

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

*Fiscal Year 2019*  
Cooperative Funding Initiative Applications  
**Northern Region**

Southwest Florida  
Water Management District





## Coop Funding By Region For FY2019

### Northern Region

<b>Project</b>	<b>Project Name</b>	<b>Project Cost</b>
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
N951	Study-WRWSA Regional Water Supply Plan Update	\$300,000
N952	Springs- Citrus County Old Homosassa West Septic to Sewer Project	\$6,000,000
N956	SW IMP - Water Quality - Weeki Wachee Springshed Nitrogen Removal Stormwater Retrofits	\$2,000,000
N957	Springs-Marion County Northwest Regional WWTF Expansion	\$25,950,000
N958	Conservation- Citrus County Water Sense Labeled Irrigation Controller Installation - Phase 2	\$67,500
N964	Springs- Ocala Rainbow/Timberwood Septic to Sewer Project	\$3,316,000
N969	Restoration - Mechanical Maintenance of Kings Bay Restoration Project	\$650,000
N977	Reclaimed Water-Citrus County Sugarmill Woods Golf Courses Reclaimed Water Project	\$6,050,000
N981	SW IMP - Flood Protection - Culbreath Road Area Flood Relief	\$500,000
N983	Reclaimed Water- Hernando County Airport Reclaimed Water Storage/Pumping/Transmission/Recharge Project	\$16,000,000
N984	Springs - Crystal River Indian Waters Septic to Sewer Phase II	\$4,000,000
N985	Springs- Crystal River Southern Septic to Sewer Project	\$6,500,000
N986	Study - Citrus County Stormwater Utility Fee Rate & Methodology	\$300,000
N987	SW IMP - Water Quality - Hunter Springs DRA Modification	\$75,000
N999	Conservation- Marion County Utilities Toilet Rebate Program - Phase 5	\$64,000
Q003	Springs- Marion County Package Wastewater Plant Removal Program-Six Facilities	\$5,956,125
Q017	Study - Calienta Street Stormwater Improvements Feasibility	\$400,000
Q018	Conservation-The Villages Rain Sensor Inspection/Replacement Program	\$40,000
Q019	Springs- Ocala Rainbow/Fox Meadow Septic to Sewer Project	\$4,705,000
Q024	Springs- Hernando County US19/Hwy50 Septic to Sewer, Districts A and B	\$48,400,000
Q025	Springs-Ocala Rainbow/Fairfield Village Package Plant Removal Project	\$875,000
Q037	Springs- Citrus County Cambridge Greens Septic to Sewer	\$6,500,000
Q039	SW IMP - Water Quality - Rainbow Springs 5th Replat Stormwater Retrofit - CP 73	\$290,850
Q040	Conservation- WRWSA Regional Irrigation System Audit Program Phase 5	\$200,000
Q043	Springs- Marion County State Road 200 Sewer Forcemain Extension	\$3,736,476
Q044	Study-Citrus County Septic to Sewer Conversion Feasibility Study	\$400,000
<b>Region Total</b>		<b>\$145,985,951</b>



# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 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 State 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 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 foot prints 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 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 February 1, 2018 and continue through FY22. This is the second 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 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.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		100,000	150,000	212,500	462,500
Coastal Rivers		100,000	150,000	212,500	462,500
Total		200,000	300,000	425,000	925,000

#### **Matching Fund Reduction**

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

#### **Timelines**

##### **Consultant Contract**

###### **Milestone**

Execute Consultant Contract

###### **Projected Date**

01/31/2018

##### **Project Closeout**

###### **Milestone**

Close Agreement with SWFWMD

###### **Projected Date**

12/31/2022

##### **Report Preparation**

###### **Milestone**

Final Report Submitted

###### **Projected Date**

12/31/2022

##### **SWFWMD Agreement**

###### **Milestone**

SWFWMD Agreement signed by County

###### **Projected Date**

12/01/2017

#### **Data Collection Assessment:**

☒ Land Survey ☒ Mapping/GIS data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 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 State 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 foot prints 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 are expected to start before February 1, 2018 and continue through FY21. This is the second 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



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 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.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
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**

Execute Consultant Contract

###### **Projected Date**

01/31/2018

##### **Project Closeout**

###### **Milestone**

Close Agreement with SWFWMD

###### **Projected Date**

12/31/2021

##### **Report Preparation**

###### **Milestone**

Final Report Submitted

###### **Projected Date**

12/31/2021

##### **SWFWMD Agreement**

###### **Milestone**

SWFWMD Agreement signed by County

###### **Projected Date**

12/01/2017

#### **Data Collection Assessment:**

☒ Land Survey ☒ Mapping/GIS data



# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 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** Robert Lawler  
**Address** 319 E. Anderson Ave  
**City State Zip** Bushnell, FL 33513  
**Phone #** 352-689-4400  
**Email** Robert.LawlerIII@sumtercountyfl.gov

### Project Type:

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

### Strategic Initiatives:

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

### Indicate All Counties to Benefit From Project:

<input type="checkbox"/> Charlotte	<input type="checkbox"/> Citrus	<input type="checkbox"/> Desoto	<input type="checkbox"/> Hardee	<input type="checkbox"/> Hernando	<input type="checkbox"/> Highlands	<input type="checkbox"/> Hillsborough	<input type="checkbox"/> Lake
<input type="checkbox"/> Levy	<input type="checkbox"/> Manatee	<input type="checkbox"/> Marion	<input type="checkbox"/> Pasco	<input type="checkbox"/> Pinellas	<input type="checkbox"/> Sarasota	<input checked="" type="checkbox"/> Sumter	<input type="checkbox"/> 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 is funded for FY 2018 and work on the Watershed Evaluation is scheduled to be initiated. This funding request is for FY 2019 and a future request is anticipated for FY 2020. 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 and storage features and stormwater infrastructure. The WatershedEvaluation is the foundation for the Watershed Management Plan, the final element in the Watershed Management Program. TheWatershed 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 TotalMaximum Daily Load (TMDL) regulation.

#### Cost:

The total project cost is \$960,000, split equally between SWFWMD and Sumter County. Project costs and allocation through TaskWork Assignment (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.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
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

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Study-WRWSA Regional Water Supply Plan Update  
**Project Number** N951  
**Cooperator** WRWSA  
**Department**  
**Contact Person** Richard Owen  
**Address** 3600 W Sovereign Path  
**City State Zip** Lecanto, FL 34461  
**Phone #** 352-527-5796  
**Email** richardowen@wrwsa.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 Authority last updated its Regional Water Supply Plan in 2014. The update was co-funded by the SWFWMD. The Authority updates its Plan every five years and it is proposed that this update be initiated in FY 2018-19. The Authority is again requesting 50% co-funding from the SWFWMD.

The work effort will include updated water demand projections, evaluation of source options and potential water supply project options. The update of the WRWSA RWSP will include: updating population projections; existing and future water demands for public supply and other water use categories; traditional and alternative water supply availability; regional groundwater modeling; estimates of the amount of future demands that could be offset through enhanced water conservation efforts; reclaimed water availability and potential offsets; and recommendations regarding the WRWSA Regional Framework. It is anticipated the agricultural demand projections will be based upon the most recent projections developed by the Florida Department of Agriculture and Consumer Services. It is also anticipated the potential public supply future conservation savings will be developed using the Alliance for Water Efficiency model, unless a better approach is identified. The update will include a fresh review of water supply project options, not simply an update of the options that were identified in the Authority's past plans. This update will be completed in the last quarter of FY 2018-19, with the intent that the Authority's updated Plan would be substantially complete for consideration by the District as it conducts the next SWFWMD RWSP-NPR update.

#### Benefit:

Regional water supply planning helps to ensure that adequate water supplies are identified in a timely manner to meet growing water supply needs. By periodically updating the regional water supply plan, the latest, best available information and methodologies can be incorporated into the Plan, such as new water resource investigations, new minimum flows and levels set by the water management districts, and updated water demands estimates and projections. By knowing well in advance what are the most logical water supply sources to meet growing demands and identifying various project options to develop these sources, water resource and supply development can occur in a timely manner. Taking a regional approach to water supply planning helps to avoid competition for limited supplies.

#### Cost:

The proposed budget for the RWSP update is \$300,000, split equally between the Authority and the District.

**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.

1. The WRWSA has a Water Conservation Grants Program and has been co-funding water conservation initiatives since 1999 for its member governments. 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.
2. 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.
3. 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.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			150,000		150,000
General Fund-District Wide			150,000		150,000
Total			300,000		300,000

#### **Matching Fund Reduction**

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

#### **Timelines**

##### **April 2018 – April 2019**

###### **Milestone**

Complete Data Collection & Analysis

###### **Projected Date**

04/30/2019

##### **April 2018 – May 2019**

###### **Milestone**

Complete Draft Report

###### **Projected Date**

05/28/2019

##### **June – August 2019**

###### **Milestone**

Final Report

###### **Projected Date**

09/30/2019

##### **October 2017 – March 2018**

###### **Milestone**

Select Consultant

###### **Projected Date**

03/21/2018

#### **Data Collection Assessment:**

☒ Other data collection: Updated water use estimates and projections

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Springs- Citrus County Old Homosassa West Septic to Sewer Project  
**Project Number** N952  
**Cooperator** Citrus County  
**Department** Operations And Projects  
**Contact Person** Christina Malmberg  
**Address** 3600 W. Sovereign Path  
**City State 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:**

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

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

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

**Project Description/Benefit/Cost**

**Description:**

This project aligns with the District's Northern Region Priorities and Objectives for Springs and Water Supply. The project consists of the connection of existing residential dwelling unit septic systems adjacent to the Homosassa River to Citrus County's central wastewater collection system. 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. The County's requirements will then result in the connection of up to 218 existing septic tanks to the existing force main located in downtown Homosassa. The County has a mandatory connection ordinance in place (Citrus County Code of Ordinances, Part II, Chapter 42, Article V – Mandatory Sewer System Connection). The project will result in an estimated TN load reduction of 4,750 lb/yr. This project will also increase the amount of reclaimed water available for reuse.

**Benefit:**

The resource benefit of the water quality project will allow for the reduction of pollutant loads to Homosassa River/springshed, a SWIM priority water body by an estimated 4,750 lbs/yr TN. This project will compel the connection of up to 218 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 Old Homosassa West Sewer 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 with help satisfy the goals of the TMDL limits, which is in draft form, and the Basin Management Action Plan that has been established for the Homosassa Springshed group. Installation of approximately 10,000 feet of sewer line and pump station(s) to residents' lot lines for a fully operational municipal sanitary sewer system that will allow for the connection of approximately 218 residences. The upgrade would result in an estimated average nitrogen reduction of 4,750 lb/yr of total nitrogen, or 13 lbs of nitrogen per day (4,750 lbs annually) to the springshed. Over a 20-year period, this nitrogen reduction cost-effectiveness equals \$55 per lb. of nitrogen (Project total = \$5,250,000).

**Cost:**

The septic to sewer project would cost an estimated \$5,250,000. Costs include \$250,000 for engineering (design, bidding and construction administration), \$5,000,000 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.

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.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			1,264,400		1,264,400
FDEP			3,000,000		3,000,000
Legislation			235,600		235,600
Withlacoochee River			1,500,000		1,500,000
Total			6,000,000		6,000,000

**Matching Fund Reduction**

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

**Timelines**

Design and Permitting	08/01/2019
Invitation to Bid	11/20/2019
Construction NTP	12/30/2019
Construction	06/30/2021

**Data Collection Assessment:**

☒ No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** SW IMP - Water Quality - Weeki Wachee Springshed Nitrogen Removal Stormwater Retrofits  
**Project Number** N956  
**Cooperator** Hernando County  
**Department** Public Works  
**Contact Person** Clay Black  
**Address** 1525 E Jefferson St  
**City State 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:**

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

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

<input type="checkbox"/> Charlotte	<input type="checkbox"/> Citrus	<input type="checkbox"/> Desoto	<input type="checkbox"/> Hardee	<input checked="" type="checkbox"/> Hernando	<input type="checkbox"/> Highlands	<input type="checkbox"/> Hillsborough	<input type="checkbox"/> Lake
<input type="checkbox"/> Levy	<input type="checkbox"/> Manatee	<input type="checkbox"/> Marion	<input type="checkbox"/> Pasco	<input type="checkbox"/> Pinellas	<input type="checkbox"/> Sarasota	<input type="checkbox"/> Sumter	<input type="checkbox"/> 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 Southwest Florida 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 2 lbs/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 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. The County must now complete engineering design and bid construction of the projects. Once funding is secured the project is expected to be completed within 24 months. Year one of this proposal includes complete design plans and permitting for the storm water improvements providing enhance water quality treatment. This includes complete preliminary planning, civil engineering site design, 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 \$250,000. Year two of this proposal includes construction of the DRA retrofits. Construction costs are estimated to be \$1,750,000.

**Benefit:**

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.

**Cost:**

Year one design fees are estimated to be \$250,000 and 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.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
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**

##### **Design Consultant Selection Nov 1, 2018 - Jan 31, 2019**

<b>Milestone</b>	<b>Projected Date</b>
Design Contract Signed	01/31/2019

##### **Performance of Design Contract Feb 1 2019 - Aug 31, 2019**

<b>Milestone</b>	<b>Projected Date</b>
Construction Plans and Permitting complete	08/31/2019

##### **Plan Review and Acceptance Sept 1, 2019 - Sept 30, 2019**

<b>Milestone</b>	<b>Projected Date</b>
Construction Plans Accepted	09/30/2019

##### **Purchasing Contract Bid Process Oct 1, 2019 - Dec 31, 2019**

<b>Milestone</b>	<b>Projected Date</b>
Award Construction Contract	12/31/2019

##### **Retrofit Construction Jan 1, 2020 - Sept 30, 2020**

<b>Milestone</b>	<b>Projected Date</b>
Project Complete	08/30/2020

#### **Data Collection Assessment:**

☒ Groundwater or Surface Water Level measurements ☒ Land Survey

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Springs-Marion County Northwest Regional WWTF Expansion  
**Project Number** N957  
**Cooperator** Marion County  
**Department** Marion County Utilities Department  
**Contact Person** Kevin Vickers  
**Address** 11800 S Us Hwy 441  
**City State Zip** Belleview, FL 34420  
**Phone #** 352-307-4624  
**Email** Kevin.Vickers@marioncountyfl.org

**Project Type:**

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

**Strategic Initiatives:**

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

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

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

**Project Description/Benefit/Cost**

**Description:**

The Northwest Regional Wastewater Treatment Facility (WWTF) expansion project is an initiative by the County to improve wastewater treatment and expand the capacity at one of the County's existing WWTFs. This project consists of constructing a new 0.675 MGD oxidation ditch 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 reclaimed water and would continue with this expansion. The existing facility currently treats to an average 48.6 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), 3 mg/L of TN. This will result in a net decrease in nitrogen loading to the springshed. The County has completed an alternatives analysis for expanding and improving this facility (a copy of which is attached for reference). 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 procuring design services in fiscal year (FY) 2018 with construction anticipated to begin in FY 2019 or 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 permitted capacity of 200,000 gallons per day is approximately 29,595 pounds per year. Assuming we treat 200,000 gallons of wastewater per day (no growth in the springshed) the nitrogen loading for the improved facility will be about 1,828 pounds per year. Therefore the overall anticipated reduction of total nitrogen will be 27,767 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 \$17,300,000. Marion County is also applying for State Springs Funding (as shown in the Funding Table). The County acknowledges that if State Springs Funding is awarded, the requested SWFWMD Cost Share Funding will be reduced 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 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.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
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Applicant Share	2,000,000	2,000,000	4,650,000	8,650,000
State Springs Funding			8,650,000	8,650,000
Withlacoochee River			8,650,000	8,650,000
Total	2,000,000	2,000,000	21,950,000	25,950,000

#### Matching Fund Reduction

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

#### Timelines

##### 1.Study/Feasibility

###### Milestone

Alternatives Analysis Study

###### Projected Date

10/09/2017

##### 2.Design Services Procurement

###### Milestone

Advertise Design Services RFQ

Design Services RFQ Review and Selection

Design Services Negotiation and Contract

###### Projected Date

12/01/2017

02/01/2018

04/01/2018

##### 3.Design

###### Milestone

Preliminary Engineering Report

30% Design

60% Design

90% Design (includes draft RFB)

Proposed Final Design (includes final RFB)

District Verifications

###### Projected Date

07/01/2018

09/01/2018

11/01/2018

01/01/2019

03/01/2019

03/15/2019

##### 4.RFB

###### Milestone

RFB Advertisement

RFB Evaluation and Award

Notice to Proceed to Contractor

###### Projected Date

04/15/2019

06/15/2019

07/01/2019

##### 5.Construction

###### Milestone

Commence Construction

Substantial Completion

Construction Complete

###### Projected Date

08/01/2019

12/31/2020

02/28/2021

#### Data Collection Assessment:

☒ Land Survey ☒ Other data collection: Discharge Monitoring Reports

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Conservation- Citrus County Water Sense Labeled Irrigation Controller Installation - Phase 2  
**Project Number** N958  
**Cooperator** Citrus County  
**Department** Water Resources  
**Contact Person** Debra Burden  
**Address** 3600 W Sovereign Path, Ste 202  
**City State Zip** Lecanto, FL 34661  
**Phone #** 352-527-7684  
**Email** Debra.Burden@citrusbocc.com

### Project Type:

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

### Strategic Initiatives:

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

### Indicate All Counties to Benefit From Project:

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

### Project Description/Benefit/Cost

#### Description:

The project is a water conservation program that will incentivize installation of 75 Water Sense® labeled irrigation controllers at dwellings that used an average of 30 thousand gallons of water per month for a 12-month period. Based on 2015 and 2016 billing data, Citrus County Utilities provides service to more than 600 qualifying customers. These accounts will be the focus of the Project. Each Project site will be pre-inspected to verify the existing controller is not already a WS labeled product and the inground irrigation system is connected to CCU's water supply. After the qualifying product is installed, homeowners will be given a tutorial of the new equipment and the controller will be set in the process. A post-installation customer survey will be used to query the success of the program and the customer's satisfaction with the new controller. CCU will provide the District with 12 months pre- and post- water use data for each participant. Additionally, the individualized pre- and post- water use data will be provided to participants.

#### Benefit:

The Project will produce water savings of approximately 16,658 GPD and 6,080,170 annually. The following methodology was used to calculate savings:

- Average water use per account (12-months billing data of 600+ high water users) = 1,265.70 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 (PPH average of 3 WUP service areas) (70 GPD x 2.22 PPH) = 155.17 GPD
- Average outdoor water use of participants (1,265.70 - 155.17) = 1,110.53 GPD
- ET Controller savings per day (ET controller research shows 18% to 32% reduction in irrigation use. To be conservative 20% was assumed.) (1,111.70 x 20%) = 222.11 GPD
- # of implementations = 75
- Project gallons per day savings (222.11 x # implementations) = 16,658 GPD
- Annual Project water savings (daily savings x 365) = 6,080,170 GPD

#### Cost:

The total eligible cost of the project is \$33,750. Citrus County is requesting 50% of project cost reimbursement for a total of \$16,875. The County is proposing its match be equally split between the County and the Withlacoochee Regional Water Supply Authority (WRWSA). Water Sense labeled irrigation controller product and installation cost:

Quantity = 75 Cost Per = \$450 Total = \$33,750.

County (25%) = \$8,437.50

WRWSA (25%) = \$8,437.50

District = (50%) \$16,875.

The Project's estimated cost benefit ratio is \$1.35 per thousand gallons (5 years at 8% interest).

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

Citrus County Utilities addresses outdoor water use through several initiatives and identifies each within its water conservation plan. This will be Phase 2 of the Water Sense Labeled Irrigation Controller Installation program. Other efforts closely related to the proposed CFI project are the WS labeled irrigation controller account credit program. In 2009, the County began the controller account credit initiative by incentivizing the replacement of old mechanical irrigation controllers with smart models. However, determining which controllers qualified for the incentive was challenging. In 2014, the program adopted WS labeling as a qualifying standard. Water Sense labeled irrigation controllers use local weather and landscape conditions to tailor watering schedules to each site, which better match plants' water needs. The WS label has provided assurance to customers and county staff alike that the installed controller is a water-saving product. In the three years since incorporating the WS label standard, the program has continued to grow. The ongoing program differs from the proposed CFI, as it is an account credit available to all customers regardless of monthly water use. Another complimentary effort CCU offers its customers is an irrigation check that provides a personalized walk through of the irrigation system, rain sensor test, and irrigation controller tutorial. The training empowers customers to conduct routine maintenance of the irrigation system. During the sessions, staff also provides water-saving literature such as the current water restrictions, Florida-Friendly Landscaping™, micro-irrigation, springs protection and proper fertilization tips. Furthermore, homeowners are provided with a rebate application for replacing a rain sensor found non-functioning and to encourage upgrading to a Water Sense labeled irrigation controller, when appropriate. Citrus County Utilities enforces Year-round Water Conservation Measures and Water Shortage Orders, per FAC 40D, for all properties within its service territory. Irrigating during or after a significant rain event is most often an indicator that a functioning rain sensor is not present, as required by F.S. 373.62. An enforcement letter and rebate application is sent to residents found irrigating under these circumstances. Additionally, CCU distributes rain gauges to its customers at no charge to encourage turning off the irrigation system after sufficient rainfall. CCU makes every effort to contact customers upon viewing irrigation system problems, such as breaks and misaligned sprays. Lastly, Citrus County continues to partner with the WRWSA and the SWFWMD for the Irrigation Evaluation program. The program offers an in-depth evaluation of the customer's irrigation system, and a written report of suggested modifications. In September 2017, Citrus County Utilities completed its portion of the WRWSA Phase 4 Irrigation Evaluation program. Phase 5 of the irrigation evaluation program is anticipated to run simultaneous to the Phase 2WS labeled controller installation project. Citrus County will coordinate closely with the WRWSA to ensure there is no duplication of efforts between the two programs.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share		16,875	16,875		33,750
Coastal Rivers		16,875	16,875		33,750
Total		33,750	33,750		67,500

**Matching Fund Reduction**

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

**Timelines**

**Phase 1: 10/01/2018**

**Milestone**

Implementation Period

**Projected Date**

09/30/2019

**Phase 2: 11/01/2019**

**Milestone**

Savings Analysis

**Projected Date**

10/31/2020

**Phase 3: 11/01/2020**

**Milestone**

Final Report

**Projected Date**

12/31/2020

**Data Collection Assessment:**

☒ No data will be collected for this project

**FY2019 Cooperative Funding Initiative Application Form**

**Project Name** Springs- Ocala Rainbow/Timberwood Septic to Sewer Project  
**Project Number** N964  
**Cooperator** Ocala  
**Department** Water Resources  
**Contact Person** Rusella Bowes-Johnson  
**Address** 1805 Ne 30th Ave, Bldg 600  
**City State Zip** Ocala, FL 34470  
**Phone #** 352-351-6772  
**Email** RJohnson@Ocalafl.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 Ocala (COOPERATOR) recognizes the vital ecological and economic importance that Rainbow Springs and the Rainbow River has 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 being updated. These bodies of water are impaired under FAC 62-303(d) by total nitrogen (TN) as identified in the adopted Total Maximum Daily Load (TMDL). With this in mind, the COOPERATOR has identified the Timberwood Sewer Expansion Project (PROJECT) to help improve the water quality of these impaired water bodies. The primary objective of the PROJECT is to design and construct a sanitary sewer system which will remove from service approximately 180 septic tanks from the associated single family residential lots. The septic tanks contribute to the total nitrogen (TN) impairment of Rainbow Springs and the Rainbow River. The removal of the septic tanks will result in a substantial and measurable reduction in the identified pollutant sources. This is quantified in the project benefit section below.

**Benefit:**

This PROJECT will remove approximately 180 septic tanks from service within the Rainbow Springs BMAP area. The subject parcels lie within the City of Ocala, which has a mandatory connection ordinance in place (Ocala 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 3,594 lbs of TN / year flowing to the Rainbow Springs watershed from the 180 single family lots and associated septic tanks. The City of Ocala WWTP #2 discharges effluent at 3 mg/l or less. If the 45,000 gpd from the 180 residential homes are diverted to WWTP #2 then the discharge of TN is reduced to 500 lbs of TN/Year. The construction of a conveyance system to allow these areas to connect to central sewer will remove 3,094 lbs/ year of total nitrogen from the Rainbow Springs BMAP area.

**Cost:**

The Timberwood Sewer Expansion Project is estimated to cost \$3,316,000. All of the funding requested is for contracted services or materials; no funding is for salaries. The project is estimated to require approximately 15,000 LF of gravity sewer, 3,000 LF of sewer force main, and a regional sewer lift station. Additionally, the existing collection system will need to be evaluated and assessed.

**Breakdown of Project Component Costs**

The PROJECT is estimated to remove a total of approximately 3,094 lbs of TN / Year. The sewer conveyance system will have an estimated life of 30 years. Therefore, The cost benefit of the projects is \$35.73/ 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 City of Ocala, which has a mandatory connection ordinance in place (Ocala Code of Ordinances, Part II, Chapter 42, Article V - Mandatory Sewer System Connection). The Timberwood Sewer Expansion Project will ultimately be presented to City Council for input and discussion during an advertised public hearing(s).

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			829,000	829,000	1,658,000
General Fund-District Wide			1,658,000		1,658,000
Total			2,487,000	829,000	3,316,000

#### **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	03/01/2019
Design and Permitting	10/01/2019
Advertise and Invitation to Bid	01/31/2020
Award and NTP to Contractor	02/28/2020
Construction & CEI	09/30/2020
Final Certifications and Closeout	12/01/2020

#### **Data Collection Assessment:**

☒ No data will be collected for this project



**FY2019 Cooperative Funding Initiative Application Form**

**Project Name** Restoration - Mechanical Maintenance of Kings Bay Restoration Project  
**Project Number** N969  
**Cooperator** Citrus County  
**Department** Public Works  
**Contact Person** Mark Schroder  
**Address** 3600 W Sovereign Path  
**City State 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 intent of this proposal is to allow for precise removal of living vegetative material. The methodology outlined in this proposal will provide a means to efficiently remove vegetative material that has floated/transported into restored project sites and has begun to grow. The areas that will be maintained are areas where Save Crystal River has previously removed detrital material and has planted eel grass.

Gator Dredging will provide maintenance services to selectively remove accumulated lymbya and nuisance vegetation clumps from the restored bottom areas. Material will be removed via diver controlled hand held suction hose. The hose will be attached to a hydraulic pump on a barge and allowed to freely float to one, or multiple, divers. The divers will float above the bottom and swim to vegetative matter and suck it out without touching the bottom or disturbing the planted eel grass. The removed vegetative material will be transported to a specialized dewatering container. A patented formula of polymers will be added to remove particulates, excess nitrogen and most of the phosphorus. The container holds a geotube which will separate the vegetative material from the water capturing the vegetative material and allowing clean water to flow back via gravity to the canal. Once the geotube is full, it will be taken to an upland disposal site for disposal. The vegetative material may be used for agricultural purposes and the geotube will be disposed.

**Benefit:**

It has been shown through observations and multiple scientific reports in Kings Bay that algae mats are significantly LESS in areas that contain dense eel grass compared to areas that do not. This is also shown in the below figure taken from the Year 1 Monitoring Report for the SCR Pilot Project. Considering the variety of different environmental conditions that this observed phenomenon been documented it would be difficult to not draw a direct correlation between eelgrass density and algae mats. While there are many areas/acres of eelgrass in both the Pilot Phase and 1a there are areas that have less abundant eelgrass. The reasons for less algae include damage from vessel groundings, salinity spikes from tropical events, vessel anchor disturbance, human trampling, and recruitment from floating/transported lymbya. While these negative factors are being addressed through education, legal enforcement, and plant genotype selection overall canal restoration non-the less has been negatively impacted by these occurrences. Selective vacuuming will enhance current ongoing initiatives and decrease the time for the eelgrass to grow into algae displacing meadows thus creating a self-sustaining restoration.

**Cost:**

Annual cost is \$650,000.

Funding partners will be Citrus County BOCC, SWFWMD CFI, City of Crystal River.

City of Crystal River will fund \$20,000 per year.

Citrus County will fund \$315,000 per year.

SWFWMD CFI will fund \$315,000 per year.

**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.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			20,000		20,000
Applicant Share			315,000		315,000
Coastal Rivers			315,000		315,000
Total			650,000		650,000

**Matching Fund Reduction**

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

**Timelines**

**Year 1 - Design/Permitting Start**

**Milestone**

Design/Permitting Start

**Projected Date**

10/01/2019

**Year 1 - Restoration Activities Start**

**Milestone**

Year 1 Restoration

**Projected Date**

04/01/2020

**Data Collection Assessment:**

☒ No data will be collected for this project ☒ Biological (vegetation, benthic, fish, etc.)

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Reclaimed Water-Citrus County Sugarmill Woods Golf Courses Reclaimed Water Project  
**Project Number** N977  
**Cooperator** Citrus County  
**Department** Operations And Projects  
**Contact Person** Christina Malmberg  
**Address** 3600 W. Sovereign Path  
**City State 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:**

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

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

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

**Project Description/Benefit/Cost**

**Description:**

Citrus County's 1.5 million gallon 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.

**Benefit:**

The purpose of the proposed project is to provide additional improvements at the Southwest Regional Water Reclamation Facility, so 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. The estimated cost for these improvements is \$6,050,000.

Water Quantity Benefits:

This project would offset the need for groundwater withdrawals for irrigation purposes.

**Cost:**

The SWRWRF Reclaimed Water project would cost an estimated \$6,050,000. Costs include \$500,000 for engineering (design, bidding and construction administration), \$5,500,000 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 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.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			3,025,000		3,025,000
Withlacoochee River			3,025,000		3,025,000
Total			6,050,000		6,050,000

#### **Matching Fund Reduction**

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

#### **Timelines**

Design and Permitting	08/30/2019
Bld Advertisement	10/15/2019
Bid Opening	11/20/2019
Contractor NTP	12/30/2019
Construction Completion	01/30/2021

#### **Data Collection Assessment:**

☒ No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** SW IMP - Flood Protection - Culbreath Road Area Flood Relief  
**Project Number** N981  
**Cooperator** Hernando County  
**Department** Public Works  
**Contact Person** Clay Black  
**Address** 1525 E Jefferson St  
**City State 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 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 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. This includes complete preliminary planning, civil engineering site design, all necessary survey work, all necessary geotechnical 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 will be developed by the consultant as part of this project and 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 is presently working with the District to implement 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. 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.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			250,000		250,000
Coastal Rivers			250,000		250,000
Total			500,000		500,000

#### **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, 2018 - Jan 31, 2019**

###### **Milestone**

Design Contract Signed

###### **Projected Date**

01/31/2019

##### **Performance of Design Contract Feb 1, 2019 - Aug 31, 2019**

###### **Milestone**

Construction Plans and Permitting Complete

###### **Projected Date**

08/31/2019

##### **Plan Review and Acceptance Sept 1, 2019 - Sept 30, 2019**

###### **Milestone**

Construction Plans Accepted

###### **Projected Date**

09/30/2019

#### **Data Collection Assessment:**

☒ Groundwater or Surface Water Level measurements ☒ Land Survey

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Reclaimed Water- Hernando County Airport Reclaimed Water Storage/Pumping/Transmission/Recharge Project  
**Project Number** N983  
**Cooperator** Hernando County  
**Department** Utilities Department  
**Contact Person** Mark Morgan  
**Address** 15365 Cortez Blvd.  
**City State Zip** Brooksville, FL 34613  
**Phone #** 352-754-4759  
**Email** MarkM@co.hernando.fl.us

**Project Type:**

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

**Strategic Initiatives:**

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

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

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

**Project Description/Benefit/Cost**

**Description:**

The Airport Water Reclamation Facility Reclaimed Water Main and Pumping Station will involve constructing approximately 63,100 feet of 16" PVC reclaimed water main, a 3 million gallon ground storage tank, reclaimed water pump station, and advanced filters to achieve the high treatment standard required for reclaimed water use. The 3 million gallon ground storage tank, high service pump station and advanced filters will be constructed at the Airport Water Reclamation Facility. The 16" reclaimed water main construction will be begin at the Airport WRF run south along Andersen Snow Road ROW to County Line Road then west along the northern ROW of County Line Road and then northwest along Cobblestone Drive to tie into the existing 16" reclaimed water main in the Timber Pines Subdivision. See the attached map in the document section of the application. This will provide a reclaimed water main loop from the Airport WRF to the Glen WRF. Project N696 is currently being constructed as the first phase of this loop and will be completed in the summer of 2020.

**Benefit:**

The benefits of constructing a new 16" reclaimed water main from the Airport WRF to the existing 16" reclaimed water main in the Timber Pines Subdivision is the potential for new bulk-use customers along the route to connect in the future and to provide a completion of a loop system that is currently being constructed in the CFI and DEP springs funded project N696. The reclaimed water main loop around western Hernando County from the Airport WRF to the Glen WRF was outlined in the 2009 Hernando County Reclaimed Water Master Plan. The reclaimed water main loop will have a capacity to carry 4.0 MGD of reclaimed water. By having a loop system a more consistent operating pressure can be maintained in the reclaimed water main and more system reliability can be obtained by having two WRFs innerconnected to the reclaimed water main loop.

**Cost:**

Proposed construction cost of the project = \$16 million  
 Proposed benefit is 2.7 MGD of reclaimed water  
 $\$16 \text{ million} / 2.7 \text{ MGD} = \$5.93/\text{gallon}$

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

New development is required to install reclaimed water irrigation lines per Hernando County Ordinance, Section 28-560. The ordinance states "Proposed Development in the planning stage, after the adoption of this ordinance, within the unincorporated area of Hernando county shall have a reclaimed water distribution system designed and subsequently installed therein for the current or future irrigation of green areas including all residential, commercial, public and private landscape areas within the development. This section only applies where the development will be connected to district water and wastewater facilities. Hernando County Utilities Department has successfully implemented their water conservation/water resource protection program for over a decade. Conservation programs such as rain sensors 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.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			8,000,000		8,000,000
Withlacoochee River			8,000,000		8,000,000
Total			16,000,000		16,000,000

#### **Matching Fund Reduction**

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

#### **Timelines**

Procure Design Professional	07/09/2019
Finish Design	07/09/2020
Finish Bid Process	04/09/2021
Start Construction	06/09/2021
End Construction	12/09/2022

#### **Data Collection Assessment:**

☒ No data will be collected for this project

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Springs - Crystal River Indian Waters Septic to Sewer Phase II  
**Project Number** N984  
**Cooperator** Crystal River  
**Department** Public Works  
**Contact Person** Beau Keene  
**Address** 123 Nw Hwy 19  
**City State 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 funding in the 2017 cycle and involves the removal of 95 septic tanks and 4 package plants. 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).

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
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	03/01/2019
Design and Permitting	11/01/2019
Advertise and Invitation to Bid	01/01/2020
Award to Contractor	02/28/2020
Construction & CEI	11/30/2020
Final Certifications and Closeout	12/15/2020

**Data Collection Assessment:**

☒ No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Springs- Crystal River Southern Septic to Sewer Project  
**Project Number** N985  
**Cooperator** Crystal River  
**Department** Public Works  
**Contact Person** Beau Keene  
**Address** 123 Nw Hwy 19  
**City State 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:**

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

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

<input type="checkbox"/> Charlotte	<input checked="" type="checkbox"/> Citrus	<input type="checkbox"/> Desoto	<input type="checkbox"/> Hardee	<input type="checkbox"/> Hernando	<input type="checkbox"/> Highlands	<input type="checkbox"/> Hillsborough	<input type="checkbox"/> Lake
<input type="checkbox"/> Levy	<input type="checkbox"/> Manatee	<input type="checkbox"/> Marion	<input type="checkbox"/> Pasco	<input type="checkbox"/> Pinellas	<input type="checkbox"/> Sarasota	<input type="checkbox"/> Sumter	<input type="checkbox"/> 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). The proposed project involves the removal of 722 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 722 septic tanks will result in a substantial and measurable reduction in the identified pollutant sources. This is quantified in the project benefit section below.

**Benefit:**

This project will remove approximately 706 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 29.8 lbs of TN/year and each septic tank is able to remove approximately 33% of the TN. This results in a total of approximately 14,096 lbs of TN/year flowing into Kings Bay from the 706 residential septic tanks. The septic tanks serving the commercial properties are estimated to produce 15 gallons per day 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 gallons per day (gpd) of sewage flow. This is approximately 69 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 1,377 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 15,473 lbs of TN/year from the Kings Bay and Crystal River water bodies.

**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).

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			1,625,000	1,625,000	3,250,000
General Fund-District Wide			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	03/01/2019
Design and Permitting	11/01/2019
Advertise and Invitation to Bid	01/01/2020
Award to Contractor	02/28/2020
Construction and CEI	11/30/2020
Final Certifications and Closeout	12/15/2020

**Data Collection Assessment:**

☒ No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Study - Citrus County Stormwater Utility Fee Rate & Methodology  
**Project Number** N986  
**Cooperator** Citrus County  
**Department** Public Works  
**Contact Person** Mark Schroder  
**Address** 3600 W Sovereign Path  
**City State 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:**

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

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

<input type="checkbox"/> Charlotte	<input checked="" type="checkbox"/> Citrus	<input type="checkbox"/> Desoto	<input type="checkbox"/> Hardee	<input type="checkbox"/> Hernando	<input type="checkbox"/> Highlands	<input type="checkbox"/> Hillsborough	<input type="checkbox"/> Lake
<input type="checkbox"/> Levy	<input type="checkbox"/> Manatee	<input type="checkbox"/> Marion	<input type="checkbox"/> Pasco	<input type="checkbox"/> Pinellas	<input type="checkbox"/> Sarasota	<input type="checkbox"/> Sumter	<input type="checkbox"/> 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 will be an overall condition assessment and funding alternatives evaluation. The second year will be the performance of a rate study and development of billing methodologies. The third 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 1 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.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			50,000	100,000	150,000
Withlacoochee River			50,000	100,000	150,000
Total			100,000	200,000	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**

Condition Assessment & Funding Alternatives

###### **Projected Date**

11/01/2019

##### **Phase 1 - Deliverables**

###### **Milestone**

Condition Assessment & Funding Alternatives

###### **Projected Date**

03/01/2020

##### **Phase 2 - Begin**

###### **Milestone**

Rate Study & Billing Methodology

###### **Projected Date**

10/01/2020

##### **Phase 2 - Deliverables**

###### **Milestone**

Rate Study & Billing Methodology

###### **Projected Date**

03/01/2021

##### **Phase 3 - Begin**

###### **Milestone**

Community Outreach, Presentations and Final Presentation to the BOCC

###### **Projected Date**

10/01/2021

##### **Phase 3 - Deliverables**

###### **Milestone**

Community Outreach, Presentations and Final Presentation to the BOCC

###### **Projected Date**

03/01/2022

#### **Data Collection Assessment:**

☒ No data will be collected for this project



# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** SW IMP - Water Quality - Hunter Springs DRA Modification  
**Project Number** N987  
**Cooperator** Crystal River  
**Department** Public Works  
**Contact Person** Beau Keene  
**Address** 123 Nw Hwy 19  
**City State 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:**

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

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

<input type="checkbox"/> Charlotte	<input checked="" type="checkbox"/> Citrus	<input type="checkbox"/> Desoto	<input type="checkbox"/> Hardee	<input type="checkbox"/> Hernando	<input type="checkbox"/> Highlands	<input type="checkbox"/> Hillsborough	<input type="checkbox"/> Lake
<input type="checkbox"/> Levy	<input type="checkbox"/> Manatee	<input type="checkbox"/> Marion	<input type="checkbox"/> Pasco	<input type="checkbox"/> Pinellas	<input type="checkbox"/> Sarasota	<input type="checkbox"/> Sumter	<input type="checkbox"/> 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). 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 project benefit section below.

**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 80.84 lbs of TN / Year and 143.59 lbs of TP / Year. This DRA modification and additional treatment will remove 84.1 lbs of TN / Year and 147.87 lbs of TP / Year. This provides for a net reduction of 3.26 lbs of TN / Year and 4.28 lbs of TP / Year.

**Cost:**

The project is estimated to cost \$75,000. All of the funding requested is for contracted services or materials; no funding is for salaries. The project is estimated to require site grading, precast concrete structures and concrete work, and approximately 60 linear feet (LF) of 18" elliptical round concrete pipe (ERCP).

Breakdown of Project Component Costs Design and Permitting - \$20,000 CEI - \$5,000 Construction Costs - \$50,000

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

The City will own and maintain the DRA stormwater system in compliance with the water management district projects.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
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Applicant Share	37,500	37,500
Coastal Rivers	37,500	37,500
Total	75,000	75,000

**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	03/01/2019
Design and Permitting	11/01/2019
Advertise and Invitation to Bid	01/01/2020
Award to Contractor	02/28/2020
Construction & CEI	11/30/2020
Final Certifications and Closeout	12/15/2020

**Data Collection Assessment:**

☒ No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Conservation- Marion County Utilities Toilet Rebate Program - Phase 5  
**Project Number** N999  
**Cooperator** Marion County  
**Department** Marion County Utilities Department  
**Contact Person** Kevin Vickers  
**Address** 11800 S Us Hwy 441  
**City State Zip** Belleview, FL 34420  
**Phone #** 352-307-4624  
**Email** Kevin.Vickers@marioncountyfl.org

**Project Type:**

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

**Strategic Initiatives:**

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

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

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

**Project Description/Benefit/Cost**

**Description:**

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 2018 and FY 2019, 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 retrofits

Funding Source	Prior Funding	FY2018 Budget	FY2019 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

10/01/2018

**Data Collection Assessment:**

☒ No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Springs- Marion County Package Wastewater Plant Removal Program-Six Facilities  
**Project Number** Q003  
**Cooperator** Marion County  
**Department** Marion County Utilities Department  
**Contact Person** Kevin Vickers  
**Address** 11800 S Us Hwy 441  
**City State Zip** Belleview, FL 34420  
**Phone #** 352-307-4624  
**Email** Kevin.Vickers@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 plant. There are six package plants include in this application. Combined, they represent a total permitted capacity of 225,600 gallons per day (gpd), and a present day treatment of 75,750 gpd (average). Presently, none of these facilities produce or distribute reclaimed water to customers. Once connected to the Marion County wastewater system, the flow will be treated at either the Oak Run WWTF (FLA012697) or Northwest Regional WWTF (FLA272060). Both of these MCU facilities produce and deliver reclaimed water. The project scope would include constructing a new master lift station (or retrofitting an existing on-site lift station), construct forcemain to connect to the County's forcemain network, decommissioning of the package plant, and demolition of the existing package WWTF.

**Benefit:**

This project will accomplish two objectives: (1) reduce nutrient loading within the springshed and (2) reduce groundwater withdrawal by producing and delivering reclaimed water to customers. Based on the DMR data for 2016, five of the facilities meet or exceed an effluent concentration of 3 mg/L of total nitrogen (TN). One facility treats to an average of 4.86 mg/L TN. Overall, the nutrient reduction from sending flows to MCU plants will not be directly significant. The benefit will be from these nutrients being used in combination with golf course irrigation, rather than loading in rapid infiltration basins. All six facilities currently dispose of effluent via rapid infiltration basins. Based on the DMR data for 2016, these six facilities treated a total of 27,650,000 gallons of wastewater in 2016. This equates to an average total daily flow of approximately 75,750 gallons. If all plants are connected to MCU WWTFs, this flow will be treated to reclaimed standards and delivered to customers to further reduce groundwater withdrawals within the springshed.

**Cost:**

Please see attached Package Wastewater Plant Removal Program - Cost Estimate file to see cost breakdown by package plant and task. The total estimated cost is about \$3.12 million. Marion County is also applying for State Springs Funding (as shown in the Funding Table). The County acknowledges that if State Springs Funding is awarded, the requested SWFWMD Cost Share Funding will be reduced.

**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 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.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			283,625		283,625
State Springs Funding			2,836,250		2,836,250

Withlacoochee River	2,836,250	2,836,250
Total	5,956,125	5,956,125

### Matching Fund Reduction

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

### Timelines

#### 1.Study/Feasibility

##### Milestone

Contact and Negotiate with Package Plant Owners

##### Projected Date

09/01/2018

#### 2.Design

##### Milestone

30% Design

##### Projected Date

01/01/2019

60% Design

02/01/2019

90% Design (includes draft RFB)

03/01/2019

Proposed Final Design (includes final RFB and Permitting)

05/01/2019

District Verifications

07/01/2019

#### 3.Request for Bids

##### Milestone

RFB Advertisement

##### Projected Date

08/01/2019

RFB Evaluation and Award

10/01/2019

Notice to Proceed to Contractor

11/01/2019

#### 4.Construction

##### Milestone

Commence Construction

##### Projected Date

12/01/2019

Substantial Completion

12/01/2020

Construction Complete and Certifications

01/01/2021

### Data Collection Assessment:

☒ Land Survey ☒ Other data collection: Discharge Monitoring Reports

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Study - Calienta Street Stormwater Improvements Feasibility  
**Project Number** Q017  
**Cooperator** Hernando County  
**Department** Public Works  
**Contact Person** Clay Black  
**Address** 1525 E Jefferson St  
**City State 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:

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

### Indicate All Counties to Benefit From Project:

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

### Project Description/Benefit/Cost

#### Description:

Calienta Street is a Major Local road located in Hernando Beach that runs from Shoal Line Boulevard, north to Maplewood Drive. This roadway serves a commercial and industrial area and provides access to a County boat ramp facility and several residential neighborhoods in Hernando Beach. This section of roadway sees flooding during typical storm events due to the lack of roadside conveyance and allows untreated runoff from the commercial/industrial area and roadway to drain directly into the adjoining Gulf canals. This proposal includes complete design plans and permitting for roadway and storm water improvements providing neighborhood flood relief, pollution abatement for waters draining into the Gulf, and enhanced traffic safety. This includes complete preliminary planning, civil engineering site design, all necessary survey work, all necessary geotechnical work, all required environmental and archeological 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 \$400,000.

#### Benefit:

This section of roadway sees flooding during typical storm events due to the lack of roadside conveyance and allows untreated runoff from the commercial/industrial area and roadway to drain directly into the adjoining Gulf canals. This proposal includes complete design plans and permitting for roadway and storm water improvements providing neighborhood flood relief, pollution abatement for waters draining into the Gulf, and enhanced traffic safety. Detailed construction costs and benefits will developed by the consultant as part of this project and used to select the final design.

#### Cost:

Design fees are estimated to be \$400,000. 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 partnered with the District to design and constructed the Peck Sink Stormwater Project, the South Brooksville Dauson Property Stormwater Project, and the BMP 7 Russell Street Stormwater Project. The County is presently working with the District to implement the BMP 6 Josephine Street Stormwater Project to relieve flooding in South Brooksville and

the Rogers Park Stormwater retrofit 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.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
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**

##### **Design Consultant Selection Nov 1, 2018 - Jan 31, 2019**

###### **Milestone**

Design Contract Signed

###### **Projected Date**

01/31/2019

##### **Performance of Design Contract Feb 1, 2019 - Aug 31, 2019**

###### **Milestone**

Construction Plans and permitting complete

###### **Projected Date**

08/31/2019

##### **Plan Review and Acceptance Sept 1, 2019 - Sept 30, 2019**

###### **Milestone**

Construction Plans accepted

###### **Projected Date**

09/30/2019

#### **Data Collection Assessment:**

☒ Groundwater or Surface Water Level measurements ☒ Land Survey

☒ Mapping/GIS data



# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Conservation-The Villages Rain Sensor Inspection/Replacement Program  
**Project Number** Q018  
**Cooperator** NSCUDD  
**Department**  
**Contact Person** Jamie Padgett  
**Address** 1038 Lake Sumter Landing  
**City State Zip** The Villages, FL 32162  
**Phone #** 352-753-4747  
**Email** jamie.padgett@arnettenvironmental.com

### Project Type:

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

### Strategic Initiatives:

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

### Indicate All Counties to Benefit From Project:

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

### Project Description/Benefit/Cost

#### Description:

The Villages Rain Sensor Inspection / Replacement Program is submitted for funding consideration by the Southwest Florida Water Management District Governing Board for FY 2019 Cooperative Funding Initiative. The project is submitted on behalf of North Sumter County Utility Dependent District, "NSCUDD," NSCUDD will serve as the project cooperator, but the project will be in partnership with Village Center Community Development District, "VCCDD," and Sumter Water Conservation Authority, LLC, "SWCA". The project is located within SWFWMD's Northern Planning Area. The project areas are associated with The Villages of Sumter Water Use Permit No. 20013005.010 with a five-year (2012–2016) average Low Persons Per Household Adjusted Population Compliance Per Capita of 144. There are approximately 50,000 residential water accounts within the participating project area. The project estimates to replace 120 residential rain sensors found not functioning. The targeted participants are utility customers within the project area that use 20,000 gallons per month or higher. Letters notifying customers of the project will be sent to customers using over 20,000 gallons per month. Community Watch will also notify the program manager of residents found irrigating during or within 24 hours of significant rain event so that they may be notified of the program. The project is anticipated to save approximately 3,500,000 gallons annually (9,600 gpd) for the next five years, which results in a savings of more than 17 million through the replacement of residential rain sensors, appropriate irrigation controllers settings, and education. All participants will received educational materials, a rain sensor test, and appropriate irrigation controller settings. The rain sensor will be replaced if found non-functional. The project will require a post installation rain sensor test to confirm functionality. The project will offer indoor and outdoor water conservation literature to all participants. The project will offer each participant a tutorial on how to test the rain sensor and also how to set the irrigation controller appropriately. The project includes 12 months pre- and post- water usage data analysis of participants. The project helps to reduce groundwater and public water supply demand by providing residential users with functioning rain sensors and appropriately set irrigation controllers, thereby reducing the demand by implementing Florida-friendly principles. The water savings reduce groundwater demand, public water supply demand and conserves alternative water supplies for other beneficial uses. The project is consistent with SWFWMD priorities for cost-effectively reducing water demand.

#### Benefit:

The estimated cost/benefit ratio for the project calculated at an 8% annual rate of interest over five years is \$2.86 per 1,000 gallons, based on a total eligible project cost of \$40,000. A study on Rain Sensor Installation submitted to SWFWMD by McKenzie-Mohr & Associates showed installing a functioning rain sensor can provide a 5 – 10% water savings. We believe that a conservative estimate is savings at 12% based on providing educational material, changing controllers to the appropriate settings and replacing non-working rain sensors. We believe that a 12% savings is obtainable as the same utilities achieved a 29% savings through the

N278 audit program with WRWSA. Many features of that program will be implemented through the proposed rain sensor replacement program. The project is consistent with SWFWMD's Strategic Plan and The Villages Water Conservation Plan. The long-term benefits that can be derived from this project include: A reduction in demand for groundwater, reduced public supply demand, conservation of alternative water supplies for other beneficial uses, and improved water conservation education of resident.

**Cost:**

The total project cost is \$40,000, with the utilities with the project area contributing a total of \$20,000 and SWFWMD contributing \$20,000. The cost per rain sensor inspection / replacement will depend on if a replacement is necessary and the type of rain sensor to be replaced, i.e. Wired vs wireless and Hunter Mini-Click vs Hunter Solar Sync). To be conservative, we estimate the evaluation, education, controller adjustment and replacement of the mini-click rain sensor (labor and materials) to be approximately \$225. If the replacement requires a solar sync rain sensor, we estimate the total price to be approximately \$300 for labor and materials. As a conservative estimate, we anticipate the replacement of 120 rain sensors. Methods will be sought to reduce the cost per customer so that additional customers can be included in the program. The purchasing power of the development will be used to minimize rain sensor costs. Reduced costs may also allow conversion of all rain sensors to the solar sync type which has higher water conservation potential.

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

The Villages is planned and managed to maximize conservation of water resources and has a comprehensive water conservation plan and is included in the file of record for WUP 13005. The multitude of initiatives taken under the water conservation plan is intended to conserve water at every level of the community. Areas of focus include utilities, urban landscape, golf course and other recreation, commercial, and residential. NSCUDD, VCCDD and SWCA do not have the authority to develop, implement or enforce ordinances.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			20,000		20,000
General Fund-District Wide			20,000		20,000
Total			40,000		40,000

**Matching Fund Reduction**

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

**Timelines**

Agreement with SWFWMD	01/01/2019
Evaluations/Replacements Begin	02/01/2019
Evaluations/Replacements End	09/30/2019
Program Analysis Begin	10/01/2019
Program Analysis End	09/30/2020
Final Report Due	01/31/2021

**Data Collection Assessment:**

☒ No data will be collected for this project

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Springs- Ocala Rainbow/Fox Meadow Septic to Sewer Project  
**Project Number** Q019  
**Cooperator** Ocala  
**Department** Water Resources  
**Contact Person** Rusella Bowes-Johnson  
**Address** 1805 Ne 30th Ave, Bldg 600  
**City State Zip** Ocala, FL 34470  
**Phone #** 352-351-6772  
**Email** RJohnson@Ocalafl.org

**Project Type:**

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

**Strategic Initiatives:**

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

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

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

**Project Description/Benefit/Cost**

**Description:**

The City of Ocala (COOPERATOR) recognizes the vital ecological and economic importance that Rainbow Springs and the Rainbow River has 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 being updated. These bodies of water are impaired under FAC 62-303(d) by total nitrogen (TN) as identified in the adopted Total Maximum Daily Load (TMDL). With this in mind, the COOPERATOR has identified the Fox Meadow Sewer Expansion Project (PROJECT) to help improve the water quality of these impaired water bodies. The primary objective of the PROJECT is to design and construct a sanitary sewer system which will remove from service approximately 275 septic tanks from the associated single family residential lots. The septic tanks contribute to the total nitrogen (TN) impairment of Rainbow Springs and the Rainbow River. The removal of the septic tanks will result in a substantial and measurable reduction in the identified pollutant sources. This is quantified in the project benefit section below.

**Benefit:**

This PROJECT will remove approximately 275 septic tanks from service within the Rainbow Springs BMAP area. The subject parcels lie within the City of Ocala, which has a mandatory connection ordinance in place (Ocala 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 5491 lbs of TN / year flowing to the Rainbow Springs watershed from the 275 single family lots and associated septic tanks. The City of Ocala WWTP #2 discharges effluent at 3 mg/l or less. If the 68,750 gpd from the 275 residential homes are diverted to WWTP #2 then the discharge of TN is reduced to 764 lbs of TN/Year. The construction of a conveyance system to allow these areas to connect to central sewer will remove 4,727 lbs/ year of total nitrogen from the Rainbow Springs BMAP area.

**Cost:**

The Fox Meadow Sewer Expansion Project is estimated to cost \$4,705,000. All of the funding requested is for contracted services or materials; no funding is for salaries. The project is estimated to require approximately 15,000 LF of gravity sewer, 5,000 LF of sewer force main, and a regional sewer lift station. Additionally, the existing collection system will need to be evaluated and assessed.

The PROJECT is estimated to remove a total of approximately 4,727 lbs of TN / Year. The sewer conveyance system will have an estimated life of 30 years. Therefore, The cost benefit of the projects is \$33.18 / 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 City of Ocala, which has a mandatory connection ordinance in place (Ocala Code of Ordinances, SEC 10.01 (c) -Mandatory Sewer System Connection). The Fox Meadow STS Project will ultimately be presented to City Council for input and discussion during an advertised public hearing(s).

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			1,176,250	1,176,250	2,352,500
General Fund-District Wide			2,352,500		2,352,500
Total			3,528,750	1,176,250	4,705,000

**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	03/01/2019
Design and Permitting	10/01/2019
Advertise and Invitation to Bid	01/31/2020
Award and NTP to Contractor	02/28/2020
Construction & CEI	09/30/2020
Final Certifications and Closeout	12/01/2020

**Data Collection Assessment:**

☒ No data will be collected for this project

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Springs- Hernando County US19/Hwy50 Septic to Sewer, Districts A and B  
**Project Number** Q024  
**Cooperator** Hernando County  
**Department** Utilities Department  
**Contact Person** Richard Kirby  
**Address** 12365 Cortez Boulevard  
**City State 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:**

Over the past hundred years, Weeki Wachee River has experienced significant ecological shifts. FDEP determined that nitrogen is a contributing factor for an ecological imbalance (excessive growth of algae) in Weeki Wachee Spring and Weeki Wachee River and established a total maximum daily load (TMDL) for nitrate nitrogen in the system.

Weeki Wachee Spring (WWS), is fed from a large shallow aquifer under approximately 260 square miles of urbanized areas, agricultural lands and forested uplands. The WWS aquifer underlies portions of Hernando and Pasco counties. Nitrogen enrichment, particularly in the inorganic form nitrate, is an issue because nitrate is mobile and conservative once it reaches the groundwater. Nitrate concentrations have been increasing in the water discharging from Weeki Wachee Spring from 0.1 mg/L or less historically (SWFWMD 2017, see below) to 0.9 mg/L in 2015. Development of a basin management action plan (BMAP) for reducing nutrient loads and restoring these impaired waterbodies is underway.

The Hernando County Septic to Sewer Conversion Program is an effort to provide sewer to 30,000 lots that use septic tanks for onsite treatment and disposal of waste water. The overall program has divided this large 30,000 lot area into 19 Districts (A to S). In accordance with the overall program, District A will be the first area where the septic to sewer conversion will take place. District A & B have approximately 2213 lots, 1822 with septic tanks and 385 undeveloped. This project will remove the existing septic tanks and provide sewer to all of the lots in the area. The location of the project is in southeast Hernando County adjacent to the city of Weeki Wachee.

**Benefit:**

Weeki Wachee Spring and the Weeki Wachee River support a diverse ecological community of aquatic vegetation, fish, and wildlife and are an important economic resource. Nitrogen enrichment is an ongoing issue for the Spring and River, stimulating phytoplankton growth, resulting in decreased water clarity and light penetration to submerged aquatic vegetation (SWFWMD 2017). Reduction of nitrogen loads is the primary focus of water quality management actions for the Weeki Wachee River. Eliminating septic tanks would improve water quality in the River and downstream in the Gulf of Mexico. Implementation of this program in Districts A & B and processing the water through a wastewater treatment facility would remove over 26,000 lbs/year of nitrogen from the springshed (Coastal Engineering Associates 2016).

Expansion of the sewer system will contribute to economic growth in the county. This expansion will help the county to grow, improve its economy, and grow the tax base. The proposed project will increase workforce development and job creation in both public and private sectors. Local engineering efforts will be required for the survey, design, and permitting components and locally, skilled workers will be needed for construction efforts of abandoning septic tanks and installing the collection system on side

streets. The proposed project requires experienced and technically skilled positions often associated with a full-time salary, higher wage and benefits. The improvements at the river and springs will benefit the local ecotourism economy.

#### Cost:

The cost of this project was determined in Hernando County's the Septic to Sewer Conversion Study. The cost of District A & B was determined to be approximately \$47,000,000 in 2016. Using an inflation factor of 3%, the revised total, and 3 years average time to complete implementation, the cost of the project will be \$48.4 million. The District's share of the project is requested to be \$24,200,000, half of the expected total budget, over a 5 year delivery period. Design Criteria Package development is planned to begin in FY 19. Construction is planned to begin through the Design-Build delivery method in mid 2024.

#### 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 developed a Septic to Sewer Conversion Study, Coastal Engineering 2016. This study identifies areas where conversion from septic tanks to central sewer is achievable and prioritizes those areas into Districts. The study quantifies the nitrogen removal from the natural environment.

Requirement to connect to sewer when available; Hernando County Ordinance, Section 28-238 states

•Where service is available, the owner of every lot or parcel of land within the district shall connect or cause the plumbing of any building or buildings thereon to be connected with the district's water and/or sanitary sewer system within one (1) year of notice of availability by the district and shall use the facilities of such system. ... No less than one (1) year prior to the date that a new or extended central water and/or sewer system will become available for affected lots or parcels, the district shall notify the affected owners of the anticipated availability of the central sewer system and shall also notify the owners that connection to the available system(s) is required within one (1) year of the actual availability. ...

Requirement for new development to install reclaimed water irrigation lines; Hernando County Ordinance, Section 28-560 states

•Proposed developments in the planning stage, after the adoption of this ordinance, within the unincorporated areas of Hernando County shall, have a reclaimed water distribution system designed and subsequently installed therein for the current or future irrigation of green areas including all residential, commercial, public and private landscape areas within the development. This section only applies where the development will be connected to district water and wastewater facilities.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			300,000	23,900,000	24,200,000
Coastal Rivers			300,000	23,900,000	24,200,000
Total			600,000	47,800,000	48,400,000

#### Matching Fund Reduction

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

#### Timelines

Procure Design Criteria Professional	07/19/2019
Design Criteria Package Development	05/08/2020
Procure Design-Build Team	09/11/2020
Design-Build	08/11/2023
Project Closeout	04/12/2024

#### Data Collection Assessment:

☒ Groundwater or Surface Water Quality measurements ☒ Other data collection: Number of septic tanks converted to central sewer

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Springs-Ocala Rainbow/Fairfield Village Package Plant Removal Project  
**Project Number** Q025  
**Cooperator** Ocala  
**Department** Water Resources  
**Contact Person** Rusella Bowes-Johnson  
**Address** 1805 Ne 30th Ave, Bldg 600  
**City State Zip** Ocala, FL 34470  
**Phone #** 352-351-6772  
**Email** RJohnson@Ocalafl.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 Ocala (COOPERATOR) recognizes the vital ecological and economic importance that Rainbow Springs and the Rainbow River has 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 being updated. These bodies of water are impaired under FAC 62-303(d) by total nitrogen (TN) as identified in the adopted Total Maximum Daily Load (TMDL). With this in mind, The COOPERATOR has identified the Fairfield Village Sewer Expansion Project (PROJECT) to help improve the water quality of these impaired water bodies.

The primary objective of the PROJECT is to design and construct a sanitary sewer system which will remove from service a package plant (highlighted in magenta on the map) which serves approximately 350 mixed use residential lots and 1 community center. The package plant contributes to the total nitrogen(TN) impairment of Rainbow Springs and the Rainbow River. The removal of the package plant will result in a substantial and measurable reduction in the identified pollutant sources. This is quantified in the project benefit section below.

**Benefit:**

This PROJECT will remove a package plant from service within the Rainbow Springs BMAP area.

The subject parcels lie within the City of Ocala, which has a mandatory connection ordinance in place (Ocala Code of Ordinances, SEC 10.01 (c) -Mandatory Sewer System Connection).

The package plant is currently permitted to discharge 12 mg/l of TN at the permitted flow of 75,800 gpd. According to the most recent permit renewal for the WWTP the plant receives an approximate average daily flow of 17,300 gpd and has had a recent measured discharge of 14 mg/l of TN. The nitrogen is measured quarterly. This results in approximately 900 lbs of TN / Year discharged to the Rainbow Springs Watershed. Additionally, the package plant is not expected to meet the new nutrient removal criteria associated with the 2016-1 rule currently being implemented. The City of Ocala WWTP #2 discharges effluent at 3 mg/l or less. If the 17,300 gpd from the package plant are diverted to WWTP #2 then the discharge of TN is reduced to 192 lbs of TN/Year. The construction of a conveyance system to allow these areas to connect to central sewer will remove 710 lbs/ year of total nitrogen from the Rainbow Springs BMAP area.

**Cost:**

The Fairfield Village Sewer Expansion Project is estimated to cost \$875,000. All of the funding requested is for contracted services and materials; no funding is for salaries. The project is estimated to require approximately 2,500 LF of 6 inch sewer force main and a regional sewer lift station. Additionally, the existing collection system will need to be evaluated and assessed.

Breakdown of Project Component Costs

Evaluation and Assessment - \$25,000  
 Land Acquisition - \$50,000  
 Design and Permitting - \$75,000  
 CEI - \$50,000

Demolition of existing package plant - \$50,000

Construction Costs - \$750,000

The PROJECT is estimated to remove a total of approximately 710 lbs of TN /Year. The sewer conveyance system will have an estimated life of 30 years. Therefore, the cost benefit of the projects is \$41.08/ 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 City of Ocala, which has a mandatory connection ordinance in place (Ocala Code of Ordinances, SEC 10.01 (c) -Mandatory Sewer System Connection). The Fairfield Village Package Plant Project will ultimately be presented to City Council for input and discussion during an advertised public hearing(s).

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			218,750	218,750	437,500
General Fund-District Wide			437,500		437,500
Total			656,250	218,750	875,000

**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	03/01/2019
Design and Permitting	10/01/2019
Advertise and Invitation to Bid	01/31/2020
Award and NTP to Contractor	02/28/2020
Construction & CEI	09/30/2020
Final Certifications and Closeout	12/01/2020

**Data Collection Assessment:**

☒ No data will be collected for this project



**FY2019 Cooperative Funding Initiative Application Form**

**Project Name** Springs- Citrus County Cambridge Greens Septic to Sewer  
**Project Number** Q037  
**Cooperator** Citrus County  
**Department** Operations And Projects  
**Contact Person** Christina Malmberg  
**Address** 3600 W. Sovereign Path  
**City State 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 aligns with the District's Northern Region Priorities and Objectives for Springs and Water Supply. The project consists of the connection of existing residential dwelling unit septic systems located in the Kings' Bay springshed to Citrus County's central wastewater collection system. 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. The County's requirements will then result in the connection of up to 220 existing septic tanks to the existing force main located in the residential area of Cambridge Greens. The County has a mandatory connection ordinance in place (Citrus County Code of Ordinances, Part II, Chapter 42, Article V – Mandatory Sewer System Connection). The project will result in an estimated TN load reduction of 4,787 lb/yr. This project will also increase the amount of reclaimed water available for reuse.

**Benefit:**

The resource benefit of the water quality project will allow for the reduction of pollutant loads to Kings Bay springshed, a SWIM priority water body by an estimated 4,787 lbs/yr TN. This project will compel the connection of up to 220 septic tanks that are located in the residential area of Cambridge Greens, an area identified in the Kings Bay springshed group. 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 Kings Bay springshed 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 Cambridge Greens Septic to Sewer 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 with help satisfy the goals of the TMDL limits, which is in draft form, and the Basin Management Action Plan that has been established for the Kings Bay Springshed group. Installation of approximately 15,000 feet of sewer line and pump station(s) to residents' lot lines for a fully operational municipal sanitary sewer system that will allow for the connection of approximately 220 residences. The upgrade would result in an estimated average nitrogen reduction of 4,787 lb/yr of total nitrogen, or 13 lbs of nitrogen per day (4,787 lbs annually) to the springshed. Over a 20-year period, this nitrogen reduction cost-effectiveness equals \$67.89 per lb. of nitrogen (Project total = \$6,500,000).

This project would offset the need for groundwater withdrawals for irrigation purposes.

**Cost:**

The septic to sewer project would cost an estimated \$6,500,000. Costs include \$250,000 for engineering (design, bidding and construction administration), \$6,250,000 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.

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.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			1,276,000		1,276,000
FDEP			3,250,000		3,250,000
Legislation			349,000		349,000
Withlacoochee River			1,625,000		1,625,000
Total			6,500,000		6,500,000

**Matching Fund Reduction**

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

**Timelines**

Design and Permitting	10/15/2019
Invitation to Bid	12/20/2019
Construction NTP	01/15/2020
Construction	08/31/2021

**Data Collection Assessment:**

☒ No data will be collected for this project

**FY2019 Cooperative Funding Initiative Application Form**

**Project Name** SW IMP - Water Quality - Rainbow Springs 5th Replat Stormwater Retrofit - CP 73  
**Project Number** Q039  
**Cooperator** Marion County  
**Department** Office Of The County Engineer  
**Contact Person** Gail Mowry  
**Address** 412 Se 25th Avenue  
**City State 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:**

The Rainbow Springs 5th Replat Stormwater Retrofit (CP #73) is located in southwestern Marion County within the Rainbow Springs springshed and surface watershed. The project was identified from the Rainbow River watershed management plan, completed in 2010. A 37.5 acre contributing area, mostly low density residential land use, drains to five existing dry retention ponds. Dry retention ponds provide minimal removal of nitrogen from stormwater runoff as it is being infiltrated. Infiltrated stormwater is a source of nitrogen, in the form of nitrate, to Rainbow Springs. A TMDL for nitrate concentration has been adopted for Rainbow Springs and a basin management action plan (BMAP) has been developed. This project will be included in the BMAP. This project will improve the ability of the existing retention pond to remove nitrogen from stormwater by removing approximately 2 feet of soil from the pond bottom and replacing it with the Bold and Gold soil amendment developed by the University of Central Florida Stormwater Academy. The proposed project is the start of a phased implementation of Bold and Gold retrofits to County owned retention ponds in the vicinity of Rainbow Springs. The application of Bold and Gold proposed for this project is the same as in the first full scale pilot application at the SW 85th Street and SW 40th Avenue Stormwater Retrofit. Monitoring of the pilot project has shown that the Bold and Gold has resulted in a treatment efficiency of 70% of total nitrogen from the stormwater infiltrated.

**Benefit:**

Pollutant load modeling from the Rainbow River Watershed Management Plan estimated that 130 lbs/yr of total nitrogen would be transported in stormwater runoff to the retention ponds. As the runoff infiltrates, any nitrogen that is not already in nitrate form is expected to convert to nitrate. Existing treatment efficiency of total nitrogen by the retention ponds is minimal. The Bold and Gold is expected at least 70% of the total nitrogen resulting in 91 lbs/yr of total nitrogen removed.

**Cost:**

The estimated cost for construction is \$290,850. This estimate includes actual construction along with construction engineering services by the engineer of record and geotechnical testing services during construction. The estimated cost and an expected annual maintenance cost of \$463 per year results in an estimate of \$164.77 per pound removed over a 20-year period. Design and permitting will be complete prior to cooperative funds becoming available on October 1, 2018. Funds for construction of this project are identified in the Stormwater Implementation Program (SIP or 5-year Plan), as illustrated in Table 1 of the approved SIP included with this application. This funding will be included in the FY 2018/2019 Budget once that process is initiated in early 2018.

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

The Marion County Stormwater Section 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 2016-2017 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.

<b>Funding Source</b>	<b>Prior Funding</b>	<b>FY2018 Budget</b>	<b>FY2019 Budget</b>	<b>Future Funding</b>	<b>Total Funding</b>
Applicant Share			145,425		145,425
Withlacoochee River			145,425		145,425
Total			290,850		290,850

#### **Matching Fund Reduction**

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

#### **Timelines**

Design Permitting	09/30/2018
Contract Initiation	10/01/2018
Construction Commencement	01/01/2019
Construction Completion and As-Built Certification	06/30/2019

#### **Data Collection Assessment:**

☒ Other data collection: Lysimeters to collect infiltrated runoff from 3-4 events

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Conservation- WRWSA Regional Irrigation System Audit Program Phase 5  
**Project Number** Q040  
**Cooperator** WRWSA  
**Department**  
**Contact Person** Richard Owen  
**Address** 3600 W Sovereign Path  
**City State Zip** Lecanto, FL 34461  
**Phone #** 352-527-5796  
**Email** richardowen@wrwsa.org

**Project Type:**

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

**Strategic Initiatives:**

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

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

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

**Project Description/Benefit/Cost**

**Description:**

This is a continuation (fifth phase) of the program that has been co-funded by the SWFWMD in fiscal years 2011, 2013, 2015 and 2017. 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 fifth 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 audits are still being implemented with a completion date of 09/30/2018, 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 fifth 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 is \$200,000. 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 costs per core audit from Phase 3 and the costs incurred to-date for enhanced audits in phase 4 were examined. If only core audits are conducted, up to approximately 400 audits could be performed. If only enhanced audits are conducted, it is estimated approximately 250 audits could be performed. The actual number of audits to be completed should lie within this range. 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 3, the program has reached over 530 homeowners in Citrus, Hernando, Marion and Sumter counties; and is estimated to have saved over 132,000 gallons per day (48.4 million gallons per year) upon completion of Phase 3. The estimated cost/benefit ratio for the project calculated at an 8% annual rate of interest over five years is \$1.74 per 1,000 gallons, based on a total eligible project cost of \$200,000. 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. 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 \$200,000, with the WRWSA contributing \$100,000 and the SWFWMD contributing \$100,000. 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. 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	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			100,000		100,000
General Fund-District Wide			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**

**April 2022 – May 2022**

**Milestone**

Prepare Final Report

**Projected Date**

05/18/2022

**December 2018 – September 2020**

**Milestone**

Conduct Audits

**Projected Date**

09/30/2020

**February 2019 – December 2020**

**Milestone**

Conduct Follow-ups and Survey

**Projected Date**

12/31/2020

**January 2022 – March 2022**

**Milestone**

Prepare Draft Report

**Projected Date**

03/31/2022

**July 2018 – November 2018**

**Milestone**

Select Contractor

**Projected Date**

11/21/2018

**October 2021 – December 2021**

**Milestone**

Pre- and Post-Audit Water Use Analysis

**Projected Date**

12/31/2021

**Data Collection Assessment:**

☒ Other data collection: Water use and savings data

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Springs- Marion County State Road 200 Sewer Forcemain Extension  
**Project Number** Q043  
**Cooperator** Marion County  
**Department** Marion County Utilities Department  
**Contact Person** Kevin Vickers  
**Address** 11800 S Us Hwy 441  
**City State Zip** Belleview, FL 34420  
**Phone #** 352-307-4624  
**Email** Kevin.Vickers@marioncountyfl.org

**Project Type:**

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

**Strategic Initiatives:**

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

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

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

**Project Description/Benefit/Cost**

**Description:**

This is a project to construct approximately 10,750 feet of sanitary sewer forcemain along the SR 200 corridor in Ocala. This project looks to accomplish three objectives: (1) connect existing development so that septic tanks can be abandoned, (2) prevent further installation of septic tanks by making sewer available to new development and (3) reduce groundwater withdrawals by sending new sewer flows to a WWTF that produces and distributes reclaimed water to customers. Presently there are approximately 24 existing developments that utilize septic tanks that the County would look to connect with this project. The County is presently in the planning/design of the forcemain from SW 95th Street Road to SW 73rd Street Road which would make sewer available through this corridor. There are approximately 29 undeveloped parcels, totaling approximately 200 acres of land, that would be required to connect to this new forcemain when they are developed. Once connected to the Marion County wastewater system, the flow will be treated at the Oak Run WWTF (FLA012697), which produces and delivers reclaimed water to customers.

**Benefit:**

This project will accomplish three benefits: (1) reduce nutrient loading within the springshed; (2) prevent additional septic tanks from being constructed by new development and (3) reduce groundwater withdrawal sending sewer flows to a WWTF that produces and delivers reclaimed water to customers. Due to the unknown water use and sanitary sewer flows for the existing development, calculating the benefit from the conversion to central sewer is not possible. Additionally, the type/nature of the development that may take place on the vacant land is not known. Therefore, calculating the benefit from the connection to central sewer is also not possible.

**Cost:**

Please see attached State Road 200 Forcemain Extension - Cost Estimate file to see cost breakdown for the forcemain extension and the septic to sewer for the 24 existing developments. The total estimated cost is about \$2.49 million. Marion County is also applying for State Springs Funding (as shown in the Funding Table). The County acknowledges that if State Springs Funding is awarded, the requested SWFWMD Cost Share Funding will be reduced 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 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.

Funding Source	Prior Funding	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share	76,734	240,000	928,758		1,245,492
State Springs Funding			1,245,492		1,245,492
Withlacoochee River			1,245,492		1,245,492

Total	76,734	240,000	3,419,742	3,736,476
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### Matching Fund Reduction

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

### Timelines

#### 1.Design

Milestone	Projected Date
Contact Existing Development Owners for Septic to Sewer Connection	03/31/2018
30% Design	03/31/2018
Easement Acquisition	03/31/2018
60% Design	05/31/2018
90% Design (includes draft RFB)	06/30/2018
Proposed Final Design (includes final RFB and Permitting)	08/31/2018
District Verifications	10/31/2018

#### 2.Request for Bids

Milestone	Projected Date
RFB Advertisement	11/30/2018
RFB Evaluation and Award	01/31/2019
Notice to Proceed to Contractor	02/28/2019

#### 3.Construction

Milestone	Projected Date
Commence Construction	03/31/2019
Substantial Completion	03/31/2020
Construction Completion and Certifications	04/30/2020

### Data Collection Assessment:

☒ Land Survey ☒ Other data collection: Discharge Monitoring Reports



# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

## FY2019 Cooperative Funding Initiative Application Form

**Project Name** Study-Citrus County Septic to Sewer Conversion Feasibility Study  
**Project Number** Q044  
**Cooperator** Citrus County  
**Department** Operations And Projects  
**Contact Person** Christina Malmberg  
**Address** 3600 W. Sovereign Path  
**City State 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:

It is the intent of Citrus County Water Resources Department to perform a study to identify the best options for converting residential and commercial lots served with OSTDS's to a central wastewater treatment collection system. The septic to sewer plan will address issues such as, but not limited to, sewer technologies- cost comparisons, existing wastewater system infrastructure, 5-year conversion plan, build out conversion plan, 5-year funding plan and the benefits for the property owners including educational outreach to the public.

#### Benefit:

This septic to sewer plan will enable to County to create a document that will prioritize the septic to sewer conversion areas where it is the most feasible and cost effective to construct. The study will help to quantify what costs are required to update the County's existing infrastructure and proposed infrastructure needed to convert the OSTDS's to a central wastewater collection system.

#### Cost:

The estimated cost for the septic to sewer conversion study is estimated to be in the amount of \$400,000.

### 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

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	FY2018 Budget	FY2019 Budget	Future Funding	Total Funding
Applicant Share			200,000		200,000
Withlacoochee River			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**

Engineering Consultant NTP	02/15/2019
Develop Scope of Work	10/01/2019
Engineering Consultant RFQ	10/30/2019
Finalize Septic to Sewer Study Report	02/15/2020

**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](mailto:ADACoordinator@swfwmd.state.fl.us)*