FY2021 FDEP Springs Funding
Raw Application Materials Submitted to the
Southwest Florida Water Management District

Unit Number	Applicant	Project	Nitrogen Reduction	FDEP Request	WMD Request	Local Match	Other Funding	Total
APP01	Bay Laurel CCDD	On Top of the World North Advanced WWTF*	15,856	$ 325,000	$ 125,000	$ 895,500	$ -	**$ 1,345,500**
APP02	Marion County	NWRWWTF Expansion	2,017	$ 6,850,000	$ 3,425,000	$ 3,425,000	$ -	**$ 13,700,000**
APP03	Marion County	Oak Bend I-75 Water Quality Improvement*	1,076	$ 257,520	$ -	$ -	$ -	**$ 257,520**
APP04	FGUA	Rainbow River - Rio Vista Septic to Sewer	3,551	$ 10,000,000	$ -	$ -	$ -	**$ 10,000,000**
APP05	FGUA	Burkitt Road Septic to Sewer	113	$ 350,000	$ -	$ -	$ -	**$ 350,000**
APP06	FGUA	180th Ave Package Plant Abatement	284	$ 847,000	$ -	$ -	$ -	**$ 847,000**
APP07	Hernando County	Airport WRF Total Nitrogen Reduction	16,212	$ 7,500,000	$ -	$ 2,500,000	$ -	**$ 10,000,000**
APP08	Hernando County	Airport WWTF Full Expansion	14,137	$ 5,000,000	$ -	$ 21,000,000	$ -	**$ 26,000,000**
APP09	Hernando County	Septic to Sewer District A Phase 1	3,412	$ 8,250,000	$ 4,125,000	$ 4,125,000	$ -	**$ 16,500,000**
APP10	Hernando County	Glen Water Reclamation Facility Denitrification	24,592	$ 3,700,000	$ -	$ 1,300,000	$ -	**$ 5,000,000**
APP11	City of Inverness	South Highlands Septic to Sewer*	695 (Phase 1) 5427 (Total Project)	$ 2,613,600	$ -	$ 653,400	$ -	**$ 3,267,000**
APP12	City of Inverness	44 West Sewer Extension	1,746	$ 1,888,400	$ -	$ 472,100	$ -	**$ 2,360,500**
APP13	City of Inverness	41 North Sewer Extension	1,202	$ 3,264,800	$ -	$ 816,200	$ -	**$ 4,081,000**
APP14	City of Crystal River	Pelican Bay Package Plant Removal	47	$ 440,000	$ -	$ -	$ -	**$ 440,000**
		*Multiyear Funding Request, only FY21 request listed						
	Application Count:	14	**TOTAL**	**$ 51,286,320**	**$ 7,675,000**	**$ 35,187,200**	**$ -**	**$ 94,148,520**
				Last Updated:	10/7/2019			

APP01

FY2021 FDEP Springs Funding Application for Projects within the Southwest Florida Water Management District

This application should be completed and emailed with the appropriate calculations and map to Meagan.Finneran@swfwmd.state.fl.us by 5:00PM on October 4, 2019.

Applicant Information

Entity Name: Bay Laurel Center Community Development District (BLCCDD)

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

Project Manager Name: Bryan Schmalz, Utility Director

Project Manager Address: 8470 SW 79th Street Road, Suite 3, Ocala, Florida 34481

Project Manager Phone Number: 352-414-5454, ext 4105

Project Manager Email Address: bryan_schmalz@blccdd.com

Project General Information

Project Name: On Top of the World North Advanced Wastewater Treatment Facility

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

Project Benefit

Quantity of Water Made Available (mgd): 1.15 mgd in 2026

Land Acquisition (acres): 37.09

Nitrogen Reduced (lbs/year): 15,856 in 2026 (see calcs)

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.

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

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

Please provide a full description of the project. If this is a multiyear funded project, 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.

This is a multiyear funded project for the design and construction of the following components:

1. A 2.5 MGD advanced domestic wastewater treatment facility (WWTF) to replace a 1.25 MGD conventional extended-aereation WWTF. Biosolids treatment and thickening is included - as a result biosolids will no longer be land applied on site and instead, be disposed of off site into a lined landfill outside the Rainbow Spring basin.

2. Wastewater transmission system improvements including: a) 1 triplex master lift station with odor control; and b) approximately 15,000 feet of 20-inch diameter force main.

3. Reclaim transmission system improvements including: a) one 5-million gallon ground storage tank (GST); b) one high-service reclaim pumping station; and c) approximately 800 feet of 16-inch transmission main with tie-in connections and fill valve at existing 2.5-million gallon GST. CFI funding will be requested for this portion of the project.

The following phasing schedule is anticipated:

Phase 1 - Engineering/Design	Start: January 2021	End: June 2022
Phase 2 - Bidding and Construction	Start: July 2022	End: September 2024

Phases 1 and 2 will be covered by this funding request application.

What is the anticipated start and end date for the work that will be conducted under this funding request?

Start Date: January 2021 End Date: September 2024

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

County Marion

Latitude (decimal degrees) 29.1075 N

Longitude (decimal degrees) 82.2975 W

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

Is this spring deemed impaired? Yes, with a BMAP or RAP

What is the distance from the project to the spring receiving the benefit ? 8.2 miles

Is this project in a springshed? If so, specify which one. Rainbow Springs

Is this project within a BMAP boundary? (●) Yes ( ) No

Is this project within a PFA boundary? ( ) Yes (●) No

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

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

Please list any restoration plans, prevention plans, recovery plans, or long term local water quality or quantity strategy plans this project is part of.

In an effort to mitigate and offset groundwater water withdrawals from the Floridan Aquifer, BLCCDD's long term local water quantity strategy plan is to provide reclaimed water to golf courses, common areas, and commercial areas within the On Top of the World and Stone Creek developments.

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 request:

	Previous	FY2021	Future	Total
FDEP Springs Funding	$ 0.00	$ 325,000.00	$ 22,210,000.00	$ 22,535,000.00
WMD CFI Funding	$ 0.00	$ 125,000.00	$ 2,725,000.00	$ 2,850,000.00
Local Funding	$ 0.00	$ 895,500.00	$ 24,489,500.00	$ 25,385,000.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 1,345,500.00	$ 49,424,500.00	$ 50,770,000.00

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. If CFI funding was not applied for, please move to the next section.

	Previous	FY2021	Future	Total
FDEP Springs Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 0.00	$ 50,770,000.00	$ 50,770,000.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 0.00	$ 50,770,000.00	$ 50,770,000.00

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

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.

WASTEWATER TREATMENT FACILITIES MASTER PLAN REPORT
Prepared for: Bay Laurel Center Community Development District, November 2016

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

Form A: Wastewater Collection & Treatment Projects Only

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

On Top of the World North Advanced Wastewater Treatment Facility

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

Once constructed, Advanced Waste Treatment will be offered.

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

Reclaimed

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

2.50 mgd proposed

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

0.650 mgd (current)

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

6.2 now, 3.0 proposed

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

N/A

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?

To cover plant capacity charges, an Allowance for Funds Prudently Invested (AFPI) is collected by BLCCDD in the amount of $2,434/ERU.

Is any land acquisition necessary? If so, please describe below. (●) Yes ( ) No

BLCCDD will need to purchase 37.09 acres to construct the proposed Advanced WWTF. The cost is estimated at $12,000 per acre for a total cost of approximately $445,000.

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

Approximately 15,000 feet of 20-inch diameter forcemain.

Form A: Wastewater Collection & Treatment Projects Only

Septic to Sewer Conversion Projects Complete this Section:

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

N/A, entire development is on centralized sewer.

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

N/A, entire development is on centralized sewer.

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

N/A, entire development is on centralized sewer.

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

N/A

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

○ Yes ◉ No

If there are more requirements to the local ordinance, such as limiting future installation of septic systems, please describe and reference the ordinance below.

N/A, entire development is on centralized sewer.

Package Plant Conversion Projects Complete this Section:

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

N/A

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

N/A

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): 1.15 mgd in 2026

Percent Offset (%): 75%

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

○ Yes ◉ No

Percent Recharge (%): 10%

Form C: Land Acquisition Projects Only

What is the current landuse? If mixed, please depict acreage for each land use.

Agriculture

What will be the landuse once purchased?

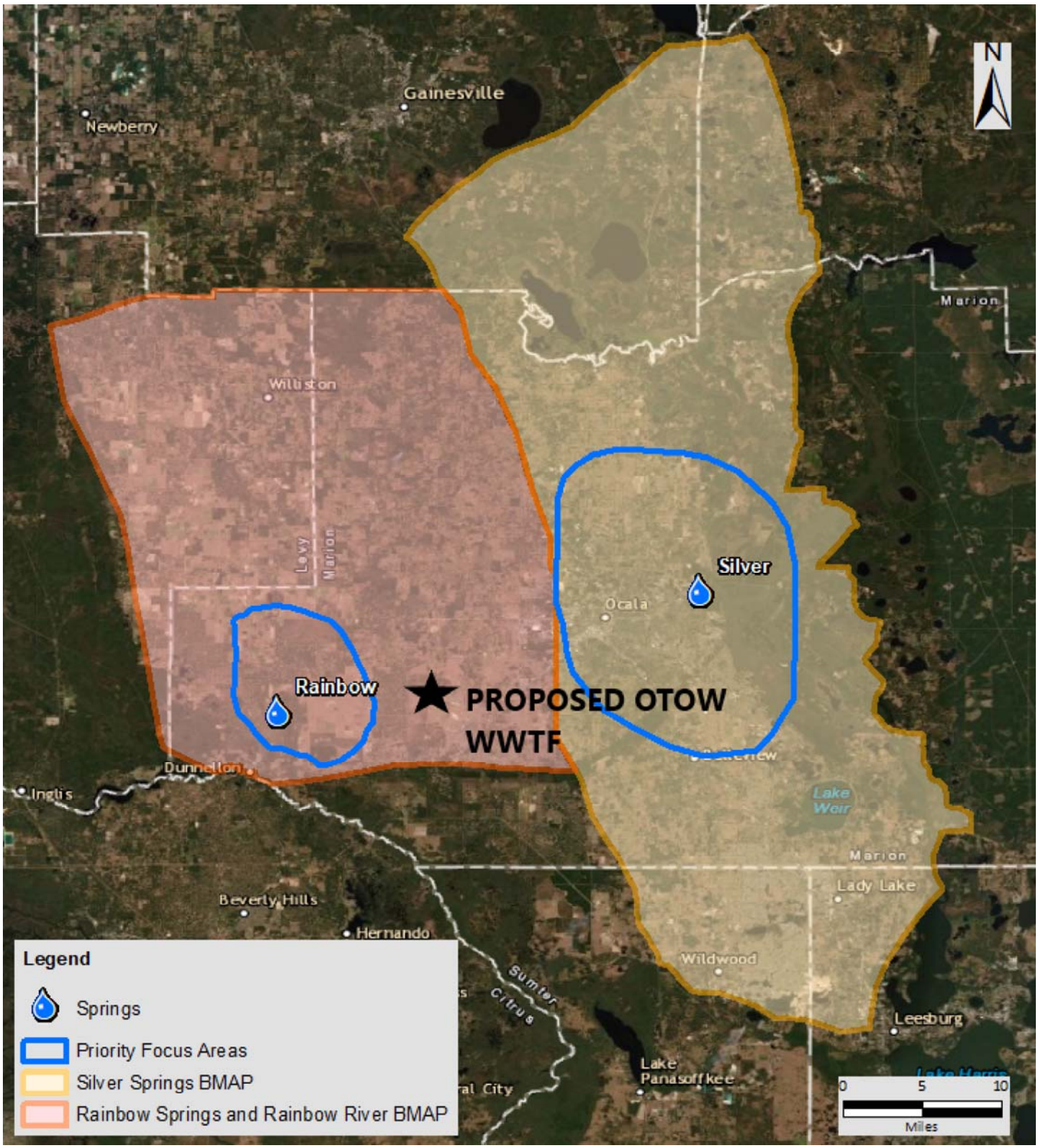
Wastewater Treatment Facility

What is the recharge potential (mgd)? None

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.


N
Gainesville
Newberry
Marion
Williston
Levy
Marion
Silver
Ocala
Rainbow
PROPOSED OTOW WWTF
Dunnellon
Inglis
Lake Weir
Marion
Lady Lake
Beverly Hills
Hernando
Wildwood
Sumter
Citrus
Leesburg
Lake Panasoffkee
Legend
Springs
Priority Focus Areas
Silver Springs BMAP
Rainbow Springs and Rainbow River BMAP
0
5
10
Miles

ON TOP OF THE WORLD NORTH ADVANCED WASTEWATER TREATMENT FACILITY

BIOSOLIDS DATA AND PROJECTIONS

Year	Total Nitrogen (%)	Total Solids (%)	WW AADF (MGD)	Dry Tons Solids	TN Applied (lbs)
2019 (thru Aug.)	6.0	1.71	0.650	151	18,089
2019 Projected	6.0	1.71	0.650	226	27,134
2026 Projected (Existing Plant Capacity)	6.0	1.71	1.150	400	48,006
2038 Projected (BMAP goals)	6.0	1.71	1.850	644	77,227
2048 Projected (New Plant Capacity)	6.0	1.71	2.500	870	104,361

EFFLUENT DATA AND PROJECTIONS

Year	Total Plant Flow (MGD)	PAR Flow (MGD)	Sprayfield Flow (MGD)	TN Conc. (mg/L)	% PAR	% Sprayfield/ Hayfield
2019 (current/thru July)	0.650	0.490	0.160	6.2	75%	25%
2026 Projected (Existing Plant Capacity)	1.150	0.863	0.288	6.2	75%	25%
2038 Projected (BMAP goals)	1.850	1.388	0.463	6.2	75%	25%
2048 Projected (New Plant Capacity)	2.500	1.875	0.625	6.2	75%	25%

Estimating Nitrogen Load Reductions from Springs Restoration Projects

Source Type	% Attenuated	% Leached	Multiplier to use
Wastewater sprayfield/Hayfield	60	40	0.40
Wastewater reuse	75	25	0.25
Wastewater Rapid Infiltration Basin (RIB)	25	75	0.75
Conventional septic system	50	50	0.50
Biosolids (Approximated)	70	30	0.30
Farm fertilizer	80	20	0.20
Lawn fertilizer	80	20	0.20
Livestock on pasture	90	10	0.10

Recharge Rate	Designation	% Recharged	Multiplier to use
>= 10 in/yr	High	90	0.90
3 to 10 in/yr	Medium	50	0.50
0 to 3 in/yr	Low	10	0.10
Discharge	Discharge	0	0.00

LOAD REDUCTION BY CHANGING APPLICATION METHODS

	Current	Anticipated
Annual Average Daily Flow (MGD)	0.650	
TN to PAR/Hayfield (mg/L)	6.2	3.0
% flow to PAR	75%	75%
% flow to Hayfield	25%	25%
TN to Reuse (mg/L)	6.2	3.0
% Biosolids Applied to Site	100%	0%
TN Biosolids Applied to Site (lbs)	27,134	0

Inputs	Value	Unit	Note
Current annual TN input - PAR	2,313.38	lbs/yr	75% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Current annual TN input - Hayfield	1,208.62	lbs/yr	60% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Current annual TN input - Biosolilds	8,140.12	lbs/yr	70% Attenuated
Recharge Factor	0.90	Multiplier	Approximated
Anticipated annual TN input - PAR	1,119.38	lbs/yr	75% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Anticipated annual TN input - Hayfield	584.82	lbs/yr	60% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Anticipated annual TN input - Biosolids	-	lbs/yr	70% Attenuated
Recharge Factor	0.90	Multiplier	Approximated
WWTF Effluent Load Reduction (lbs/year)	1,636		
Biosolids Load Reduction (lbs/year)	7,326		

Estimating Nitrogen Load Reductions from Springs Restoration Projects

Source Type	% Attenuated	% Leached	Multiplier to use
Wastewater sprayfield/Hayfield	60	40	0.40
Wastewater reuse	75	25	0.25
Wastewater Rapid Infiltration Basin (RIB)	25	75	0.75
Conventional septic system	50	50	0.50
Biosolids (Approximated)	70	30	0.30
Farm fertilizer	80	20	0.20
Lawn fertilizer	80	20	0.20
Livestock on pasture	90	10	0.10

Recharge Rate	Designation	% Recharged	Multiplier to use
>= 10 in/yr	High	90	0.90
3 to 10 in/yr	Medium	50	0.50
0 to 3 in/yr	Low	10	0.10
Discharge	Discharge	0	0.00

LOAD REDUCTION BY CHANGING APPLICATION METHODS

	Projected	Anticipated
Annual Average Daily Flow (MGD)	1.150	
TN to PAR/Hayfield (mg/L)	6.2	3.0
% flow to PAR	75%	75%
% flow to Hayfield	25%	25%
TN to Reuse (mg/L)	6.2	3.0
% Biosolids Applied to Site	100%	0%
TN Biosolids Applied to Site (lbs)	48,006	0

Inputs	Value	Unit	Note
Projected annual TN input - PAR	4,092.90	lbs/yr	75% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Projected annual TN input - Hayfield	2,138.33	lbs/yr	60% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Projected annual TN input - Biosolilds	14,401.75	lbs/yr	70% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Anticipated annual TN input - PAR	1,980.44	lbs/yr	75% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Anticipated annual TN input - Hayfield	1,034.68	lbs/yr	60% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Anticipated annual TN input - Biosolids	-	lbs/yr	70% Attenuated
Recharge Factor	0.90	Multiplier	From Table
WWTF Effluent Load Reduction (lbs/year)	2,895		
Biosolids Load Reduction (lbs/year)	12,962		

Estimating Nitrogen Load Reductions from Springs Restoration Projects

Source Type	% Attenuated	% Leached	Multiplier to use
Wastewater sprayfield/Hayfield	60	40	0.40
Wastewater reuse	75	25	0.25
Wastewater Rapid Infiltration Basin (RIB)	25	75	0.75
Conventional septic system	50	50	0.50
Biosolids (Approximated)	70	30	0.30
Farm fertilizer	80	20	0.20
Lawn fertilizer	80	20	0.20
Livestock on pasture	90	10	0.10

Recharge Rate	Designation	% Recharged	Multiplier to use
>= 10 in/yr	High	90	0.90
3 to 10 in/yr	Medium	50	0.50
0 to 3 in/yr	Low	10	0.10
Discharge	Discharge	0	0.00

LOAD REDUCTION BY CHANGING APPLICATION METHODS

	Projected	Anticipated
Annual Average Daily Flow (MGD)	1.850	
TN to PAR/Hayfield (mg/L)	6.2	3.0
% flow to PAR	75%	75%
% flow to Hayfield	25%	25%
TN to Reuse (mg/L)	6.2	3.0
% Biosolids Applied to Site	100%	0%
TN Biosolids Applied to Site (lbs)	77,227	0

Inputs	Value	Unit	Note
Projected annual TN input - PAR	6,584.24	lbs/yr	75% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Projected annual TN input - Hayfield	3,439.93	lbs/yr	60% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Projected annual TN input - Biosolilds	23,168.04	lbs/yr	70% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Anticipated annual TN input - PAR	3,185.92	lbs/yr	75% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Anticipated annual TN input - Hayfield	1,664.48	lbs/yr	60% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Anticipated annual TN input - Biosolids	-	lbs/yr	70% Attenuated
Recharge Factor	0.90	Multiplier	From Table
WWTF Effluent Load Reduction (lbs/year)	4,656		
Biosolids Load Reduction (lbs/year)	20,851		

Estimating Nitrogen Load Reductions from Springs Restoration Projects

Source Type	% Attenuated	% Leached	Multiplier to use
Wastewater sprayfield/Hayfield	60	40	0.40
Wastewater reuse	75	25	0.25
Wastewater Rapid Infiltration Basin (RIB)	25	75	0.75
Conventional septic system	50	50	0.50
Biosolids (Approximated)	70	30	0.30
Farm fertilizer	80	20	0.20
Lawn fertilizer	80	20	0.20
Livestock on pasture	90	10	0.10

Recharge Rate	Designation	% Recharged	Multiplier to use
>= 10 in/yr	High	90	0.90
3 to 10 in/yr	Medium	50	0.50
0 to 3 in/yr	Low	10	0.10
Discharge	Discharge	0	0.00

LOAD REDUCTION BY CHANGING APPLICATION METHODS

	Projected	Anticipated
Annual Average Daily Flow (MGD)	2.500	
TN to PAR/Hayfield (mg/L)	6.2	3.0
% flow to PAR	75%	75%
% flow to Hayfield	25%	25%
TN to Reuse (mg/L)	6.2	3.0
% Biosolids Applied to Site	100%	0%
TN Biosolids Applied to Site (lbs)	104,361	0

Inputs	Value	Unit	Note
Projected annual TN input - PAR	8,897.62	lbs/yr	75% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Projected annual TN input - Hayfield	4,648.55	lbs/yr	60% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Projected annual TN input - Biosolilds	31,308.16	lbs/yr	70% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Anticipated annual TN input - PAR	4,305.30	lbs/yr	75% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Anticipated annual TN input - Hayfield	2,249.30	lbs/yr	60% Attenuated
Recharge Factor	0.90	Multiplier	From Table
Anticipated annual TN input - Biosolids	-	lbs/yr	70% Attenuated
Recharge Factor	0.90	Multiplier	From Table
WWTF Effluent Load Reduction (lbs/year)	6,292		
Biosolids Load Reduction (lbs/year)	28,177		

FY2020 FDEP Springs Funding Multi Year Funding Application Spreadsheet

	I. TOTAL PROJECT COST					II. Year 1 - Project Funding Breakout													
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
1	$ 22,535,000	$ 25,385,000	$ 2,850,000	$ -	$ 50,770,000	$ 325,000	$ 895,000				$ 125,000						$ 5,800,000	$ 5,980,000	
2	$ -	$ -	$ -	$ -	$ -														
3	$ -	$ -	$ -	$ -	$ -														
4	$ -	$ -	$ -	$ -	$ -														
5	$ -	$ -	$ -	$ -	$ -														

	II. Year 2 - Project Funding Breakout								III. Year 3 - Project Funding Breakout					III. Year 4 - Project Funding Breakout				
Count	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 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
1			$ 625,000						$ 10,945,000	$ 12,495,000	$ 1,550,000			$ 5,465,000	$ 6,015,000	$ 550,000		
2																		
3																		
4																		
5																		

BLCCDD FY 2021 Springs Funding Application

	FY 2021				FY 2022				FY 2023			
Project	**Engineering (Design)**	**Engineering (SDCs)**	**Land**	**Totals**	**Engineering (Design)**	**Engineering (SDCs)**	**Construction**	**Totals**	**Engineering (Design)**	**Engineering (SDCs)**	**Construction**	**Totals**
OTOW North 2.50 MGD AWT WWTF	$ 500,000			$ 500,000	$ 250,000	$ 300,000	$ 10,000,000	$ 10,550,000		$ 600,000	$ 20,000,000	$ 20,600,000
Wastewater Transmission System Improvements	$ 150,000			$ 150,000	$ 50,000	$ 30,000	$ 525,000	$ 605,000		$ 90,000	$ 1,200,000	$ 1,290,000
- Force Main ($1.875M)												
- Master LS ($450K)												
Reclaim Transmission System Improvements	$ 250,000			$ 250,000	$ 150,000	$ 100,000	$ 1,000,000	$ 1,250,000		$ 100,000	$ 3,000,000	$ 3,100,000
- 5 MG GST ($3.8M)												
- HSP ($600K)												
- Misc ($600K)												
Land			$ 445,000	$ 445,000				$ -				$ -
Totals	$ 900,000	$ -	$ 445,000	$ 1,345,000	$ 450,000	$ 430,000	$ 11,525,000	$ 12,405,000	$ -	$ 790,000	$ 24,200,000	$ 24,990,000
BLCCDD Local Match Amount	$ 450,000		$ 445,000	$ 895,000	$ 225,000	$ 215,000	$ 5,540,000	$ 5,980,000	$ -	$ 395,000	$ 12,100,000	$ 12,495,000
DEP/State Funding Amount	$ 325,000			$ 325,000	$ 150,000	$ 165,000	$ 5,485,000	$ 5,800,000	$ -	$ 345,000	$ 10,600,000	$ 10,945,000
WMD/CFI Match Amount	$ 125,000			$ 125,000	$ 75,000	$ 50,000	$ 500,000	$ 625,000	$ -	$ 50,000	$ 1,500,000	$ 1,550,000

Notes

1. One half of the $445,000 land acquisition by BLCCDD in FY 2021 is credited by DEP in FY 2022 under the Construction column.

FY 2024				FY 2025				Totals				Totals Distributed		
Engineering (Design)	Engineering (SDCs)	Construction	Totals	Engineering (Design)	Engineering (SDCs)	Construction	Totals	Engineering (Design)	Engineering (SDCs)	Construction	Grand Total	BLCCDD	FDEP	CFI
	$ 300,000	$ 10,000,000	$ 10,300,000				$ -	$ 750,000	$ 1,200,000	$ 40,000,000	$ 41,950,000	$ 20,975,000	$ 20,975,000	
	$ 30,000	$ 600,000	$ 630,000				$ -	$ 200,000	$ 150,000	$ 2,325,000	$ 2,675,000	$ 1,337,500	$ 1,337,500	
	$ 100,000	$ 1,000,000	$ 1,100,000				$ -	$ 400,000	$ 300,000	$ 5,000,000	$ 5,700,000	$ 2,850,000		$ 2,850,000
			$ -				$ -	$ -	$ -	$ 445,000	$ 445,000	$ 222,500	$ 222,500	
$ -	$ 430,000	$ 11,600,000	$ 12,030,000	$ -	$ -	$ -	$ -	$ 1,350,000	$ 1,650,000	$ 47,770,000	$ 50,770,000	$ 25,385,000	$ 22,535,000	$ 2,850,000
$ -	$ 215,000	$ 5,800,000	$ 6,015,000	$ -	$ -	$ -	$ -	$ 675,000	$ 825,000	$ 23,885,000	$ 25,385,000	$ 25,385,000		
$ -	$ 165,000	$ 5,300,000	$ 5,465,000	$ -	$ -	$ -	$ -	$ 475,000	$ 675,000	$ 21,385,000	$ 22,535,000		$ 22,535,000	
$ -	$ 50,000	$ 500,000	$ 550,000	$ -	$ -	$ -	$ -	$ 200,000	$ 150,000	$ 2,500,000	$ 2,850,000			$ 2,850,000

APP02

FY2021 FDEP Springs Funding Application for Projects within the Southwest Florida Water Management District

This application should be completed and emailed with the appropriate calculations and map to Meagan.Finneran@swfwmd.state.fl.us by 5:00PM on October 4, 2019.

Applicant Information

Entity Name: Marion County Utilities

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

Project Manager Name: Bob Titterington, P.E.

Project Manager Address: 11800 S US HWY 441, Belleview, FL 34420

Project Manager Phone Number: (352) 307-4630

Project Manager Email Address: Bob.Titterington@marioncountyfl.org

Project General Information

Project Name: Northwest Regional Wastewater Treatment Facility (NWRWWTF) Expansion

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

Project Benefit

Quantity of Water Made Available (mgd): N/A

Land Acquisition (acres): N/A

Nitrogen Reduced (lbs/year): 2,017

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.

Is this a multiyear project? ○ Yes ◉ No

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

Please provide a full description of the project. If this is a multiyear funded project, 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 NWRWWTF expansion project is an initiative by the County to improve wastewater treatment and expand the capacity at the existing WWTF. This project consists of constructing a new 0.800 MGD treatment process with biological nutrient removal, two clarifiers, flow splitting structure, a combination sludge holding and equalization basin, new headworks and screening structure, rehabilitation of the existing lift station, construction of filter structure and installation of disc filters, expansion of the existing chlorine contact basin, constructing a new dewatering building, new RAS/ WAS pumping system, new MCC room, new back-up generator, new effluent pump station, and associated yard piping. This facility produces reclaim water and would continue to produce it with this expansion. The existing facility currently treats to an average 46.3 mg/L of Nitrogen as total nitrogen (TN). The new facility will be designed to treat to advanced water treatment (AWT) standards of 5 mg/L of biochemical oxygen demand (BOD), 5 mg/L of total suspended solids (TSS), and 3 mg/L of TN. This will result in a net decrease in nitrogen loading to the springshed. To date, the County has (1) completed an alternatives analysis for expanding and improving the facility, (2) completed construction of the temporary disc filter and (3) hired a consultant to design the expansion. In addition to improving nutrient removal, 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 is currently in design and is anticipating 60% plans and permit by October 2019. Construction is anticipated to begin in the spring of 2020 and continue through the fall of 2022.

What is the anticipated start and end date for the work that will be conducted under this funding request?

Start Date: 3/2020 End Date: 11/2022

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

County Marion

Latitude (decimal degrees) 29.213688

Longitude (decimal degrees) -82.252551

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

Is this spring deemed impaired? Yes, with a BMAP or RAP

What is the distance from the project to the spring receiving the benefit ? approx. 13.5 miles

Is this project in a springshed? If so, specify which one. Rainbow

Is this project within a BMAP boundary? (●) Yes ( ) No

Is this project within a PFA boundary? ( ) Yes (●) No

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

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

Please list any restoration plans, prevention plans, recovery plans, or long term local water quality or quantity strategy plans this project is part of.

N/A

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 request:

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 6,850,000.00	$ 0.00	$ 6,850,000.00
WMD CFI Funding	$ 0.00	$ 3,425,000.00	$ 0.00	$ 3,425,000.00
Local Funding	$ 1,883,032.73	$ 3,425,000.00	$ 0.00	$ 5,308,032.73
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 1,883,032.73	$ 13,700,000.00	$ 0.00	$ 15,583,032.73

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. If CFI funding was not applied for, please move to the next section.

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 6,850,000.00	$ 0.00	$ 6,850,000.00
Local Funding	$ 1,883,032.73	$ 6,850,000.00	$ 0.00	$ 8,733,032.73
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 1,883,032.73	$ 13,700,000.00	$ 0.00	$ 15,583,032.73

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

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.

In 2013, the Marion County Land Development Code (LDC) was modified to required WWTFs to meet the following annual average reclaimed water limitation for total nitrogen by 2019: (a) 3.0 mg/L for facilities having a design average daily flow (DADF) equal to or greater than 100,000 gallons per day; or (b) 6.0 mg/L for facilities having a DADF less than 100,000 gallons per day. Marion County has also enacted water conservation, through the LDC, which provides requirements for landscape irrigation with a reclaim water policy, enforceable irrigation schedule, and fertilizer application rates. The County also has several water conservation initiatives including the Toilet Rebate Program, the Efficient Irrigation Audit Program, the Landscape and Irrigation Retrofit Rebate Program, as well as public education outreach which includes Summer Workshops which focus on water conservation and providing water conservation kits to all Marion County Utility customers.
This project will reduce nutrient loading to the Rainbow Springs springshed. The springshed has an established total maximum daily loading (TMDL) and adopted basin management action plan (BMAP) as of December 2015. The nitrogen loading from the facility at the Average Daily Flow of 0.064 million gallons per day is

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

Form A: Wastewater Collection & Treatment Projects Only

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

Northwest Regional WWTF (FLA272060)

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

Public Access Reclaimed Water

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

Reclaimed

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

0.200

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

0.064

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

46.3

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

0.600

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?

N/A

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

N/A

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

N/A

Form A: Wastewater Collection & Treatment Projects Only

Septic to Sewer Conversion Projects Complete this Section:

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

None presently

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

None presently

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

N/A

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

N/A

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

○ Yes ◉ No

If there are more requirements to the local ordinance, such as limiting future installation of septic systems, please describe and reference the ordinance below.

N/A

Package Plant Conversion Projects Complete this Section:

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

N/A

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

N/A

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 (%):

Form C: Land Acquisition Projects Only

What is the current landuse? If mixed, please depict acreage for each land use.

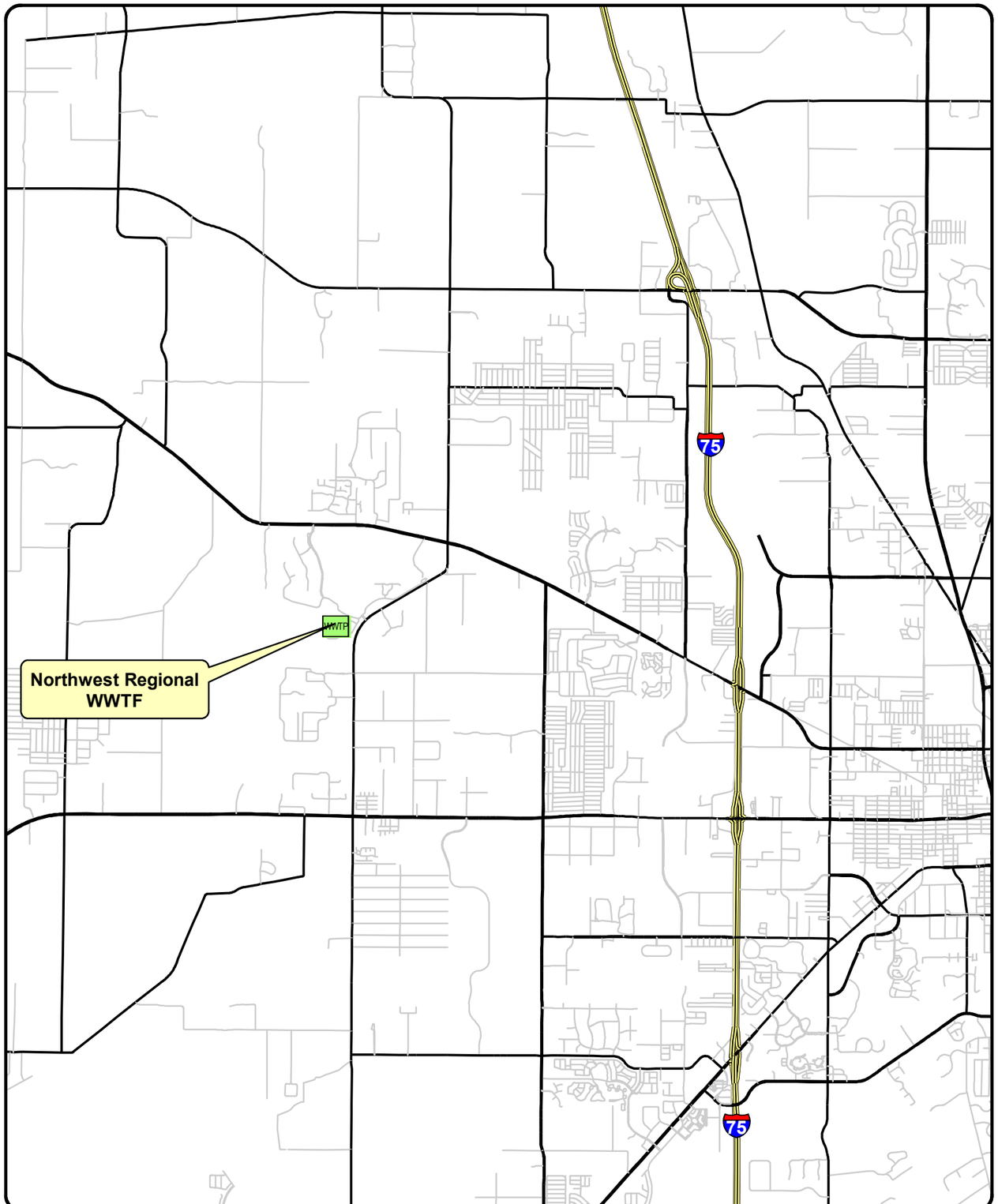
What will be the landuse once purchased?

What is the recharge potential (mgd)?

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.



Marion County Board of
County Commissioners
Utilities Department

Created By: C. Vrabic
Date: 09/06/2019

Disclaimer:

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Northwest Regional Wastewater Treatment Facility

Northwest Regional WWTF Expansion
Nutrient Calculations

Marion County - Northwest Regional WWTF
FLA272060
Permitted Cap - 0.200 MGD - Max Annual Avg Daily Flow

FLOW	Total MGD	Avg MGD
Jul-19	2.638	
Jun-19	2.350	
May-19	2.392	
Apr-19	2.073	
Mar-19	2.219	
Feb-19	1.366	
Jan-19	1.653	
Dec-18	1.891	
Nov-18	1.510	
Oct-18	1.373	
Sep-18	2.256	
Aug-18	1.717	
	23.438	**0.0642137**

FLOW	Reuse	Sprayfield
Jul-19	2.579	0.059
Jun-19	2.350	0.000
May-19	2.392	0.000
Apr-19	2.016	0.057
Mar-19	2.219	0.000
Feb-19	1.366	0.000
Jan-19	1.653	0.000
Dec-18	1.861	0.030
Nov-18	1.401	0.109
Oct-18	1.373	0.000
Sep-18	1.829	0.427
Aug-18	0.113	1.605
	21.152	**2.287**

Monthly grab sample
Permitted Max Conc - N/A
PARM Code 00600 A - Nitrogen, Total (as TN)

TN	mg/L	
Jul-19	40.0	
Jun-19	49.0	
May-19	32.0	
Apr-19	48.0	
Mar-19	43.1	
Feb-19	60.7	
Jan-19	40.0	
Dec-18	70.1	
Nov-18	68.1	
Oct-18	50.2	
Sep-18	27.4	
Aug-18	27.0	Avg
	555.600	**46.300**

Average Daily Flow (gpd)	Current Average TN (mg/L)	Current Average TN (lb/gal)	Current Average TN (lb/yr)	AWT (Improved) Average TN (mg/L)	AWT (Improved) Average TN (lb/gal)	AWT (Improved) Average TN (lb/yr)
64213.69863	46.300	0.000386	9056.26	3.0	0.000025	586.80

	Effluent Treatment Method	Percentage of Effluent per Treatment Method	Effluent Attenuation Factor	Recharge Designation	Recharge Factor
Northwest Regional WWTF	Reuse	90.2%	0.25	High	0.90
	Sprayfield	9.8%	0.40	High	0.90

FDEP Guidelines
Reduction in Load Due to Improved Treatment (lbs/yr Total Nitrogen) =
(Original annual TN input - Anticipated annual TN input after upgrade) X
effluent treatment application method attenuation factor X
effluent application area recharge factor

Original annual TN input:	9056.26
Anticipated annual TN input after upgrade:	586.80
Effluent treatment application attenuation factor:	0.265
Effluent application area recharge factor:	0.90

Reduction in Load Due to Improved Treatment (lbs/yr-TN) = 2,017.15 **Calculated at current Average Daily Flows*

Phosphorus 2.50335E-05 5.006702058
#REF! #REF! #REF! Current Phosphorus treatment
lb/gal lb/day lb/yr
8.3445E-06 1.6689007 609.1488 New P Treatment Standard of
#REF!
With AWT, we reduce from 4523 lb of P/yr to 609 lb of P/yr for a total reduction of about 3,914 lb/yr

Northwest Regional WWTF Expansion
Water Made Available Calculations

Marion County - Northwest Regional WWTF
FLA272060
Permitted Cap - 0.200 MGD - Max Annual Avg Daily Flow

	Total Flow per Year (MGD)	Average Flow per Day (MGD)	Percent of Flow going to Reuse	Reuse Application Method	Percent Offset
Northwest Regional	23.44	0.0642	90.2%	Efficient Landscape Irrigation - Golf Course	0.75

FDEP Guidelines

Water Made Available = Projected Reuse Flow X Percent Offset

Projecte Reuse Flow (MGD):	0.0580
Percent Offset:	0.75

Water Made Available (MGD):	**0.0435**

APP03

FY2021 FDEP Springs Funding Application for Projects within the Southwest Florida Water Management District

This application should be completed and emailed with the appropriate calculations and map to Meagan.Finneran@swfwmd.state.fl.us by 5:00PM on October 4, 2019.

Applicant Information

Entity Name: Marion County Utilities

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

Project Manager Name: Bob Titterington

Project Manager Address: 11800 S US Hwy 441, Belleview, Florida 34420

Project Manager Phone Number: 352-307-4630

Project Manager Email Address: Bob.Titterington@marioncountyfl.org

Project General Information

Project Name: Oak Bend/I-75 Water Quality Improvement Project

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

Project Benefit

Quantity of Water Made Available (mgd): 0.01247

Land Acquisition (acres):

Nitrogen Reduced (lbs/year): 1075.5

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.

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

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

Please provide a full description of the project. If this is a multiyear funded project, 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.

Marion County recognizes the vital ecological and economic importance that both Rainbow Springs and the Rainbow River and Silver Springs and the Upper Silver River systems have in the community. These bodies of water are listed as Outstanding Florida Waters. Rainbow Springs and the Rainbow River are classified as high priorities in the Southwest Florida Water Management District's Rainbow River Surface Water Improvement and Management Plan (SWIM) and a basin management action plan (BMAP) was adopted in 2018. These bodies of water are impaired under 62-303(d), Florida Administrative Code, by total nitrogen (TN) as identified in the adopted Total Maximum Daily Load (TMDL). With this in mind, the COOPERATOR has identified the Oak Bend/I-75 Water Quality Improvement 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 conveyance system which will remove from service two package plants, one owned by a private entity and one owned by the Florida Department of Transportation (FDOT). Equity Lifestyle Properties (ELP) owns and operates the private Oak Bend wastewater treatment facility which serves a community of 242 homes. ELP would like to be a part of the BMAP by decommissioning the package plant and connecting to the Marion County central wastewater collection system. FDOT owns and operates a nearby I-75 rest area that uses a package plant to treat and dispose of wastewater generated on site. FDOT is currently planning a reconstruction of the rest area and would like to connect to the Marion County central wastewater collection system in order to reduce their environmental impact.

The ELP package plant and service area is wholly within the Silver Springs and Upper Silver Springs portion of the BMAP. The FDOT package plant is in the Silver Springs and Upper Silver Springs portion of the BMAP and the service area is half within Silver Springs

What is the anticipated start and end date for the work that will be conducted under this funding request?

Start Date: October 1, 2020 End Date: October 1, 2022

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

County Marion

Latitude (decimal degrees) 29.090602, 29.063311

Longitude (decimal degrees) -82.182858, -82.173837

What is the spring name that will receive the benefit? Rainbow Springs and Rainbow River; Silver Springs an

Is this spring deemed impaired? Yes, with a BMAP or RAP

What is the distance from the project to the spring receiving the benefit ? 12 miles to Silver Springs, 16 m

Is this project in a springshed? If so, specify which one. Yes, Silver Springs springshed.

Is this project within a BMAP boundary? (●) Yes ( ) No

Is this project within a PFA boundary? ( ) Yes (●) No

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

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

Please list any restoration plans, prevention plans, recovery plans, or long term local water quality or quantity strategy plans this project is part of.

This project is not currently listed in any restoration, prevention, or recovery plans. It is a new project being endeavored under a public-private partnership and will be included in any plan updates in the future.

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 request:

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 257,520.00	$ 1,831,568.00	$ 2,089,088.00
WMD CFI Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Other Funding	$ 0.00	$ 0.00	$ 1,013,980.00	$ 1,013,980.00
Total	$ 0.00	$ 257,520.00	$ 2,845,548.00	$ 3,103,068.00

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. If CFI funding was not applied for, please move to the next section.

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 0.00	$ 0.00	$ 0.00

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

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.

In addition to the total nitrogen reduction, this project is anticipated to reduce total phosphorous loading to the Rainbow Springs and Rainbow River and Silver Springs and Upper Silver Springs River systems by up to 237 pounds per year. Marion County has also selected the location of the 6-inch force main in order to maximize future potential septic-to-sewer conversions; approximately 850 residential homes are within one half mile of the proposed pipe route. The Marion County Utility Department has mandatory connection ordinances (Marion County Land Development Code, Section 6.14.2) in place, which are required when new sewer connections are made available. The project will also be identified in Marion County's wastewater master plan which is currently in the planning stages of development.

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 at

Frank.Gargano@swfwmd.state.fl.us

with any questions prior to submittal.

Form A: Wastewater Collection & Treatment Projects Only

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

Oak Run Wastewater Treatment Facility

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

Public access reuse

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

Reclaimed

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

1.6

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

0.9

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

5

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

0.01247

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 will be charged on a per ERC basis to residential property owners and FDOT. The residential property owners within Oak Bend will not be responsible for any additional connection costs; FDOT will be responsible for connecting their rest area to the new collection system.

Sewer charges for collection system and treatment are $3,844 per ERC; an ERC is 200 gallons per day.

Is any land acquisition necessary? If so, please describe below. (●) Yes ( ) No

Easement and/or land acquisition is required for the transmission/collection system and lift stations.

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

6" diameter - 10,400 LF
8" diameter - 5,200 LF

Form A: Wastewater Collection & Treatment Projects Only

Septic to Sewer Conversion Projects Complete this Section:

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

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

If commercial tanks are included in this project, provide type of commercial use and 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 a septic system and connection to an available sewerage system, as defined by in Section 381.0065(21), Florida Statutes (F.S.)?

○ Yes ◉ No

If there are more requirements to the local ordinance, such as limiting future installation of septic systems, please describe and reference the ordinance below.

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)?

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 (%):

Form C: Land Acquisition Projects Only

What is the current landuse? If mixed, please depict acreage for each land use.

What will be the landuse once purchased?

What is the recharge potential (mgd)?

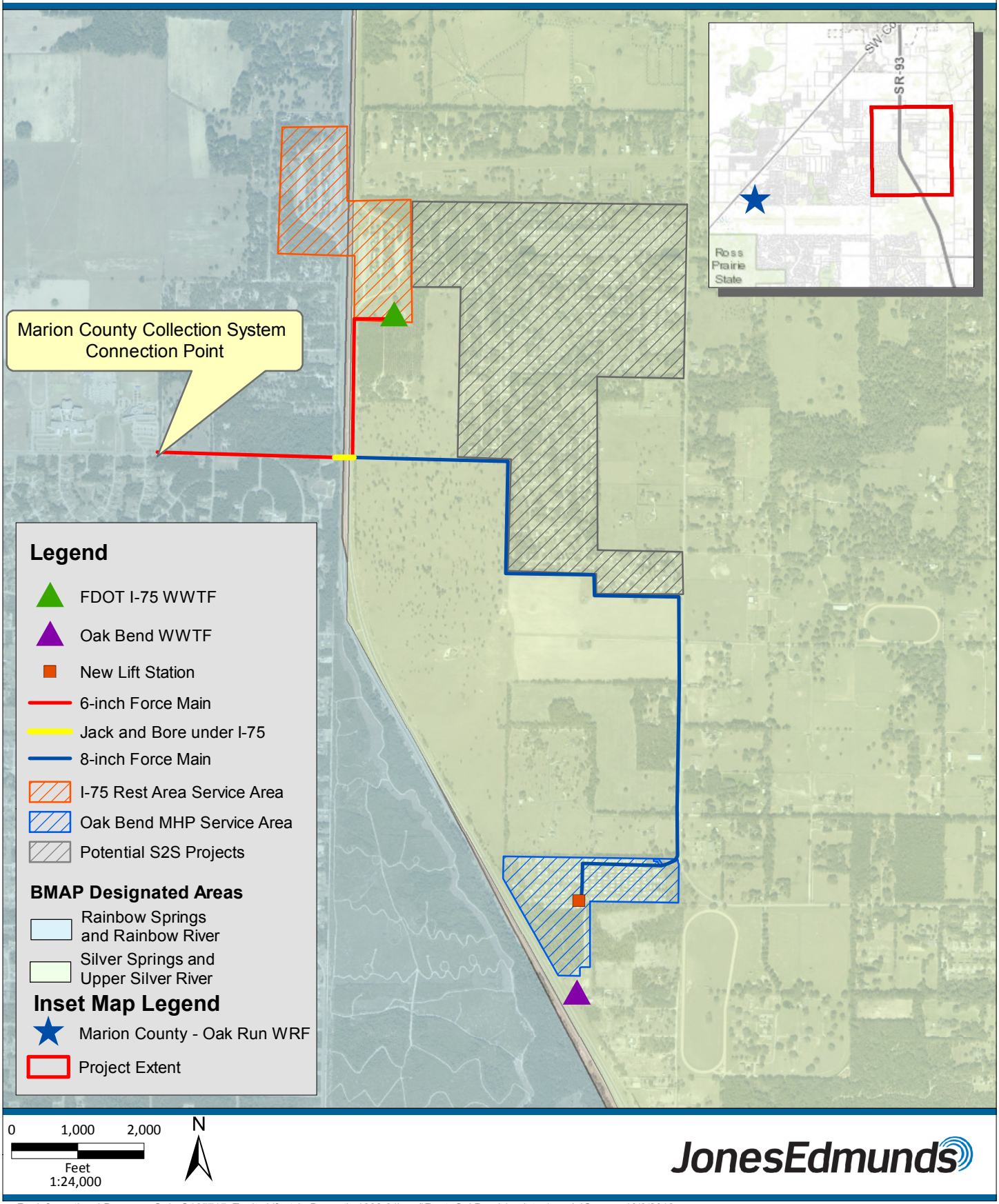
Does a portion of the land to be acquired lie outside of the BMAP?

○ 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.

Figure 1

Oak Bend/I-75 Water Quality Improvement Project



JonesEdmunds

For Informational Purposes Only Q:\05715_Equity Lifestyle Properties\002-01\mxd\RouteOakBend (updates).mxd JCarnow 10/3/2018

Oak Bend/I-75 Water Quality Improvement Project
Benefit Calculations - Nutrient Reduction

Package Plant	Average Daily Flow (gpd)	Average Nitrogen (mg/L)	Nitrogen (lb/gal)	Nitrogen (lb/yr)	Receiving WWTF	WWTF Nitrogen (mg/L)	WWTF Nitrogen (lb/gal)	WWTF Nitrogen (lb/yr)
Oak Bend	7,397	20.000	0.0001669	450.65	Oak Run	5.870	0.0000490	132.27
FDOT	25,016	20.000	0.0001669	1524.04	Oak Run	5.870	0.0000490	447.31

	Effluent Treatment Method	Percentage of Effluent per Treatment Method	Effluent Attenuation Factor	Recharge Designation	Recharge Factor
Oak Run WWTF	Reuse	51.3%	0.25	High	0.9
	RIBs	48.7%	0.75	High	0.9

FDEP Guidelines

Load Reduction by Upgrading Wastewater Plant Treatment

Reduction in Load due to Improved Treatment [lbs/yr Total Nitrogen (TN)] =

(Original annual TN input - Anticipated annual TN input after upgrade) X
effluent treatment application method attenuation factor X
effluent application area recharge factor

Package Plant	Original Annual TN Input	Anticipated Annual TN Input	Effluent Attenuation Factor	Recharge Factor	Reduction in TN Load
Oak Bend	450.65	132.27	0.25	0.9	141.41
			0.75		
FDOT	1524.04	447.31	0.25	0.9	478.23
			0.75		
				Total (lbs/yr)	**619.64**

Load Reduction by Changing Land Application Method

Reduction in Load Due to Change in Land Application Method (lbs/yr TN) =

(Current input of N from RIBs X 0.75 X 0.90) -
([Anticipated input of N to RIBs X 0.75 X 0.90] + [Anticipated input of N to Reuse X 0.25 X 0.90])

Current input of N from RIBs:	1974.69
Anticipated input of N to RIBs:	282.2513681
Anticipated input of N to Reuse:	297.3202296

Reduction in Load Due to Change in Land Application Method (lbs/yr TN) = 1075.499

FDOT I-75 Rest Area WWTF

(FLA012716)

Typical package plant effluent TP	7.8 mg/L
TP	738628 mg / day 1.6 lb / day 594.4 lb / year
Average TP perc from RIBs = 75%*	446 lb / year

* from NSILT

Reported TP (Oak Run WRF)	5.4 mg/L
TP	511358 mg / day 1.1 lb / day 411.5 lb / year
Average TP for AWT = 75%*	133.7 lb / year

* from NSILT

Reduction of TP	**183 lb / year**

Oak Bend WWTF

(FLA010693)

Typical package plant effluent TP	7.8 mg/L
TP	218494 mg / day 0.5 lb / day 175.8 lb / year
Average N Attenuation = 25%	132 lb / year

2. from NSILT

Reported TP (Oak Run WRF)	5.4 mg/L
TP	151265 mg / day 0.3 lb / day 121.7 lb / year
Average N Attenuation = 47.175%*	64.3 lb / year

* from NSILT

Reduction of TP	**54 lb / year**

Total Reduction of TP	**237 lb / year**

Water Made Available =

Projected Reuse Flow X Percent Offset

Package Plant	Total Flow per Year (gpd)	Average Flow per Day (gpd)	Percent of Flow going to Reuse	Reuse Application Method	Percent Offset	Water Saved (MGD)
Oak Bend	2,700,000	7,397.26	51.3%	Efficient Landscape Irrigation - Golf Course	0.75	0.00285
FDOT	9,131,000	25,016.44	51.3%	Efficient Landscape Irrigation - Golf Course	0.75	0.00963
					Total	0.01247

FY2020 FDEP Springs Funding Multi Year Funding Application Spreadsheet

	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	$ 2,089,088	$ -	$ -	$ 1,013,980	$ 3,103,068	$ 257,520										$ 257,520	$ 1,831,568				
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					$ 1,013,980	$ 2,845,548															
2																					
3																					
4																					
5																					

FY2021 FDEP Springs Funding Application for Projects within the Southwest Florida Water Management District

This application should be completed and emailed with the appropriate calculations and map to Meagan.Finneran@swfwmd.state.fl.us by 5:00PM on October 4, 2019.

Applicant Information

Entity Name: Florida Govermental Utility Authority

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

Project Manager Name: Paul Marraffino

Project Manager Address: 280 Wikiva Springs Road, Suite 2050, Longwood, FL 32779

Project Manager Phone Number: 352 465 4120 / 352 409 6520

Project Manager Email Address: paulm@westnet.com / wfontaine@govmser.com

Project General Information

Project Name: Rainbow River - Rio Vista Septic-to-Sewer Project

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

Project Benefit

Quantity of Water Made Available (mgd): N/A

Land Acquisition (acres): N/A

Nitrogen Reduced (lbs/year): 3551

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.

Is this a multiyear project? ○ Yes ◉ No

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

Please provide a full description of the project. If this is a multiyear funded project, 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.

FGUA (APPLICANT) 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 has been 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 APPLICANT has identified the Rainbow River and Rio Vista Septic to Sewer 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 333 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 measurable reduction in the identified pollutant sources. This is quantified in the Total Nutrient Reduction section. This project is dependent on the rerating of the City of Dunnellon's WRF to 0.50 MGD. This project is currently in progress to obtain rerating. This is part of the Rainbow Springs decommissioning project.

What is the anticipated start and end date for the work that will be conducted under this funding request?

Start Date: Nov 2021 End Date: November 2022

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

County Marion

Latitude (decimal degrees) 29.073

Longitude (decimal degrees) -82.439

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

Is this spring deemed impaired? Yes, with a BMAP or RAP

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

Is this project in a springshed? If so, specify which one. Rainbow Springs

Is this project within a BMAP boundary? (●) Yes ( ) No

Is this project within a PFA boundary? (●) Yes ( ) No

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

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

Please list any restoration plans, prevention plans, recovery plans, or long term local water quality or quantity strategy plans this project is part of.

This PROJECT is part of the SWIM and BMAP program and will remove approximately 333 septic tanks from service within the Rainbow Springs BMAP area. It is estimated that each single family residence produces 23.7 lbs. of TN per year and each septic tank is able to remove approximately 50% of the TN. This results in a total of approximately 3551 lbs. of TN / year flowing to the Rainbow Springs watershed from the 333 single family lots and associated septic tanks. The City of Dunnellon's WWTP discharges effluent with an average TN concentration of 2.975 mg/L. If the 66,600 gpd from the 333 residential homes are diverted to the City's WWTP, then the discharge of TN is reduced to 137 lbs. of TN/Year. The construction of a conveyance system to allow these areas to connect to central sewer will remove 3,415 lbs./ year of total nitrogen from the Rainbow Springs BMAP area.

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 request:

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 10,000,000.00	$ 0.00	$ 10,000,000.00
WMD CFI Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 10,000,000.00	$ 0.00	$ 10,000,000.00

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. If CFI funding was not applied for, please move to the next section.

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 0.00	$ 0.00	$ 0.00

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

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 City of Dunnellon Comprehensive Plan calls for environmental protection of the Rainbow River and support of SWFWMD plans in both their Aquifer Protection Element and the Conservation Element.

The City of Dunnellon developed a Water and Wastwater Master Plan with the support of Kimley-Horn Engineering in 2015. This plan supports the improvement and expansion of the Dunnellon Water and Wastewater System. This plan included a long range development of a regional wastewater plant which would service the area in 20 years and would have the capacity to accept the wastewater from a these package plants as well as the larger community as it grows. Marion County's Comprehensive Plan also calls for the protection of its Springs in its Comprehensive Plan.

FDEP BMAP and SWFWMD SWIM plans both call for restoration of the Rainbow Springs and River area through improved wastewater systems. BMAP Project B053 specifally addresses this project.

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 at

Frank.Gargano@swfwmd.state.fl.us

with any questions prior to submittal.

Form A: Wastewater Collection & Treatment Projects Only

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

Dunnellon Wastewater Plant

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

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)?

0.335 mgd

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

.0170 mgd

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

2.975 mg/L

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

.0666 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?

The grant will include grinder stations and gravity sewer lines from the residences. There will be no hookup charges planned for the current residences.

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

N/A

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

154 GRINDER STATIONS

5,000 LF of FORCE MAIN	10" PVC
25,000 LF of GRAVITY SEWER	8" PVC
20,000 LF of LOW PRESSURE FORCE MAIN	2", 4", & 6" PVC

Form A: Wastewater Collection & Treatment Projects Only

Septic to Sewer Conversion Projects Complete this Section:

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

333

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

0

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

N/A

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

0

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

(●) Yes ( ) No

If there are more requirements to the local ordinance, such as limiting future installation of septic systems, please describe and reference the ordinance below.

Florida Governmental Utility Authority
Wastewater System Mandatory Connection Policies

3. Mandatory Connection to the FGUA System.
   a. OSTDS owners shall connect to the Utility when service is available within the following time periods:
      i. If the OSTDS is properly functioning, the OSTDS owner must connect to

Package Plant Conversion Projects Complete this Section:

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

N/A

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

N/A

Form B: Water Quantity Projects

For Agricultural Projects associated with irrigation system efficiency improvements:

Proposed irrigation system efficiency (%): N/A

Prior irrigation system efficiency (%): N/A

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

For Reclaimed Water Projects:

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

Projected Reuse Flow (mgd): N/A

Percent Offset (%): N/A

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

○ Yes ◉ No

Percent Recharge (%): N/A

Form C: Land Acquisition Projects Only

What is the current landuse? If mixed, please depict acreage for each land use.

N/A

What will be the landuse once purchased?

N/A

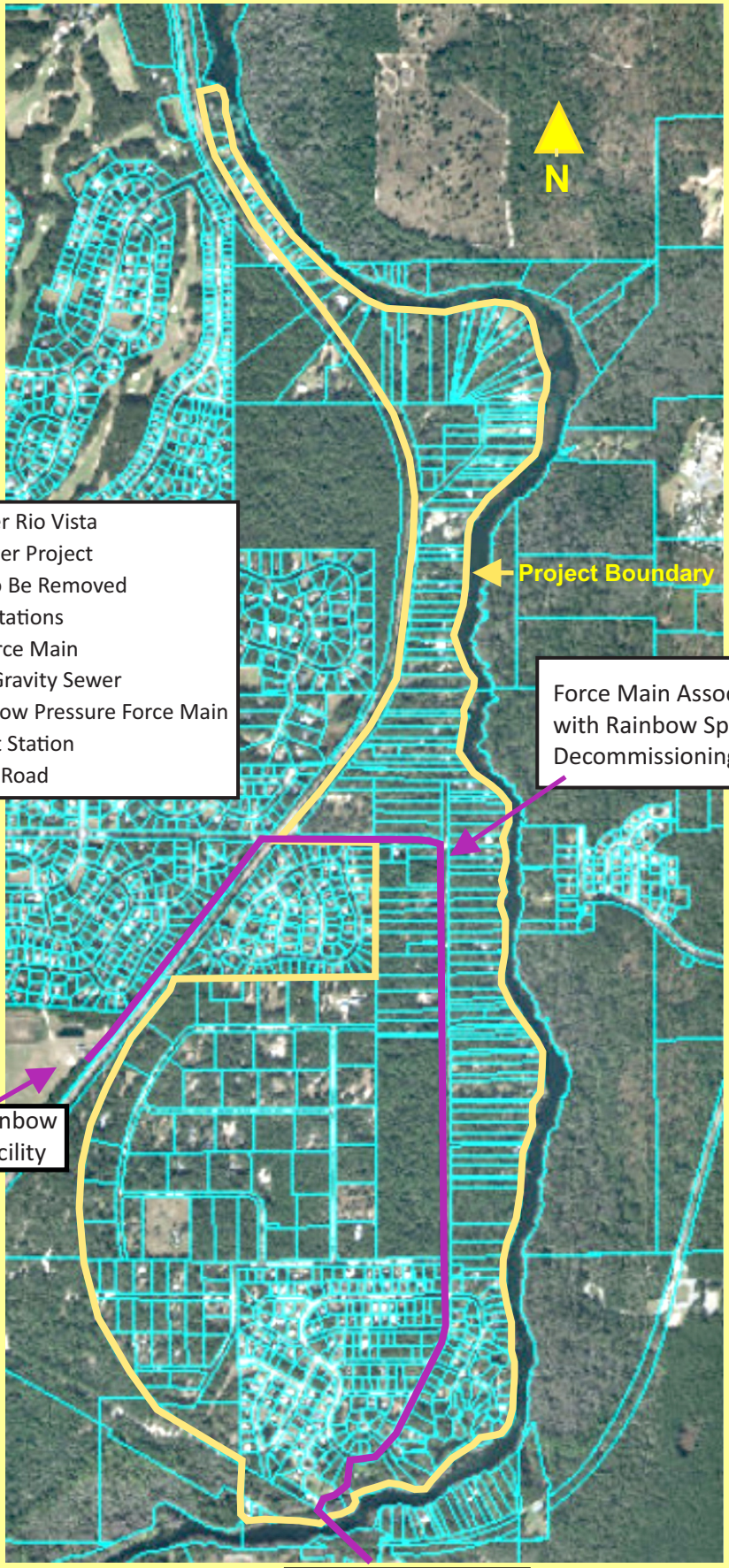
What is the recharge potential (mgd)? N/A

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.

Rainbow River Rio Vista Septic To Sewer Project



Rainbow River Rio Vista
Septic to Sewer Project
333 OSTDs To Be Removed

- 154 Grinder Stations
- 5000 LF of Force Main
- 25,000 LF of Gravity Sewer
- 20,000 LF of Low Pressure Force Main
- 1 Regional Lift Station
- 9.47 miles of Road

Rainbow River - Rio Vista Septic To Sewer Project

Calcuate Current Septic System Base Load	
Number of Septic Tanks	333
Typical Septic TN Input To Environment (lb/yr)	23.7
Typical Septic Attenualtion	0.5
Recharge Factor (0.9,0.5,0.1,or 0)	0.9
Individual Septic Tank Load (lbs)	10.665
Total Septic Sytem TN Load To Groundwater (lbs)	3551

Calculated New System Load At WRF	
Number of Septic Tanks	333
Input From Septic Systems To Be Connected	23.7
% TN Remaining after treatment 7%	0.0867
Attenualtion factor sprayfield	0.4
Recharge Factor	0.5
Load Per Septic Tank Inflow (lbs)	0.410958
System Reduced Load (lbs)	137

Reduction in Load to Springshed (lbs/yr)	**3415**

Cost Effectiveness Calculation For 30 Year Period		
Project Cost	$	10,000,000
Cost Per lb Reduced TN	$	2,929
Cost per lb reduced TN/30 years	**$**	**97.6**

WRF TN Performance

Calculate Base Load	
WWTP Annual Average TN Aoncentration (mg/L)	2.975
Average Actual Flow in mgd	0.0666
Conveersion	8.345
Recharge Factor	0.5
Attenuation factor - sprayfield	0.4
days in year	365
0riginal Individual Sprayfield (lbs/year)	**121**

FY2021 FDEP Springs Funding Application for Projects within the Southwest Florida Water Management District

This application should be completed and emailed with the appropriate calculations and map to Meagan.Finneran@swfwmd.state.fl.us by 5:00PM on October 4, 2019.

Applicant Information

Entity Name: Florida Governmental Utility Authority

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

Project Manager Name: Paul Marraffino

Project Manager Address: 19544 SW 82nd Place Road, Dunnellon FL 34432

Project Manager Phone Number: 352 465 4120

Project Manager Email Address: paulm@westnet.com

Project General Information

Project Name: Burkitt Road Septic to Sewer Project

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

Project Benefit

Quantity of Water Made Available (mgd): N/A

Land Acquisition (acres): N/A

Nitrogen Reduced (lbs/year): 113

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.

Is this a multiyear project? ○ Yes ◉ No

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

Please provide a full description of the project. If this is a multiyear funded project, 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 FGUA (APPLICANT) 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 has noted that the river requires efforts to reduce the amount of nitrates in the aquifer that are flowing into the springs. 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 APPLICANT has identified the Burkett Road Septic to Sewer 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 11 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 measurable reduction in the identified pollutant sources. This is quantified in the Total Nutrient Reduction section. This project is dependent on the rerating of the City of Dunnellon's WRF to 0.50 MGD.

What is the anticipated start and end date for the work that will be conducted under this funding request?

Start Date: November 2020 End Date: November 2021

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

County Marion

Latitude (decimal degrees) 29.058

Longitude (decimal degrees) -82.446

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

Is this spring deemed impaired? Yes, with a BMAP or RAP

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

Is this project in a springshed? If so, specify which one. 3.0 miles

Is this project within a BMAP boundary? (●) Yes ( ) No

Is this project within a PFA boundary? (●) Yes ( ) No

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

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

Please list any restoration plans, prevention plans, recovery plans, or long term local water quality or quantity strategy plans this project is part of.

This PROJECT is a part of both the BMAP and SWIM program and will remove approximately 11 septic tanks from service within the Rainbow Springs BMAP area. It is estimated that each single family residence produces 23.7 lbs. of TN per year and each septic tank is able to remove approximately 50% of the TN. This results in a total of approximately 117 lbs. of TN / year flowing to the Rainbow Springs watershed from the 11 single family lots and associated septic tanks. The City of Dunnellon's WWTP discharges effluent with an average TN concentration of 2.975 mg/L. If the 2,200 gpd from the 11 residential homes are diverted to the WWTP then the discharge of TN is reduced to 5 lb. of TN/year. The construction of a conveyance system to allow these areas to connect to central sewer will remove 113 lbs./ year of total nitrogen from the Rainbow Springs BMAP area.

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 request:

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 350,000.00	$ 0.00	$ 350,000.00
WMD CFI Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 350,000.00	$ 0.00	$ 350,000.00

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. If CFI funding was not applied for, please move to the next section.

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 0.00	$ 0.00	$ 0.00

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

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 City of Dunnellon water and sewer enterprise was approximately $12.3 M in debt when it sold the utility to FGUA and the user fees are one of the highest in the region. Existing enterprise funds are currently not sufficient to support a matching contribution of any kind. However, FGUA remains dedicated to enhancing water quality and follow through with BMAP commitments should the project funding be granted.

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 at

Frank.Gargano@swfwmd.state.fl.us

with any questions prior to submittal.

Form A: Wastewater Collection & Treatment Projects Only

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

Dunnellon Wastewater Plant

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

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)?

0.350

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

0.170

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

2.975

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

0.002200

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?

The grant applicaation includes hookups for the home owners. There would be no hookup fees for existing homeowners.

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

N/A

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

2600 feet of low pressure force main

Form A: Wastewater Collection & Treatment Projects Only

Septic to Sewer Conversion Projects Complete this Section:

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

11

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

0

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

N/A

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

0

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

(●) Yes ( ) No

If there are more requirements to the local ordinance, such as limiting future installation of septic systems, please describe and reference the ordinance below.

Marion County Land Development code Division 14 Section 6.14.(2)(b) 2. B. (c) states

2.New construction in the Urban or Rural area shall connect to a central sewer system if a sewer line from a decentralized sewer system with available capacity is within a connection distance of 500 feet and permission is obtained by the owner/operators of the decentralized system (c)Existing single family or duplex

Package Plant Conversion Projects Complete this Section:

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

N/A

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

N/A

Form B: Water Quantity Projects

For Agricultural Projects associated with irrigation system efficiency improvements:

Proposed irrigation system efficiency (%): N/A

Prior irrigation system efficiency (%): N/A

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

For Reclaimed Water Projects:

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

Projected Reuse Flow (mgd): N/A

Percent Offset (%): N/A

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

○ Yes ◉ No

Percent Recharge (%): N/A

Form C: Land Acquisition Projects Only

What is the current landuse? If mixed, please depict acreage for each land use.

N/A

What will be the landuse once purchased?

N/A

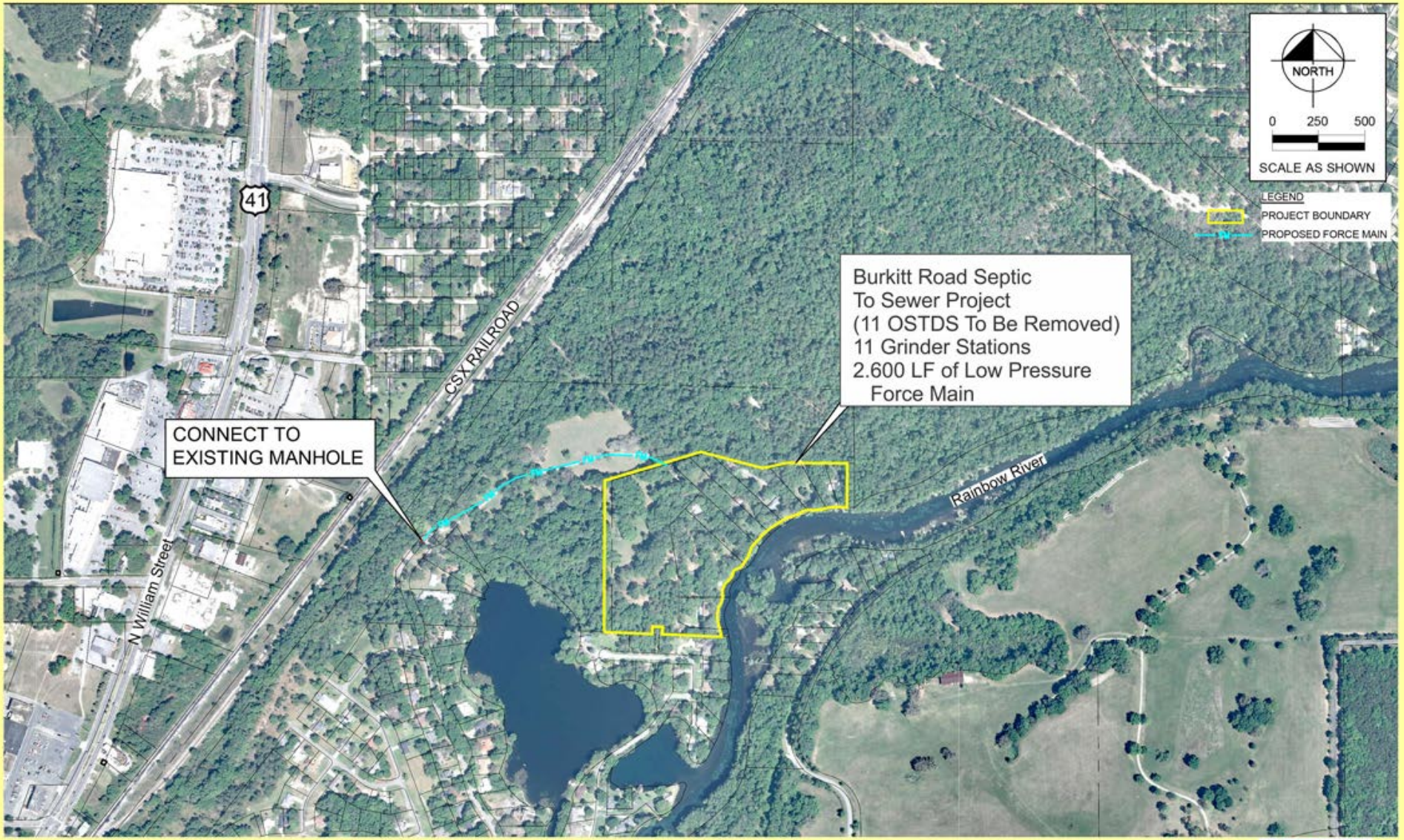
What is the recharge potential (mgd)? N/A

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.

Burkitt Road Septic To Sewer Area



Burkitt Road Septic to Sewer Project

Calcuate Current Septic Tank Base Load	
Number of Septic Tanks	**11**
Typical eptic TN input to environment (lb/yr)	23.7
Typical Septic Attenualtion	0.5
Recharge Factor (0.9,0.5,0.1,or 0)	0.9
Individual Septic Tank Load (lbs)	10.665
Total Septic Sytem Load to Groundwater (lb/yr)	**117**

Calculate New System Load In WRF	
Number of Septic Tanks	**11**
Input From Septic Systems To Be Connected	23.7
% TN Remaining after treatment 7%	0.0867
Attenualtion Factor Sprayfield	0.4
Recharge Factor	0.5
Load per Septic Tank (lbs)	0.410958
System Reduced Load (lb/yr)	**5**

Reduction In Load To Springshed (lb/yr)	**113**

Cost Effectivnes Calculation For 30 year period		
Project Cost	**$**	**350,000**
Cost Per lb Reduced TN	$	3,103
Cost Per lb Reduced TN/30 years	**$**	**103.4**

WRF TN Performance

Calculate Base Load	
WWTP annual average TN concentration mg/L	2.975
Average Flow in mgd actual	0.0022
Conveersion	8.345
Recharge Factor	0.5
Attenuation factor - sprayfield	0.4
days in year	365
0riginal Sprayfield (lbs/yr)	**4**

APP06

FY2021 FDEP Springs Funding Application for Projects within the Southwest Florida Water Management District

This application should be completed and emailed with the appropriate calculations and map to Meagan.Finneran@swfwmd.state.fl.us by 5:00PM on October 4, 2019.

Applicant Information

Entity Name: Florida Governmental Utility Authority

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

Project Manager Name: Paul Marraffino

Project Manager Address: 280 Wikiva Springs Road, Suite 2050, Longwood, FL 32779

Project Manager Phone Number: 352 465 4120 / 352 409 6520

Project Manager Email Address: paulm@westnet.com / wfontaine@govmser.com

Project General Information

Project Name: 180th Ave Wastewater Package Plant Abatement Project

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

Project Benefit

Quantity of Water Made Available (mgd): .0001

Land Acquisition (acres): N/A

Nitrogen Reduced (lbs/year): 284

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.

Is this a multiyear project? ○ Yes ◉ No

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

Please provide a full description of the project. If this is a multiyear funded project, 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.

Currently a forcemain, approximately 35,000 feet in length, is being designed and built on SW 180th Ave Road in Marion County from a new lift station at the Juliette Falls community to the existing Dunnellon wastewater plant. This project will develop up to three new lift stations and make connections from three communities to decommission their current wastewater package plants and deliver the raw sewage to the Dunnellon plant via the 180th Ave forcemain. The package plant systems that will be removed currently serve 1. The Dunnellon High School / Elementay School system, 2. the Rainbow Springs State Park Campground and float facility and 3. The Sateke Village community.

The Dunnellon WRF discharges effluent with an average TN concentration of 2.975 mg/L. If the 24,800 gpd from the three package plants are diverted to the Dunnellon WRF, then the discharge of TN is reduced to 45 lbs. of TN/Year. The construction of a conveyance system to allow these areas to connect to central sewer will remove 284 lbs./ year of total nitrogen from the Rainbow Springs BMAP area.

What is the anticipated start and end date for the work that will be conducted under this funding request?

Start Date: November 2020 End Date: Sept 2021

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

County Marion

Latitude (decimal degrees) 29.088

Longitude (decimal degrees) -82.420

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

Is this spring deemed impaired? Yes, with a BMAP or RAP

What is the distance from the project to the spring receiving the benefit ? 7350 feet

Is this project in a springshed? If so, specify which one. Rainbow Springs

Is this project within a BMAP boundary? (●) Yes ( ) No

Is this project within a PFA boundary? (●) Yes ( ) No

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

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

Please list any restoration plans, prevention plans, recovery plans, or long term local water quality or quantity strategy plans this project is part of.

FDEP has developed the Silver Springs and Upper Silver River and Rainbow Springs Group and Rainbow River Basin Management Action Plan 2018. The BMAP lists item R054 for Package Plant Abatement. This item specifically refers to the goals of this grant application.

.

FGUA received a grant in 2018 to design and construct the Juliette Falls to Dunnellon WWTP forcemain. The three package plants that will have their raw sewage sent to the Dunnellon WWTP is a natural addition to this system and will serve the goals of the BMAP.

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 request:

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 847,000.00	$ 0.00	$ 847,000.00
WMD CFI Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 847,000.00	$ 0.00	$ 847,000.00

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. If CFI funding was not applied for, please move to the next section.

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 0.00	$ 0.00	$ 0.00

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

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 City of Dunnellon Comprehensive Plan calls for environmental protection of the Rainbow River and support of SWFWMD plans in both their Aquifer Protection Element and the Conservation Element.

The City of Dunnellon developed a Water and Wastwater Master Plan with the support of Kimley-Horn Engineering in 2015. This plan supports the improvement and expansion of the Dunnellon Water and Wastewater System. This plan included a long range development of a regional wastewater plant which would service the area in 20 years and would have the capacity to accept the wastewater from a these package plants as well as the larger community as it grows.

Marion County's Comprehensive Plan also calls for the protection of its Springs in its Comprehensive Plan.
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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 at
Frank.Gargano@swfwmd.state.fl.us
with any questions prior to submittal.

Form A: Wastewater Collection & Treatment Projects Only

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

Dunnellon WRF

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

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)?

0.335

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

.0170

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

2.975

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

0.0248

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 grant will create a lift station at the current location of each of the three communities wastewater collection points. This lift station and the associated pipe to connect to the 180th Ave forcemain will be paid by this grant. There will be no capital cost to each community.

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

N/A

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

PVC Forcemain Highschool	2,960	4" PVC
PVC Forcemain Camp ground	2,200	2" PVC
PVC Forcemain Sateke Village	1,850	2" PVC
Forcemain Total	7,010 feet	

Form A: Wastewater Collection & Treatment Projects Only

Septic to Sewer Conversion Projects Complete this Section:

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

N/A

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

N/A

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

N/A

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

N/A

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

○ Yes ◉ No

If there are more requirements to the local ordinance, such as limiting future installation of septic systems, please describe and reference the ordinance below.

Florida Governmental Utility Authority
Wastewater System Mandatory Connection Policies

3. Mandatory Connection to the FGUA System.
   a. OSTDS owners shall connect to the Utility when service is available within the following time periods:
      i. If the OSTDS is properly functioning, the OSTDS owner must connect to

Package Plant Conversion Projects Complete this Section:

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

.0248

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

6.45

Form B: Water Quantity Projects

For Agricultural Projects associated with irrigation system efficiency improvements:

Proposed irrigation system efficiency (%): N/A

Prior irrigation system efficiency (%): N/A

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

For Reclaimed Water Projects:

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

Projected Reuse Flow (mgd): N/A

Percent Offset (%): N/A

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

○ Yes ◉ No

Percent Recharge (%): N/A

Form C: Land Acquisition Projects Only

What is the current landuse? If mixed, please depict acreage for each land use.

N/A

What will be the landuse once purchased?

N/A

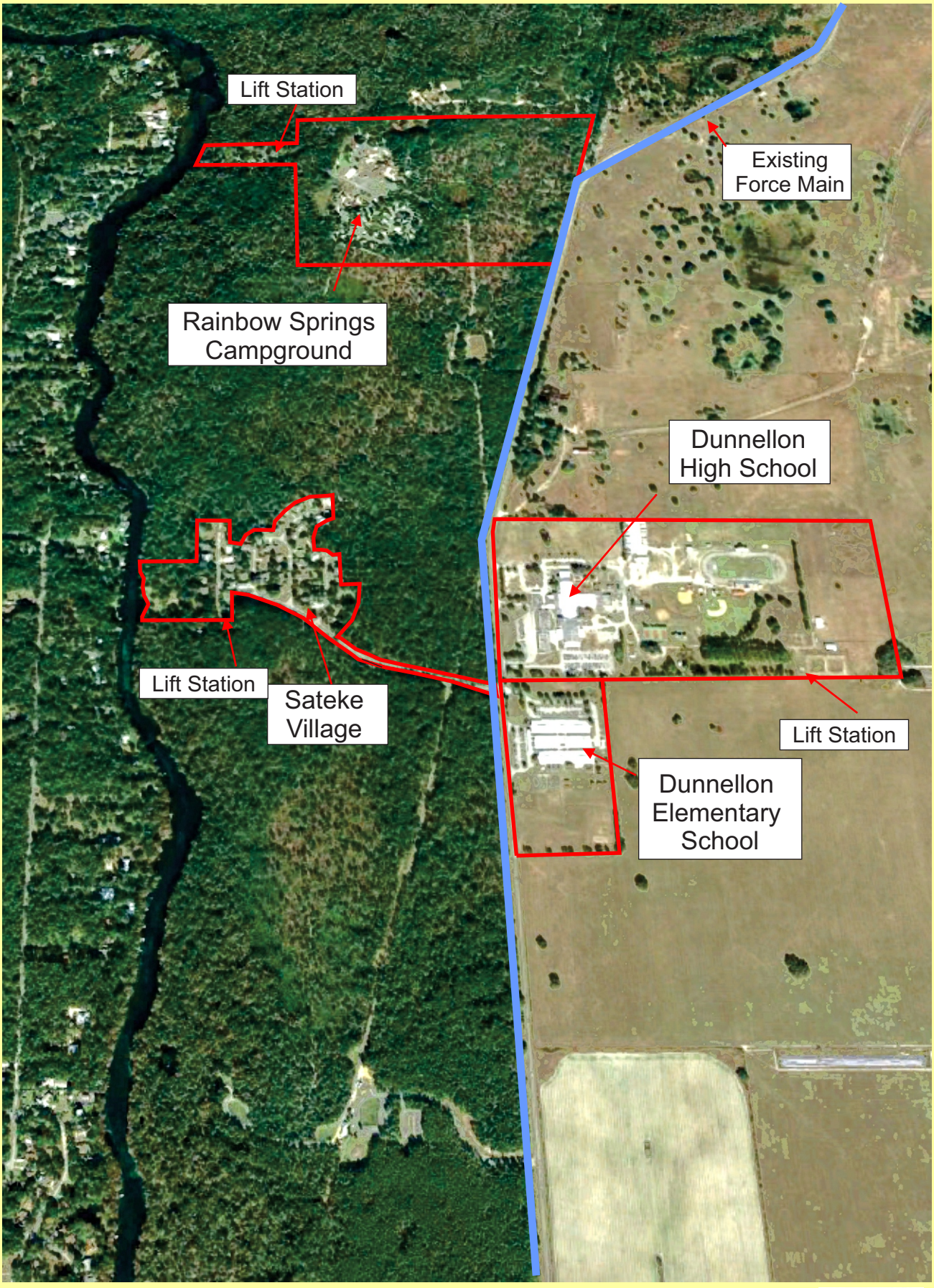
What is the recharge potential (mgd)? N/A

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.

180th Ave Package Plant Abatement Area Plan



180th Ave Wastewater Package Plant Abatement Project Worksheet

180th Ave Three Package Plant Composit Profile

Composite Three Package Plant Profile

	Flow	TN Rate
Combined	0.0248	6.45
	mgd	mg/L

Current Dunnellon Plant TN Load

TN Rate	2.975	mg/L
Flow	0.017	mg/day
Conversion factor mg/L to lbs/gallon	8.345	
Recharge Factor	0.5	
Attenualtuion Factor	0.4	Sprayfield
Days in year	365	
TN a year lbs	31	

Three Package Plant Combined Base Load Calculation

Package Plant annual average TN in mg/L		6.45
Annual average flow		0.0248
Conversion factor		8.345
Recharge Factor		0.9
Attenualtuion Factor	RIB	0.75
Days in year		365
Original Load of TN to groundwater	lbs	329

New Load Diverted From Package Plants

TN Rate	2.975	mg/L
Flow	0.0248	mg/day
Conversion factor	8.345	
Recharge Factor	0.5	
Attenualtuion Factor	0.4	Sprayfield
Days in year	365	
New Load of TN a year lbs	45	
TN Reduction	284	lbs/yr

Cost Effectiveness

Project Cost	$	847,000
Cost/lb TN	$	2,983.11
Cost/lb TN 30 years	$	99.44

APP07

FY2021 FDEP Springs Funding Application for Projects within the Southwest Florida Water Management District

This application should be completed and emailed with the appropriate calculations and map to Meagan.Finneran@swfwmd.state.fl.us by 5:00PM on October 4, 2019.

Applicant Information

Entity Name: Hernando County Utilities Department (HCUD)

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

Project Manager Name: Jared Waring

Project Manager Address: 15365 Cortez Boulevard, Brooksville FL, 34613

Project Manager Phone Number: (352) 754-4037 extension 35116

Project Manager Email Address: JWaring@co.hernando.fl.us

Project General Information

Project Name: Hernando County Airport WRF Total Nitrogen Reduction

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

Project Benefit

Quantity of Water Made Available (mgd): NA

Land Acquisition (acres): NA

Nitrogen Reduced (lbs/year): 16,212

Sediment Reduced (lbs/year): 0

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.

Is this a multiyear project? ○ Yes ◉ No

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

Please provide a full description of the project. If this is a multiyear funded project, 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.

Airport Water Reclamation Facility Denitrification
Weeki Wachee Springs is an outstanding Florida spring that is a major attraction and destination for nearly 400,000 visitors every year. The spring is currently impaired for nitrate and the concentrations have been steadily increasing over the last several decades. As a result, the spring has experienced degradation in water quality and clarity through the growth of unwanted algae and this has subsequently led to other negative impacts to the sensitive aquatic ecosystem.
As part of the 2016 Florida Aquifer and Springs Protection Act, the Florida Department of Environmental Protection has developed a Basin Management Action Plan (BMAP) for the Weeki Wachee Springs and River. The BMAP was established based on a Total Maximum Daily Load (TMDL) of nitrogen and has also established additional limits for developments within the Priority Focus Area (PFA). One limit imposed is on the effluent concentration of nitrogen released from a wastewater reclamation facility (WRF) to be no more than 3 milligrams per liter (mg/l) when discharging to groundwater. The Airport WRF, one of Hernando County's sub-regional facilities, lies within the Priority Focus Area and is not currently designed to meet the limit of 3 mg/l.
This project will design, permit, and construct necessary upgrades to the Airport WRF with the treatment processes necessary to achieve the effluent limit of 3mg/l total nitrogen. The total cost of required improvements is anticipated to be $10,000,000. Hernando County Utilities Department is seeking $7,500,000 from FDEP Springs funding to assist with compliance.
This project is in final design now and is scheduled to begin construction this year.

What is the anticipated start and end date for the work that will be conducted under this funding request?

Start Date: May 1, 2020 End Date: December 31, 2021

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

County Hernando

Latitude (decimal degrees) 28.454430

Longitude (decimal degrees) -82.482240

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

Is this spring deemed impaired? Yes, with a BMAP or RAP

What is the distance from the project to the spring receiving the benefit ? 7.22 miles

Is this project in a springshed? If so, specify which one. Weeki Wachee

Is this project within a BMAP boundary? (●) Yes ( ) No

Is this project within a PFA boundary? (●) Yes ( ) No

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

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

Please list any restoration plans, prevention plans, recovery plans, or long term local water quality or quantity strategy plans this project is part of.

This project is included in the Weeki Wachee BMAP. This project is required to meet advanced wastewater treatment for total nitrogen per the BMAP. It is also required to remove the Spring Hill WRF from service.

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 request:

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 7,500,000.00	$ 0.00	$ 7,500,000.00
WMD CFI Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 2,500,000.00	$ 0.00	$ 2,500,000.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 10,000,000.00	$ 0.00	$ 10,000,000.00

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. If CFI funding was not applied for, please move to the next section.

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 0.00	$ 0.00	$ 0.00

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

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 was ranked the second highest priority of all projects considered last year by the Springs Coast Management Committee and Springs Coast Steering Committee, SWFWMD. The project is on track to be begin construction this year, 2020.

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 at

Frank.Gargano@swfwmd.state.fl.us

with any questions prior to submittal.

Form A: Wastewater Collection & Treatment Projects Only

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

NA. This is a WWTF project. The Airport WRF will be upgraded through this project.

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

AWT for TN removal, 3 mg/l, will be provided by this project. Current 12 mg/l nit

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

Rapid Inflitration Basin (RIBs)

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

3.5

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

1.543

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

3

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

~0.9

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?

Not applicable for this project

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

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

None. This project is completely within a WRF site.

Form A: Wastewater Collection & Treatment Projects Only

Septic to Sewer Conversion Projects Complete this Section:

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

0

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

0

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

NA

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

NA

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

(●) Yes ( ) No

If there are more requirements to the local ordinance, such as limiting future installation of septic systems, please describe and reference the ordinance below.

Weeki Wachee BMAP

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

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 (%):

Form C: Land Acquisition Projects Only

What is the current landuse? If mixed, please depict acreage for each land use.

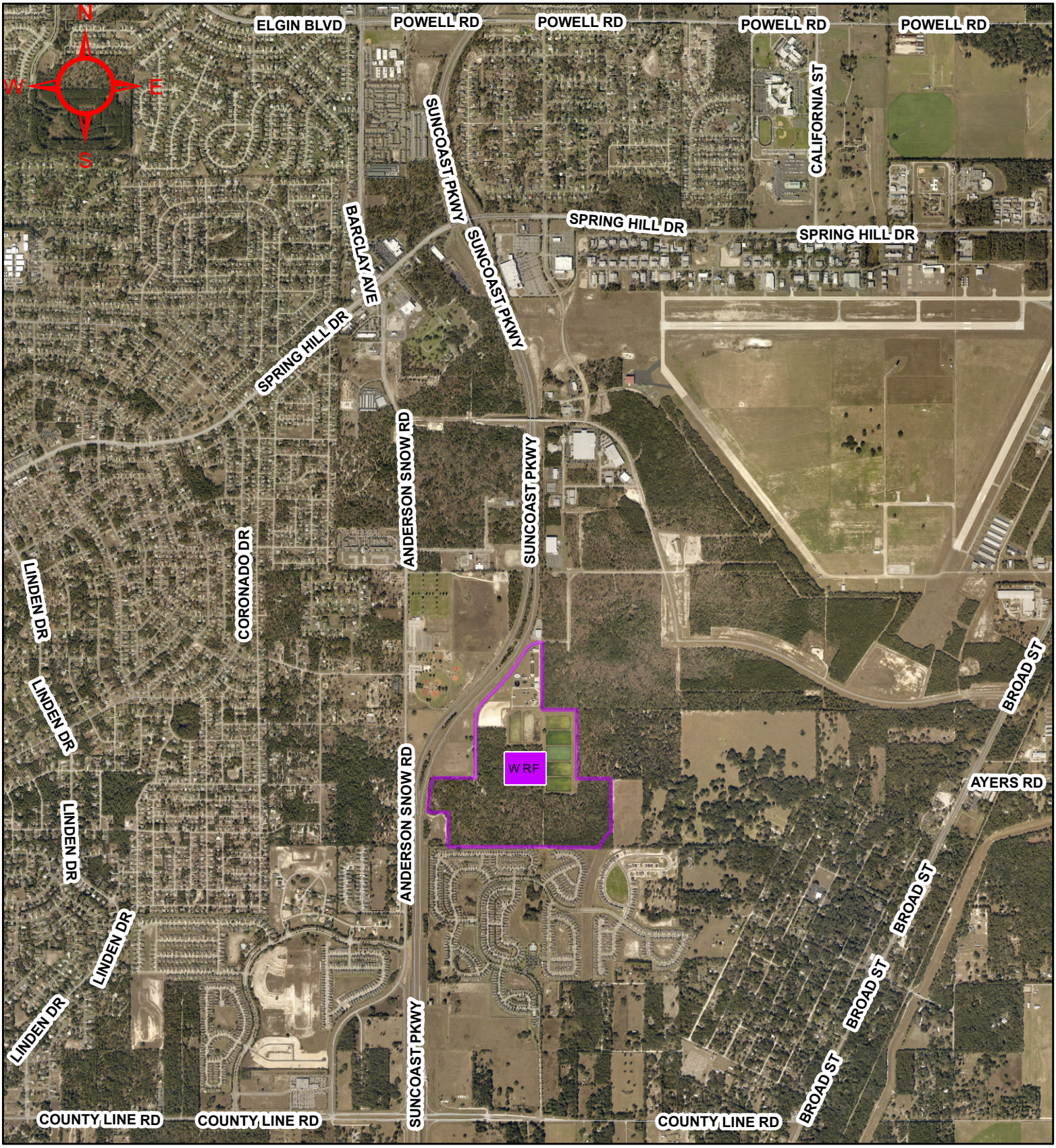
What will be the landuse once purchased?

What is the recharge potential (mgd)?

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.



Airport Water Reclamation Facility

Legend

W RF — WRF Location

WRF Parcel Boundary

Miles

0 0.25 0.5 1 1.5

Calculate Load Reduction from Airport WRF Denitrification Upgrades

Base load 6 mg/l TN

Flow 02.63 MGD (Flow diverted from Spring Hill WRF)

New load 3 mg/l TN

Project Cost $10,000,000

30 year life cycle

Calculate TN Reduction

(6-3) mg/l x 8.34 x 2.63 MGD x 0.9 x 0.75 x 365 days/yr = 16,212 lb TN/yr reduced

Calculate 30 Year Cost

$10,000,000 / (16,212 x 30) = $20.56/lb TN removed

APP08

FY2021 FDEP Springs Funding Application for Projects within the Southwest Florida Water Management District

This application should be completed and emailed with the appropriate calculations and map to Meagan.Finneran@swfwmd.state.fl.us by 5:00PM on October 4, 2019.

Applicant Information

Entity Name: Hernando County Utilities Department

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

Project Manager Name: Jared Waring

Project Manager Address: 15365 Cortez Boulevard, Brooksville FL 34613

Project Manager Phone Number: (352) 540-6773

Project Manager Email Address: JWaring@Hernandocounty.us

Project General Information

Project Name: Hernando Co Airport WWTF Full Expansion

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

Project Benefit

Quantity of Water Made Available (mgd): 6

Land Acquisition (acres): 0

Nitrogen Reduced (lbs/year): 14,137

Sediment Reduced (lbs/year): 0

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.

Is this a multiyear project? ○ Yes ◉ No

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

Please provide a full description of the project. If this is a multiyear funded project, 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.

Expand the Airport WRF from a permitted capacity of 3.5 MGD to 6 million gallon per day (MGD). This expansion is required and critical path to take the Spring Hill (Osowaw) contact stabilization WWTP offline. The Spring Hill WWTP has out of date technology that does not nitrify nor denitrify wastewater. Effluent from Spring Hill WWTP currently discharges to groundwater in the Weeki Wachee PFA.

This project consists of design, permitting, and construction of aeration basins, anoxic basins, and filters and other assets necessary expand the WRF and to meet all applicable FDEP standards.

Hernando County Cost (2021)	$21,000,000
FDEP Springs Funding (2021)	$5,000,000
Total Cost (2021)	$26,000,000

What is the anticipated start and end date for the work that will be conducted under this funding request?

Start Date: May 1, 2020 End Date: December 31, 2021

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

County Hernando

Latitude (decimal degrees) 28.454430

Longitude (decimal degrees) -82.482240

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

Is this spring deemed impaired? Yes, with a BMAP or RAP

What is the distance from the project to the spring receiving the benefit ? 7.22 miles

Is this project in a springshed? If so, specify which one. Weeki Wachee

Is this project within a BMAP boundary? (●) Yes ( ) No

Is this project within a PFA boundary? (●) Yes ( ) No

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

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

Please list any restoration plans, prevention plans, recovery plans, or long term local water quality or quantity strategy plans this project is part of.

This expansion is necessary to remove the Spring Hill WRF from service. The Spring Hill WRF is in close proximity to Weeki Wachee and it's primary land application site is immediately upgradient of the Spring. The WRF employs outdated technology that does not effectively reduce nitrogen.

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 request:

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 5,000,000.00	$ 0.00	$ 5,000,000.00
WMD CFI Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 21,000,000.00	$ 0.00	$ 21,000,000.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 26,000,000.00	$ 0.00	$ 26,000,000.00

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. If CFI funding was not applied for, please move to the next section.

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 0.00	$ 0.00	$ 0.00

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

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 was ranked the highest priority of all projects considered last year by the Springs Coast Management Committee and Springs Coast Steering Committee.

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 at

Frank.Gargano@swfwmd.state.fl.us

with any questions prior to submittal.

Form A: Wastewater Collection & Treatment Projects Only

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

Airport Water Reclamation Facility

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

Advanced Wastewater Treatment for nitrogen

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

Rapid Inflitration Basin (RIBs)

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

3.5 million gallons per day

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

1.543

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

6

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

2.5

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?

None for this project.

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

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

None. All work is on WRF site.

Form A: Wastewater Collection & Treatment Projects Only

Septic to Sewer Conversion Projects Complete this Section:

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

0

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

0

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

NA

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

0

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

○ Yes ◉ No

If there are more requirements to the local ordinance, such as limiting future installation of septic systems, please describe and reference the ordinance below.

The Weeki Wachee BMAP limits future septic tank installations and repairs.

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

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 (%):

Form C: Land Acquisition Projects Only

What is the current landuse? If mixed, please depict acreage for each land use.

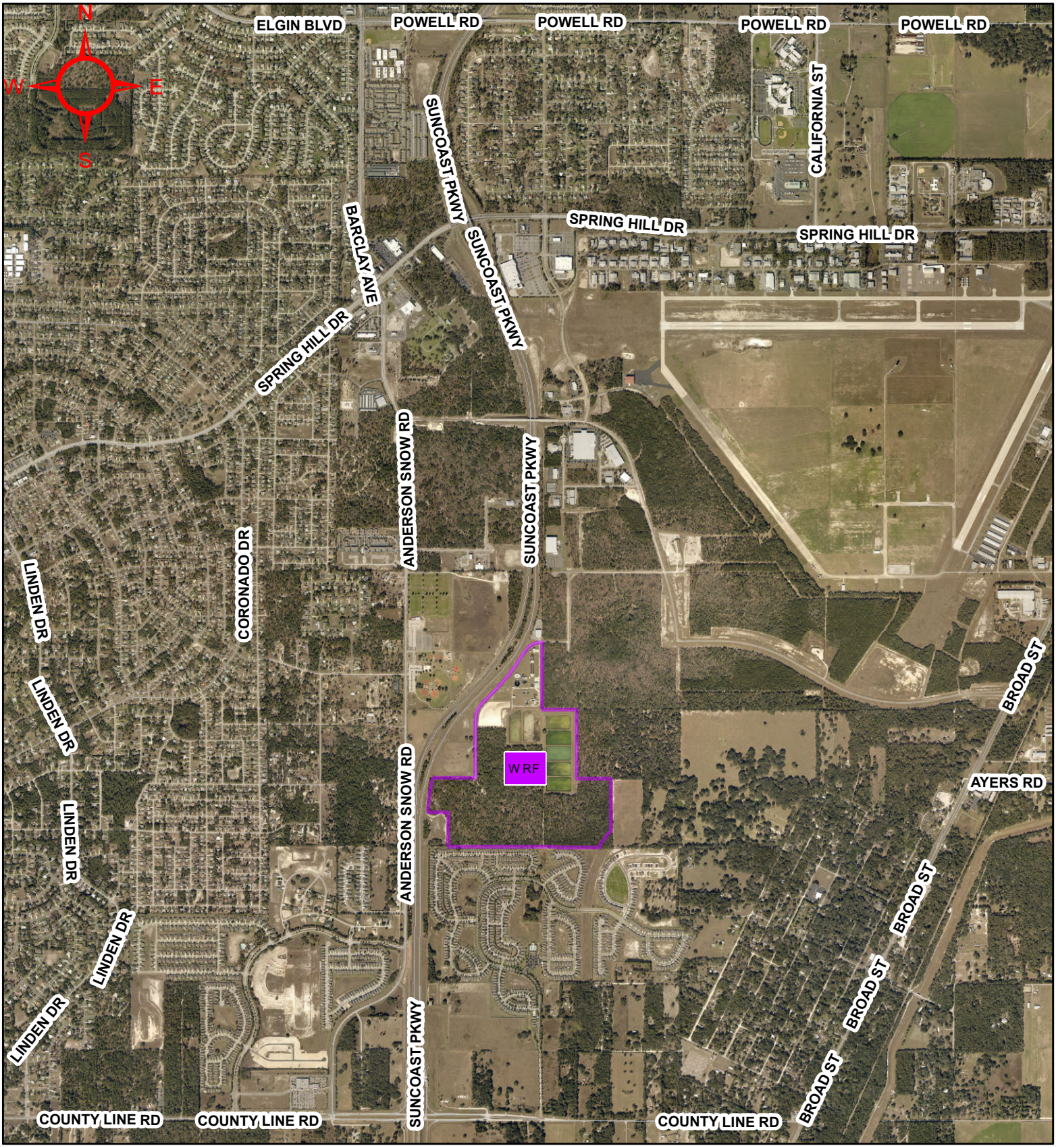
What will be the landuse once purchased?

What is the recharge potential (mgd)?

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.



Airport Water Reclamation Facility

Legend

W RF — WRF Location

WRF Parcel Boundary

Miles

0 0.25 0.5 1 1.5

Calculate Load Reduction from Airport WRF Full Expansion

Base load 14 mg/l TN

Flow 0.86 MGD (Flow diverted from Spring Hill WRF)

New load 6 mg/l TN

Project Cost $26,000,000

30 year life cycle

(14-6) mg/l x 8.34 x 0.86 MGD x 0.9 x 0.75 x 365 days/yr = 14,137 lb TN/yr reduced

Calculate 30 Year Cost

$26,000,000 / (14,137 x 30) = $61.30/lb TN removed

FY2021 FDEP Springs Funding Application for Projects within the Southwest Florida Water Management District

This application should be completed and emailed with the appropriate calculations and map to Meagan.Finneran@swfwmd.state.fl.us by 5:00PM on October 4, 2019.

Applicant Information

Entity Name: Hernando County Utilities Department

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

Project Manager Name: Richard Kirby

Project Manager Address: 15365 Cortez Boulevard, Brooksville, FL 34613

Project Manager Phone Number: (352) 754-4769

Project Manager Email Address: Rkirby@hernandocounty.us

Project General Information

Project Name: Septic to Sewer District A, Phase 1

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

Project Benefit

Quantity of Water Made Available (mgd): 0

Land Acquisition (acres): 0

Nitrogen Reduced (lbs/year): 3,412

Sediment Reduced (lbs/year): 0

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.

Is this a multiyear project? ○ Yes ◉ No

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

Please provide a full description of the project. If this is a multiyear funded project, 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 Weeki Wachee BMAP requires Hernando County and other contributors to reduce the rate of total nitrogen being discharged to Priority Focus Area groundwater by 195,200 pounds/year within 20 years of the June 2018 finalization. Septic tanks have been identified as a major contributor of nitrogen to groundwater. Connecting existing homes and other structures to central sewer that currently use onsite septic tanks and drainfields will reduce discharge of nitrogen to groundwater. A Septic to Sewer Conversion Study was developed by HCUD in 2016. This study identified and prioritized districts within the Priority Focus Area of the Weeki Wachee BMAP where septic to sewer conversions will have the most positive impact.

This project consists of design and construction of gravity sewers, pumping stations, and force mains needed to remove septic tanks from service and to provide capacity to undeveloped lots in the Weeki Wachee Priority Focus Area. One half of the area identified as District A will be converted from septic systems to central sewer service. Approximately 441 properties will be served by this project. Approximately 363 lots have existing structures that will be converted septic to sewer by this project, reducing discharge to the springshed by 3412 lb TN/year.

What is the anticipated start and end date for the work that will be conducted under this funding request?

Start Date: November 1, 2020 End Date: September 27, 2024

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

County Hernando

Latitude (decimal degrees) 28.515810

Longitude (decimal degrees) -82.562502

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

Is this spring deemed impaired? Yes, with a BMAP or RAP

What is the distance from the project to the spring receiving the benefit ? 1.14 mile

Is this project in a springshed? If so, specify which one. Yes. Weeki Wachee

Is this project within a BMAP boundary? (●) Yes ( ) No

Is this project within a PFA boundary? (●) Yes ( ) No

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

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

Please list any restoration plans, prevention plans, recovery plans, or long term local water quality or quantity strategy plans this project is part of.

Weeki Wachee BMAP

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 request:

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 8,250,000.00	$ 0.00	$ 8,250,000.00
WMD CFI Funding	$ 0.00	$ 4,125,000.00	$ 0.00	$ 4,125,000.00
Local Funding	$ 0.00	$ 4,125,000.00	$ 0.00	$ 4,125,000.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 16,500,000.00	$ 0.00	$ 16,500,000.00

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. If CFI funding was not applied for, please move to the next section.

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 0.00	$ 8,250,000.00	$ 8,250,000.00
Local Funding	$ 0.00	$ 0.00	$ 4,125,000.00	$ 4,125,000.00
Other Funding	$ 0.00	$ 0.00	$ 4,125,000.00	$ 4,125,000.00
Total	$ 0.00	$ 0.00	$ 16,500,000.00	$ 16,500,000.00

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

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.

Hernando County's FDEP funded feasibility analysis is being developed now.

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 at

Frank.Gargano@swfwmd.state.fl.us

with any questions prior to submittal.

Form A: Wastewater Collection & Treatment Projects Only

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

Glen WRF

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

AWT for Nitrogen will be provided within the next 5 years as required by Weeki

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

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

0.58

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

8.44

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

~0.09

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?

Residents are expected to pay 20% of the local funding share.

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

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

Design is not underway yet. It is expected just over one mile of 12 or 16 inch diameter forcemain will be needed. This is the first phase of septic to sewer so the offsite forcemain will need to be constructed as part of this project. The forcemain will likely start in the area of the Elgin Boulevard-Deltona Boulevard intersection, then proceed northerly along Deltona to SR 50 (Cortez Boulevard) then westerly to

Form A: Wastewater Collection & Treatment Projects Only

Septic to Sewer Conversion Projects Complete this Section:

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

363 exisitng. 78 vacant lots will be served in the future

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

6 expected for this project. District A contains 13 commerci

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

Ten Professional Buildings with 47,945 square feet.(6111 & 6117 Deltona-30

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

0

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

○ Yes ◉ No

If there are more requirements to the local ordinance, such as limiting future installation of septic systems, please describe and reference the ordinance below.

Weekie Wachee BMAP precludes installation of new standard septic tanks in the area.

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

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 (%):

Form C: Land Acquisition Projects Only

What is the current landuse? If mixed, please depict acreage for each land use.

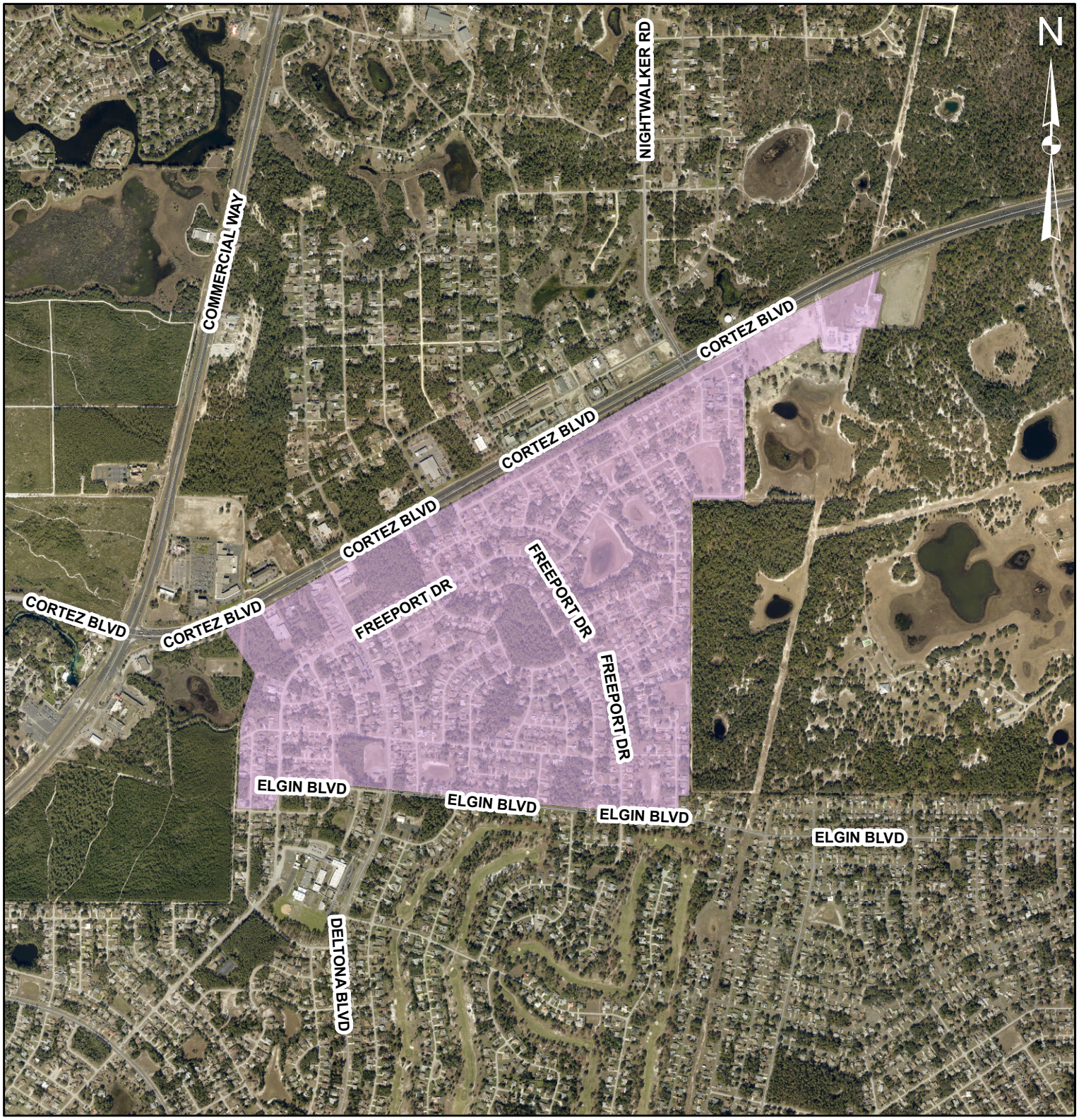
What will be the landuse once purchased?

What is the recharge potential (mgd)?

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.



Septic to Sewer Conversion Area

District A

Legend

District A

0 625 1,250 2,500 3,750 5,000 Feet

Calculate Load reduction from S2S District A, Phase 1 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

363 existing X 9.4 lb/septic tank = **3412.2 lb TN removed**

(363 + 78 vacant lots) X 9.4 lb/septic tank = **4145 lb TN at buildout**

* Page 21 of Springs Funding Guidance

FY2021 FDEP Springs Funding Application for Projects within the Southwest Florida Water Management District

This application should be completed and emailed with the appropriate calculations and map to Meagan.Finneran@swfwmd.state.fl.us by 5:00PM on October 4, 2019.

Applicant Information

Entity Name: Hernando County Utilities Department (HCUD)

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

Project Manager Name: Richard Kirby

Project Manager Address: 15365 Cortez Boulevard, Brooksville FL, 34613

Project Manager Phone Number: (352) 754-4769

Project Manager Email Address: Rkirby@hernandocounty.us

Project General Information

Project Name: Glen Water Reclamation Facility Denitrification

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

Project Benefit

Quantity of Water Made Available (mgd): NA

Land Acquisition (acres): NA

Nitrogen Reduced (lbs/year): 24,592

Sediment Reduced (lbs/year): 0

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.

Is this a multiyear project? ○ Yes ◉ No

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

Please provide a full description of the project. If this is a multiyear funded project, 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.

Glen Water Reclamation Facility Denitrification
Weeki Wachee Springs is an outstanding Florida spring that is a major attraction and destination for nearly 400,000 visitors every year. The spring is currently impaired for nitrate and the concentrations have been steadily increasing over the last several decades. As a result, the spring has experienced degradation in water quality and clarity through the growth of unwanted algae and this has subsequently led to other negative impacts to the sensitive aquatic ecosystem.
As part of the 2016 Florida Aquifer and Springs Protection Act, the Florida Department of Environmental Protection has developed a Basin Management Action Plan (BMAP) for the Weeki Wachee Springs and River. The BMAP was established based on a Total Maximum Daily Load (TMDL) of nitrogen and has also established additional limits for developments within the Priority Focus Area (PFA). One limit imposed is on the effluent concentration of nitrogen released from a wastewater reclamation facility (WRF) to be no more than 3 milligrams per liter when discharging to groundwater. The Glen WRF, one of Hernando County's sub-regional facilities, lies within the Priority Focus Area and currently does not meet the limit of 3 mg/l.
This project will design, permit, and construct necessary upgrades to the Glen WRF with the treatment processes necessary to achieve the effluent limit of 3mg/l total nitrogen. The total cost of required improvements is anticipated to be $5,000,000. Hernando County Utilities Department is seeking $3,700,000 from FDEP Springs funding to assist with compliance.

What is the anticipated start and end date for the work that will be conducted under this funding request?

Start Date: February 1, 2021 End Date: October 1, 2023

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

County Hernando

Latitude (decimal degrees) 28.582416

Longitude (decimal degrees) -82.534670

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

Is this spring deemed impaired? Yes, with a BMAP or RAP

What is the distance from the project to the spring receiving the benefit ? 5.1 miles

Is this project in a springshed? If so, specify which one. Weeki Wachee

Is this project within a BMAP boundary? (●) Yes ( ) No

Is this project within a PFA boundary? (●) Yes ( ) No

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

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

Please list any restoration plans, prevention plans, recovery plans, or long term local water quality or quantity strategy plans this project is part of.

This project is included in the Weeki Wachee BMAP. This project is required to meet advanced wastewater treatment for total nitrogen per the BMAP. It is also required to remove the Spring Hill WRF from service.

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 request:

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 3,700,000.00	$ 0.00	$ 3,700,000.00
WMD CFI Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 1,300,000.00	$ 0.00	$ 1,300,000.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 5,000,000.00	$ 0.00	$ 5,000,000.00

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. If CFI funding was not applied for, please move to the next section.

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 0.00	$ 0.00	$ 0.00

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

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 WRF has produced effluent nitrogen between 8 mg/l and 14 mg/l in the past. The lower level of treatment is attributed to the fact that this plant receives all leachate from the county's landfill. Hernando County has proactively moved to remove leachate from the flow to this plant by having it trucked to another treatment site.

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 at

Frank.Gargano@swfwmd.state.fl.us

with any questions prior to submittal.

Form A: Wastewater Collection & Treatment Projects Only

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

NA. This is a WWTF project.

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

AWT for nitrogen removal, 3 mg/l, will be provided by this project.

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

Rapid Inflitration Basin (RIBs)

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

3

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

.582

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

14,953

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

~0.9

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?

Not applicable for this project

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

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

None. This project is completely within a WRF site.

Form A: Wastewater Collection & Treatment Projects Only

Septic to Sewer Conversion Projects Complete this Section:

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

0

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

0

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

NA

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

NA

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

(●) Yes ( ) No

If there are more requirements to the local ordinance, such as limiting future installation of septic systems, please describe and reference the ordinance below.

Weeki Wachee BMAP

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

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 (%):

Form C: Land Acquisition Projects Only

What is the current landuse? If mixed, please depict acreage for each land use.

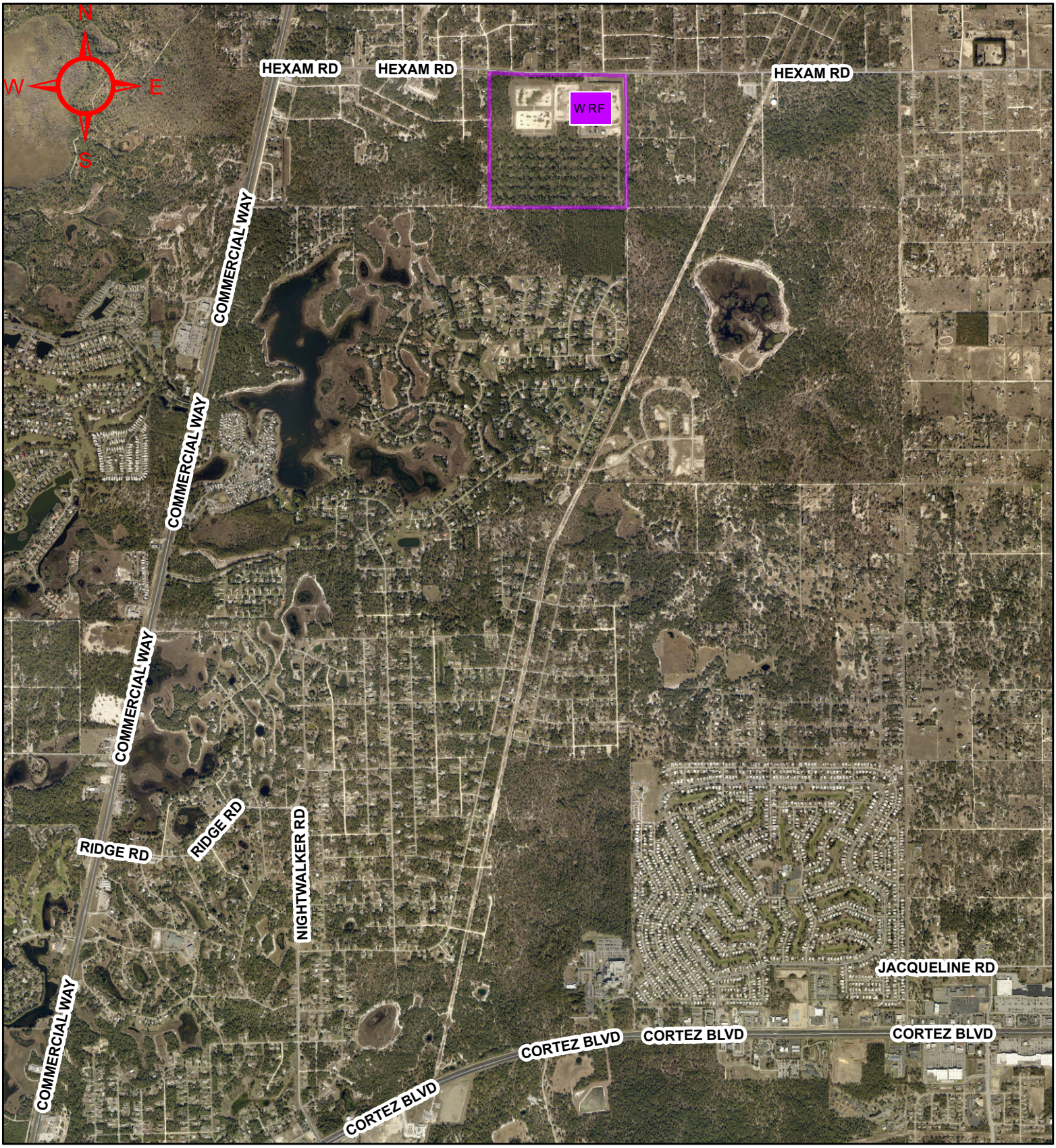
What will be the landuse once purchased?

What is the recharge potential (mgd)?

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.



Glen Water Reclamation Facility

Legend

W RF WRF Location

WRF Parcel Boundary

Miles

0 0.25 0.5 1 1.5

Glen WRF TN Calculations

Glen – Current

3.33 mg/l nitrate

8.44 mg/l TN actual

Capacity 3 MGD

Current limit 12 mg/l nitrate

Calculate reduction based on current limits and capacity.

3 MGD x (12-3) mg/l x 8.34 x 365 days/yr = 82,191 lb/yr

Apply FDEP factors

82,191 x (0.75) x (0.9) = 51,780 lb/yr

Reduction assuming current TN is starting point

3 MGD (8.44 – 3) mg/l x 8.34 x 365 days/year = 49,441 lb/yr

Apply FDEP Factors

49,441 x (0.75) x (0.9) = 33,373 lb/yr

Actual Reduction after Brookridge WRF and Spring Hill WRF flows are diverted

2.2 MGD (8.44 - 3) mg/l x 8.34 x 365 days/year = 36,432 lb/yr

Apply FDEP Factors

36,432 x (0.75) x (0.9) = 24,592 lb/yr

APP11

FY2021 FDEP Springs Funding Application for Projects within the Southwest Florida Water Management District

This application should be completed and emailed with the appropriate calculations and map to Meagan.Finneran@swfwmd.state.fl.us by 5:00PM on October 4, 2019.

Applicant Information

Entity Name: City of Inverness

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

Project Manager Name: Scott McCulloch

Project Manager Address: 212 West Main Street

Project Manager Phone Number: 352-726-2611

Project Manager Email Address: smcculloch@inverness-fl.gov

Project General Information

Project Name: South Highlands Septic to Sewer Project

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

Project Benefit

Quantity of Water Made Available (mgd): N/A

Land Acquisition (acres): N/A

Nitrogen Reduced (lbs/year): 695 (Phase 1) 5,427 (Total Pr

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.

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

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

Please provide a full description of the project. If this is a multiyear funded project, 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 South Highlands Septic to Sewer Project is located in the southeast portion of the City of Inverness. This project is a multi-year project that is broken into 5 phases. This application is for Phase 1 of the total project. The total project area is located within the BMAP area for the Chassahowitzka-Homosassa springs shed and this spring shed will directly benefit from the removal of the septic tanks within the project area. The project area is located 16 miles from the spring head. The total project area along with the project area for Phase 1 is depicted on the project map included with the application.

The total project area consists of 751 parcels of which 540 contain septic tanks. This is a residential area comprised of single family lots. The removal of these septic tanks and connection of the residents to the City's sewer system would remove 5,427 lbs of TN / year once the total project is complete. The total project also consists of approximately 9 miles of existing roadway and ROW, 46,500 LF of gravity sewer, 22,400 LF of FM, 14 local or regional lift stations, and 5 lots needed for the construction of the lift stations.

The Phase 1 project area consists of 114 parcels of which 69 contain septic tanks. The removal of these septic tanks and connection of the residents to the City's sewer system will remove 695 lbs of TN per year from the Chassahowitzka-Homosassa spring shed. Phase 1 consists of 1.4 miles of roadway and ROW, 7,250 LF of gravity sewer, 3,800 LF of force main, 2 lift stations, and 1 lot for lift station construction.

What is the anticipated start and end date for the work that will be conducted under this funding request?

Start Date: January 2021 End Date: January 2023

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

County Citrus

Latitude (decimal degrees) N 28.827937

Longitude (decimal degrees) W 82.328362

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

Is this spring deemed impaired? Yes, with a BMAP or RAP

What is the distance from the project to the spring receiving the benefit ? 16 miles

Is this project in a springshed? If so, specify which one. Chassahowitzka-Homosassa Springs

Is this project within a BMAP boundary? (●) Yes ( ) No

Is this project within a PFA boundary? ( ) Yes (●) No

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

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

Please list any restoration plans, prevention plans, recovery plans, or long term local water quality or quantity strategy plans this project is part of.

None at this time.

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 request:

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 2,613,600.00	$ 14,898,000.00	$ 17,511,600.00
WMD CFI Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 653,400.00	$ 3,724,500.00	$ 4,377,900.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 3,267,000.00	$ 18,622,500.00	$ 21,889,500.00

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. If CFI funding was not applied for, please move to the next section.

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 2,613,600.00	$ 14,898,000.00	$ 17,511,600.00
Local Funding	$ 0.00	$ 653,400.00	$ 3,724,500.00	$ 4,377,900.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 3,267,000.00	$ 18,622,500.00	$ 21,889,500.00

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

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 project is part of a economically disadvantaged community as designated by the Department of Economic Opportunity.

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 at

Frank.Gargano@swfwmd.state.fl.us

with any questions prior to submittal.

Form A: Wastewater Collection & Treatment Projects Only

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

City of Inverness Wastewater Treatment Plant

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

Advanced 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)?

0.5

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

3.5

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

0.0285 for Phase 1

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?

The City will charge the residents/property owners a onetime sewer capacity fee of $ 2,720. Additionally, the residents will be charged a monthly sewer fee based on the amount of water used.

These fees will cover the cost of the additional capacity to the system and the cost of processing the wastewater.

Is any land acquisition necessary? If so, please describe below. (●) Yes ( ) No

It will be necessary to acquire land for the lift station locations.

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

Phase 1 will consist of approximately 3,800 LF of forcemain piping that will range in size from 6 in to 8 in pipe.

Form A: Wastewater Collection & Treatment Projects Only

Septic to Sewer Conversion Projects Complete this Section:

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

69 existing septic tanks for Phase 1 of the project. 539 for t

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

None.

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

N/A

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

none

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

(●) Yes ( ) No

If there are more requirements to the local ordinance, such as limiting future installation of septic systems, please describe and reference the ordinance below.

None

Package Plant Conversion Projects Complete this Section:

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

N/A

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

N/A

Form B: Water Quantity Projects

For Agricultural Projects associated with irrigation system efficiency improvements:

Proposed irrigation system efficiency (%): N/A

Prior irrigation system efficiency (%): N/A

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

For Reclaimed Water Projects:

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

Projected Reuse Flow (mgd): N/A

Percent Offset (%): N/A

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

○ Yes ◉ No

Percent Recharge (%): N/A

Form C: Land Acquisition Projects Only

What is the current landuse? If mixed, please depict acreage for each land use.

Single Family Residential

What will be the landuse once purchased?

Municipal

What is the recharge potential (mgd)? None

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.

LEGEND

- Proposed Point of Connection to Existing Sewer System
- City of Inverness Owned Parcels
- Septic to Sewer Project Area
- Parcels
- Streets

Feet
0 250 500

TOTAL PROJECT AREA
752 Parcels
539 Septic Tanks

Grant Application is for Phase 1 of the Septic to Sewer Project Area

Phase 1
114 Parcels
69 Septic Tanks

Phase 2
217 Parcels
161 Septic Tanks

Phase 3
132 Parcels
93 Septic Tanks

Phase 4
139 Parcels
103 Septic Tanks

Phase 5
150 Parcels
113 Septic Tanks

TOMPKINS ST
N MILL AVE
STEINBACHER LN
W GRACE ST
S OSCEOLA AVE
S SEMINOLE AVE
S PINE AVE
W HIGHLAND BLVD
E HIGHLAND BLVD
45
S U S HIGHWAY 41
WASHINGTON AVE
SAWYER ST
S PARK AVE
W HILL ST
S WOODLAWN AVE
E CIRCLEWOOD ST
LEROY BELLAMY RD
WITHLACOOCHEE STATE TRAIL
LOUIS ST
HATTEN LN
W RELIEF ST
E RELIEF ST
E BEECHER CT
CABOT ST
WRIGHT ST
HUDSON ST
DESOTA AVE
NOLA ST
MORSE ST
GOODYEAR AVE
WHITNEY AVE
BELL AVE
LA SALLE AVE
BLANCHE ST
HIGHLAND AVE
PEONY ST
EDISON ST
CHAMPLAIN AVE
BALBOA AVE
SCOTT ST
SOUTHERLY AVE
WINDY AVE
MAYFLOWER AVE
LAUREL AVE
MAGNOLIA AVE
CLARK ST
NEWTON AVE
DRAKE AVE
EDEN DR
HEMLOCK ST
DAFFODIL ST
POPLAR ST
IRIS LN
S APOPKA AVE
CEDAR AVE
BIRCH AVE
HICKORY AVE
OAK ST
PALM AVE
LILAC LN
PINEAIRE ST
DAISY LN
SPRUCE ST
S HIGHLANDS AVE
W INVERNESS BLVD
E INVERNESS BLVD
POPPY LN
CLOVER TER
BLUE BONNET TER
TEMPLE ST
FORDHAM TER
LEHIGH TER
LOWELL TER
AMHERST TER
CORNELL TER
DARTMOUTH TER
RUTGERS TER
VIOLET LN
VASSAR ST

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Kimley»Horn

SOUTH HIGHLANDS SEPTIC TO SEWER (STS) PROJECT

PROPOSED SEPTIC TO SEWER
INVERNESS, FL

October 2019	Project No.142240046	Figure 1

COST ESTIMATE FOR GRANT APPLICATION
CITY OF INVERNESS
SOUTH HIGHLANDS SEPTIC TO SEWER - PHASE 1

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	RESIDENT SEPTIC TANK ABANDONMENT AND CONNECTION TO SEWER	69	EA	$ 8,000	552,000.00
2	GRAVITY SEWER (INCLUDES ALL CONSTRUCTION RELATED COMPONENTS)	7,250	LF	$ 120	870,000.00
3	FORCE MAIN (INCLUDES ALL CONSTRUCTION RELATED COMPONENTS)	3,800	LF	$ 100	380,000.00
4	LIFT STATION	2	LS	$ 400,000	800,000.00
5	PROPERTY ACQUISITION	1	LOT	$ 35,000	35,000.00
6	ROADWAY	1.40	MI	$ 450,000	630,000.00
				TOTAL	**$ 3,267,000.00**

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

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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

SOUTH HIGHLANDS SEPTIC TO SEWER PROJECT - PHASE 1 - NUTRIENT CALCULATIONS

Calculate Base Load	
Number of Septic Tanks	69
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	736

Number of Parcels 114

Calculate New Load	**Traditional**	**AWT**
Number of Septic Tanks	69	
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	106	41
Reduction in Load to Springshed lb/yr	630	695

Cost Effectiveness Calculation for 30 Year Period	**Traditional**	**AWT**
Project Cost	$3,267,000	
cost/lb TN	$5,186.39	$4,702.92
Cost/lb TN / 30 years	$172.88	$156.76

COST ESTIMATE FOR GRANT APPLICATION
CITY OF INVERNESS
SOUTH HIGHLANDS SEPTIC TO SEWER - TOTAL PROJECT

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	RESIDENT SEPTIC TANK ABANDONMENT AND CONNECTION TO SEWER	539	EA	$ 8,000	4,312,000.00
2	GRAVITY SEWER (INCLUDES ALL CONSTRUCTION RELATED COMPONENTS)	46,500	LF	$ 120	5,580,000.00
3	FORCE MAIN (INCLUDES ALL CONSTRUCTION RELATED COMPONENTS)	22,400	LF	$ 100	2,240,000.00
4	LIFT STATION	14	LS	$ 400,000	5,600,000.00
5	PROPERTY ACQUISITION	5	LOT	$ 35,000	175,000.00
6	ROADWAY	9	MI	$ 450,000	3,982,500.00
				TOTAL	**$ 21,889,500.00**

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

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

SOUTH HIGHLANDS SEPTIC TO SEWER PROJECT - TOTAL PROJECT - NUTRIENT CALCULATIONS

Calculate Base Load	
Number of Septic Tanks	539
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	5748

Number of Parcels 751

Calculate New Load	**Traditional**	**AWT**
Number of Septic Tanks	539	
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	828	322
Reduction in Load to Springshed lb/yr	4921	5427

Cost Effectiveness Calculation for 30 Year Period	**Traditional**	**AWT**
Project Cost	$21,889,500	
cost/lb TN	$4,448.49	$4,033.80
Cost/lb TN / 30 years	$148.28	$134.46

FY2020 FDEP Springs Funding Multi Year Funding Application Spreadsheet

	I. TOTAL PROJECT COST					II. Year 1 - Project Funding Breakout										II. Year 2 - Project Fundi					
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	WMD Match - Cash
1	$17,511,600	$4,377,900	$ -	$ -	$21,889,500	$ 2,613,600	$261,000	$392,400								$3,267,000	$5,108,400	$510,840	$ 766,260			
2	$ -	$ -	$ -	$ -	$ -																	
3	$ -	$ -	$ -	$ -	$ -																	
4	$ -	$ -	$ -	$ -	$ -																	
5	$ -	$ -	$ -	$ -	$ -																	

	ing Breakout					III. Year 3 - Project Funding Breakout					III. Year 4 - Project Funding Breakout					III. Year 5 - Project Funding Breakout				
Count	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					$6,385,500	$ 2,672,000	$668,000			$3,340,000	$ 4,128,800	$1,032,200			$5,161,000	$2,988,800	$747,200			$3,736,000
2																				
3																				
4																				
5																				

APP12

FY2021 FDEP Springs Funding Application for Projects within the Southwest Florida Water Management District

This application should be completed and emailed with the appropriate calculations and map to Meagan.Finneran@swfwmd.state.fl.us by 5:00PM on October 4, 2019.

Applicant Information

Entity Name: City of Inverness

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

Project Manager Name: Scott McCulloch

Project Manager Address: 212 West Main Street

Project Manager Phone Number: 352-726-2611

Project Manager Email Address: smcculloch@inverness-fl.gov

Project General Information

Project Name: 44 West Sewer Extension Project

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

Project Benefit

Quantity of Water Made Available (mgd): N/A

Land Acquisition (acres): N/A

Nitrogen Reduced (lbs/year): 1746

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.

Is this a multiyear project? ○ Yes ◉ No

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

Please provide a full description of the project. If this is a multiyear funded project, 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 44 West Sewer Expansion Project is located in the southeast portion of the City of Inverness. The project area is located within the BMAP area for the Chassahowitzka-Homosassa springs shed and this spring shed will directly benefit from the removal of the septic tanks within the project area. The project area is located approximately 16 miles from the spring heads. The project area is depicted on the project map included with the application. The project consists of a total of 136 parcels of which 54 contain septic tanks. There are a total 45 commercial septic tanks and 9 residential septic tanks. The project is separated into 2 phases on the map but will not be a multi-year project.

The removal of these septic tanks and connection of the residents to the City's sewer system would remove 1,746 lbs of TN / year from the Chassahowitzka-Homosassa spring shed. The total project also consists of approximately 0.75 miles of existing roadway and ROW, 4,100 LF of gravity sewer, 2,200 LF of FM, 2 local or regional lift stations, and 2 lots needed for the construction of the lift stations.

What is the anticipated start and end date for the work that will be conducted under this funding request?

Start Date: May 2021 End Date: May 2023

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

County Citrus

Latitude (decimal degrees) N 28.842398

Longitude (decimal degrees) W 82.364260

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

Is this spring deemed impaired? Yes, with a BMAP or RAP

What is the distance from the project to the spring receiving the benefit ? 15 miles

Is this project in a springshed? If so, specify which one. Chassahowitzka-Homosassa Springs

Is this project within a BMAP boundary? (●) Yes ( ) No

Is this project within a PFA boundary? ( ) Yes (●) No

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

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

Please list any restoration plans, prevention plans, recovery plans, or long term local water quality or quantity strategy plans this project is part of.

None at this time.

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 request:

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 1,888,400.00		$ 1,888,400.00
WMD CFI Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 472,100.00		$ 472,100.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 2,360,500.00	$ 0.00	$ 2,360,500.00

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. If CFI funding was not applied for, please move to the next section.

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 1,888,400.00		$ 1,888,400.00
Local Funding	$ 0.00	$ 472,100.00		$ 472,100.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 2,360,500.00	$ 0.00	$ 2,360,500.00

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

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 was part of a capitol improvement project

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 at

Frank.Gargano@swfwmd.state.fl.us

with any questions prior to submittal.

Form A: Wastewater Collection & Treatment Projects Only

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

City of Inverness Wastewater Treatment Plant

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

Advanced 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)?

0.5

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

3.5

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

0.043

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?

The City will charge the residents/property owners a onetime sewer capacity fee of $ 2,720. Additionally, the residents will be charged a monthly sewer fee based on the amount of water used.

These fees will cover the cost of the additional capacity to the system and the cost of processing the wastewater.

Is any land acquisition necessary? If so, please describe below. (●) Yes ( ) No

It will be necessary to acquire land for the lift station locations.

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

The project will consist of approximately 2,200 LF of force main piping that will range in size from 4 in to 6 in pipe.

Form A: Wastewater Collection & Treatment Projects Only

Septic to Sewer Conversion Projects Complete this Section:

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

54

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

45

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

The commercial land use ranges from Commercial low to commercial high. There is a total of 274,055 SF of commercial buildings.

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

3

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

(●) Yes ( ) No

If there are more requirements to the local ordinance, such as limiting future installation of septic systems, please describe and reference the ordinance below.

None

Package Plant Conversion Projects Complete this Section:

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

N/A

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

N/A

Form B: Water Quantity Projects

For Agricultural Projects associated with irrigation system efficiency improvements:

Proposed irrigation system efficiency (%): N/A

Prior irrigation system efficiency (%): N/A

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

For Reclaimed Water Projects:

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

Projected Reuse Flow (mgd): N/A

Percent Offset (%): N/A

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

○ Yes ◉ No

Percent Recharge (%): N/A

Form C: Land Acquisition Projects Only

What is the current landuse? If mixed, please depict acreage for each land use.

Single Family Residential or Commercial

What will be the landuse once purchased?

Municipal

What is the recharge potential (mgd)? None

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.

LEGEND

- Proposed Point of Connection to Existing Sewer System
- Septic to Sewer Project Area
- Inverness City Boundary
- Parcels
- Streets

Feet
0 300 600

Total Septic to Sewer Project Area:
136 Parcels
54 Total Septic Tanks
45 Commercial Septic Tanks
9 Residential Septic Tanks
274,055 Square Footage of Commercial Buildings

Phase 1

112 Total Parcels
38 Total Septic Tanks
35 Commercial Septic Tanks
3 Residential Septic Tanks
194,549 Square Footage of Commercial Buildings

Phase 2

24 Total Parcels
16 Total Septic Tanks
10 Commercial Septic Tanks
6 Residential Septic Tanks
79,506 Square Footage of Commercial Buildings

VAN BUREN ST
JACKSON ST
REAGAN ST
MONROE ST
MADISON ST
JEFFERSON ST
ADAMS ST
MONROE ST W
MADISON ST W
JEFFERSON ST W
ADAMS ST W
GARFIELD ST W
FARMDALE AVE
HILLCREST AVE
PARKVIEW AVE
PINE HILL ST
CARLYLE ST
PINEWOOD AVE
FLAMETREE TER
LONG AVE
CONSTITUTION BLVD
INDEPENDENCE BLVD
S ROOKS AVE
S SNAPP AVE
E JEROME ST
E FOREST DR
FOREST DR
E GULF TO LAKE HWY
S PROSPECT TER
S PINELLAS PT
EDGEWOOD AVE
RANCHLAND ST
LONGWOOD AVE
WHISPERING PINES BLVD
CRYSTAL BLVD
KIM AVE
N CENTRAL AVE
COLBY ST
CARTER ST
HIGHWAY 44 WEST
CLEARWOOD ST
SHEPARD ST
COLLINS ST
WESTHILL AVE
WREN AVE
KERRY ST
S BORDER AVE
HUGO ST
COLONADE ST
SILVERWOOD ST
FOREST DR
N CRESTVIEW AVE
RICHARDS RD
W MAIN ST
KIMBERLY LN
PLEASANT GROVE RD
WOODHILL ST
OAKRIDGE ST
HILLERY ST
EASTWOOD ST
WINSTON ST
SMALLWOOD AVE
S CRISTY AVE
S CRESTVIEW AVE

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Kimley»Horn

44 WEST SEWER EXTENSION PROJECT

PROPOSED SEPTIC TO SEWER
INVERNESS, FL

October 2019	Project No.142240046	Figure 1

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COST ESTIMATE FOR GRANT APPLICATION
CITY OF INVERNESS
44 WEST SEWER EXTENSION

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	SEPTIC TANK ABANDONMENT AND CONNECTION TO SEWER	54	EA	$ 8,000	432,000.00
2	GRAVITY SEWER (INCLUDES ALL CONSTRUCTION RELATED COMPONENTS)	4,100	LF	$ 120	492,000.00
3	FORCE MAIN (INCLUDES ALL CONSTRUCTION RELATED COMPONENTS)	2,200	LF	$ 100	220,000.00
4	LIFT STATION	2	LS	$ 400,000	800,000.00
5	PROPERTY ACQUISITION	2	LOT	$ 35,000	70,000.00
6	ROADWAY	0.77	MI	$ 450,000	346,500.00
				TOTAL	**$ 2,360,500.00**

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

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

44 West Sewer Expansion Project

Calculate Base Load for Residential Septic Tanks	
Number of Septic Tanks	9
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	96

Calculate Base Load for Commercial Septic Tanks	
Number of Commercial Septic Tanks	45
Building Square Footage	274,055
Sewage Generated from Commercial Applications (gpd/100 SF) -FAC 64E6.008	15
GPD Flow from Commercial Septic Tanks	41,108
GPD per ERU	250
Equivalent ERUs	164
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	1754

Calculate New Load	Traditional	AWT
Number of Residential Septic Tanks and Equivalent ERUs from Commercial Septic Tanks	173	
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	266	104
Reduction in Load to Springshed lb/yr	1583	1746

Cost Effectiveness Calculation for 30 Year Period	Traditional	AWT
Project Cost	$2,360,500	
cost/lb TN	$1,490.86	$1,351.88
Cost/lb TN / 30 years	$49.70	$45.06

APP13

FY2021 FDEP Springs Funding Application for Projects within the Southwest Florida Water Management District

This application should be completed and emailed with the appropriate calculations and map to Meagan.Finneran@swfwmd.state.fl.us by 5:00PM on October 4, 2019.

Applicant Information

Entity Name: City of Inverness

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

Project Manager Name: Scott McCulloch

Project Manager Address: 212 West Main Street

Project Manager Phone Number: 352-726-2611

Project Manager Email Address: smcculloch@inverness-fl.gov

Project General Information

Project Name: 41 N Sewer Extension Project

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

Project Benefit

Quantity of Water Made Available (mgd): N/A

Land Acquisition (acres): N/A

Nitrogen Reduced (lbs/year): 1202

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.

Is this a multiyear project? ○ Yes ◉ No

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

Please provide a full description of the project. If this is a multiyear funded project, 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 41 North Sewer Expansion Project is located in the northern portion of the City of Inverness. The project area is located within the BMAP area for the Chassahowitzka-Homosassa springs shed and this spring shed will directly benefit from the removal of the septic tanks within the project area. The project area is located approximately 14.5 miles from the spring heads. The project area is depicted on the project map included with the application. The project consists of a total of 116 parcels of which 67 contain septic tanks. There are a total 33 commercial septic tanks and 34 residential septic tanks.

The removal of these septic tanks and connection of the residents to the City's sewer system would remove 1,202 lbs of TN / year from the Chassahowitzka-Homosassa spring shed. The total project also consists of approximately 1.5 miles of existing roadway and ROW, 7,500 LF of gravity sewer, 7,000 LF of FM, 3 local or regional lift stations, and 2 lots needed for the construction of the lift stations.

What is the anticipated start and end date for the work that will be conducted under this funding request?

Start Date: August 2021 End Date: August 2023

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

County Citrus

Latitude (decimal degrees) N 28.857782

Longitude (decimal degrees) W 82.348821

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

Is this spring deemed impaired? Yes, with a BMAP or RAP

What is the distance from the project to the spring receiving the benefit ? 14.5 miles

Is this project in a springshed? If so, specify which one. Chassahowitzka-Homosassa Springs

Is this project within a BMAP boundary? (●) Yes ( ) No

Is this project within a PFA boundary? ( ) Yes (●) No

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

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

Please list any restoration plans, prevention plans, recovery plans, or long term local water quality or quantity strategy plans this project is part of.

None at this time.

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 request:

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 3,264,800.00		$ 3,264,800.00
WMD CFI Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 816,200.00		$ 816,200.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 4,081,000.00	$ 0.00	$ 4,081,000.00

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. If CFI funding was not applied for, please move to the next section.

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 3,264,800.00		$ 3,264,800.00
Local Funding	$ 0.00	$ 816,200.00		$ 816,200.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 4,081,000.00	$ 0.00	$ 4,081,000.00

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

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 was part of a capitol improvement 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 at

Frank.Gargano@swfwmd.state.fl.us

with any questions prior to submittal.

Form A: Wastewater Collection & Treatment Projects Only

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

City of Inverness Wastewater Treatment Plant

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

Advanced 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)?

0.5

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

3.5

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

0.030

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?

The City will charge the residents/property owners a onetime sewer capacity fee of $ 2,720. Additionally, the residents will be charged a monthly sewer fee based on the amount of water used.

These fees will cover the cost of the additional capacity to the system and the cost of processing the wastewater.

Is any land acquisition necessary? If so, please describe below. (●) Yes ( ) No

It will be necessary to acquire land for the lift station locations.

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

The project will consist of approximately 2,200 LF of force main piping that will range in size from 4 in to 6 in pipe.

Form A: Wastewater Collection & Treatment Projects Only

Septic to Sewer Conversion Projects Complete this Section:

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

67

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

33

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

The commercial land use ranges from commercial rural to commercial medium. There is a total of 142,262 SF of commercial buildings.

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

3

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

(●) Yes ( ) No

If there are more requirements to the local ordinance, such as limiting future installation of septic systems, please describe and reference the ordinance below.

None

Package Plant Conversion Projects Complete this Section:

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

N/A

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

N/A

Form B: Water Quantity Projects

For Agricultural Projects associated with irrigation system efficiency improvements:

Proposed irrigation system efficiency (%): N/A

Prior irrigation system efficiency (%): N/A

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

For Reclaimed Water Projects:

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

Projected Reuse Flow (mgd): N/A

Percent Offset (%): N/A

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

○ Yes ◉ No

Percent Recharge (%): N/A

Form C: Land Acquisition Projects Only

What is the current landuse? If mixed, please depict acreage for each land use.

Single Family Residential or Commercial

What will be the landuse once purchased?

Municipal

What is the recharge potential (mgd)? None

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.

LEGEND

- Proposed Point of Connection to Existing Sewer System
- City of Inverness Owned Parcels
- Septic to Sewer Project Area
- Inverness City Boundary
- Parcels
- Streets

Feet
0 400 800

116 Total Parcels
67 Total Septic Tanks
33 Commercial Septic Tanks
34 Residential Septic Tanks
142,262 Square Footage of Commercial Buildings

E WINDMILL DR
N TWIN LAKE DR
E ARLINGTON ST
E BENNETT ST
N CRESTWOOD AVE
WITHLACOOCHEE STATE TRAIL
E GARDEN ST
E MARYLAND ST
E RAVENNA ST
N SPORTSMAN PT
N FLICKER PT
N MEADOWLARK PT
N BLISS PT
N CHICKADEE PT
E SHADY ACRES DR
N CEDARVIEW TER
N OAKWOOD TER
E CAY CT
E CARLTON CT
N FLORIDA AVE
E TANGELO LN
E TOY CT
E LIVE OAK LN
E JASMINE LN
E MIMOSA LN
WHITE BLVD
LONELY OAKS DR
BYRON ST
EISENHOWER ST
WHITE LAKE DR
CARL ST
BRUCE ST
ANDREW ST
N U S HIGHWAY 41
MILTON ST
TYLER ST
FALKNER ST
HARRISON ST
VICTOR ST
VAN BUREN ST
LORENA ST
JACKSON ST
ADDISON ST
REAGAN ST
WALDEN ST
MONROE ST
PINE HILL ST
MADISON ST
JEFFERSON ST
CARLYLE ST
ADAMS ST
GARFIELD ST
WILSON ST
LANGLEY ST
BLUEGRASS ST
RANCHLAND ST
CORALBERRY LN
FARMDALE AVE
HILLCREST AVE
PARKVIEW AVE
CRESTWOOD AVE
FERNCREEK AVE
LONGWOOD AVE
DALWOOD AVE
PINEWOOD AVE
HAWK CREST LN
STATELY OAKS DR
RUSSELL AVE
JONES AVE
HOWARD ST
PIPER LN
RAILROAD ST
ELLA AVE
INVERIE DR
PEEBLES CT
LOCKERBIE DR
MORAY DR
PARKSIDE AVE
GINGER PORTER DR
TURNER CAMP RD

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Kimley»Horn

41 NORTH COMMERCIAL CORRIDOR PROJECT

PROPOSED SEPTIC TO SEWER
INVERNESS, FL

October 2019	Project No.142240046	Figure 1

COST ESTIMATE FOR GRANT APPLICATION
CITY OF INVERNESS
41 N SEWER EXTENSION

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	SEPTIC TANK ABANDONMENT AND CONNECTION TO SEWER	67	EA	$ 8,000	536,000.00
2	GRAVITY SEWER (INCLUDES ALL CONSTRUCTION RELATED COMPONENTS)	7,500	LF	$ 120	900,000.00
3	FORCE MAIN (INCLUDES ALL CONSTRUCTION RELATED COMPONENTS)	7,000	LF	$ 100	700,000.00
4	LIFT STATION	3	LS	$ 400,000	1,200,000.00
5	PROPERTY ACQUISITION	2	LOT	$ 35,000	70,000.00
6	ROADWAY	1.50	MI	$ 450,000	675,000.00
				TOTAL	**$ 4,081,000.00**

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

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

41 North Sewer Expansion Project

Calculate Base Load for Residential Septic Tanks	
Number of Septic Tanks	34
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	363

Calculate Base Load for Commercial Septic Tanks	
Number of Commercial Septic Tanks	33
Building Square Footage	142,262
Sewage Generated from Commercial Applications (gpd/100 SF) -FAC 64E6.008	15
GPD Flow from Commercial Septic Tanks	21,339
GPD per ERU	250
Equivalent ERUs	85
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	910

Calculate New Load	Traditional	AWT
Number of Residential Septic Tanks and Equivalent ERUs from Commercial Septic Tanks	119	
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	183	71
Reduction in Load to Springshed lb/yr	1090	1202

Cost Effectiveness Calculation for 30 Year Period	Traditional	AWT
Project Cost	$4,081,000	
cost/lb TN	$3,745.27	$3,396.14
Cost/lb TN / 30 years	$124.84	$113.20

FY2021 FDEP Springs Funding Application for Projects within the Southwest Florida Water Management District

This application should be completed and emailed with the appropriate calculations and map to Meagan.Finneran@swfwmd.state.fl.us by 5:00PM on October 4, 2019.

Applicant Information

Entity Name: City of Crystal River

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

Project Manager Name: Beau Keene

Project Manager Address: 123 N HWY 19, Crystal River, FL

Project Manager Phone Number: 352-795-4216

Project Manager Email Address: bkeene@crystalriverfl.org

Project General Information

Project Name: Pelican Bay Package Plant Removal

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

Project Benefit

Quantity of Water Made Available (mgd): N/A

Land Acquisition (acres): N/A

Nitrogen Reduced (lbs/year): 47

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.

Is this a multiyear project? ○ Yes ◉ No

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

Please provide a full description of the project. If this is a multiyear funded project, 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 Pelican Bay Package Plant Removal Project (The project) is located south of the City of Crystal River off of Ft Island Trail (CR 44). The project is located within the BMAP and PFA for the Kings Bay watershed which includes Three Sisters and Hunter Springs.

The project consists of the decommissioning and demolition of the existing package plant that is currently serving the Pelican Bay Apartment complex. The project also consists of the installation of a new transfer lift station or the retrofitting of the existing lift station and subsequent connection to an existing force main stub out located in the ROW adjacent to the property.

The removal of the package plant and connection to the City's wastewater collection system would remove 47 lbs of TN from the spring shed.

What is the anticipated start and end date for the work that will be conducted under this funding request?

Start Date: January 2021 End Date: January 2022

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

County Citrus

Latitude (decimal degrees) 28.869007

Longitude (decimal degrees) -82.598940

What is the spring name that will receive the benefit? Three Sisters Spring and Hunter's Spring which are part

Is this spring deemed impaired? Yes, with a BMAP or RAP

What is the distance from the project to the spring receiving the benefit ? 1.7 miles

Is this project in a springshed? If so, specify which one. Three Sisters Spring and Hunter's Spring

Is this project within a BMAP boundary? (●) Yes ( ) No

Is this project within a PFA boundary? (●) Yes ( ) No

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

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

Please list any restoration plans, prevention plans, recovery plans, or long term local water quality or quantity strategy plans this project is part of.

None at this time.

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 request:

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 440,000.00	$ 0.00	$ 440,000.00
WMD CFI Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Local Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 440,000.00	$ 0.00	$ 440,000.00

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. If CFI funding was not applied for, please move to the next section.

	Previous	FY2020	Future	Total
FDEP Springs Funding	$ 0.00	$ 440,000.00	$ 0.00	$ 440,000.00
Local Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Other Funding	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Total	$ 0.00	$ 440,000.00	$ 0.00	$ 440,000.00

If this is a multiyear funding request, please download the multiyear funding request spreadsheet, complete the form, and send in with this application.

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 adjacent to a previous grant funded project that was successfully completed in 2012. The project was referred to as the grant project Areas 112 & 113

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 at

Frank.Gargano@swfwmd.state.fl.us

with any questions prior to submittal.

Form A: Wastewater Collection & Treatment Projects Only

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

Crystal River WWTP

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

AWT

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

Other

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)?

0.8

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

3.9

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

0.007

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?

The residents of the apartment complex are lower income and would not be able to pay the cost of connection fees. The residents will pay a monthly sewer charge.

In reference to the 'other' destination of the final treated wastewater selected above, the treated wastewater is sent to the Duke power plant.

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

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

150 ft of 4 inch PVC

Form A: Wastewater Collection & Treatment Projects Only

Septic to Sewer Conversion Projects Complete this Section:

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

N/A

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

N/A

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

N/A

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

N/A

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

(●) Yes ( ) No

If there are more requirements to the local ordinance, such as limiting future installation of septic systems, please describe and reference the ordinance below.

N/A

Package Plant Conversion Projects Complete this Section:

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

0.007

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

6

LEGEND

- Project Area
- Parcels
- Streets

N

Feet

0 50 100

Pelican Bay Apartments Package Plant

Point of Connection to Existing Sewer System

Pelican Bay Apartments Existing Lift Station

W PLANTATION LN

N GREENLEAF FOREST RD

W FANWOOD LN

W ARMS DR

W GREEN LN

N QUIET PINES PT

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Kimley»Horn

PELICAN BAY APARTMENTS PACKAGE PLANT REMOVAL PROJECT AREA

PROPOSED PACKAGE PLANT REMOVAL AND CONNECTION TO EXISTING SEWER
CRYSTAL RIVER, FL

October 2019	Project No. XX	Figure 1

Pelican Bay Package Plant Connection

Calculate Base Load	
Package plant annual average TN concentration in mg/l *	5.9
annual average flow in mgd (actual not permitted)	0.007
Conversion	8.345
Recharge Factor (0.9, 0.5, 0.1, or 0)	0.5
Attenuation Factor for Wastewater Application (RIB .75, Reuse .25, Sprayfield .40)	0.75
original load to springshed lbs/year	47

Calculate New Load	
WWTP annual average TN concentration in mg/l	3.9
annual average flow in mgd	0.007
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)	0.75
new load to springshed lbs/year	0
Reduction in Load to Springshed lb/yr	47

Cost Effectiveness Calculation for 30 Year Period	
	WWTP upgrade
Project Cost	$440,000
cost/lb TN	$9,327.22
Cost/lb TN / 30 years	$310.91

* based on the analytical results for total nitrogen performed by Advanced Environmental Laboratories on 5/15/2019.

COST ESTIMATE FOR GRANT APPLICATION
CITY OF CRYSTAL RIVER
PELICAN BAY PACKAGE PLANT REMOVAL PROJECT

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	PELICAN BAY PACKAGE PLANT DEMOLITION AND DECOMMISSION, LIFT STATION CONSTRUCTION, AND CONNECTION TO SEWER	1	LS	$ 440,000	440,000.00
				TOTAL	**$ 440,000.00**

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.