Legislative Issue FY 24/25

Converting Private Sewer Package Plants to Centralized Sewer

Funding Request: 4,400,000

Action:

Converting Private Sewer Package Plants to Centralized Sewer - will allow the Hernando County Utilities Department to construct three more of the four lift stations needed to connect the decommissioned sewer treatment package plants and connect them to centralized sewer.

Background:

Hernando County Utilities Department received a grant from the Florida Department of Environmental Protection to decommission four existing RV sewer treatment package plants and construct lift stations to connect them to centralized sewer. The County is working on completing 100% of the design and 60% is currently finished. With the current cost estimates, there is only enough grant funding to complete one of the four lift stations needed. Hernando County Utilities Department would like to request additional funding from the State. The current shortfall to construct the remaining three totals \$4.4 million. Attached are the current cost estimates.

State Interest:

In aligning with the State's initiative to reduce and limit the levels of nitrates into the aquafer in designated BMAP areas, converting these package plants to centralized sewer will reduce nitrogen. The current systems operate similar to septic systems where the nitrates enter into the ground and also does not remove wastewater.

	PRIVATE PACKAGE WWTP							
ENGINEER'S OPINION OF PROBABLE COST (EOPC)								
ITEM	DESCRIPTION	ESTIMAT QUANTI		UNIT PRICE	AMOUNT			
I. GENERAL	I. GENERAL CONDITIONS							
	Mobilization	1	LS	\$ 224,600.00	\$224,600.00			
	Survey Layout/As-built	1	LS	\$ 112,300.00	\$112,300.00			
	Construction Material Testing	1	LS	\$ 28,100.00	\$28,100.00			
	Pre/Post Audio/Video	1	LS	\$14,000.00	\$14,000.00			
	NPDES Monitor, Report, Management	1	LS	\$ 28,100.00	\$28,100.00			
		\$407,100.00						

PRIVATE PACKAGE WWTP ENGINEER'S OPINION OF PROBABLE COST (EOPC)					
ITEM	DESCRIPTION	ESTIMAT QUANTI	ED	UNIT PRICE	AMOUNT
I. COUNT	RYSIDE ESTATES PUMP STATION & PIPING	, , , , , , , , , , , , , , , , , , , ,			
	FORCEMAIN INSTALLATION				
	Maintenance of Traffic	1	LS	\$35,000.00	\$35,000.00
	4" C900 DR18 PVC Forcemain (Open Trench Installation)	1,120	LF	\$30.00	\$33,600.00
	6" C900 DR18 PVC Forcemain (Open Trench Installation)	3,160	LF	\$41.00	\$129,560.00
	6" C900 DR18 Fusible PVC Forcemain (Directional Drill)	2,610	LF	\$110.00	\$287,100.00
	8" C900 DR18 PVC Forcemain (Open Trench Installation)	440	LF	\$55.00	\$24,200.00
	8" C900 DR18 Fusible PVC Forcemain (Directional Drill)	5,483	LF	\$120.00	\$657,960.00
	Jack & Bore - 8" Steel Casing with Carrier Pipe	185	LF	\$350.00	\$64,750.00
	DI Fitting - 4" 45 Degree Bend (MJ)	12	EA	\$750.00	\$9,000.00
	DI Fitting - 8" 45 Degree Bend (MJ)	2	EA	\$1,250.00	\$2,500.00
	DI Fitting - 6"x4" Tee (MJ)	1	EA	\$1,600.00	\$1,600.00
	DI Fitting - 8"x4" Tee (MJ)	1	EA	\$1,600.00	\$1,600.00
	DI Fitting - 6" End Cap (MJ)	1	EA	\$700.00	\$700.00
	DI Fitting - 6"x8" Reducer (MJ)	1	EA	\$700.00	\$700.00
	Grout Exist 4" Forcemain	35	LF	\$55.00	\$1,925.00
	Remove & Dispose of Exist. 4" Forcemain	4,300	LF	\$50.00	\$215,000.00
	4" Gate Valve Assembly (MJ) with Valve Box	3	EA	\$2,850.00	\$8,550.00
	6" Gate Valve Assembly (MJ) with Valve Box	8	EA	\$3,100.00	\$24,800.00
	8" Gate Valve Assembly (MJ) with Valve Box	6	EA	\$4,100.00	\$24,600.00
	Air Release Valve Assembly	6	EA	\$14,500.00	\$87,000.00
	Pig Launch/Release Ports with Box	4	EA	\$6,500.00	\$26,000.00
	8" Tapping Sleeve & Valve	1	EA	\$18,000.00	\$18,000.00
	Connect to Existing 4" Forcemain	1	EA	\$8,500.00	\$8,500.00
	Testing	12,813	LF	\$3.00	\$38,439.00
	Sodding & Restoration of Right-of-Way	15,750	SY	\$3.25	\$51,187.50
	PUMP STATION INSTALLATION	'			
	4' Dia. Manhole (6'-8')	1	EA	\$7,200.00	\$7,200.00
	4' Dia. Collector Manhole (Lined) (8'-10')	1	EA	\$16,000.00	\$16,000.00
	8" PVC SDR 26 (8'-10')	110	LF	\$48.00	\$5,280.00
	6" Dia. Wet Well with Hatch, Pumps & Piping	1	EA	\$265,000.00	\$265,000.00
	Pump Station Control Panel and Wiring (Elevated w/ Stairs)	1	EA	\$58,000.00	\$58,000.00
	Telemetry Equipment and Antenna	1	EA	\$38,000.00	\$38,000.00
	Hi Vent Odor Control System	1	EA	\$25,000.00	\$25,000.00
	Valve Vault with Hatch & Piping	1	EA	\$30,000.00	\$30,000.00
	Flow Meter Assembly & Bypass	1	EA	\$22,000.00	\$22,000.00
	6" Thick Pump Station Concrete	1,250	SF	\$12.50	\$15,625.00
	Abandon and Dismantle Existing Lift Station	1	LS	\$15,000.00	\$15,000.00
	Pump Station Fencing w/ Gate	1	LS	\$25,000.00	\$25,000.00
	Retaining Wall (Includes Structural Design)	1	LS	\$62,500.00	\$62,500.00
	1" Water Service	1	LS	\$3,000.00	\$3,000.00
	Testing	110	LF	\$4.50	\$495.00
	Sod & Restoration of Pump Station Site	1	LS	\$18,000.00	\$18,000.00
	WWTP Demolition and Restoration Per Plan	1	LS	\$200,000.00	\$200,000.00
	The semination and restoration for than			SUBTOTAL	\$2,558,400.00

PRIVATE PACKAGE WWTP						
ENGINEER'S OPINION OF PROBABLE COST (EOPC) ESTIMATED						
ITEM	DESCRIPTION	QUANT		UNIT PRICE	AMOUNT	
II. FRON	TIER CAMPROUND PUMP STATION & PIPING			·		
	FORCEMAIN INSTALLATION					
	Maintenance of Traffic	1	LS	\$2,500.00	\$2,500.00	
	4" C900 DR18 PVC Forcemain (Open Trench Installation)	160	LF	\$30.00	\$4,800.00	
	DI Fitting - 4" 45 Degree Bend (MJ)	6	EA	\$750.00	\$4,500.00	
	6"x4" Tapping Sleeve & Valve	1	EA	\$9,500.00	\$9,500.00	
	Clearing & Grubbing/Tree Removal	1	LS	\$1,200.00	\$1,200.00	
	Sodding & Restoration of Right-of-Way	360	SY	\$3.25	\$1,170.00	
	PUMP STATION INSTALLATION		1	ļ.		
	4' Dia. Manhole (6'-8')	1	EA	\$7,200.00	\$7,200.00	
	4' Dia. Collector Manhole (Lined) (8'-10')	1	EA	\$16,000.00	\$16,000.00	
	8" PVC SDR 26 (8'-10')	110	LF	\$48.00	\$5,280.00	
	6" Dia. Wet Well with Hatch, Pumps & Piping	1	EA	\$265,000.00	\$265,000.00	
	Pump Station Control Panel and Wiring	1	EA	\$36,000.00	\$36,000.00	
	Telemetry Equipment and Antenna	1	EA	\$38,000.00	\$38,000.00	
	Hi Vent Odor Control System	1	EA	\$25,000.00	\$25,000.00	
	Valve Vault with Hatch & Piping	1	EA	\$30,000.00	\$30,000.00	
	Flow Meter Assembly & Bypass	1	EA	\$25,000.00	\$25,000.00	
	6" Thick Pump Station Concrete	575	SF	\$12.50	\$7,187.50	
	Pump Station Fencing w/ Gate	1	LS	\$25,000.00	\$25,000.00	
	1" Water Service	1	LS	\$3,000.00	\$3,000.00	
	Sod & Restoration of Pump Station Site	1	LS	\$18,000.00	\$18,000.00	
	WWTP Demolition and Restoration Per Plan	1	LS	\$200,000.00	\$200,000.00	
				SUBTOTAL	\$724,400.00	

PRIVATE PACKAGE WWTP **ENGINEER'S OPINION OF PROBABLE COST (EOPC) ESTIMATED UNIT PRICE** ITEM **DESCRIPTION AMOUNT** QUANTITY IV. TOPICS RV PARK PUMP STATION & PIPING FORCEMAIN INSTALLATION 1 LS \$16,000.00 \$16,000.00 Maintenance of Traffic 4" C900 DR18 PVC Forcemain (Open Trench Installation) LF \$30.00 \$55,950.00 1,865 4" C900 DR18 Fusible PVC Forcemain (Directional Drill) LF \$100.00 350 \$35,000.00 DI Fitting - 4" 22.5 Degree Bend (MJ) 2 EΑ \$700.00 \$1,400.00 DI Fitting - 4" 45 Degree Bend (MJ) EΑ 21 \$750.00 \$15,750.00 4" Gate Valve Assembly (MJ) with Valve Box EΑ \$2,850.00 \$5,700.00 2 EΑ \$16,000.00 20"x4" Tapping Sleeve & Valve 1 \$2,850.00 Air Release Valve Assembly EΑ \$14,500.00 \$14,500.00 1 Demo & Reconstruct 18" MES 1 EΑ \$4,200.00 \$4,200.00 Sodding & Restoration of Right-of-Way 4,200 SY \$3.25 \$13,650.00 **PUMP STATION INSTALLATION** 4' Dia. Collector Manhole (Lined) (8'-10') 1 EΑ \$16,000.00 \$16,000.00 8" PVC SDR 26 (8'-10') 38 LF \$48.00 \$1,824.00 6" Dia. Wet Well with Hatch, Pumps & Piping 1 EΑ \$265,000.00 \$265,000.00 Install/Remove Temp. Bypass 3" Sch 40 PVC FM 90 LF \$60.00 \$5,400.00 Pump Station Control Panel and Wiring 1 EΑ \$36,000.00 \$36,000.00 Telemetry Equipment and Antenna 1 EΑ \$38,000.00 \$38,000.00 \$25,000.00 Hi Vent Odor Control System 1 EΑ \$25,000.00 Valve Vault with Hatch & Piping EΑ \$30,000.00 1 \$30,000.00 Flow Meter Assembly & Bypass 1 EΑ \$25,000.00 \$25,000.00 6" Thick Pump Station Concrete 350 SF \$12.50 \$4,375.00 Emergency Engine Driven Pump (Complete & Installed) 1 LS \$165,000.00 \$165,000.00 Pump Station Fencing w/ Gate 1 LS \$25,000.00 \$25,000.00 \$3,000.00 1" Water Service LS \$3,000.00 1 LS 1 \$18,000.00 Sod & Restoration of Pump Station Site \$18,000.00 Abandon and Dismantle Existing Lift Station 1 LS \$15,000.00 \$15,000.00 LS WWTP Demolition and Restoration Per Plan 1 \$200,000.00 \$200,000.00 **SUBTOTAL** \$1,037,600.00

PRIVATE PACKAGE WWTP **ENGINEER'S OPINION OF PROBABLE COST (EOPC) ESTIMATED UNIT PRICE** ITEM **DESCRIPTION AMOUNT** QUANTITY V. WEEKI WACHEE NORTH PUMP STATION & PIPING Maintenance of Traffic 1 LS \$20,000.00 \$20,000.00 LF 4" C900 DR18 PVC Forcemain (Open Trench Installation) 1,800 \$30.00 \$54,000.00 1,900 LF \$100.00 4" C900 DR18 Fusible PVC Forcemain (Directional Drill) \$190,000.00 LF 10" C900 DR18 PVC Forcemain (Open Trench Installation) 300 \$80.00 \$24,000.00 10" C900 DR18 Fusible PVC Forcemain (Directional Drill) LF \$150.00 745 \$111,750.00 EΑ \$750.00 DI Fitting - 4" 45 Degree Bend (MJ) 8 \$6,000.00 EΑ DI Fitting - 10"x4" Tee (MJ) \$1,500.00 \$1,500.00 1 EΑ DI Fitting - 10" End Cap (MJ) 1 \$850.00 \$850.00 EΑ 4" Gate Valve Assembly (MJ) with Valve Box \$2,850.00 4 \$11,400.00 10" Gate Valve Assembly (MJ) with Valve Box 1 EΑ \$6,500.00 \$6,500.00 EΑ \$6,800.00 Connect to 10" FM 1 Sodding & Restoration of Right-of-Way 3.800 SY \$3.25 \$12,350.00 **PUMP STATION INSTALLATION** \$0.00 4' Dia. Collector Manhole (Lined) (6'-8') EΑ \$14,000.00 \$14,000.00 1 8" PVC SDR 26 (6'-8') 24 LF \$48.00 \$1,152.00 EΑ 6" Dia. Wet Well with Hatch, Pumps & Piping \$265,000.00 1 \$265,000.00 Pump Station Control Panel and Wiring 1 EΑ \$36,000.00 \$36,000.00 Telemetry Equipment and Antenna 1 EΑ \$38,000.00 \$38,000.00 Hi Vent Odor Control System 1 EΑ \$25,000.00 \$25,000.00 EΑ Valve Vault with Hatch & Piping 1 \$30,000.00 \$30,000.00 LS \$165,000.00 Emergency Engine Driven Pump (Complete & Installed) 1 \$165,000.00 Flow Meter Assembly & Bypass 1 EΑ \$25,000.00 \$25,000.00 SF 6" Thick Pump Station Concrete 875 \$12.50 \$10,937.50 1 LS \$25,000.00 \$25,000.00 Pump Station Fencing w/ Gate 1" Water Service 1 LS \$3,000.00 \$3.000.00 LS \$18,000.00 Sod & Restoration of Pump Station Site 1 \$18,000.00 LS WWTP Demolition and Restoration Per Plan \$200,000.00 1 \$200,000.00 **SUBTOTAL** \$1,294,500.00

PRIVATE PACKAGE WWTP				
ENGINEER'S OPINION OF PROBABLE COST (EOPC)				
ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT

SUMMARY(BASE)		
I. GENERAL CONDITIONS		\$407,100.00
II. COUNTRYSIDE ESTATES PUMP STATION & PIPING		\$2,558,400.00
III. FRONTIER CAMPROUND PUMP STATION & PIPING		\$724,400.00
IV. TOPICS RV PARK PUMP STATION & PIPING		\$1,037,600.00
V. WEEKI WACHEE NORTH PUMP STATION & PIPING		\$1,294,500.00
1	10% CONTINGENCY	\$602,200.00
	TOTAL	\$6,624,200.00

Note: The Consultant 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 cost provided herein are based on the information known to the Consultant at this time and represent only the Consultant's judgement as a design professional familiar with the construction industry. The Consultant cannot and does not guarantee that bids or actual construction cost will not vary from that shown herein.

Coastal Engineering Associates, Inc. January, 2023



Brian M

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