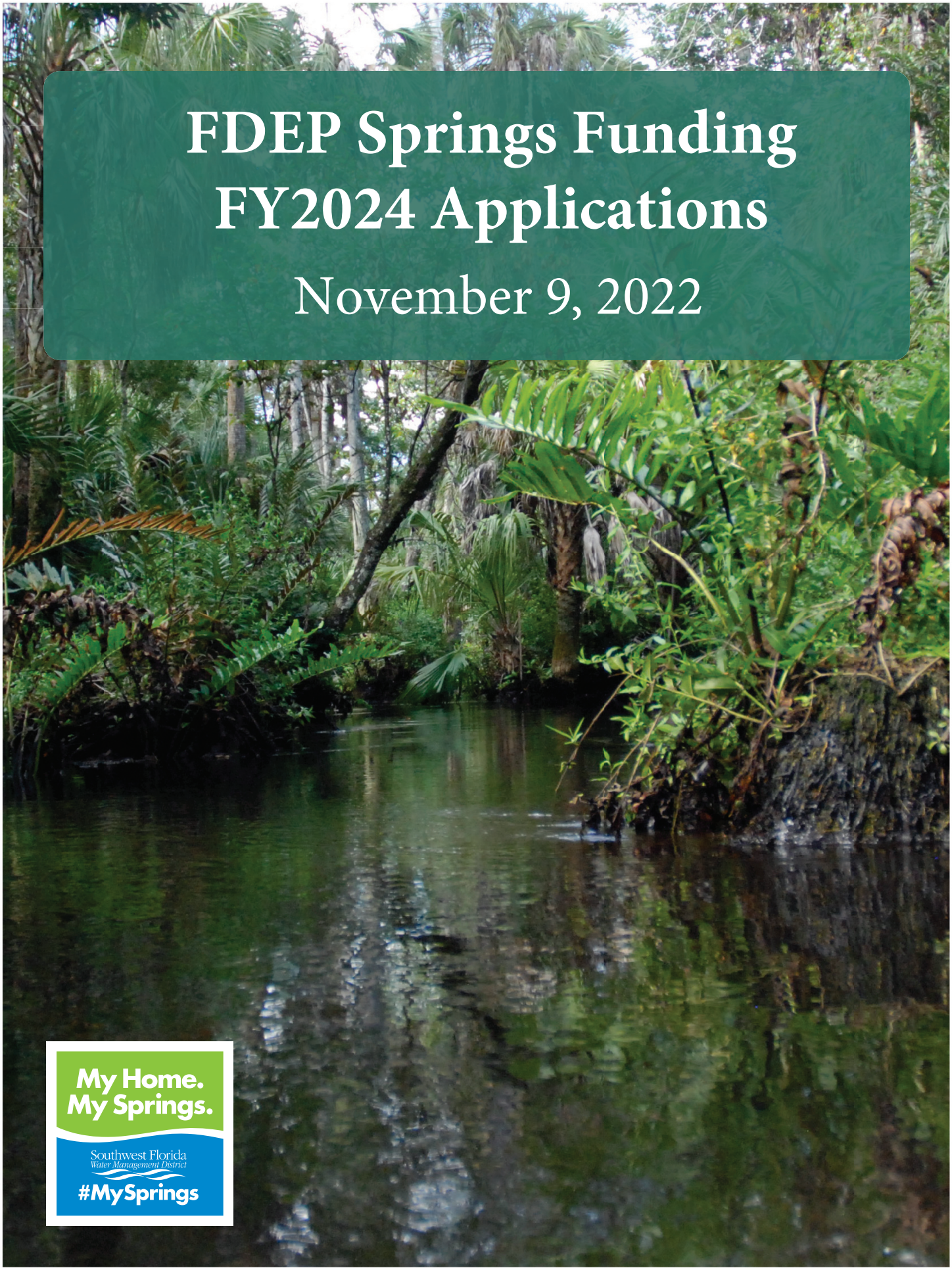
FDEP Springs Funding FY2024 Applications

November 9, 2022



My Home. My Springs.

Southwest Florida Water Management District

#MySprings

FY2024 FDEP Springs Funding Preliminary Evaluations								
Unit Number	**Applicant**	**Project**	**Nitrogen Reduction (lbs/yr)**	**FDEP Request**	**WMD Request**	**Local Match**	**Other Funding**	**Total**
APP01	Florida Governmental Utility Authority (FGUA)	Chatmire Septic to Sewer*	2,114	$ 2,500,000	$ -	$ -	$ -	**$ 2,500,000**
APP02	Citrus County	Southwest Regional Water Reclamation Reuse Project	5,754	$ 3,918,000	$ -	$ -	$ 1,664,000	**$ 5,582,000**
APP03	Hernando County Utilities Department	Hernando County Septic to Sewer District A Phase 2	2,782	$ 10,990,000	$ 2,355,000	$ 2,355,000	$ -	**$ 15,700,000**
APP04	City of Crystal River	City of Crystal River WWTF	21,021	$ 4,466,895	$ -	$ 1,500,000	$ -	**$ 5,966,895**
		* Indicates multiyear funding request, only FY24 request listed						
	Application Count:	4	**31,671**	**$ 21,874,895**	**$ 2,355,000**	**$ 3,855,000**	**$ 1,664,000**	**$ 29,748,895**

APP01

Florida Governmental Utility Authority (FGUA)

Chatmire Septic to Sewer

This application should be completed and emailed with the appropriate calculations and map to Lisa.Laupert@swfwmd.state.fl.us by 5:00PM on October 7, 2022.

1. Applicant Information

Entity Name: Florida Governmental Utility Authority (FGUA)

Is the Entity designated as an economically disadvantaged community? (●) Yes ( ) No

Project Manager Name: Robert W. Dickson, PE

Project Manager Address: 280 Wekiva Springs Rd., Ste 2070, Longwood, FL 32779-6026

Project Manager Phone Number: (407) 629-6900

Project Manager Email Address: rdickson@govmserv.com

2. Project Information

Project Name: Chatmire Septic to Sewer

Project Type: Waste Water Collection & Treatment (Complete Form A)

Is this a multiyear project? (●) Yes ( ) No

Note: For multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

What is the anticipated start and end date for the work that will be conducted under this funding request (in MM/YYYY)?

Start Date: 10/1/2023 End Date: 10/1/2027

If applicable, list the anticipated start and end dates for the design and construction phases (MM/YYYY).

Design: - Construction: -

Estimated design completion at time of application (enter 0 if design is not yet started):

100 % complete

Are permits required? (●) Yes ( ) No

If permits are required, please describe the required permits and the status at the time of application.

FDEP -the sewer collection system construction permit was approved 02.01.22
The Marion County ROW permit was approved on 5.31.22
The construction contractor will be required to pull a FDEP dewatering permit, DOH permits and plumbing construction permits.

3. Project Benefit

Quantity of Water Made Available (mgd): 0

Land Acquisition within Basin Management Action Plan (acres): N/A

Nitrogen Reduced (lbs/year): 2114

Sediment Reduced (lbs/year): N/A

Please download the the FDEP Springs Funding guidance document. Benefit calculations should be provided demonstrating how the benefit calculation was derived. A Map should be included showing the area of the project and depict notable features.

Please provide a full description of the project. For multiyear funded projects, please provide a description of the complete project, beginning to end, and a description explaining what phase will be covered by this funding request application.

he Chatmire Community, located in the City of Dunnellon, consists of approximately 210 residential lots with approximately 117 existing on-site sewage treatment and disposal systems (OSTDS = septic systems). The project area is generally shown on Figure 1. The project includes approximately 14,000 linear feet of gravity sewer collection lines, 2,000 linear feet of force main, 16,000 linear feet of roadway restoration, upgrade of one existing lift station, and construction of one additional lift station and associated force mains.

The project will include the abandonment of existing OSTDS and connections to the FGUA's Dunnellon Wastewater Treatment Plant. Empty lots will be provided with “ stub-outs” for connection as those lots are developed. These improvements will effectively transition the Chatmire community from a septic system-based community to a central sewer system served community.

4. Project Funding Information

Are you applying for CFI funding this fiscal year? ◯ Yes ◯ No

Have you received springs funding or CFI funding for this project in the past? ◯ Yes ◯ No

Enter the funding amount that has been received and/or is being requested:

	Previous	FY2023	Future	Total
FDEP Springs Funding	$ 3,700,000.00	$ 0.00	$ 7,500,000.00	$ 0.00
WMD CFI Funding				$ 0.00
Local Funding				$ 0.00
Other Funding				$ 0.00
Total	$ 0.00	$ 0.00	$ 0.00	$ 11,200,000.00

If CFI funding was not applied for, please move to Section 5. In the event this project is not awarded CFI funding, please use the table below to reflect how the costs will be handled without CFI funding.

	Previous	FY2023	Future	Total
FDEP Springs Funding				$ 0.00
Local Funding				$ 0.00
Other Funding				$ 0.00
Total	$ 0.00	$ 0.00	$ 0.00	$ 0.00

5. Project Location Information (please submit a map with this application)

County Marion

Latitude (decimal degrees) 29.0636

Longitude (decimal degrees) -82.4519

What is the spring name that will receive the benefit? Rainbow Springs

Is this spring deemed impaired? (●) Yes ( ) No

What is the distance from the project to the spring receiving the benefit? 2.0 miles

Is this project in a Basin Management Action Plan (BMAP)? (●) Yes ( ) No

Is this project in the Priority Focus Area (PFA) of the BMAP? ( ) Yes (●) No

Is this project listed in the BMAP project list? (●) Yes ( ) No ( ) No, but will be in an update

BMAP project number: R102

Is this project listed in a recovery strategy, prevention strategy, or regional water supply plan as benefiting an MFL? (●) Yes ( ) No If yes, please describe below:

Strategy name: Rainbow SWIM Plan

Project number: LPS0020

Project name as listed: Chatmire Septic to Sewer Project

Please describe any other recovery, prevention, or regional water supply plans or strategies this project is part of:

As published in the "Silver Springs and Upper Silver River and Rainbow Spring Group and Rainbow River Basin Management Action Plan, June 2018"

City of Dunnellon (now FGUA) Wastewater Service Area Expansion (OSTDS) Project R102 - The FGUA recognizes vital ecological and economic importance that Rainbow Springs and Rainbow River have in community. These waterbodies are listed as OFWs and are classified as high priorities in SWIM Plan. These waterbodies are impaired under Chapter 62-303(d), F.A.C., by Total Nitrogen as identified in adopted Total Maximum Daily Load. With this in mind, the city identified Chatmire Septic to Sewer Project to help improve water quality of these impaired waterbodies. Primary project objective is to design and construct a sanitary sewer

Please download the the FDEP Springs Funding guidance document. Benefit calculations should be provided demonstrating how the benefit calculation was derived. A Map should be included showing the area of the project and depict notable features.

Provide any additional information below that is pertinent to the review of this application. Include information on any existing ordinances, capital improvement plans, or master plans.

The Chatmire Septic to Sewer project's final design has been completed. FDEP and Marion County ROW Permit applications have been approved. Project has been competitively bid and is planned to be awarded by the to the low bidder by the FGUA Board at the October 2022 Board meeting. The initial construction phase will start in January 2023.

Future phases are dependent on project funding.

Don't forget to submit

-Benefit Calculations
-Map
-Form A (Wastewater Collection and Treatment Projects)
-Form B (Water Quantity Projects & Reuse)
-Form C (Land Acquisition Projects)

Please contact Frank Gargano with any questions prior to submittal. Frank.Gargano@swfwmd.state.fl.us

Form A: Wastewater Collection & Treatment Projects Only - Page 1

What is the name of the wastewater treatment facility where the project intends to send flows once connected to sewer:

FGUA Dunnellon Wastewater Treatment Plant

What is the facility ID of the wastewater treatment facility where the project intends to send flows once connected to sewer:

FLA126594

What level of treatment is offered at the wastewater treatment facility?

Advanced Secondary

At the wastewater treatment facility, where is the final treated wastewater sent?

Sprayfield

What is the current capacity of the wastewater treatment facility (mgd)?

.490

What is the annual average of flow received by the wastewater treatment facility (mgd)?

.181

What is the annual average of total nitrogen leaving the treatment facility (mg/L)?

6.0

How much additional flow will be received by the treatment facility due to the project (mgd)?

.053

Please describe any proposed costs for the resident/property owner for connection to sewer. Will connection and/or impact fees be charged? If so, how much are the fees? What will the fees cover?

Impact fees are covered by DEP Agreement No. LPS0020. Chatmire is an economically disadvantaged community.

Is any land acquisition necessary? If so, please describe below. ○ Yes ◉ No

What length of forcemain and pipe sizing is necessary? Please describe below.

The project includes approximately 2,000 linear feet of 8" force main.

Don't forget to submit benefit calculations

Form A: Wastewater Collection & Treatment Projects Only - Page 2

Septic to Sewer Conversion Projects Complete this Section:

How many parcels will be serviced once sewer is connected through this project?

210

How many existing septic tanks will be connected to sewer through this project?

117

Please provide the source(s) (e.g., property appraisals, FDEP databases, plumber field assessments, GIS layers) for determining which parcels have existing septic tanks.

Marion County Health Department Database. Site assessments and Surveys performed by FGUA consultant's.

How many of the septic tanks in this project are commercial or industrial tanks?

0

If commercial tanks are included in this project, provide type of commercial use and heated/ac square footage of the associated buildings below.

How many of the septic tanks service multi-family homes? 0

Is there a local ordinance in place that requires proper abandonment of septic system and connection to an available sewerage system, as defined by in Section 381.0065(21), Florida Statutes (F.S.)?

(●) Yes ( ) No

If yes, please provide a reference to the local ordinance.

FGUA Wastewater System Mandatory Connection Policies - Rule 62-6.0011, FAC

Describe any complementary efforts in developing, implementing, and enforcing water quality ordinances.

FGUA Board of Directors approved a Wastewater System Mandatory Connection Policy covering all wastewater collection system's the authority own's in Florida - " Rule 62-6.0011, FAC"

Package Plant Conversion Projects Complete this Section:

What is the annual average flow (actual, not permitted) from the package plant (mgd)?

What is the annual average concentration (actual, not permitted) of total nitrogen (mg/L)?

Don't forget to submit benefit calculations

Form B: Water Quantity Projects

For Agricultural Projects associated with irrigation system efficiency improvements:

Proposed irrigation system efficiency (%):

Prior irrigation system efficiency (%):

Average metered water use for the past 5 years (mgd):

For Reclaimed Water Projects:

Note: Refer to Appendix D of the Springs Funding Guidance for how to calculate the following:

Projected Reuse Flow (mgd):

Percent Offset (%):

Was Percent Offset determined by Table 1 of the Springs Funding Guidance?

◯ Yes ◯ No

Percent Recharge (%):

Is there an existing water use permit? ◯ Yes ◯ No

If yes, please list the permit number.

What diameter and length of forcemain are necessary? Please describe below.

What pump size is necessary? Please describe below.

Please describe the number and/or approximate size of the parcel(s) being serviced (e.g., 123 residential irrigation customers, 10 acre county park).

Don't forget to submit benefit calculations

Form C: Land Acquisition Projects Only

Please describe land use both current and future (e.g., conservation easement to reduce agriculture intensity, land acquired for restoration efforts, conversion of land zoned as residential to open space/conservation). If mixed, depict acreage for each land use.

Does a portion of the land to be acquired lie outside of the BMAP? ◯ Yes ◯ No

Please note, the portion of land outside of a BMAP for a land acquisition project should not be included in reporting acreage preserved.

Does the parcel adjoin public lands or easements? ◯ Yes ◯ No

Will the land be held in conservation in perpetuity? ◯ Yes ◯ No

Based on FDEP's NSILT recharge tool, what recharge area is the majority of the land located?

☐ High ☐ Medium ☐ Low

Has an evaluation of the fair market value been completed? ◯ Yes ◯ No

If yes, please include supporting documents with the application.

Will the land have public access and/or public education components? ◯ Yes ◯ No

If yes, please describe below.

Will a land management plan in place at the time of acquisition? ◯ Yes ◯ No

If yes, please describe below.

Don't forget to submit fair market value documentation

PLOTTED: 4/19/2021 12:34 PM SEAN P. MENARD, PE, CDT, ENV SP

SAVED: 4/19/2021 12:33 PM SMENARD Y:\06791-FGUA\OPPORTUNITIES\95364-229-20 CHATMIRE S2S\CAD\DRAWINGS\EXHIBIT-02.DWG

PHASE 1 | PHASE 2

SW 200TH AVE.

SW 200TH AVE.

SW 198TH TERR.

SW 197TH CT.

SW 111TH PL.

SW 111TH ST.

SW 110TH PL.

SW 110TH ST.

SW 109TH LN.

SW 109TH PL.

SW 108TH LN.

SW 108TH PL.

SW 107TH LN.

SW 107TH PL.

SW 106TH LN.

551 552 553 554 555 556 557 558 559 560 561 562 563 564

566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598

SW106-01 SW106-02 SW106-03

LEGEND

MANHOLE # 576

N

GRAPHIC SCALE
0 50 100 200
SCALE IN FEET

LS SITE (PROPOSED)

PHASE 1 FM TO BROOK STREET LIFT STATION

PHASE 2 FM (SEE FIGURE 2 FOR CONTINUATION)

PRELIMINARY

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED KFRASER
DRAWN DSHELDON
CHECKED WLYNCH

JonesEdmunds
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

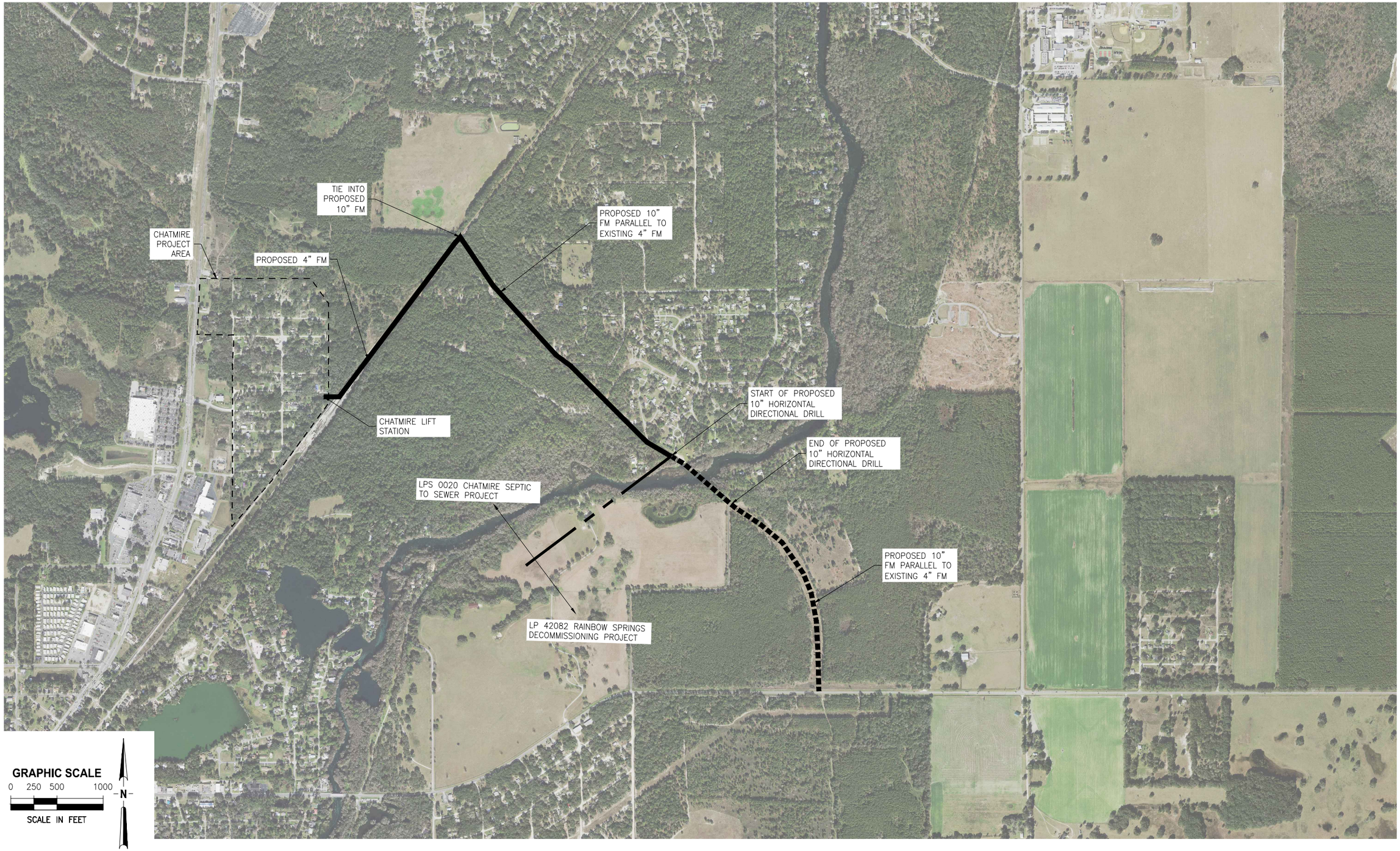
FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CHATMIRE SEPTIC TO SEWER PROJECT
(DUP12)

PROPOSED LAYOUT

FY2024 FDEP Springs Funding Applications | 12

PROJECT NO: 06791-008-01
DATE: APRIL 2021
INDEX NO:
DWG NO: FIG 1

PLOTTED: 4/19/2021 12:54 PM SEAN P. MENARD, PE, CDT, ENV SP



PRELIMINARY

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED WLYNCH
DRAWN SMENARD
CHECKED WLYNCH

JonesEdmunds
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD, BLDG. 5, SUITE 300 JACKSONVILLE, FLORIDA 32256 / (904) 744-5401

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CHATMIRE SEPTIC TO SEWER PROJECT
(DUP12)

PROPOSED PHASE 2 FM ROUTING

PROJECT NO: 06791-008-01
DATE: APRIL 2021
INDEX NO:
DWG NO: FIG 2

SAVED: 4/19/2021 12:44 PM SMENARD Y:\06791-FGUA\OPPORTUNITIES\95364-229-20 CHATMIRE S2S\CAD\DRAWINGS\FIGURE 02.DWG

FDEP method

PM to enter data
= Output
Do not change contents of cell

Reharge Factor NSILT Recharge Factor GIS Viewer Link (2016) https://www.arcgis.com/home/webmap/viewer.html?webmap=50f845b3ace54f48b56c6db877cf626d

0.1 mgd or greater WWTP locations Reclaimed water lines and facilites within SWFWMD http://www21.swfwmd.state.fl.us/maps/pages/viewer_rw.html

Septic to Sewer Projects

Calculate Base Load	
Number of Septic Tanks	210
Typical septic TN input to environment (lb/yr)	23.7
Typical Septic Attenuation	0.5
Recharge Factor (0.9, 0.5, 0.1, or 0)	0.9
Septic System Load to Groundwater	2240

Calculate New Load	Traditional	AWT
Number of Septic Tanks	210	
Input from Septic Systems to be Connected	23.7	
% TN Remaining After Treatment (18% remaining going from 45 mg/l to 8 mg/l OR 7% remaining going from 45mg/l to 3mg/l)	0.18	0.07
Attenuation Factor for Wastewater Application (RIB .75, Reuse .25, Sprayfield .40)	0.4	
Recharge Factor (0.9, 0.5, 0.1, or 0)	0.9	
Load to Groundwater After Treatment	323	125
Reduction in Load to Springshed lb/yr	1917	2114

Cost Effectiveness Calculation for 30 Year Period	Traditional	AWT
Project Cost	$11,200,000	
cost/lb TN	$5,842.03	$5,297.44
Cost/lb TN / 30 years	$194.73	$176.58

WWTP Upgrade Projects

Calculate Base Load	
WWTP annual average TN concentration in mg/l	
annual average flow in mgd (actual not permitted)	
Conversion	8.345
Recharge Factor (0.9, 0.5, 0.1, or 0)	0.9
Attenuation Factor for Wastewater Application (RIB .75, Reuse .25, Sprayfield .40)	0.4
original load to springshed lbs/year	0

Calculate New Load	
WWTP annual average TN concentration in mg/l	0
annual average flow in mgd	0
conversion	8.345
Recharge Factor (0.9, 0.5, 0.1, or 0)	0.9
Attenuation Factor for Wastewater Application (RIB .75, Reuse .25, Sprayfield .40)	0.4
new load to springshed lbs/year	0
Reduction in Load to Springshed lb/yr	0

Cost Effectiveness Calculation for 30 Year Period	WWTP upgrade
Project Cost	
cost/lb TN	#DIV/0!
Cost/lb TN / 30 years	#DIV/0!

WWTP application method change

Calculate Base Load	
WWTP annual average TN concentration in mg/l	0
annual average flow in mgd	0
Conversion	8.345
Recharge Factor (0.9, 0.5, 0.1, or 0)	0
Attenuation Factor for Wastewater Application (RIB .75, Reuse .25, Sprayfield .40)	0
original load to springshed lbs/year	0

Calculate New Load	
WWTP annual average TN concentration in mg/l	0
annual average flow in mgd	0
conversion	8.345
Recharge Factor (0.9, 0.5, 0.1, or 0)	0
Attenuation Factor for Wastewater Application (RIB .75, Reuse .25, Sprayfield .40)	0
new load to springshed lbs/year	0
Reduction in Load to Springshed lb/yr	0

Cost Effectiveness Calculation for 30 Year Period	WWTP upgrade
Project Cost	$0
cost/lb TN	#DIV/0!
Cost/lb TN / 30 years	#DIV/0!

Advanced nitrogen reducing septic systems

Calculate Base Load	
Number of Septic Tanks	0
Typical septic TN input to environment (lb/yr)	23.7
Typical Septic Attenuation Soil + drainfield	0.5
Recharge Factor (0.9, 0.5, 0.1, or 0)	0
Septic System Load to Groundwater lbs/year	0

Calculate New Load	advanced system 65% TN reduction	advanced system 93% TN reduction
Number of Septic Tanks	0	
Input from Septic Systems to be Connected	23.7	
Typical Septic soil attenuation of 20% (meaning 80% is leached)	0.8	
Recharge Factor (0.9, 0.5, 0.1, or 0)	0	
Additional TN reduction from advanced system	0.35	0.07
Load to Groundwater After Treatment	0	0
Reduction in Load to Springshed lb/yr	0	0

Cost Effectiveness Calculation for 30 Year Period	advanced system 65% TN reduction	advanced system 93% TN reduction
Project Cost	$0	
cost/lb TN	#DIV/0!	#DIV/0!
Cost/lb TN / 30 years	#DIV/0!	#DIV/0!

Package Plant Connection

Calculate Base Load	
Package plant annual average TN concentration in mg/l *	0
annual average flow in mgd (actual not permitted)	0
Conversion	8.345
Recharge Factor (0.9, 0.5, 0.1, or 0)	0
Attenuation Factor for Wastewater Application (RIB .75, Reuse .25, Sprayfield .40)	0
original load to springshed lbs/year	0

Calculate New Load	
WWTP annual average TN concentration in mg/l	0
annual average flow in mgd	0
Conversion	8.345
Recharge Factor at new WWTP location (0.9, 0.5, 0.1, or 0)	0
Attenuation Factor for Wastewater Application (RIB .75, Reuse .25, Sprayfield .40)	0
new load to springshed lbs/year	0
Reduction in Load to Springshed lb/yr	0

Cost Effectiveness Calculation for 30 Year Period	WWTP upgrade
Project Cost	$0
cost/lb TN	#DIV/0!
Cost/lb TN / 30 years	#DIV/0!

* based on basic level disinfection treatment average of 15.35 mg/l TN per 2009 FDEP reuse study data. If legitimate water quality data exist for the specific package plant use that data instead.

	I. TOTAL PROJECT COST					II. Year 1 - Project Funding Breakout											II. Year 2 - Pr				
Count	DEP/State Funding Amount	Local Match Amount	WMD Match Amount	Third Party Match	TOTAL Project Cost	DEP/State Funding Amount	Local Match - Cash	Local Match - In-kind Efforts	Local Match - Companion Projects	Local Match - Other	WMD Match - Cash	WMD Match - In-kind Efforts	WMD Match - Companion Projects	WMD Match - Other	Third Party Funding	TOTAL Year 1 Funding	DEP/State Funding Amount	Local Match - Cash	Local Match - In-kind Efforts	Local Match - Companion Projects	Local Match - Other
1	$ 7,500,000	$ -	$ -	$ -	$ 7,500,000	$ 2,500,000										$ 2,500,000	$ 2,500,000				
2	$ -	$ -	$ -	$ -	$ -																
3	$ -	$ -	$ -	$ -	$ -																
4	$ -	$ -	$ -	$ -	$ -																
5	$ -	$ -	$ -	$ -	$ -																

	roject Funding Breakout						III. Year 3 - Project Funding Breakout					III. Year 4 - Project Funding Breakout					III. Year 5 - Project Funding Breakout				
Count	WMD Match - Cash	WMD Match - In-kind Efforts	WMD Match - Companion Projects	WMD Match - Other	Third Party Funding	TOTAL Year 2 Funding	DEP/State Funding Amount	Local Match Amount	WMD Match Amount	Third Party Funding	TOTAL Year 3 Funding	DEP/State Funding Amount	Local Match Amount	WMD Match Amount	Third Party Funding	TOTAL Year 4 Funding	DEP/State Funding Amount	Local Match Amount	WMD Match Amount	Third Party Funding	TOTAL Year 5 Funding
1						$ 2,500,000	$ 2,500,000				$ 2,500,000										
2																					
3																					
4																					
5																					

APP02

Citrus County

Southwest Regional Water Reclamation Reuse Project

This application should be completed and emailed with the appropriate calculations and map to Lisa.Laupert@swfwmd.state.fl.us by 5:00PM on October 7, 2022.

1. Applicant Information

Entity Name: Citrus County, Florida

Is the Entity designated as an economically disadvantaged community? ○ Yes ◉ No

Project Manager Name: Christina Malmberg

Project Manager Address: 3600 W. Sovereign Path

Project Manager Phone Number: 352-527-7616

Project Manager Email Address: christina.malmberg@citrusbocc.com

2. Project Information

Project Name: Southwest Regional Water Reclamation Reuse Project

Project Type: Reuse (Complete Form B)

Is this a multiyear project? ○ Yes ◉ No

Note: For multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

What is the anticipated start and end date for the work that will be conducted under this funding request (in MM/YYYY)?

Start Date: 07/01/2023 End Date: 06/2025

If applicable, list the anticipated start and end dates for the design and construction phases (MM/YYYY).

Design: 06/2025 - 06/2025 Construction: 06/2025 - 06/2025

Estimated design completion at time of application (enter 0 if design is not yet started):

90 % complete

Are permits required? ◉ Yes ○ No

If permits are required, please describe the required permits and the status at the time of application.

FDEP - not started
ERP Permits - Started

3. Project Benefit

Quantity of Water Made Available (mgd): 0.565

Land Acquisition within Basin Management Action Plan (acres):

Nitrogen Reduced (lbs/year): 5754

Sediment Reduced (lbs/year):

Please download the the FDEP Springs Funding guidance document. Benefit calculations should be provided demonstrating how the benefit calculation was derived. A Map should be included showing the area of the project and depict notable features.

Please provide a full description of the project. For multiyear funded projects, please provide a description of the complete project, beginning to end, and a description explaining what phase will be covered by this funding request application.

Design, permitting and construction of approximately 22,000 feet of transmission mains, a 1.0 million gallon storage tank, a 1.0 mgd pump station, a 0.5 mgd booster station and other necessary appurtenances to supply 0.565 mgd of reclaimed water to replace 0.375 mgd of groundwater used for irrigation at the Sugarmill Woods golf courses and the Southern Woods golf course within the Chassahowitzka Springs Springshed. Citrus County has executed a long-term reclaimed water supply agreement with the owner of the Sugarmill Golf Courses and currently working with the new golf course owner for the Southern Woods reclaimed water supply agreement. The general location of the PROJECT is shown on the attached map Figure 1.

Total Project Costs: $9,500,000
CFI: $2,084,000
Citrus County: $1,834,000
Springs: $3,981,000
Legislation: $1,664,000

4. Project Funding Information

Are you applying for CFI funding this fiscal year? ◯ Yes ◉ No

Have you received springs funding or CFI funding for this project in the past? ◉ Yes ◯ No

Enter the funding amount that has been received and/or is being requested:

	Previous	FY2023	Future	Total
FDEP Springs Funding	$ 0.00	$ 0.00	$ 3,918,000.00	$ 0.00
WMD CFI Funding	$ 2,084,000.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 1,834,000.00	$ 0.00	$ 0.00	$ 0.00
Other Funding	$ 0.00	$ 0.00	$ 1,664,000.00	$ 0.00
Total	$ 0.00	$ 0.00	$ 0.00	$ 0.00

If CFI funding was not applied for, please move to Section 5. In the event this project is not awarded CFI funding, please use the table below to reflect how the costs will be handled without CFI funding.

	Previous	FY2023	Future	Total
FDEP Springs Funding				$ 0.00
Local Funding				$ 0.00
Other Funding				$ 0.00
Total	$ 0.00	$ 0.00	$ 0.00	$ 0.00

5. Project Location Information (please submit a map with this application)

County Citrus

Latitude (decimal degrees) 28.716841

Longitude (decimal degrees) -82.514247

What is the spring name that will receive the benefit? Chassahowitzka/Homosassa

Is this spring deemed impaired? (●) Yes ( ) No

What is the distance from the project to the spring receiving the benefit? 3 miles

Is this project in a Basin Management Action Plan (BMAP)? (●) Yes ( ) No

Is this project in the Priority Focus Area (PFA) of the BMAP? (●) Yes ( ) No

Is this project listed in the BMAP project list? (●) Yes ( ) No ( ) No, but will be in an update

BMAP project number: 4968

Is this project listed in a recovery strategy, prevention strategy, or regional water supply plan as benefiting an MFL? ( ) Yes ( ) No If yes, please describe below:

Strategy name: 2020 RWSP

Project number: Q105

Project name as listed: Citrus Co-Sugarmill Woods

Please describe any other recovery, prevention, or regional water supply plans or strategies this project is part of:

CHHO BMAP Star Report
2020 RWSP

Please download the the FDEP Springs Funding guidance document. Benefit calculations should be provided demonstrating how the benefit calculation was derived. A Map should be included showing the area of the project and depict notable features.

Provide any additional information below that is pertinent to the review of this application. Include information on any existing ordinances, capital improvement plans, or master plans.

This project has been approved by the Citrus County Board of County Commissioners in the 2024 CIP budget. The project has not moved forward due to the increase of construction costs and the inclusion of the Southern Woods Golf Course.

Don't forget to submit

-Benefit Calculations
-Map
-Form A (Wastewater Collection and Treatment Projects)
-Form B (Water Quantity Projects & Reuse)
-Form C (Land Acquisition Projects)

Please contact Frank Gargano with any questions prior to submittal. Frank.Gargano@swfwmd.state.fl.us

Form A: Wastewater Collection & Treatment Projects Only - Page 1

What is the name of the wastewater treatment facility where the project intends to send flows once connected to sewer:

What is the facility ID of the wastewater treatment facility where the project intends to send flows once connected to sewer:

What level of treatment is offered at the wastewater treatment facility?

At the wastewater treatment facility, where is the final treated wastewater sent?

Make a Selection

What is the current capacity of the wastewater treatment facility (mgd)?

What is the annual average of flow received by the wastewater treatment facility (mgd)?

What is the annual average of total nitrogen leaving the treatment facility (mg/L)?

How much additional flow will be received by the treatment facility due to the project (mgd)?

Please describe any proposed costs for the resident/property owner for connection to sewer. Will connection and/or impact fees be charged? If so, how much are the fees? What will the fees cover?

Is any land acquisition necessary? If so, please describe below. ◯ Yes ◯ No

What length of forcemain and pipe sizing is necessary? Please describe below.

Don't forget to submit benefit calculations

Form A: Wastewater Collection & Treatment Projects Only - Page 2

Septic to Sewer Conversion Projects Complete this Section:

How many parcels will be serviced once sewer is connected through this project?

How many existing septic tanks will be connected to sewer through this project?

Please provide the source(s) (e.g., property appraisals, FDEP databases, plumber field assessments, GIS layers) for determining which parcels have existing septic tanks.

How many of the septic tanks in this project are commercial or industrial tanks?

If commercial tanks are included in this project, provide type of commercial use and heated/ac square footage of the associated buildings below.

How many of the septic tanks service multi-family homes?

Is there a local ordinance in place that requires proper abandonment of septic system and connection to an available sewerage system, as defined by in Section 381.0065(21), Florida Statutes (F.S.)?

◯ Yes ◯ No

If yes, please provide a reference to the local ordinance.

Describe any complementary efforts in developing, implementing, and enforcing water quality ordinances.

Package Plant Conversion Projects Complete this Section:

What is the annual average flow (actual, not permitted) from the package plant (mgd)?

What is the annual average concentration (actual, not permitted) of total nitrogen (mg/L)?

Don't forget to submit benefit calculations

Form B: Water Quantity Projects

For Agricultural Projects associated with irrigation system efficiency improvements:

Proposed irrigation system efficiency (%):

Prior irrigation system efficiency (%):

Average metered water use for the past 5 years (mgd):

For Reclaimed Water Projects:

Note: Refer to Appendix D of the Springs Funding Guidance for how to calculate the following:

Projected Reuse Flow (mgd): 0.753

Percent Offset (%): 75%

Was Percent Offset determined by Table 1 of the Springs Funding Guidance?

(●) Yes ( ) No

Percent Recharge (%): 10%

Is there an existing water use permit? (●) Yes ( ) No

If yes, please list the permit number. 20010404.005

What diameter and length of forcemain are necessary? Please describe below.

18-inch: 7,450lf
16-inch: 5,900 lf
12-inch: 5,350 lf
8-inch: 4,000 lf

What pump size is necessary? Please describe below.

Booster pump station: 2 pumps at 50 hp, 1 jockey pump at 10 hp
High Service pump station: 3 pumps - 100 hp

Please describe the number and/or approximate size of the parcel(s) being serviced (e.g., 123 residential irrigation customers, 10 acre county park).

Sugarmill Woods Golf course (27 holes with the new owner considering shutting down 9 of the total holes.)
Souther Woods Golf course: 18 holes and a driving range

Don't forget to submit benefit calculations

Form C: Land Acquisition Projects Only

Please describe land use both current and future (e.g., conservation easement to reduce agriculture intensity, land acquired for restoration efforts, conversion of land zoned as residential to open space/conservation). If mixed, depict acreage for each land use.

Does a portion of the land to be acquired lie outside of the BMAP? ◯ Yes ◯ No

Please note, the portion of land outside of a BMAP for a land acquisition project should not be included in reporting acreage preserved.

Does the parcel adjoin public lands or easements? ◯ Yes ◯ No

Will the land be held in conservation in perpetuity? ◯ Yes ◯ No

Based on FDEP's NSILT recharge tool, what recharge area is the majority of the land located?

☐ High ☐ Medium ☐ Low

Has an evaluation of the fair market value been completed? ◯ Yes ◯ No

If yes, please include supporting documents with the application.

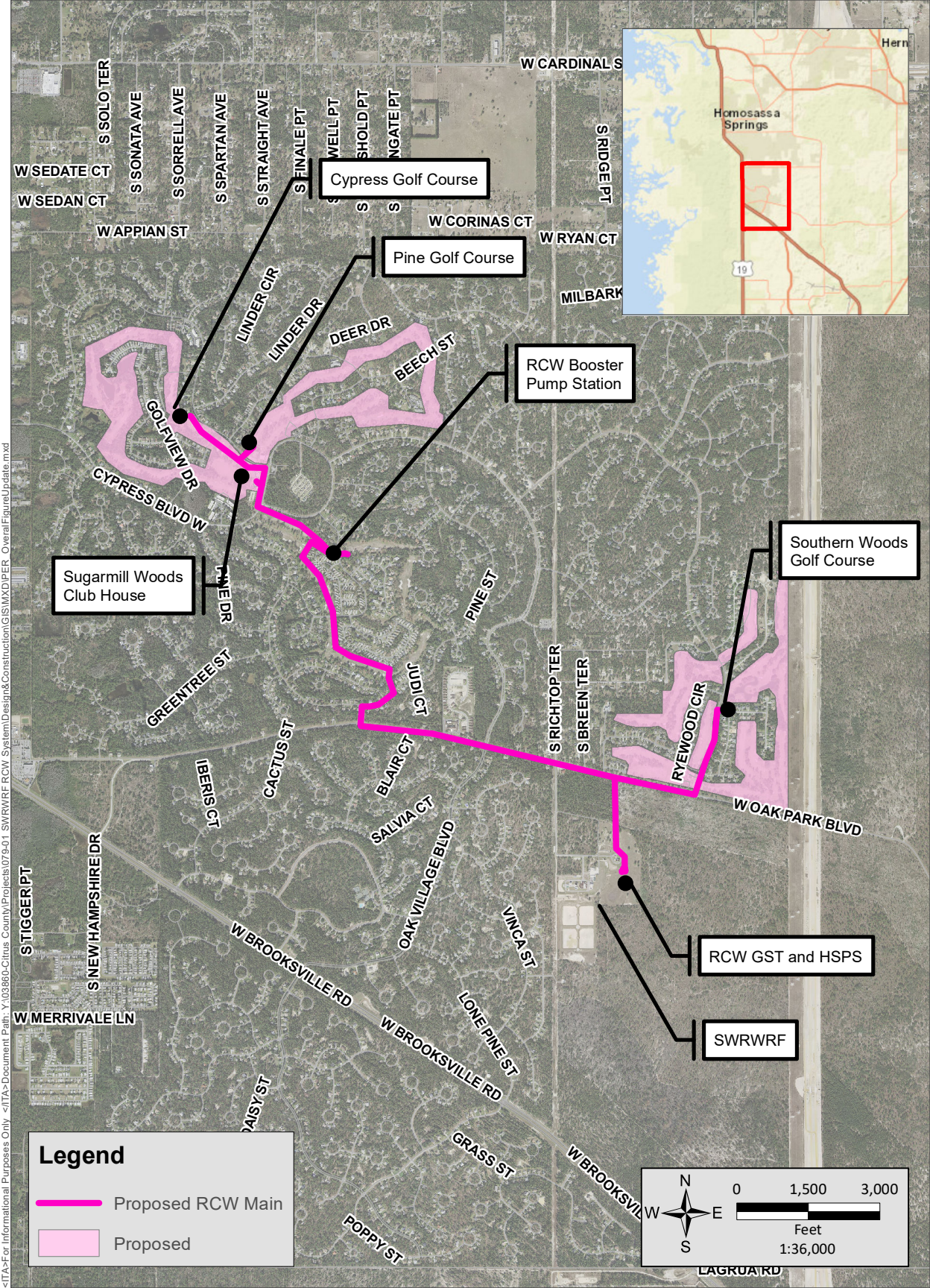
Will the land have public access and/or public education components? ◯ Yes ◯ No

If yes, please describe below.

Will a land management plan in place at the time of acquisition? ◯ Yes ◯ No

If yes, please describe below.

Don't forget to submit fair market value documentation



Reuse Project Calculations

Calculate Base Load	
WWTP annual average TN concentration in mg/l	12
annual average flow in mgd (actual not permitted)	0.753
Conversion	8.345
Recharge Factor (0.9, 0.5, 0.1, or 0)	0.9
Attenuation Factor for Wastewater Application (RIB .75, Reuse .25, Sprayfield .40)	0.25
original load to springshed lbs/year	6193

Calculate New Load	
WWTP annual average TN concentration in mg/l	0.85
annual average flow in mgd	0.753
conversion	8.345
Recharge Factor (0.9, 0.5, 0.1, or 0)	0.9
Attenuation Factor for Wastewater Application (RIB .75, Reuse .25, Sprayfield .40)	0.25
new load to springshed lbs/year	439

Reduction in Load to Springshed lb/yr	5754

Influent Flow by WWTF (mgd) Annual Average at SWRWRF	Percent Offset (Table 1 from Springs Funding Guidance document)	Quantity of Water Made (mgd)
0.753	0.75	0.56475
0.753	0.1	0.0753

0.56475 mgd is the greater of the two.

APP03

Hernando County Utilities Department

Hernando County Septic to Sewer District A phase 2

This application should be completed and emailed with the appropriate calculations and map to Lisa.Laupert@swfwmd.state.fl.us by 5:00PM on October 7, 2022.

1. Applicant Information

Entity Name: Hernando County Utilities Department

Is the Entity designated as an economically disadvantaged community? ○ Yes ◉ No

Project Manager Name: Gordon Onderdonk

Project Manager Address: 15365 Cortez Blvd, Brooksville

Project Manager Phone Number: 352-540-4368

Project Manager Email Address: Gonderdonk@hernandocounty.us

2. Project Information

Project Name: Hernando County Septic to Sewer District A phase 2

Project Type: Other Water Quality

Is this a multiyear project? ○ Yes ◉ No

Note: For multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

What is the anticipated start and end date for the work that will be conducted under this funding request (in MM/YYYY)?

Start Date: 11/2024 End Date: 11/2029

If applicable, list the anticipated start and end dates for the design and construction phases (MM/YYYY).

Design: 11/2024 - 05/2026 Construction: 06/2026 - 11/2029

Estimated design completion at time of application (enter 0 if design is not yet started):

0 % complete

Are permits required? ◉ Yes ○ No

If permits are required, please describe the required permits and the status at the time of application.

FDEP wastewater collection system permits are required. Right-of-way use permits are required. Septic system demolition permits are required.

3. Project Benefit

Quantity of Water Made Available (mgd): 0

Land Acquisition within Basin Management Action Plan (acres): NA

Nitrogen Reduced (lbs/year): 2,782

Sediment Reduced (lbs/year): NA

Please download the the FDEP Springs Funding guidance document. Benefit calculations should be provided demonstrating how the benefit calculation was derived. A Map should be included showing the area of the project and depict notable features.

Please provide a full description of the project. For multiyear funded projects, please provide a description of the complete project, beginning to end, and a description explaining what phase will be covered by this funding request application.

The State of Florida developed the Weeki Wachee Basin Management Action Plan (BMAP) in response to water quality testing showing the springs and river are impaired by high nitrogen, a primary component of fertilizer. This plan requires Hernando County to reduce the amount of nitrogen discharged to ground water within the BMAP area. Florida Department of Environmental Protection (FDEP) funded the county's "Septic to Sewer Study Conversion Study" (2016) and "OSTDS Remediation Feasibility Analysis Report" (2020). In some areas within the BMAP septic-to-sewer conversion projects were determined to be appropriate for nitrogen reduction. Septic to Sewer District A is the closest to the spring and will have the most immediate impact. This project is for Septic to Sewer District A phase 2. This project will provide central sewer service for 394 properties, of which over 295 are currently occupied.
Grant funding must obtained which will pay for 85% of the estimated project cost to maintain compliance with Hernando County Utilities Department's bond covenants. Hernando County Utilities Department (HCUD) hired a government accounting firm to perform a payback analysis which determined the utility could fund 5% of the project. The remaining 10% will be paid by the area property owners receiving sewer service. The property owners' portion will not be less than the sewer connection fee $3,544. A Municipal Service Benefit Unit (MSBU) is being established for that purpose. Property owners will be able to pay their portion in one lump sum or finance it over 10 years, with interest.

4. Project Funding Information

Are you applying for CFI funding this fiscal year? ○ Yes ◉ No

Have you received springs funding or CFI funding for this project in the past? ○ Yes ◉ No

Enter the funding amount that has been received and/or is being requested:

	Previous	FY2023	Future	Total
FDEP Springs Funding	$ 0.00	$ 0.00	$ 10,990,000.00	$ 0.00
WMD CFI Funding	$ 0.00	$ 0.00	$ 2,355,000.00	$ 0.00
Local Funding	$ 0.00	$ 0.00	$ 2,355,000.00	$ 0.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 0.00	$ 0.00	$ 15,700,000.00

If CFI funding was not applied for, please move to Section 5. In the event this project is not awarded CFI funding, please use the table below to reflect how the costs will be handled without CFI funding.

	Previous	FY2023	Future	Total
FDEP Springs Funding		$ 13,345,000.00		$ 13,345,000.00
Local Funding		$ 2,355,000.00		$ 2,355,000.00
Other Funding				$ 0.00
Total	$ 0.00	$ 15,700,000.00	$ 0.00	$ 15,700,000.00

5. Project Location Information (please submit a map with this application)

County Hernando

Latitude (decimal degrees) 28.517222

Longitude (decimal degrees) 82.562222

What is the spring name that will receive the benefit? Weeki Wachee

Is this spring deemed impaired? (●) Yes ( ) No

What is the distance from the project to the spring receiving the benefit? 3,530 feet

Is this project in a Basin Management Action Plan (BMAP)? (●) Yes ( ) No

Is this project in the Priority Focus Area (PFA) of the BMAP? (●) Yes ( ) No

Is this project listed in the BMAP project list? (●) Yes ( ) No ( ) No, but will be in an update

BMAP project number: 5019

Is this project listed in a recovery strategy, prevention strategy, or regional water supply plan as benefiting an MFL? ( ) Yes (●) No If yes, please describe below:

Strategy name:

Project number:

Project name as listed:

Please describe any other recovery, prevention, or regional water supply plans or strategies this project is part of:

Please download the the FDEP Springs Funding guidance document. Benefit calculations should be provided demonstrating how the benefit calculation was derived. A Map should be included showing the area of the project and depict notable features.

Provide any additional information below that is pertinent to the review of this application. Include information on any existing ordinances, capital improvement plans, or master plans.

This project is included in the Weeki Wachee BMAP. It was originally identified in Hernando County's state funded 2016 "Septic to Sewer Conversion Study". It was also identified in the Florida state funded "OSTDS Remediation Feasibility Analysis Report, Hernando County Utilities Department / June 2020". Septic to Sewer Conversion, District A Phase 2 is listed as a Capital Improvement Program project in "Hernando County 2021 Wastewater Master Plan".

Don't forget to submit

-Benefit Calculations
-Map
-Form A (Wastewater Collection and Treatment Projects)
-Form B (Water Quantity Projects & Reuse)
-Form C (Land Acquisition Projects)

Please contact Frank Gargano with any questions prior to submittal. Frank.Gargano@swfwmd.state.fl.us

Form A: Wastewater Collection & Treatment Projects Only - Page 1

What is the name of the wastewater treatment facility where the project intends to send flows once connected to sewer:

The Glen WRF

What is the facility ID of the wastewater treatment facility where the project intends to send flows once connected to sewer:

FLA012069

What level of treatment is offered at the wastewater treatment facility?

Secondary treatment with high level of disinfection

At the wastewater treatment facility, where is the final treated wastewater sent?

Reclaimed

What is the current capacity of the wastewater treatment facility (mgd)?

3.0

What is the annual average of flow received by the wastewater treatment facility (mgd)?

1.5

What is the annual average of total nitrogen leaving the treatment facility (mg/L)?

4.8

How much additional flow will be received by the treatment facility due to the project (mgd)?

0.067

Please describe any proposed costs for the resident/property owner for connection to sewer. Will connection and/or impact fees be charged? If so, how much are the fees? What will the fees cover?

10% of the total cost will be charged to the property owners. The minimum cost will be $ 3,544.00 per property. $3,544.00 will be the connection fee.

Is any land acquisition necessary? If so, please describe below. ○ Yes ◉ No

It is possible that we have to acquire pumping station sites.

What length of forcemain and pipe sizing is necessary? Please describe below.

Will be determined during the design phase.

Don't forget to submit benefit calculations

Form A: Wastewater Collection & Treatment Projects Only - Page 2

Septic to Sewer Conversion Projects Complete this Section:

How many parcels will be serviced once sewer is connected through this project?

394

How many existing septic tanks will be connected to sewer through this project?

More than 295

Please provide the source(s) (e.g., property appraisals, FDEP databases, plumber field assessments, GIS layers) for determining which parcels have existing septic tanks.

All occupied properties in the area have septic tanks. See attachment for the subject properties.

How many of the septic tanks in this project are commercial or industrial tanks?

There are 13 commerccial properties that are all planned to be connected in phase

If commercial tanks are included in this project, provide type of commercial use and heated/ac square footage of the associated buildings below.

None this phase

How many of the septic tanks service multi-family homes? None

Is there a local ordinance in place that requires proper abandonment of septic system and connection to an available sewerage system, as defined by in Section 381.0065(21), Florida Statutes (F.S.)?

(●) Yes ( ) No

If yes, please provide a reference to the local ordinance.

Article VI Subsection 28-238

Describe any complementary efforts in developing, implementing, and enforcing water quality ordinances.

Hernando County Fertilizer ordinance, Article XIII, Sections 28-505 through 28-518. BMAP projects such as Airport WRF and Glen WRF Denitrification upgrades, Oakley Island Septic to Sewer, Package Plants connection to central sewer, multiple storm water projects.

Package Plant Conversion Projects Complete this Section:

What is the annual average flow (actual, not permitted) from the package plant (mgd)?

NA

What is the annual average concentration (actual, not permitted) of total nitrogen (mg/L)?

NA

Don't forget to submit benefit calculations

Form B: Water Quantity Projects

For Agricultural Projects associated with irrigation system efficiency improvements:

Proposed irrigation system efficiency (%):

Prior irrigation system efficiency (%):

Average metered water use for the past 5 years (mgd):

For Reclaimed Water Projects:

Note: Refer to Appendix D of the Springs Funding Guidance for how to calculate the following:

Projected Reuse Flow (mgd):

Percent Offset (%):

Was Percent Offset determined by Table 1 of the Springs Funding Guidance?

◯ Yes ◯ No

Percent Recharge (%):

Is there an existing water use permit? ◯ Yes ◯ No

If yes, please list the permit number.

What diameter and length of forcemain are necessary? Please describe below.

What pump size is necessary? Please describe below.

Please describe the number and/or approximate size of the parcel(s) being serviced (e.g., 123 residential irrigation customers, 10 acre county park).

Don't forget to submit benefit calculations

Form C: Land Acquisition Projects Only

Please describe land use both current and future (e.g., conservation easement to reduce agriculture intensity, land acquired for restoration efforts, conversion of land zoned as residential to open space/conservation). If mixed, depict acreage for each land use.

Does a portion of the land to be acquired lie outside of the BMAP? ◯ Yes ◯ No

Please note, the portion of land outside of a BMAP for a land acquisition project should not be included in reporting acreage preserved.

Does the parcel adjoin public lands or easements? ◯ Yes ◯ No

Will the land be held in conservation in perpetuity? ◯ Yes ◯ No

Based on FDEP's NSILT recharge tool, what recharge area is the majority of the land located?

☐ High ☐ Medium ☐ Low

Has an evaluation of the fair market value been completed? ◯ Yes ◯ No

If yes, please include supporting documents with the application.

Will the land have public access and/or public education components? ◯ Yes ◯ No

If yes, please describe below.

Will a land management plan in place at the time of acquisition? ◯ Yes ◯ No

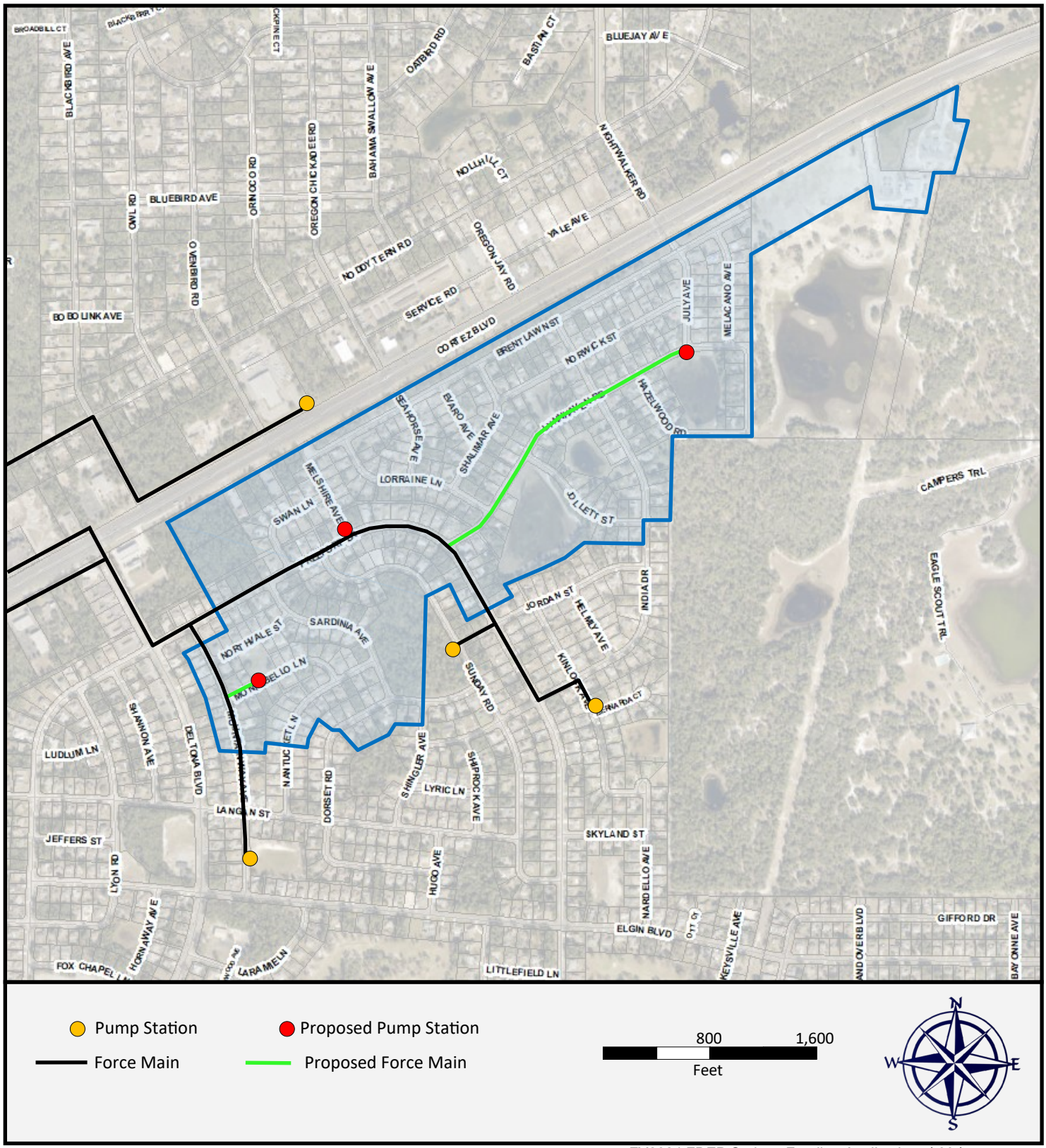
If yes, please describe below.

Don't forget to submit fair market value documentation

Hernando County

Septic to Sewer Conversion

District A Phase 2



Calculate Load reduction from S2S District A, Phase 2 Hernando County

(Input from septic systems X 0.5 X recharge factor for area) –

(Input from septic system X percent N remaining after treatment X attenuation factor of WW application method X recharge factor)*

(23.7 lb/yr home X 0.5 X 0.9) –

((200gpd/home X MGD/1,000,000 gal X 8.34 X 30 mg/l X 365 day/yr) X 0.1 X 0.75 X 0.9]

= 9.432 lb TN/yr reduced per septic tank converted

9.432 lb TN/yr x 295 homes = 2,782 lb TN removed/year

* Page 21 of Springs Funding Guidance

APP04

City of Crystal River

City of Crystal River WWTF

This application should be completed and emailed with the appropriate calculations and map to Lisa.Laupert@swfwmd.state.fl.us by 5:00PM on October 7, 2022.

1. Applicant Information

Entity Name: City of Crystal River

Is the Entity designated as an economically disadvantaged community? ○ Yes ◉ No

Project Manager Name: Scott A. Towler

Project Manager Address: 280 Wekiva Springs rd, Suite 2070

Project Manager Phone Number: 407-269-6900 ext 117

Project Manager Email Address: stowler@govmserv.com

2. Project Information

Project Name: City of Crystal River WWTF

Project Type: Make Selection

Is this a multiyear project? ○ Yes ◉ No

Note: For multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

What is the anticipated start and end date for the work that will be conducted under this funding request (in MM/YYYY)?

Start Date: March 2023 End Date: December 2024

If applicable, list the anticipated start and end dates for the design and construction phases (MM/YYYY).

Design: December 2 - December 2 Construction: December 2 - December 2

Estimated design completion at time of application (enter 0 if design is not yet started):

0 % complete

Are permits required? ◉ Yes ○ No

If permits are required, please describe the required permits and the status at the time of application.

FDEP wastewater facility construction permit

3. Project Benefit

Quantity of Water Made Available (mgd): 0.71

Land Acquisition within Basin Management Action Plan (acres): 0

Nitrogen Reduced (lbs/year): 21,021

Sediment Reduced (lbs/year): 242,515

Please download the the FDEP Springs Funding guidance document. Benefit calculations should be provided demonstrating how the benefit calculation was derived. A Map should be included showing the area of the project and depict notable features.

Please provide a full description of the project. For multiyear funded projects, please provide a description of the complete project, beginning to end, and a description explaining what phase will be covered by this funding request application.

The flow, nitrogen, and sediment (TSS) values were obtained from the City of Crystal River Sewer Master Plan Update Study, prepared by Jones Edmunds, dated February 2022. The data was collected from monthly operating reports (MORs) from May 2016 through April 2021. The total nitrogen reduction was determined using the Jones Edmunds report recommending designing the WWTF total nitrogen removal based on an influent total nitrogen concentration of 30 mg/L and an effluent concentration of 3.0 mg/L. Presently the plant is categorized as secondary treatment for the removal of $CBOD_5$ and TSS. It is noted there is an effluent discharge limitation of 12.0 mg/L for nitrate nitrogen and a monitor only requirement for total nitrogen. Although the treated effluent total nitrogen concentration from May 2016 through April 2021 was reported as 4.34 mg/L.

The sediment removal was based on an influent TSS concentration of 116 mg/L and an effluent average TSS concentration of 3.86 mg/L.

The major elements of the plant upgrade include:

1. Rehabilitation of the existing headworks to include replacement of the static screen with a mechanical drum screen, update piping and install a flow meter.
2. New 3.0 MGD IR pump station with pumps controlled by VFDs and located on a slab above the 100-yr flood plain elevation.
3. Install VFDs for the surface aerators.
4. Install dissolved oxygen probes
5. Install nitrate probes
6. Replace the return activated sludge and waste activated sludge pump stations, including installation of VFDs, piping and elevated slab above the 100-year flood plan elevation.
7. Install a new wastewater treatment facility PLC, including the necessary electrical and instrumentation & control improvements.
8. Changes to standard operating procedures to achieve total nitrogen removal.

4. Project Funding Information

Are you applying for CFI funding this fiscal year? ◯ Yes ◉ No

Have you received springs funding or CFI funding for this project in the past? ◯ Yes ◉ No

Enter the funding amount that has been received and/or is being requested:

	Previous	FY2023	Future	Total
FDEP Springs Funding		$ 4,466,895.00		$ 4,466,895.00
WMD CFI Funding				$ 0.00
Local Funding		$1,500,000.00		$1,500,000.00
Other Funding				$ 0.00
Total	$ 0.00	$1,500,000.00	$ 0.00	$ 5,966,895.00

If CFI funding was not applied for, please move to Section 5. In the event this project is not awarded CFI funding, please use the table below to reflect how the costs will be handled without CFI funding.

	Previous	FY2023	Future	Total
FDEP Springs Funding		$ 4,466,895.00		$ 4,466,895.00
Local Funding				$ 0.00
Other Funding		$1,500,000.00		$1,500,000.00
Total	$ 0.00	$ 5,966,895.00	$ 0.00	$ 5,966,895.00

5. Project Location Information (please submit a map with this application)

County Citrus

Latitude (decimal degrees) 28°54' 20" N

Longitude (decimal degrees) 82°35' 49 " W

What is the spring name that will receive the benefit? Kings Bay Springs Group

Is this spring deemed impaired? (●) Yes ( ) No

What is the distance from the project to the spring receiving the benefit? 2,700 ft

Is this project in a Basin Management Action Plan (BMAP)? (●) Yes ( ) No

Is this project in the Priority Focus Area (PFA) of the BMAP? (●) Yes ( ) No

Is this project listed in the BMAP project list? ( ) Yes (●) No ( ) No, but will be in an update

BMAP project number:

Is this project listed in a recovery strategy, prevention strategy, or regional water supply plan as benefiting an MFL? (●) Yes ( ) No If yes, please describe below:

Strategy name: Crystal River/Kings Bay Basin Management Action Plan

Project number:

Project name as listed:

Please describe any other recovery, prevention, or regional water supply plans or strategies this project is part of:

This project is required to achieve compliance with the new Total Nitrogen (TN) effluent limitations. These new wastewater effluent limitations were included in the Springs Coast Basin Management Action Plans (BMAPs) which became effective January 2019. The BMAPs require that the City of Crystal River WWTF comply with the total nitrogen effluent limitations or obtain Florida Department of Environmental Protection (DEP) approved regulatory relief by January 1, 2024.

The City met with representatives to achieve compliance with the from FDEP to satisfy the Department's request to provide a proposal to achieve compliance with the total nitrogen discharge concentration of 3.0 mg/L.

Please download the FDEP Springs Funding guidance document. Benefit calculations should be provided demonstrating how the benefit calculation was derived. A Map should be included showing the area of the project and depict notable features.

Provide any additional information below that is pertinent to the review of this application. Include information on any existing ordinances, capital improvement plans, or master plans.

Presently the Florida Governmental Utility Authority (FGUA) has been issued a work authorization from the City of Crystal River to oversee and mange ethe WWTF permit renewal and identify alternatives as previously described to achieve compliance with the new total nitrogen discharge concentration of 3.0 mg/L. The treated effluent disposed as a reclaim system with restricted-public-access-reuse consisting of a spray field and/or use by Duke Energy for flue gas desulfurization. The City is under contract with Duke Energy to utilize the treated effluent for industrial purposes. However, history has proven that due to unforeseen mechanical failures, low electric demand, and planned outages not all of the treated effluent can be used by Duke, therefore, resulting in more use of the spray field disposal system. In addition, the power plants that utilize the effluent have a planned decommissioning in 2035 when they will cease to take the effluent. Improvements to remove total nitrogen from the WWTF will directly improve reduction of total nitrogen to the groundwater and surrounding springs.

Don't forget to submit

-Benefit Calculations
-Map
-Form A (Wastewater Collection and Treatment Projects)
-Form B (Water Quantity Projects & Reuse)
-Form C (Land Acquisition Projects)

Please contact Frank Gargano with any questions prior to submittal. Frank.Gargano@swfwmd.state.fl.us

Form A: Wastewater Collection & Treatment Projects Only - Page 1

What is the name of the wastewater treatment facility where the project intends to send flows once connected to sewer:

City of Crystal River WWTF

What is the facility ID of the wastewater treatment facility where the project intends to send flows once connected to sewer:

FLA011848

What level of treatment is offered at the wastewater treatment facility?

Secondary wastewater treatment

At the wastewater treatment facility, where is the final treated wastewater sent?

Sprayfield

What is the current capacity of the wastewater treatment facility (mgd)?

1.5

What is the annual average of flow received by the wastewater treatment facility (mgd)?

0.71

What is the annual average of total nitrogen leaving the treatment facility (mg/L)?

4.34

How much additional flow will be received by the treatment facility due to the project (mgd)?

0

Please describe any proposed costs for the resident/property owner for connection to sewer. Will connection and/or impact fees be charged? If so, how much are the fees? What will the fees cover?

This project includes operational and capital improvements to achieve the required 3.0 mg/L total nitrogen effluent discharge limitation as required by FDEP and the adopted total maximum daily loads (TMDLs) for total nitrogen for Kings Bay. There are no direct costs to resident/property owners.

Is any land acquisition necessary? If so, please describe below. ○ Yes ◉ No

What length of forcemain and pipe sizing is necessary? Please describe below.

Not applicable

Don't forget to submit benefit calculations

Form A: Wastewater Collection & Treatment Projects Only - Page 2

Septic to Sewer Conversion Projects Complete this Section:

How many parcels will be serviced once sewer is connected through this project?

Not applicable

How many existing septic tanks will be connected to sewer through this project?

Not applicable

Please provide the source(s) (e.g., property appraisals, FDEP databases, plumber field assessments, GIS layers) for determining which parcels have existing septic tanks.

Not applicable

How many of the septic tanks in this project are commercial or industrial tanks?

Not applicable

If commercial tanks are included in this project, provide type of commercial use and heated/ac square footage of the associated buildings below.

Not applicable

How many of the septic tanks service multi-family homes? Not applicable

Is there a local ordinance in place that requires proper abandonment of septic system and connection to an available sewerage system, as defined by in Section 381.0065(21), Florida Statutes (F.S.)?

(●) Yes ( ) No

If yes, please provide a reference to the local ordinance.

Describe any complementary efforts in developing, implementing, and enforcing water quality ordinances.

Package Plant Conversion Projects Complete this Section:

What is the annual average flow (actual, not permitted) from the package plant (mgd)?

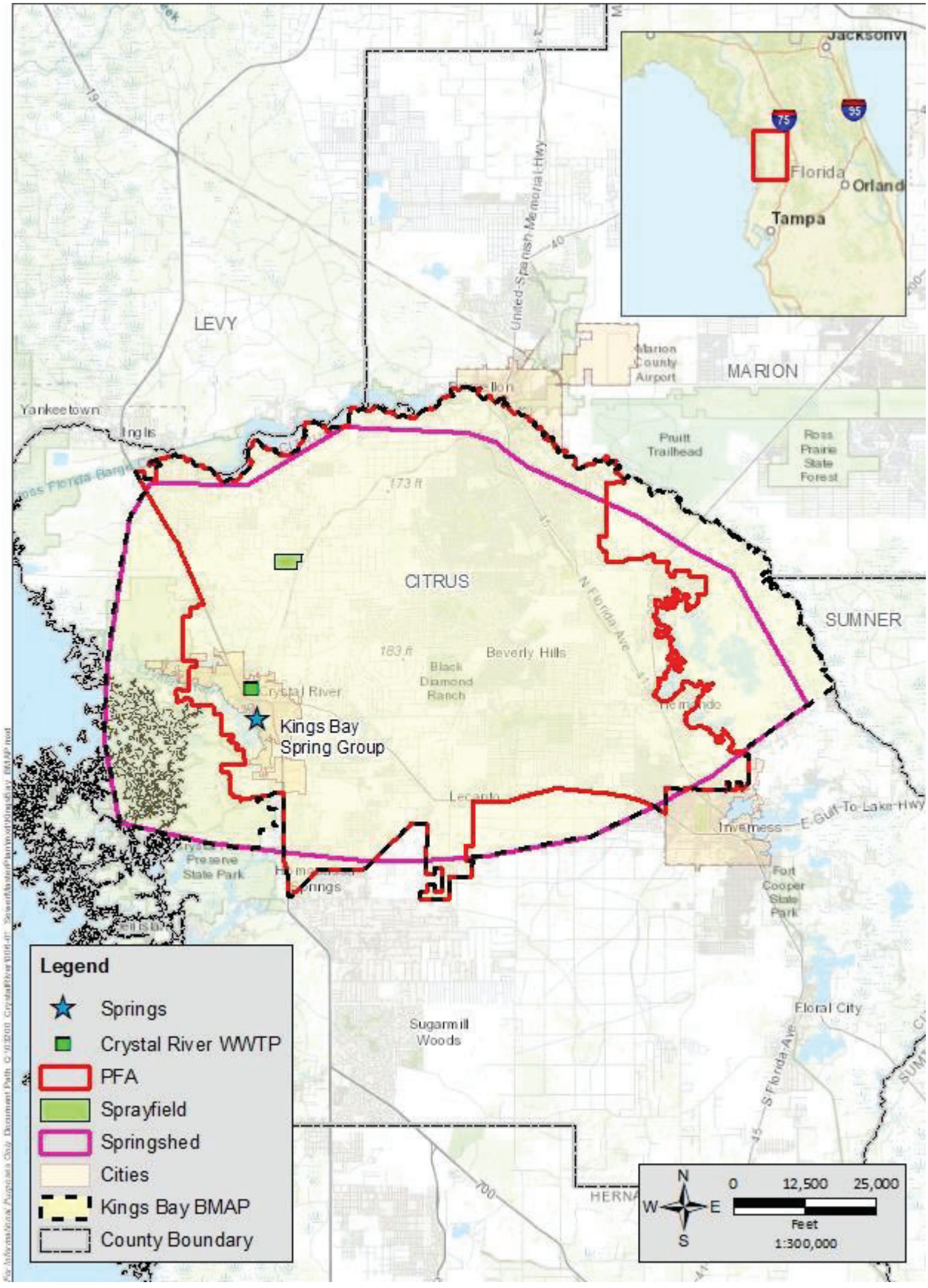
Not applicable

What is the annual average concentration (actual, not permitted) of total nitrogen (mg/L)?

Not applicable

Don't forget to submit benefit calculations

Figure 4-2 BMAP, PFA, and Crystal River WWTF Sprayfield



	PM to enter data
	= Output
	Do not change contents of cell

Reharge Factor	NSILT Recharge Factor GIS Viewer Link (2016)	https://www.arcgis.com/home/webmap/viewer.html?webmap=50f845b3ace54f48b56c6db877cf626d
0.1 mgd or greater WWTP locations	Reclaimed water lines and facilites within SWFWMD	http://www21.swfwmd.state.fl.us/maps/pages/viewer_rw.html

Crystal River WWTP Upgrade Projects

Calculate Base Load	
WWTP annual average TN concentration in mg/l	4.34
annual average flow in mgd (actual not permitted)	0.71
Conversion	8.345
Recharge Factor (0.9, 0.5, 0.1, or 0)	0.9
Attenuation Factor for Wastewater Application (RIB .75, Reuse .25, Sprayfield .40)	0.4
original load to springshed lbs/year	3379

Calculate New Load	
WWTP annual average TN concentration in mg/l	2.9
annual average flow in mgd	0.71
conversion	8.345
Recharge Factor (0.9, 0.5, 0.1, or 0)	0.9
Attenuation Factor for Wastewater Application (RIB .75, Reuse .25, Sprayfield .40)	0.4
new load to springshed lbs/year	2258
Reduction in Load to Springshed lb/yr	1121

Cost Effectiveness Calculation for 30 Year Period	
	WWTP upgrade
Project Cost	$5,966,895
cost/lb TN	$5,322.38
Cost/lb TN / 30 years	$177.41

Calculate Base Load - Sediment	
Influent TSS AAD	116
Effleunt TSS AAD	3.86
TSS Removed AAD	112.14
annual average flow in mgd (actual not permitted)	0.71
Conversion	8.345
Pounds Sediment Removed per Year	242,515

The flow, nitrogen, and sediment (TSS) values were obtained from the City of Crystal River Sewer Master Plan Update Study, prepared by Jones Edmunds, dated February 2022. The data was collected from monthly operating reports (MORs) from May 2016 through April 2021. The total nitrogen reduction was determined using the Jones Edmunds reported effluent concentration of 4.34 mg/L. The sediment removal was based on an influent TSS concentration of 116 mg/L and an effluent average TSS concentration of 3.86 mg/L.