22/2019
Award Master Plan Study to Engineering Consultant	01/07/2020
Research and Gather Data	03/06/2020
Finalize Master Plan Study Report	07/31/2020

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	US27/NW 70th Ave Septic to Sewer
Project Number	Q124
Cooperator	Marion County
Department	Marion County Utilities Department
Contact Person	Christine Vrabic
Address	11800 S Us Hwy 441
City Sate Zip	Belleview, FL 34420
Phone #	352-307-4624
Email	Christine.Vrabic@marioncountyfl.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:

Marion County Utilities currently has an existing 16" forcemain on the west side of NW 70th Avenue at the intersection with US 27. There is an existing shopping plaza on the southeast side of the intersection that currently has a septic system. This project will allow the shopping plaza to abandon their septic system and connect to central sewer. There are 16 units within the shopping center that total up to approximately 36.85 Equivalent Residential Connections (ERCs). The project scope would be to install a lift station on-site, construct a gravity sewer network to connect all units to the sewer system, construct a forcemain to connect to the County's existing 16" forcemain along NW 70th Avenue, and abandon the existing septic system. The County has been in contact and has a signed agreement in place with the shopping plaza for them to connect to the County's central sewer (please see attached developer's agreement). All flows from the existing development would be rerouted from the septic system to the County's existing Northwest Regional WWTF which is upgrading the nutrient removal capabilities to advanced water treatment standards (3.0 mg/L of Total Nitrogen).

Benefit:

As part of the Northern Region, this project aims to uphold the District's Strategic Plan by implementing the Maintenance and Improvement Strategic Initiative for Water Quality with the removal of an existing septic system. According to FDEP Guidelines, a conventional septic system for a single home (or Equivalent Residential Connection, ERC) will release 23.7 pounds per year of total nitrogen into the environment. In Marion County, one ERC is equivalent to 200 gallons of wastewater per day. Using this flow and the FDEP estimated amount of nitrogen release per year, a conventional septic tank can treat nitrogen down to a concentration of approximately 38.9 mg/L. The septic system at the shopping plaza supports different uses commercial retail, restaurants, a bank, and more. The ERC value was estimated by Marion County based on the use of each unit. The total number of ERCs in the shopping plaza is approximately 36.85 which equates to approximately 7,370 gpd of wastewater. The flows from the septic system, once connected to the County's central sewer system, will be directed to the Northwest Regional WWTF which will be able to treat total nitrogen to 3.0 mg/L in the near future. According to FDEP Guidelines, a conventional septic system can obtain a 30% removal of nitrogen which results in the 38.9 mg/L. Using this, Northwest Regional will achieve a 94.6% nitrogen removal to result in the 3.0 mg/L concentration. By connecting the septic system to the central sewer system, the wastewater will see a 65% increase in nitrogen removal. The total amount of nitrogen released per year by the current septic system is approximately 873 pounds per year. With these flows going to Northwest Regional, this flow would result in approximately 67 pounds of nitrogen released per year. This project directly results in a total nitrogen reduction of approximately 806 pounds per year. Using FDEP Guidelines, the nitrogen load reduction from this septic to sewer project would be approximately 382 pounds of total nitrogen per year. An indirect benefit of this project would be the increased wastewater flow availability to produce reclaim water. The additional wastewater flows

to the County's existing Northwest Regional WWTF, which produces approximately 98% of the effluent as reclaim water, has the possibility to make an additional 0.00542 MGD of reclaim water available, calculated using FDEP Guidelines.

Cost:

Please see the attached US27/NW 70th Ave Septic to Sewer Program - Cost Estimate file to see the cost breakdown for the septic to sewer for the shopping plaza. The total estimated cost is about $559,000, with local matching funds in the amount of about $140,000. Marion County is also applying for State Springs Funding (as shown in the Funding Table). The County acknowledges that if State Springs Funding is not awarded, the requested SWFWMD Cost Share Funding may be increased to 50% as well as the local Private Owner's contributing match.

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

The County has been in contact with shopping plaza and has a signed agreement in hand stating that the plaza will connect to the County's central sewer. In 2013, the Marion County Land Development Code (LDC) was modified to required WWTFs to meet the following annual average reclaimed water limitation for total nitrogen by 2019: (a) 3.0 mg/L for facilities having a design average daily flow (DADF) equal to or greater than 100,000 gallons per day; or (b) 6.0 mg/L for facilities having a DADF less than 100,000 gallons per day. Marion County's Water Use Efficiency efforts are achieved through a comprehensive, goal based program which includes regulations; public education and distribution of materials and products to realize measurable water savings. The current program includes: Regulation - Landscape Irrigation Restrictions (Ordinance 09-13), Tiered Utility Rate Structure (Resolution 09-R-87), Land Development Code Landscape Standards (Ordinance 09-17); Public Education - Targeted messaging to Marion County Utility customers, Participation in community events; Tangible Products and Programs -Toilet rebates, Distribution of water conservation kits (indoor and outdoor fixture retrofits), Cooperative program with WRWSA to provide landscape irrigation evaluations/audits to high water users, Landscape and Irrigation Retrofit Rebate Program.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			1		1
FDEP State Springs Funding			279,486		279,486
Plaza Owner Share see Developer Agreement			139,743		139,743
Withlacoochee River			139,743		139,743
Total			558,973		558,973

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	07/13/2020
Substantial Completion	12/18/2020
Construction Completion and Certifications	01/29/2021

Design

Milestone	Projected Date
30% Design	12/06/2019
60% Design	01/17/2020
90% Design (includes draft RFB)	02/21/2020
Proposed Final Design (includes final RFB and Permitting)	03/27/2020

Request for Bids

Milestone	Projected Date
RFB Advertisement	05/28/2020
RFB Evaluation and Award	06/16/2020
Notice to Proceed to Contractor	06/29/2020

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	State Road 200 Septic to Sewer Program
Project Number	Q131
Cooperator	Marion County
Department	Marion County Utilities Department
Contact Person	Christine Vrabic
Address	11800 S Us Hwy 441
City Sate Zip	Belleview, FL 34420
Phone #	352-307-4624
Email	Christine.Vrabic@marioncountyfl.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:

Marion County Utilities is currently in the design phase of a 10,750 linear feet sanitary sewer forcemain along the SR 200 corridor in Ocala. This project is expected to go to construction in FY 2019. Once the forcemain is in place and cleared, the surrounding properties will have the opportunity to abandon their septic systems and connect to central sewer. Currently, there are thirty-five parcels that are developed and not connected to central sewer along this SR200 corridor. These parcels have one or more septic tanks on-site to handle their sewer flows. The project scope would be to install a lift station (possibly a "grinder" station) on each site, construct a small forcemain to connect to the County's new 12" forcemain along SR200, and abandon the existing septic systems. The County has been in contact with many of the property owners on the west side of SR200 to obtain easements for the construction of the 12" forcemain. All flows from the existing developments would be rerouted from septic tanks to the County's existing Oak Run WWTF.

Benefit:

As part of the Northern Region, this project aims to uphold the District's Strategic Plan by implementing the Maintenance and Improvement Strategic Initiative for Water Quality with the removal of existing septic systems. According to FDEP Guidelines, a conventional septic system for a single home (or Equivalent Residential Connection, ERC) will release 23.7 pounds per year of total nitrogen into the environment. In Marion County, one ERC is equivalent to 200 gallons of wastewater per day. Using this flow and the FDEP estimated amount of nitrogen release per year, a conventional septic tank can treat nitrogen down to a concentration of approximately 38.9 mg/L. The majority of the septic systems along SR200 are for existing commercial or church use. These land uses generally result in an ERC value larger than one meaning that more than 200 gallons of wastewater are produced per day resulting in a larger amount of nitrogen released per year. For the nutrient calculations, it is assumed that each parcel is considered one ERC since the County cannot calculate the ERC value without more information from the businesses. The amount of nitrogen reduction will be the minimum amount knowing that more nitrogen will be removed once the ERC value is known at the time of connection. The flows from the septic systems, once connected to the County's central sewer system, will be directed to the Oak Run WWTF. Currently Oak Run can treat wastewater to an average concentration of 5.87 mg/L of total nitrogen. According to FDEP Guidelines, a conventional septic system can obtain a 30% removal of nitrogen which results in the 38.9 mg/L. Using this, Oak Run achieves an 89.4% nitrogen removal to result in the 5.87 mg/L concentration. By connecting the septic systems to the central sewer system, the wastewater will see a 60% increase in nitrogen removal. At one ERC per developed parcel, the total amount of nitrogen released per year by conventional septic systems is approximately 829 pounds per year. With these flows going to Oak Run, this flow would result in approximately 125 pounds of nitrogen released per year. This project directly results in a total nitrogen reduction of approximately 704 pounds per year. Using FDEP Guidelines, the nitrogen load reduction from this septic to

sewer project would be approximately 336 pounds of total nitrogen per year. An indirect benefit of this project would be the additional wastewater flows to the County's existing Oak Run WWTF which produces reclaim water. The additional flow has the possibility to make an additional 0.00269 MGD of reclaim water available, calculated using FDEP Guidelines.

Cost:

Please see the attached State Road 200 Septic to Sewer Program - Cost Estimate file to see the cost breakdown for the septic to sewer for the 35 existing developments. The total estimated cost is about $3.73 million, with the County providing matching funds in the amount of $1,739,096. Marion County is also applying for State Springs Funding (as shown in the Funding Table). The County acknowledges that if State Springs Funding is not awarded, the requested SWFWMD Cost Share Funding may be increased to 50% as well as the County's contributing match.

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

In 2017, the County hired a surveyor and engineer to design the forcemain along SR200 to provide central sewer along the corridor to existing and future developments. The County has also been in contact with adjacent property owners regarding the possibility of obtaining an easement for the construction of the forcemain. Marion County Utilities plans on moving forward with the construction of the forcemain at the beginning of 2019. In 2013, the Marion County Land Development Code (LDC) was modified to required WWTFs to meet the following annual average reclaimed water limitation for total nitrogen by 2019: (a) 3.0 mg/L for facilities having a design average daily flow (DADF) equal to or greater than 100,000 gallons per day; or (b) 6.0 mg/L for facilities having a DADF less than 100,000 gallons per day. Marion County's Water Use Efficiency efforts are achieved through a comprehensive, goal based program which includes regulations; public education and distribution of materials and products to realize measurable water savings. The current program includes: Regulation - Landscape Irrigation Restrictions (Ordinance 09-13), Tiered Utility Rate Structure (Resolution 09-R-87), Land Development Code Landscape Standards (Ordinance 09-17); Public Education - Targeted messaging to Marion County Utility customers, Participation in community events; Tangible Products and Programs -Toilet rebates, Distribution of water conservation kits (indoor and outdoor fixture retrofits), Cooperative program with WRWSA to provide landscape irrigation evaluations/audits to high water users, Landscape and Irrigation Retrofit Rebate Program.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share	103,241	1,285,855	350,000		1,739,096
FDEP State Springs Funding			1,618,750		1,618,750
Withlacoochee River			656,250		656,250
Total	103,241	1,285,855	2,625,000		4,014,096

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	06/01/2020
Substantial Completion	12/04/2020
Construction Completion and Certifications	01/08/2021

Design - Septic to Sewer Program

Milestone	Projected Date
Reach out to property owners again to inquire about connection to sewer	02/25/2019
Receive Commitment Letters for Sewer Connection	05/24/2019
30% Design	10/25/2019
60% Design	11/22/2019
90% Design (includes draft RFB)	12/27/2019
Proposed Final Design (includes final RFB and Permitting)	01/17/2020
District Verifications	02/14/2020

Request for Bids

Milestone	Projected Date
RFB Advertisement	04/16/2020
RFB Evaluation and Award	05/05/2020
Notice to Proceed to Contractor	05/25/2020

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Homosassa East STS
Project Number	Q134
Cooperator	Citrus County
Department	Operations And Projects
Contact Person	Christina Malmberg
Address	3600 W. Sovereign Path
City Sate Zip	Lecanto, FL 344619014
Phone #	352-527-7616
Email	Christina.Malmberg@citrusbocc.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 affects a residential area currently being served by septic tanks, which have been identified as a source of nutrient loading to the groundwater and surface waters of the Homosassa River, an Outstanding Florida Waterway. In addition, the Homosassa River has been deemed to be an impaired water body under Chapter 62-303 F.A.C. due to nutrient levels and associated algal mats. This project is the continuation of Citrus County's effort to provide wastewater service to existing residential and commercial developments adjacent to the Homosassa River.
The Grantee will construct a municipal sanitary sewer system located in the west downtown area of Old Homosassa lying between W. Yulee Dr., W. Woodland Pl, W. Central St, and S. Selma Ave. This will allow for the connection of up to approximately 473 lots and up to 200 connections, with existing septic tanks along the Homosassa River, to Citrus County's wastewater system, where flows will be temporarily routed to the Meadowcrest Wastewater Treatment Plant (WWTP) for treatment. Upon substantial completion of the upcoming Southwest Regional Water Reclamation Facility, the flows from this area will be diverted to the new facility for advance wastewater treatment.

Benefit:

The resource benefit of the water quality project will allow for the reduction of pollutant loads to the Homosassa River and springshed, a SWIM priority water body by an estimated 1,909 lbs/yr TN. This project will compel the connection of up to 200 septic tanks that are along the Homosassa River, a first magnitude spring. The County has a mandatory connection ordinance in place (Citrus County Code of Ordinances, Part II, Chapter 42, Article V - Mandatory Sewer System Connection) that will allow for the reduction goal set forth by this project. Interconnecting septic tanks into a central wastewater collection system will not only alleviate the nutrient discharge to the Homosassa River and the Gulf of Mexico but will increase the production of additional reclaimed water for reuse, thus satisfying the goals set forth by the Springs Initiative Plan. The availability of reuse, made possible by the Homosassa East STS project, will decrease the amount of groundwater pumpage in the springshed placing the County in a better position to achieve water conservation goals. Additionally, the proposed project will help satisfy the goals of the TMDL limits, and the Basin Management Action Plan that has been established for the Homosassa Springshed m

Cost:

The septic to sewer project would cost an estimated $15,000,000. Costs include $500,000 for engineering (design, bidding and construction administration), $14,500,000 for construction.

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

Citrus County Water Resources Department has successfully implemented water conservation incentive programs including rain sensor rebates, low flow toilet programs and the irrigation evaluation and audit project. Other incentive programs include various rebate opportunities in conjunction with the Florida Yards and Neighborhoods programs. The water conservation program also provides water conservation information through bill inserts and information provided at the Citrus County Water Resources office. Citrus County Water Conservation division is charged with enforcing the watering restrictions as set forth by Southwest Florida Water Management District, and has issued citations and gone to Court over violations.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			1,371,700	1,371,700	2,743,400
FDEP			3,750,000	3,750,000	7,500,000
General Fund-District Wide			1,875,000	1,875,000	3,750,000
State Legislation			1,006,600		1,006,600
Total			8,003,300	6,996,700	15,000,000

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
Start Construction	05/30/2022
Construction Completion	10/31/2024

Engineering Design

Milestone	Projected Date
Engineering, Permitting, and Construction Plans	10/15/2021

ITB

Milestone	Projected Date
Advertise ITB	11/15/2021
Invitation to Bid Agreement Executed	03/30/2022

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Crystal River Indian Waters Septic to Sewer Phase II
Project Number	W430
Cooperator	Crystal River
Department	Public Works
Contact Person	Beau Keene
Address	123 Nw Hwy 19
City Sate Zip	Crystal River, FL 34428
Phone #	352-795-4216
Email	bkeene@crystalriverfl.org

Project Type:

☐ Water Supply ☒ Water Quality ☐ Flood Protection ☐ Natural Systems

Strategic Initiatives:

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

Indicate All Counties to Benefit From Project:

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

Project Description/Benefit/Cost

Description:

The City of Crystal River (COOPERATOR) recognizes the vital ecological and economic importance that Kings Bay and Crystal River have in the community. These bodies of water are listed as Outstanding Florida Waters and are classified as high priorities in the Surface Water Improvement and Management Plan (SWIM). A basin management action plan is currently under development. These bodies of water are impaired under FAC 62-303(d) by total nitrogen (TN) and total phosphorus (TP) as identified in the adopted Total Maximum Daily Load (TMDL). With this in mind, the City has identified the Indian Waters Phase II project (PROJECT) to help improve the water quality of these impaired water bodies. This project is the second phase of a broader scale project to eliminate septic tanks around Kings Bay. The Indian Waters Phase I was approved for springs funding in the 2017 cycle and involves the removal of 95 septic tanks and 4 package plants. The Indian waters phase II project was approved for funding in the 2019 springs funding cycle. The phase I and phase II projects are shown on the location map provided with this application. The primary objective of the Indian Waters Phase II project is to design and construct a sanitary sewer system which will remove from service approximately 177 septic tanks from the associated single family residential lots and one septic tank serving a car dealership. The sanitary sewer system will also remove from service a package plant (highlighted in red on the map) which serves an approximate additional 84 single family residential lots and 54 condominiums. The septic tanks and package plant contribute to the TN and TP impairment of Kings Bay and Crystal River by direct discharge of effluent into canals and tributaries which are directly connected to Kings Bay and the Crystal River. The removal of the 178 septic tanks and package plant will result in a substantial and measurable reduction in the identified pollutant sources. This is quantified in the project benefit section below. To reiterate, this project is in addition to the Indian Waters Phase I project that was previously approved.

Benefit:

This project will remove approximately 177 residential septic tanks, one commercial septic tank, and a package plant that serves an approximate additional 84 single family homes and 54 condominiums. All of the existing home sites and the package plant are waterfront properties which are tidally connected to a tributary of the Crystal River.The subject parcels lie within the unincorporated area of Citrus County, which has a mandatory connection ordinance in place (Citrus County Code of Ordinances, Part II, Chapter 42, Article V - Mandatory Sewer System Connection).It is estimated that each single family residence produces 29.8 lbs of TN per year and each septic tank is able to remove approximately 33% of the TN. This results in a total of approximately 3,534 lbs of TN/ year flowing into Kings Bay from the 177 single family lots and associated septic tanks. The septic tank serving the car dealership is estimated to produce 15 gallons per day per 100 square feet (SF) of building area per 64E-6.008 for commercial buildings. The building is approximately 22,500 SF which yields 3,375 gallons per day (gpd) of sewage flow. This is approximately 13.5 equivalent residential units (ERUs). Each residential unit is assumed to generate 29.8 lbs of TN/year and the septic system has an estimated

33% removal efficiency. This results in a total of 269 lbs of TN/year flowing into Kings Bay from the car dealership. Additionally, the package plant is permitted to discharge 12 mg/l of TN at the permitted flow of 50,000 gpd. According to the most recent permit renewal for the wastewater treatment plant (WWTP), the plant receives an approximate average daily flow of 35,000 gpd and has had a measured discharge of 11.5 mg/l of TN. This results in approximately 1,500 lbs of TN/year discharged into Kings Bay. Therefore, construction of a conveyance system to allow these areas to connect to central sewer will result in the removal of approximately 5,303 lbs of TN/year from the Kings Bay and Crystal River water bodies.

Cost:

The Indian Waters Phase II Sewer Expansion Project is estimated to cost $4,000,000.00. Please keep in mind that this is in addition to the Indian Waters Phase I project which was awarded funding in the 2017 cycle. The funds for the Phase II sewer expansion project are expected to be expended over two or possibly three fiscal years, depending on the timing of permitting and construction authorizations. All of the funding requested is for contracted services or materials; no funding is for salaries. The project is anticipated to require the preliminary planning to determine which type of sewer system is most economical for the project. Depending on the sewer system, it may be necessary to acquire a parcel of property for a sewer station. The project is estimated to require approximately 25,000 linear feet (LF) of sewer pipe line in addition to the sewer station(s). The project will be designed and constructed in conjunction with the Phase I portion of the Indian Waters project.Breakdown of Project Component Costs Planning - $100,000 - Component of City Match Land Acquisition - $50,000 - Component of City Match Design and Permitting - $250,000 - Component of City Match CEI - $400,000 Construction Costs - $3,200,000. Several past sewer projects that were constructed in similar conditions were used as the basis of the cost estimate. The cost benefit for this project needs to be calculated with the Indian Waters Phase I project included. The reason for this is that the projects will be served by the same collection system. Therefore, the cost of the Indian Waters Phase I project was approved at $1,000,000 in the FY 2017 funding cycle, and the cost of the Phase II project is estimated to be $4,000,000 for a total of $5,000,000. The two projects combined are estimated to remove a total of approximately 7,700 lbs of TN/year. The sewer conveyance system will have an estimated life of 30 years. Therefore, the cost benefit of the projects is $21.64/ lb of TN removed over the life of the system.

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

The subject parcels lie within the unincorporated area of Citrus County, which has a mandatory connection ordinance in place (Citrus County Code of Ordinances, Part II, Chapter 42, Article V - Mandatory Sewer System Connection).

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			1,000,000	1,000,000	2,000,000
General Fund-District Wide			2,000,000		2,000,000
Total			3,000,000	1,000,000	4,000,000

Matching Fund Reduction

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

Timelines

Funding and Consultant Selection	03/02/2020
Design and Permitting	11/02/2020
Advertise and Invitation to Bid	01/15/2021
Award to Contractor	03/01/2021
Construction and CEI	11/30/2021
Final Certifications and Closeout	12/31/2021

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name Cambridge Greens Septic to Sewer
Project Number W432
Cooperator Citrus County
Department Operations And Projects
Contact Person Christina Malmberg
Address 3600 W. Sovereign Path
City Sate Zip Lecanto, FL 344619014
Phone # 352-527-7616
Email Christina.Malmberg@citrusbocc.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 intent of the project is to construct a regional wastewater collection system necessary for the connection of existing residential homes in the Cambridge Greens area of the Crystal River/Kings Bay springshed. If constructed, a minimum of 220 existing septic systems will convert to County sanitary sewer. The construction will include installation of approximately 15,000 linear feet of sewer line from the existing force main to resident's lot lines and any associated components which may include lift station(s) and grinder pump stations.

Benefit:

The benefit of this water quality project, if constructed, is the reduction of pollutant loads by an estimated 2,370 lbs/yr TN. There will be no monitoring or performance testing requirements. The project is located within the Priority Focus Area (PFA) of the Crystal River/Kings Bay basin management action plan (BMAP), a SWIM priority water body.

Cost:

The septic to sewer project would cost an estimated $6,500,000.

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

The County has an ordinance in line with F.S. 381.00655 to require sewage connection within 365 days of availability.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share		100,000	1,176,000		1,276,000
FDEP		3,250,000			3,250,000
General Fund-District Wide		100,000	1,525,000		1,625,000
Legislation		349,000			349,000
Total		3,799,000	2,701,000		6,500,000

Matching Fund Reduction

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

Timelines

Advertise Bid

Milestone	Projected Date
ITB	12/20/2019

Construction

Milestone	Projected Date
Construction Completion	08/31/2021

Construction NTP

Milestone	Projected Date
Construction Commencement	01/15/2020

Engineering

Milestone	Projected Date
Design and Permitting	10/15/2019

Data Collection Assessment:

[X] No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Hunter Springs Stormwater Modification
Project Number	W433
Cooperator	Crystal River
Department	Public Works
Contact Person	Beau Keene
Address	123 Nw Hwy 19
City Sate Zip	Crystal River, FL 34428
Phone #	352-795-4216
Email	bkeene@crystalriverfl.org

Project Type:

☐ Water Supply ☒ Water Quality ☐ Flood Protection ☐ Natural Systems

Strategic Initiatives:

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

Indicate All Counties to Benefit From Project:

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

Project Description/Benefit/Cost

Description:

THis project was awarded funding last year for CFI funding but not for springs funding. we are resubmitting to adjust the funding from CFI for this project. The City of Crystal River (COOPERATOR) recognizes the vital ecological and economic importance that Kings Bay and Crystal River have in the community. These bodies of water are listed as Outstanding Florida Waters and are classified as high priorities in the Surface Water Improvement and Management Plan (SWIM). A basin management action plan is currently under development. These bodies of water are impaired under FAC 62-303(d) by total nitrogen (TN) and total phosphorus (TP) as identified in the adopted Total Maximum Daily Load (TMDL). The proposed project involves the construction of an additional treatment train in the existing Hunter Springs drainage retention area (DRA) system to improve the water quality and hydrology of the system. The project area is shown on the location map provided with this application. The primary objective of the project is to design and construct a DRA modification and treatment system which will increase the removal of TN and TP. These nutrients contribute to the impairment of Kings Bay and Crystal River by direct discharge into canals which are directly connected to Kings Bay and the Crystal River. The construction of the DRA modification and treatment system will result in a measurable reduction in the identified pollutant sources. This is quantified in the Total Nutrient Removed section.

Benefit:

The Hunter Springs DRA modification and treatment project will consist of the construction of a weir in the existing drainage swale conveying flow from the north, a modification to the weir connecting the two existing DRAs, and reestablishing a connection between the southern DRA and the drainage swale. Stormwater flow from the basin will enter the northern DRA and flow to the southern DRA via the modified weir. Then, stormwater flow will proceed to the drainage canal via the reestablished connection at the southern end of the southern DRA. Lastly, stormwater will proceed to the weir installed in the drainage swale further north. Stormwater will stage up in the canal until reaching the design discharge elevation of the weir and proceed to the outfall to Kings Bay. The improvements are shown on the map included with this application. Currently, the existing DRA system removes 104.93 lbs. of TN / Year and 17.61 lbs. of TP / Year. This DRA modification and additional treatment will remove 129.66 lbs. of TN / Year and 21.76 lbs. of TP / Year. This provides for a net reduction of 24.73 lbs. of TN / Year and 4.15 lbs. of TP / Year.

Cost:

Total project cost $150,000 (Design, Permitting and Construction)City of Crystal River: $75,000, District $75,000 requested in FY20. This project was not awarded springs funding in FY19 and as such we are resubmitting to adjust the request for CFI funding from last years awarded funding.

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

The City of Crystal River has adopted the sprinkling limitations promulgated by theSouthwest Florida Water Management District and enforces those restrictions as partof its ongoing code enforcement program. The City has further adopted building codesthat require waterfront construction to retain the first 1.5" of rainfall on-site through theconstruction of swales and/or berms. The City has also adopted an ordinance thatbans the use of fast-release fertilizers as a means of protecting water quality.Additionally, the City has over the past several years actively pursued the installationof stormwater treatment devices at points of direct stormwater entry into Kings Bayand related waterways.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			37,500	37,500	75,000
Coastal Rivers			75,000		75,000
Total			112,500	37,500	150,000

Matching Fund Reduction

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

Timelines

Construction	09/30/2020

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Crystal River Southern Septic to Sewer Project
Project Number	W434
Cooperator	Crystal River
Department	Public Works
Contact Person	Beau Keene
Address	123 Nw Hwy 19
City Sate Zip	Crystal River, FL 34428
Phone #	352-795-4216
Email	bkeene@crystalriverfl.org

Project Type:

☐ Water Supply ☒ Water Quality ☐ Flood Protection ☐ Natural Systems

Strategic Initiatives:

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

Indicate All Counties to Benefit From Project:

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

Project Description/Benefit/Cost

Description:

This project is a follow up submittal for project W434 approved for funding for the 2019 funding cycle. The City of Crystal River (COOPERATOR) recognizes the vital ecological and economic importance that Kings Bay and Crystal River have in the community. These bodies of water are listed as Outstanding Florida Waters and are classified as high priorities in the Surface Water Improvement and Management Plan (SWIM). A basin management action plan is currently under development. These bodies of water are impaired under FAC 62-303(d) by total nitrogen (TN) and total phosphorus (TP) as identified in the adopted Total Maximum Daily Load (TMDL). The proposed project involves the removal of 570 septic tanks. The project area is shown on the location map provided with this application. The primary objective of the project is to design and construct a sanitary sewer collection system which will remove from service approximately 706 septic tanks from the associated single family residential lots and 16 commercial businesses. The septic tanks contribute to the TN and TP impairment of Kings Bay and Crystal River by direct discharge of effluent into canals and tributaries which are directly connected to Kings Bay and the Crystal River. The removal of the 570 septic tanks will result in a substantial and measurable reduction in the identified pollutant sources. This is quantified in the Total Nutrient Removed section.

Benefit:

This project will remove approximately 554 residential septic tanks and 16 commercial septic tanks. The subject parcels lie within the unincorporated area of Citrus County, which has a mandatory connection ordinance in place (Citrus County Code of Ordinances, Part II, Chapter 42, Article V - Mandatory Sewer System Connection).It is estimated that each single family residence produces 23.7 lbs. of TN / Year and each septic tank is able to remove approximately 50% of the TN. This results in a total of approximately 7,644 lbs. of TN / Year flowing into Kings Bay from the 554 residential septic tanks. The septic tanks serving the commercial properties are estimated to produce 15 gallons per day (gpd) per 100 square feet (SF) of building area per 64E-6.008 for commercial buildings. The buildings total are approximately 115,000 SF which yields 17,250 gpd of sewage flow. This is approximately 69 equivalent residential units (ERUs). Each residential unit is assumed to generate 23.7 lbs. of TN / Year and the septic system has an estimated 50% removal efficiency. This results in a total of 736 lbs. of TN / Year flowing into Kings Bay from the commercial septic tanks. Therefore, construction of a conveyance system to allow these areas to connect to central sewer will result in the removal of approximately 8380 lbs. of TN / Year from the Kings Bay and Crystal River water bodies.The Crystal River WWTP sends 100 percent of the reclaimed water to the Duke Power Plant. This water is then used in the power plant operation and is not returned to ground water or surface water. Therefore, all of the TN associated with the septic tanks is removed.

Cost:

The project is estimated to cost $6,500,000. All of the funding requested is for contracted services or materials; no funding is for salaries. The project is anticipated to require the preliminary planning to determine which type of sewer system is most economical for the project. Depending on the sewer system, it may be necessary to acquire a parcel of property for a sewer station. The project is estimated to require approximately 33,000 LF of sewer pipe line in addition to 5 sewer lift station(s). Breakdown of Project Component Costs. Planning - $200,000 / Design and Permitting - $500,000 / CEI - $500,000 / Construction Costs - $5,300,000. Several past sewer projects that were constructed in similar conditions were used as the basis of the cost estimate. The project is estimated to remove a total of approximately 15,473 lbs of TN/year. The sewer conveyance system will have an estimated life of 30 years. Therefore, The cost benefit of the projects is $14.00/ lb of TN removed over the life of the system.

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

The subject parcels lie within the unincorporated area of Citrus County, which has a mandatory connection ordinance in place (Citrus County Code of Ordinances, Part II, Chapter 42, Article V - Mandatory Sewer System Connection).The Southern Sewer Expansion Project will ultimately be presented to City Council for input and discussion during an advertised public hearing(s).

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share			1,625,000	1,625,000	3,250,000
Coastal Rivers			3,250,000		3,250,000
Total			4,875,000	1,625,000	6,500,000

Matching Fund Reduction

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

Timelines

Funding and Consultant Selection	03/02/2020
Design and Permitting	11/02/2020
Advertise and Invitation to Bid	01/15/2021
Award to Contractor	03/01/2021
Construction and CEI	11/30/2021
Final Certifications and Closeout	12/31/2021

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name Old Homosassa West Septic to Sewer
Project Number WH04
Cooperator Citrus County
Department Operations And Projects
Contact Person Christina Malmberg
Address 3600 W. Sovereign Path
City Sate Zip Lecanto, FL 344619014
Phone # 352-527-7616
Email Christina.Malmberg@citrusbocc.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 intent of this project is for the design and construction of a regional wastewater collection system necessary for connection of existing residential homes in the Old Homosassa West area of the Homosassa springshed. If constructed, a minimum of 95 existing septic systems will convert to County sanitary sewer. The construction will include installation of approximately 10,000 linear feet of sewer line from the existing force main to resident's lot lines and any associated components which many include lift station(s) and grinder pump stations.

Benefit:

The benefit of this project, if constructed, is the reduction of pollutant loads by an estimated 907 lbs/yr TN. There will be no monitoring or performance testing requirements. The project is located within the Priority Focus Area (PFA) of the Chasshowitzka-Homosassa Springs basin management action plan (BMAP), a SWIM priority water body. This benefit calculation differs from the standard FDEP methodology as this project will impact the adjacent surface water body (Homosassa River) instead of the nearby spring vents.

Cost:

The septic to sewer project would cost an estimated $6,000,000. Costs include $500,000 for engineering (design, bidding and construction administration), $5,500,000 for construction.

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

Citrus County has an ordinance in line with F.S. 381.00655 to require sewage connection within 365 days of availability.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share		100,000	1,164,400		1,264,400
FDEP		3,000,000			3,000,000
General Fund-District Wide		100,000	1,400,000		1,500,000
Legislation		235,600			235,600
Total		3,435,600	2,564,400		6,000,000

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
Construction Completion	06/30/2021

Construction NTP

Milestone	Projected Date
Construction	12/30/2019

Engineering

Milestone	Projected Date
Design and Permitting	08/01/2019

ITB

Milestone	Projected Date
Advertise Bid	11/20/2019

Data Collection Assessment:

☒ No data will be collected for this project

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

FY2020 Cooperative Funding Initiative Application Form

Project Name	Weeki Wachee Springshed Nitrogen Removal Stormwater Retrofits
Project Number	WW05
Cooperator	Hernando County
Department	Public Works
Contact Person	Clay Black
Address	1525 E Jefferson St
City Sate Zip	Brooksville, FL 34601
Phone #	352-754-4062 ext17012
Email	CBlack@co.hernando.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:

The County proposes to reduce nitrogen inputs into Weeki Wachee Spring by retro-fitting ten (10) existing urban drainage retention areas with denitrification cells utilizing biosorption activated media (BAM). All of the sites are within three miles of the headspring and are within the BMAP delineated Primary Focus Area. The project is anticipated to remove 700 lbs of nitrogen from the system annually and will contribute to the TDML reductions required by the Weeki Wachee BMAP. This project improves water quality and reduces nutrients entering the Weeki Wachee Springshed groundwater regime. The close proximity of these projects to the headspring means that nitrogen reductions will be realized immediately and will continue to offset legacy loads arriving from distant up-gradient areas. Hernando County and the SWFWMD recently completed a Surface Water Resource Assessment for the Weeki Wachee Springshed. The Spatially Integrated Model for Pollutant Loading Estimates (SIMPLE) computer program model was used to calculate the amount of pollutants being discharged into the groundwater via surface water runoff, infiltration, and percolation. The SIMPLE model indicates total nitrogen loading from the urbanized areas within the Priority Focus Area averaged 2lbs/acre/ year. The model identified significant sources of pollutant loading and the results were used to prioritize areas of interest. County staff developed ten conceptual DRA retrofit projects and presented them to SWFWMD for preliminary review. SWFWMD indicated the design concepts and locations were acceptable. This is year-two of a multiple year project. Year-one funding was approved for 2019 and included complete design plans and permitting of the storm water improvements. This application requests Year-two funding for construction of the DRA retrofits. Construction costs are estimated to be $1,750,000 and the project is expected to be completed within 12 months.

Benefit:

The project is anticipated to remove 700 lbs of nitrogen from the system annually and will contribute to the TDML reductionsrequired by the Weeki Wachee BMAP. This project improves water quality and reduces nutrients entering the Weeki WacheeSpringshed groundwater regime. The close proximity of these projects to the headspring means that nitrogen reductions will berealized immediately and will continue to offset legacy loads arriving from distant up gradient areas.

Cost:

Year-two construction costs are estimated to be $1,750,000 giving a total project cost of $2,000,000. The estimated 20 year cost per lb of nitrogen removed is $143. More exact figures will be developed during the design process as contributing areas and treatment volumes are evaluated by professional staff.

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

Hernando County has partnered with the District to study and develop Watershed Management Plans for 22 watersheds throughout the County. The County designed and constructed the Peck Sink Stormwater Project, the South Brooksville Dauson Property Stormwater Project, and the BMP 7 Russell Street Project in cooperation with the District and is presently working with the District to implement the BMP 6 Josephine Street Project and the Rogers Park Stormwater Retrofit Project to improve water quality within the Weekiwachee River. The County has a dedicated stormwater funding mechanism in the form of a MSTU that assures funding will be available to implement approved projects. Hernando County implemented a floodplain ordinance in 1986 and signed a joint Flood Protection Coordination Agreement with the District in September 2000. The County sought and received FEMA approval of new Flood Insurance Rate Maps (FIRM) on February 2, 2012 based on basin studies conducted in cooperation with the District. The County is working with the FDEP to develop the Weekiwachee Spring Basin Management Action Plan (BMAP) aimed at reducing nutrient loadings within that springshed. This effort compliments and supports the District's Springs Initiative. Hernando County has instituted a series of public meetings seeking citizen input regarding proposed water management improvements in the community. Hernando County is covered under a NPDES Phase II MS4 permit and the County adopted a Stormwater Ordinance addressing water quality in June 2006. The County has recently instituted several measures under it's MS4 permit to improve water quality within the community including a stormwater education program (2003), a stormwater utility (2006), a pet waste ordinance (2012), a storm drain stenciling program (2013), a fertilizer ordinance (2013), a street sweeping program (2014), and a water quality testing and monitoring program (2014).The Hernando County Utility Department has successfully implemented a series of water conservation incentive programs that include, a rain sensor rebate program, low flow toilet programs (2003-2012) and irrigation evaluation and audit projects. Other incentive programs include various rebate opportunities in conjunction with the Florida Friendly Landscaping program. The water conservation program also provides water conservation information in their Hernando County Water Awareness Series and Groundwater Guardians program, through bill inserts and information provided at each HCUD office. Hernando County Code Enforcement Officers enforce watering restrictions set forth by Southwest Florida Water Management District and the more stringent regulations implemented by Hernando County Board of County Commissioners. Code Enforcement Officers also inspect construction sites and stormwater management systems for compliance with the water quality provisions of the County's NPDES MS4 permit.

Funding Source	Prior Funding	FY2019 Budget	FY2020 Budget	Future Funding	Total Funding
Applicant Share		125,000	875,000		1,000,000
Coastal Rivers		125,000	875,000		1,000,000
Total		250,000	1,750,000		2,000,000

Matching Fund Reduction

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

Timelines

Contractor Selection Nov 1, 2019 - Dec 31, 2019

Milestone	Projected Date
Award Construction Contract	12/31/2019

Project Construction Jan 1, 2020 - Aug 31 , 2020

Milestone	Projected Date
Construction Complete	08/31/2020

Project Review and Acceptance Sept 1, 2020 - Sept 30, 2020

Milestone	Projected Date
Project Acceptance Letter	09/30/2020

Data Collection Assessment:

☒ No data will be collected for this project

The Southwest Florida Water Management District (District) does not discriminate on the basis of disability. This nondiscrimination policy involves every aspect of the District's functions, including access to and participation in the District's programs and activities. Anyone requiring reasonable accommodation as provided for in the Americans with Disabilities Act should contact the District's Human Resources Director, 2379 Broad Street, Brooksville, Florida 34604-6899; 1-352-796-7211 or 1-800-423-1476 (Florida only), extension 4702; TDD (Florida only) 1-800-231-6103; or email to ADACoordinator@swfwmd.state.fl.us