SJRA
SAN JACINTO RIVER AUTHORITY

The Woodlands
10-Year Project Plan
2023 – 2032

SJRA
SAN JACINTO RIVER AUTHORITY

The Woodlands

Ten-Year Project Plan
FY 2023 – FY 2032

Revision Date: March 1, 2022

CONTENTS

The Woodlands Division
Ten Year Project Plan Executive Summary
FY 2023 – FY 2032 Projects

Introduction

The purpose of The Woodlands Division 10-Year Project Plan for Fiscal Years (FY) 2023 thru 2032 is to identify potential projects and associated funding requirements and sources to appropriately maintain and manage the SJRA Woodlands Division's extensive wholesale water supply and wastewater conveyance, and treatment assets; to continue to provide efficient and reliable services which is compliant to all state and federal regulations for the 11 Municipal Utility Districts (MUDs) in The Woodlands, Texas.

The Project Plan does not include consolidation of the wastewater treatment facilities projects. If the Woodlands MUDs determine consolidation will occur, this Project Plan will need to be revised accordingly.

Key Focus Areas:

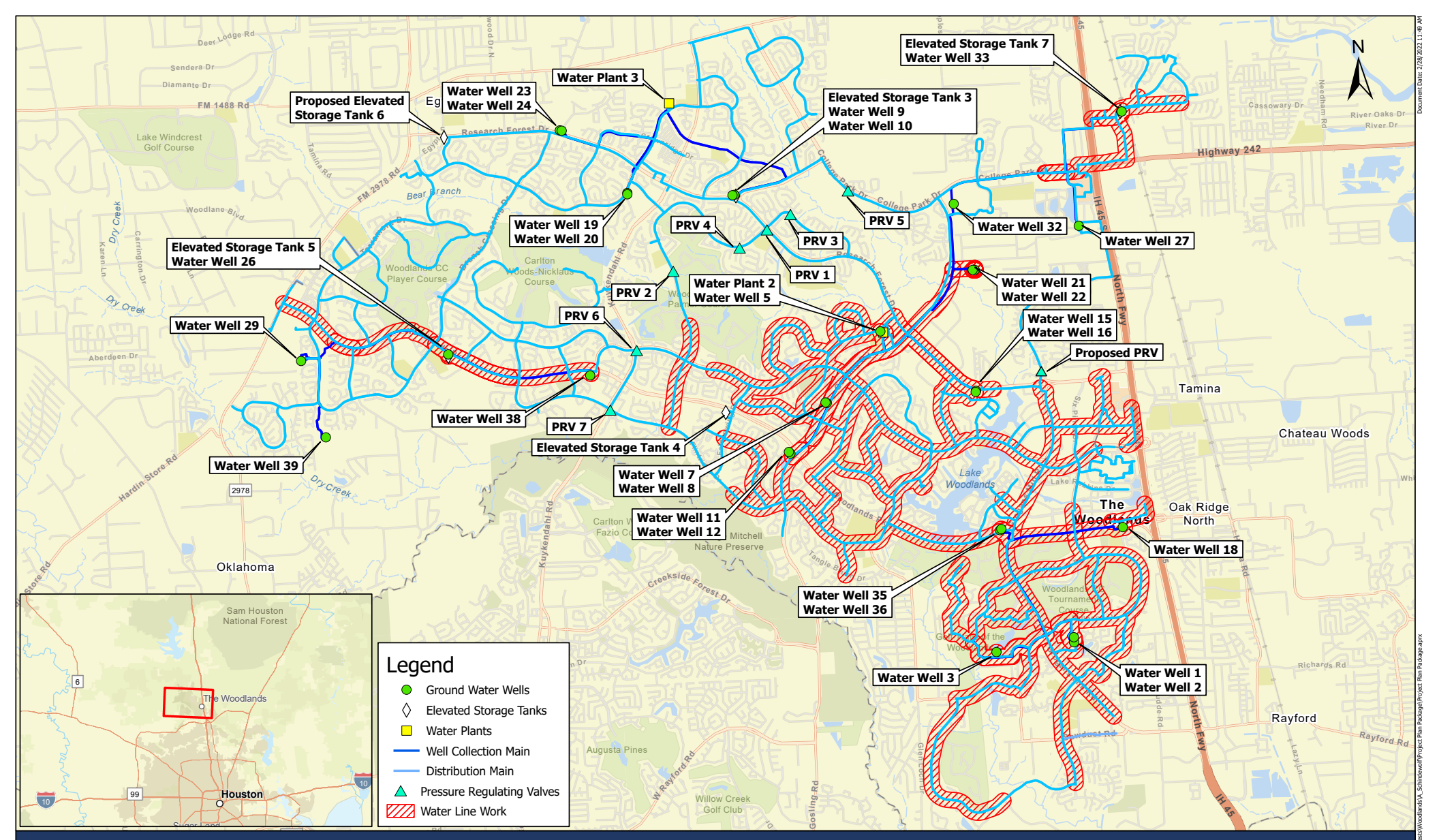
- Replacement of Aging Asbestos Cement Water Lines (235,000 LF)
- Replacement of Woodlands Parkway Water Line between FM2978 and Carlton Woods
- Renewal of Aging Water Wells (25)
- Renewal of Elevated Water Storage Tanks (4)
- Renewal or Replacement of Aging Gravity Sanitary Sewers, Lift Stations, and Force Mains (37,000 LF)
- Renewal or Replacement of Aging Wastewater Treatment Plant Components
- Construction of new Elevated Storage Tank

Total Projected Costs (All Projects)		**Funding Sources (10 – Year Period)**	
Previously Funded	$41,215,449	Renewal & Replacement Fund Water	$208,993,000
FY 2023	$13,413,000	Renewal & Replacement Fund Wastewater	$67,446,118
FY 2024	$33,176,000	2-Hour Peak Flow Projects	$61,957,000
FY 2025	$70,516,000	Debt Financed	$30,214,331
FY 2026 – FY 2032	$212,327,000	Capacity Funded	$2,037,000
Total	**$370,647,449**	**Total**	**$370,647,449**

Risk Management

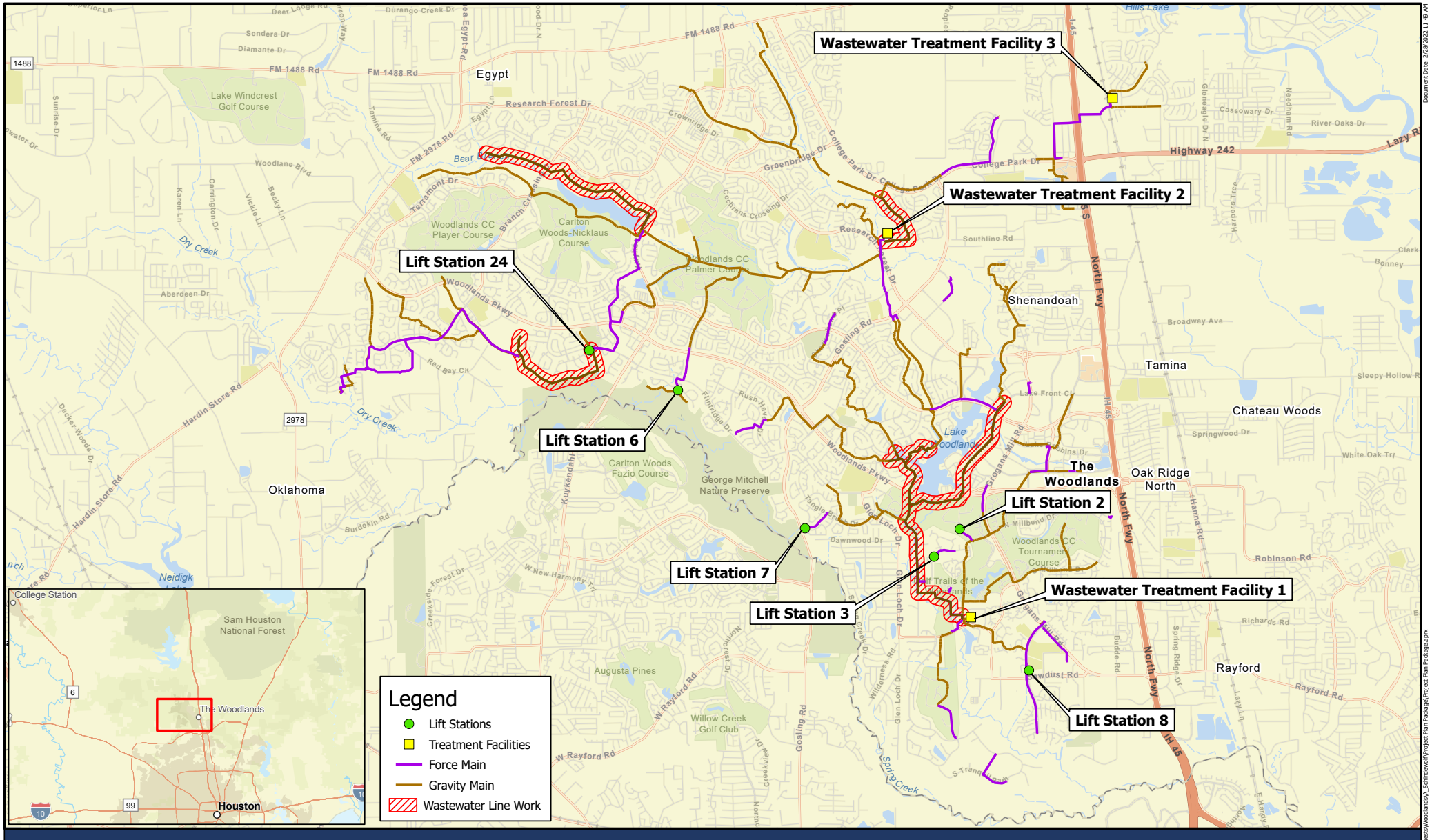
The Project Plan has been prepared utilizing condition, expected service life and available funding. Projects have been prioritized based on funding and renewal of some assets which may have been delayed past their recommended renewal service life timeline.

March 2022



Water System

SJRA
SAN JACINTO RIVER AUTHORITY



Wastewater System

SJRA SAN JACINTO RIVER AUTHORITY

SJRA
SAN JACINTO RIVER AUTHORITY

Woodlands Project Summary - Water

Woodlands Division

FY 2023 - FY 2032 Projects

PAGE NO.	PROJECT ID	PROJECT NAME	PREVIOUS BUDGET	2023 ESTIMATE	2024 ESTIMATE	2025 ESTIMATE	2026 ESTIMATE	2027 ESTIMATE	2028 ESTIMATE	2029 ESTIMATE	2030 ESTIMATE	2031 ESTIMATE	2032 ESTIMATE	TOTAL
9	WA21WL	Water Line Renewal	$ 4,567,000	$ 1,104,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 5,671,000**
10	WATCPL	Harper's Landing Water Line	$ 125,000	$ 478,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 603,000**
11	WAPRVI	Pressure Regulating Valve on Grogan's Mill Road	$ 25,000	$ 79,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 104,000**
12	WAWSTI	Water System Technology Improvements	$ -	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	**$ 1,500,000**
13	WA23WR	Water Well Rehabilitation	$ -	$ 1,432,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 1,432,000**
14	WAPRV1	Pressure Regulating Valve Rehabilitation	$ -	$ 345,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 345,000**
15	WAP2GN	Water Plant No. 2 Generator	$ -	$ 1,125,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 1,125,000**
16	WAP3GN	Water Plant No. 3 Generator	$ -	$ 1,285,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 1,285,000**
17	WAMAR1	Water System Mechanical Asset Replacement	$ -	$ 485,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 485,000**
18	WA23WL	Water Line Renewal	$ -	$ 982,000	$ 12,132,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 13,114,000**
19	WA24WR	Water Well Rehabilitation	$ -	$ -	$ 1,364,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 1,364,000**
20	WAWCL1	Water Well Collection Line Replacement	$ -	$ -	$ 1,392,000	$ 7,885,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 9,277,000**
21	WAWPWL	Woodlands Parkway Water Line Replacement	$ -	$ -	$ 2,244,000	$ 12,714,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 14,958,000**
22	WAEST6	Elevated Storage Tank No. 6	$ -	$ -	$ 983,000	$ 7,423,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 8,406,000**
23	WA24WL	Water Line Renewal	$ -	$ -	$ 4,216,000	$ 23,886,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 28,102,000**
24	WASTR2	SCADA Tower Replacement	$ -	$ -	$ -	$ 94,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 94,000**
25	WA25WR	Water Well Rehabilitation	$ -	$ -	$ -	$ 3,230,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 3,230,000**
26	WA25WL	Water Line Renewal	$ -	$ -	$ -	$ 1,372,000	$ 7,767,000	$ -	$ -	$ -	$ -	$ -	$ -	**$ 9,139,000**
27	WA26WR	Water Well Rehabilitation	$ -	$ -	$ -	$ -	$ 982,000	$ -	$ -	$ -	$ -	$ -	$ -	**$ 982,000**
28	WA26WL	Water Line Renewal	$ -	$ -	$ -	$ -	$ 1,524,000	$ 8,635,000	$ -	$ -	$ -	$ -	$ -	**$ 10,159,000**
29	WAET5R	Elevated Storage Tank No. 5 Rehabilitation	$ -	$ -	$ -	$ -	$ -	$ 1,268,000	$ -	$ -	$ -	$ -	$ -	**$ 1,268,000**
30	WAMAR2	Water System Mechanical Asset Replacement	$ -	$ -	$ -	$ -	$ -	$ 77,000	$ -	$ -	$ -	$ -	$ -	**$ 77,000**
31	WASTR3	SCADA Tower Replacement	$ -	$ -	$ -	$ -	$ -	$ 99,000	$ -	$ -	$ -	$ -	$ -	**$ 99,000**
32	WA27WR	Water Well Rehabilitation	$ -	$ -	$ -	$ -	$ -	$ 1,716,000	$ -	$ -	$ -	$ -	$ -	**$ 1,716,000**
33	WA2GT1	Water Plant No. 2 Ground Storage Tank No. 1 Replacement	$ -	$ -	$ -	$ -	$ -	$ 600,000	$ 4,530,000	$ -	$ -	$ -	$ -	**$ 5,130,000**
34	WA27WL	Water Line Renewal	$ -	$ -	$ -	$ -	$ -	$ 2,338,000	$ 13,246,000	$ -	$ -	$ -	$ -	**$ 15,584,000**
35	WAET7R	Elevated Storage Tank No. 7 Rehabilitation	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,267,000	$ -	$ -	$ -	$ -	**$ 1,267,000**
36	WAPRV2	Pressure Regulating Valve Rehabilitation	$ -	$ -	$ -	$ -	$ -	$ -	$ 165,000	$ -	$ -	$ -	$ -	**$ 165,000**
37	WA28WR	Water Well Rehabilitation	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,562,000	$ -	$ -	$ -	$ -	**$ 1,562,000**
38	WA28WL	Water Line Renewal	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,576,000	$ 8,933,000	$ -	$ -	$ -	**$ 10,509,000**
39	WAMAR3	Water System Mechanical Asset Replacement	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 14,000	$ -	$ -	$ -	**$ 14,000**
40	WAET3R	Elevated Storage Tank No. 3 Rehabilitation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,551,000	$ -	$ -	$ -	**$ 1,551,000**
41	WA29WR	Water Well Rehabilitation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,685,000	$ -	$ -	$ -	**$ 1,685,000**
42	WA29WL	Water Line Renewal	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,758,000	$ 9,963,000	$ -	$ -	**$ 11,721,000**
43	WA30WR	Water Well Rehabilitation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 867,000	$ -	$ -	**$ 867,000**
44	WAET4R	Elevated Storage Tank No. 4 Rehabilitation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,265,000	$ -	$ -	**$ 1,265,000**
45	WA123A	Abandon Water Well Nos. 1, 2 and 3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 651,000	$ -	$ -	**$ 651,000**
46	WA30WL	Water Line Renewal	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,774,000	$ 10,051,000	$ -	**$ 11,825,000**
47	WAWW40	Water Well No. 40	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,575,000	$ 7,884,000	$ -	**$ 9,459,000**
48	WA1WGN	Water Well Site Generator	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 125,000	$ 943,000	$ -	**$ 1,068,000**
49	WAMAR4	Water System Mechanical Asset Replacement	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,325,000	$ -	**$ 1,325,000**
50	WA31WR	Water Well Rehabilitation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,159,000	$ -	**$ 1,159,000**
51	WA31WL	Water Line Renewal	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,220,000	$ 6,915,000	**$ 8,135,000**
52	WA32WL	Water Line Renewal	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,128,000	**$ 3,128,000**
53	WA32WR	Water Well Rehabilitation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,626,000	**$ 2,626,000**
54	WAWCL2	Water Well Collection Line Replacement	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,762,000	**$ 3,762,000**
	TOTALS		**$ 4,717,000**	**$ 7,465,000**	**$ 22,481,000**	**$ 56,754,000**	**$ 10,423,000**	**$ 14,883,000**	**$ 22,496,000**	**$ 14,091,000**	**$ 16,370,000**	**$ 22,732,000**	**$ 16,581,000**	**$ 208,993,000**

SJRA
SAN JACINTO RIVER AUTHORITY

Woodlands Project Summary - Wastewater

Woodlands Division

FY 2023 - FY 2032 Projects

PAGE NO.	PROJECT ID	PROJECT NAME	PREVIOUS BUDGET	2023 ESTIMATE	2024 ESTIMATE	2025 ESTIMATE	2026 ESTIMATE	2027 ESTIMATE	2028 ESTIMATE	2029 ESTIMATE	2030 ESTIMATE	2031 ESTIMATE	2032 ESTIMATE	TOTAL
55	WWF3PW	WWTF No. 3 PPW Pressure System Rehabilitation	$ 375,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 375,000**
56	WWP2HW	WWTF No. 2 Headworks Rehabilitation	$ 3,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 3,000,000**
57	WW02FR	WWTF No. 2 Tertiary Filter Improvements (2nd and 3rd Filter)	$ 376,118	$ -	$ 4,421,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 4,797,118**
58	WWFM5R	Lift Station No. 5 Force Main Replacement	$ 5,298,000	$ -	$ 2,200,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 7,498,000**
59	WW22FM	Forcemain Renewal	$ 150,000	$ -	$ 1,010,000	$ 1,014,000	$ 994,000	$ 1,010,000	$ -	$ -	$ -	$ -	$ -	**$ 4,178,000**
60	WW21LS	Lift Station Rehabilitation	$ 404,000	$ 442,000	$ 254,000	$ 262,000	$ 267,000	$ 275,000	$ 284,000	$ 291,000	$ 301,000	$ 310,000	$ -	**$ 3,090,000**
61	WWWSTI	Wastewater System Technology Improvements	$ -	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	**$ 1,500,000**
62	WWP1EC	WWTF No. 1 Effluent Channel Rehabilitation	$ -	$ -	$ 936,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 936,000**
63	WW23GR	Gravity Main Rehabilitation	$ -	$ -	$ 913,000	$ 6,525,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 7,438,000**
64	WW01CR	WWTF No. 1 Clarifier Rehabilitation	$ -	$ -	$ 203,000	$ -	$ 1,639,000	$ -	$ -	$ -	$ -	$ -	$ -	**$ 1,842,000**
65	WWF1LS	WWTF No. 1 Lift Station Rehabilitation	$ -	$ -	$ -	$ -	$ 563,000	$ 3,431,000	$ -	$ -	$ -	$ -	$ -	**$ 3,994,000**
66	WWF1GN	WWTF No. 1 Generator Replacement	$ -	$ -	$ -	$ -	$ 102,000	$ 1,144,000	$ -	$ -	$ -	$ -	$ -	**$ 1,246,000**
67	WW2SCR	WWTF No. 2 Belt Press and Conveyor Replacement	$ -	$ -	$ -	$ -	$ -	$ 468,000	$ 3,430,000	$ -	$ -	$ -	$ -	**$ 3,898,000**
68	WW25GR	Gravity Main Rehabilitation	$ -	$ -	$ -	$ -	$ -	$ 593,000	$ 4,463,000	$ -	$ -	$ -	$ -	**$ 5,056,000**
69	WW27GR	Gravity Main Rehabilitation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 963,000	$ 7,443,000	$ -	$ -	**$ 8,406,000**
70	WW1D1R	WWTF No. 1 Digester No. 1 Replacement	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 326,000	$ 1,819,000	$ -	**$ 2,145,000**
71	WWP2BR	WWTF No. 2 Blower Replacement	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,873,000	$ -	**$ 1,873,000**
72	WW02CR	WWTF No. 2 Clarifier Rehabilitation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,040,000	$ -	**$ 2,040,000**
73	WWP2BC	WWTF No. 2 Basin Coating	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,134,000	$ -	**$ 4,134,000**
	TOTALS		**$ 9,603,118**	**$ 592,000**	**$ 10,087,000**	**$ 7,951,000**	**$ 3,715,000**	**$ 7,071,000**	**$ 8,327,000**	**$ 1,404,000**	**$ 8,220,000**	**$ 10,326,000**	**$ 150,000**	**$ 67,446,118**

SJRA
SAN JACINTO RIVER AUTHORITY

Woodlands Project Summary - TWDB Bond Fund

Woodlands Division

FY 2023 - FY 2032 Projects

PAGE NO.	PROJECT ID	PROJECT NAME	PREVIOUS BUDGET	2023 ESTIMATE	2024 ESTIMATE	2025 ESTIMATE	2026 ESTIMATE	2027 ESTIMATE	2028 ESTIMATE	2029 ESTIMATE	2030 ESTIMATE	2031 ESTIMATE	2032 ESTIMATE	TOTAL
74	WWF1AB*	WWTF No. 1 Replacement of Aeration Basin Nos. 1 and 2	$ 12,812,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 12,812,000**
75	WW21GR	South Shore Gravity Main Rehabilitation	$ 10,759,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 10,759,000**
76	WWTREG	Wastewater System Consolidation	$ 1,287,331	$ 5,356,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 6,643,331**
	TOTALS		**$ 24,858,331**	**$ 5,356,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 30,214,331**

* WWF1AB (TWDB Bond Fund) and WW1AB (Capacity, 6th & Final Accounting, $2,037,000) projects are combined. Projects contingent upon result of the feasibility study and consolidation.

SJRA
SAN JACINTO RIVER AUTHORITY

Woodlands Project Summary - Capacity

Woodlands Division
FY 2023 - FY 2032 Projects

PAGE NO.	PROJECT ID	PROJECT NAME	PREVIOUS BUDGET	2023 ESTIMATE	2024 ESTIMATE	2025 ESTIMATE	2026 ESTIMATE	2027 ESTIMATE	2028 ESTIMATE	2029 ESTIMATE	2030 ESTIMATE	2031 ESTIMATE	2032 ESTIMATE	TOTAL
77	WW1AB*	WWTF No. 1 Aeration Basin Nos. 1 and 2 Capacity Increase	$ 2,037,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 2,037,000**
	TOTALS		**$ 2,037,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,037,000**

* WWF1AB (TWDB Bond Fund) and WW1AB (Capacity, 6th & Final Accounting, $2,037,000) projects are combined. Projects contingent upon result of the feasibility study and consolidation.

SJRA
SAN JACINTO RIVER AUTHORITY

Woodlands Project Summary - Peak Flow Projects

Woodlands Division

FY 2023 - FY 2032 Projects

PAGE NO.	PROJECT ID	PROJECT NAME	PREVIOUS BUDGET	2023 ESTIMATE	2024 ESTIMATE	2025 ESTIMATE	2026 ESTIMATE	2027 ESTIMATE	2028 ESTIMATE	2029 ESTIMATE	2030 ESTIMATE	2031 ESTIMATE	2032 ESTIMATE	TOTAL
78	WW2HPF	Wet Weather Flow Capacity Projects	$ -	$ -	$ 608,000	$ 5,811,000	$ 16,290,000	$ 17,053,000	$ 10,361,000	$ 7,977,000	$ 3,857,000	$ -	$ -	**$ 61,957,000**
	TOTALS		**$ -**	**$ -**	**$ 608,000**	**$ 5,811,000**	**$ 16,290,000**	**$ 17,053,000**	**$ 10,361,000**	**$ 7,977,000**	**$ 3,857,000**	**$ -**	**$ -**	**$ 61,957,000**

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Line Renewal	WA21WL	2021-2022	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

The SJRA owns and maintains approximately 120 miles of potable water distribution lines 12-inches and larger diameter in the Woodlands. The existing distribution system contains 47 miles of asbestos cement (AC) lines. Approximately 20 miles of all water lines are more than 40 years old, and the majority of which are made of AC material. Industry asset management practices suggest that AC water lines have the higher frequency of failure, and average useful life of 50 years. Historically, SJRA has experienced on average 9 failures per year, and is trending upward. Due to the aging water distribution infrastructure and increasing rate of breaks, water line renewal is necessary to decrease repair frequencies, improve reliability to end-users and maintain requested level of service. This project is part of a phased asset management approach to continuously replace water lines in the system, with a plan to replace all AC water lines within the next 20 years. Other projects as described in WA23WL, WA25WL, and WA27WL will accomplish the goal of replacing all of the AC pipe in the system. The AC lines will be replaced with PVC or HDPE lines with an average expected useful life of more than 80 years.

Using the SJRA Asset Management Plan strategy, and confirmed by a consultant, Likelihood of Failure, Consequence of Failure, and Mitigation Factors were used to score and prioritize replacement of the AC water lines. From this, approximately 14,000 linear feet (2.7 miles) of water main in the Grogan's Mill and Metro Center areas were identified for the first project scope. These segments include approximately 2,600 LF of 12-inch water line along Six Pines Drive, approximately 6,600 LF of 12-inch water line along Grogan's Mill Road, and approximately 5,000 LF of 12-inch water line along Lake Woodlands Drive. These locations include replacement of water lines under major roadway intersections including Grogan's Mill, Woodlands, Parkway, Lake Woodlands Drive, and Timberloch Place.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2020 - Q4	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2020 - Q4	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2023 - Q1		☑ R&R
Proposals/Bids Received:	FY 2023 - Q1		☐ Other
Constr. Contract to Board:	FY 2023 - Q2		
Substantial Completion:	FY 2024 - Q2	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 250,000	$ 250,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 504,000	$ 504,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 4,470,000	$ 3,466,000	$ 1,004,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 447,000	$ 347,000	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 5,671,000	$ 4,567,000	$ 1,104,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Harper's Landing Water Line	WATCPL	2022-2023	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

The Village of Harper's Landing is located north of SH 242 and east of IH-45, and currently is served with potable water pumped from SJRA Water Plant No. 5, located on the west side of IH-45. Between the Trade Center Parkway/Harper's Landing Blvd. intersection and Elevated Storage Tank No. 7 (EST 7), only one water line exists that delivers the water to this neighborhood. In the event of the need for shut-down of this water line, Harper's Landing would have no source of potable water.

A 12-inch water line is proposed to be installed along Trade Center Parkway between Harper's Landing and EST 7, a distance of approximately 470 linear feet. This will complete the loop to the system which will provide another source of potable water to Harper's Landing. Due to multiple utilities in this area, and to minimize disturbance to the route, trenchless installation is proposed for construction.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2021 - Q3	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2021 - Q4	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2022 - Q3		☑ R&R
Proposals/Bids Received:	FY 2022 - Q4		☐ Other
Constr. Contract to Board:	FY 2023 - Q1		
Substantial Completion:	FY 2023 - Q4	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 100,000	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 428,000	$ -	$ 428,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 50,000	$ -	$ 50,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ 25,000	$ 25,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 603,000	$ 125,000	$ 478,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Pressure Regulating Valve on Grogan's Mill Road	WAPRVI	2022-2023	The Woodlands

In 2015, a 16-inch water distribution line was installed to connect the Water Plant No. 1 service area to the Water Plant No. 5 service area. The line was installed to allow for operational flexibility and system pressure maintenance in the case of water plant or elevated storage tank (EST) shut-down in either service area. However, during operations thereafter, the elevation difference between the two service areas caused uneven pressures in the two areas, resulting in Water Plant No. 5 overcompensating for both service areas.

A Pressure Regulating Valve will be installed on the 12-inch water distribution line on Grogan's Mill Road south of the connection to the 16-inch line to allow for controlled flow between the two service areas.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2021 - Q3	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2022 - Q1	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2022 - Q3		☑ R&R
Proposals/Bids Received:	FY 2022 - Q4		☐ Other
Constr. Contract to Board:	FY 2022 - Q4		
Substantial Completion:	FY 2023 - Q4	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 25,000	$ 25,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 54,000	$ -	$ 54,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 15,000	$ -	$ 15,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ 10,000	$ -	$ 10,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 104,000	$ 25,000	$ 79,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

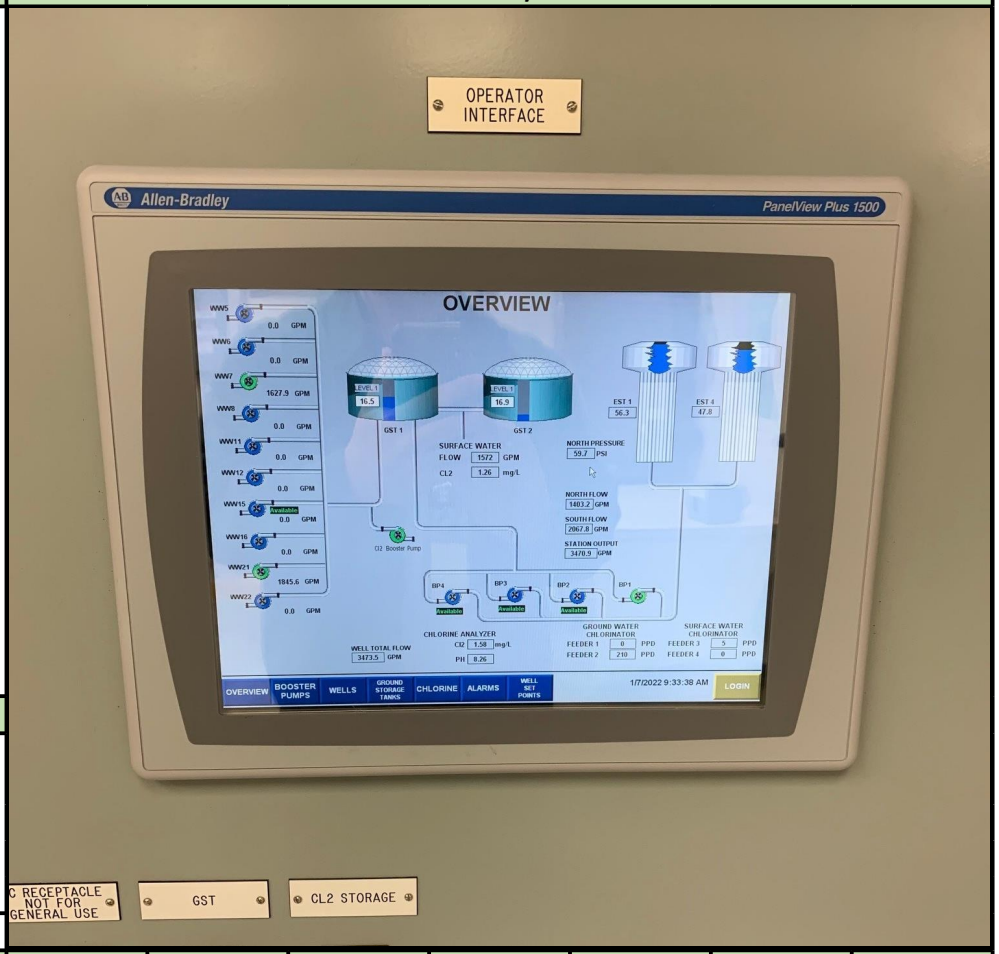
*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water System Technology Improvements	WAWSTI	2023-2032	The Woodlands

The Woodlands Division water and wastewater systems have various software and technology assets that require updating and replacement in order to achieve or maintain efficiencies. The Division uses software for operational data storage, calculating and reporting, modeling of water and wastewater systems, GIS mapping, SCADA data storage and reporting, electronic record keeping, and asset management. These software's generally require occasional updates based on technological advancements as well as process changes within the water and wastewater systems.

These funds will be used to maintain and update technology in terms of software functionality, hardware needs, and hardware required for updated software.

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	As Needed	☑ CSP	☐ O&M
PSA/WO Issued:	As Needed	☐ Other	☐ Bonds
Final Proposal Docs:	As Needed		☑ R&R
Proposals/Bids Received:	As Needed		☐ Other
Constr. Contract to Board:	As Needed		
Substantial Completion:	As Needed	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 125,000	$ -	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500
Construction	$ 1,250,000	$ -	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 125,000
CPS, CM&I, and CMT	$ 125,000	$ -	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,500,000	$ -	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Well Rehabilitation	WA23WR	2023	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

The Woodlands began receiving treated surface water in 2015, however, peak water demands will continue to be met by existing ground water wells. Consequently, continued well rehabilitation is necessary in order to prolong service life, minimize risk of failure and reduce increased maintenance of the wells. SJRA completes an semi-annual inspection of each water well to determine which well(s) may require rehabilitation. The targeted well(s) are compared to the long-term water production needs of The Woodlands, then evaluated based on the well retirement plan for rehabilitation or abandonment.

Based upon an evaluation of the 38 water wells, Well Nos. 5, 11 and 32 are anticipated to have the need for rehabilitation based upon date of last previous rehabilitation and production capabilities. Rehabilitation of Well Nos. 5, 11 and 32 will begin with an inspection of all well related equipment and a video of the well. Based upon the inspection, the project may include replacement of pump and well equipment; wire brushing the well screen section; jetting out and removing fill material from the bottom of the well; and performing acid chemical treatment of the well screen sections. Rehabilitation may also include adding gravel pack material to the well if needed. This project may include lowering of the well pump and increasing the motor size for Well Nos. 5 and 11.

Water Well No. 5 - Jasper Aquifer; Design GPM: 1,500
Water Well No. 11 - Jasper Aquifer; Design GPM: 1,600
Water Well No. 32 - Evangeline Aquifer; Design GPM: 800

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2023 - Q1	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2023 - Q1	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2023 - Q3		☑ R&R
Proposals/Bids Received:	FY 2023 - Q3		☐ Other
Constr. Contract to Board:	FY 2023 - Q4		
Substantial Completion:	FY 2024 - Q3	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 119,000	$ -	$ 119,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 1,194,000	$ -	$ 1,194,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 119,000	$ -	$ 119,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,432,000	$ -	$ 1,432,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Pressure Regulating Valve Rehabilitation	WAPRV1	2023	The Woodlands

The Woodlands Water System is divided into three pressure planes as a result of elevation differences across the Woodlands geographic area. Where water lines cross the pressure plane boundaries, pressure regulating valves (PRVs) have been installed to maintain consistent pressures in each pressure plane, but allow for cross-over flow from one pressure plane to the other in the event of a pressure drop resulting from a water line failure or fire event. The expected useful life of the PRV assembly is 30 years and several PRVs in the system have reached or are near reaching the end of this lifespan.

This project will be for the replacement of the internal components of PRV Nos. 1, 2, 3, 4 and 5, which were installed between 1989 and 1996.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2023 - Q1	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2023 - Q1	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2023 - Q3		☑ R&R
Proposals/Bids Received:	FY 2023 - Q4		☐ Other
Constr. Contract to Board:	FY 2023 - Q4		
Substantial Completion:	FY 2024 - Q3	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 335,000	$ -	$ 335,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 10,000	$ -	$ 10,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 345,000	$ -	$ 345,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Plant No. 2 Generator	WAP2GN	2023	The Woodlands

Water Plant No. 2 is one of five water plants owned and operated by the San Jacinto River Authority (SJRA) in The Woodlands. At Water Plant No. 2, ground water from eight (8) water wells is collected and blended with surface water from SJRA's GRP Division surface water plant at Lake Conroe. Each water plant provides a vital role in the water blending, water chlorination, and pumping water out into the distribution system to serve customers of The Woodlands.

Currently, Water Plant No. 2 has one booster pump and an on-site Evangeline Aquifer water well connected to a natural gas auxiliary engine for backup power. Both of these engines were installed in 1982, and are nearing the end of their useful life. The site also has a small 10MW natural gas generator for backup power to controls, installed in 2012. To continue reliability of the water plant during power outages and allow for more capacity during an outage situation, a 1 megawatt (MW) diesel generator will be installed which will be able to power two booster pumps, the on-site Jasper aquifer well (higher producing well) and the controls.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2023 - Q1	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2023 - Q1	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2023 - Q4		☑ R&R
Proposals/Bids Received:	FY 2023 - Q4		☐ Other
Constr. Contract to Board:	FY 2023 - Q4		
Substantial Completion:	FY 2024 - Q4	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 94,000	$ -	$ 94,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 937,000	$ -	$ 937,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 94,000	$ -	$ 94,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,125,000	$ -	$ 1,125,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Plant No. 3 Generator	WAP3GN	2023	The Woodlands

Water Plant No. 3 is one of five water plants owned and operated by the San Jacinto River Authority (SJRA) in The Woodlands. At Water Plant No. 3, ground water from eight (8) water wells is collected and blended with surface water from SJRA's GRP Division surface water plant at Lake Conroe. Each water plant provides a vital role in the water blending, water chlorination, and pumping water out into the distribution system to serve customers of The Woodlands.

Currently, Water Plant No. 3 has a 450 kilowatt (kW) diesel generator that can provide power for two booster pumps. Also, one on-site water well has a natural gas auxiliary engine. Due to increasing water demands in the Water Plant No. 3 service area, additional pumping capacity is required at this plant. Therefore, a larger generator will be required to allow for increased pumping capacity at hte plant. A 1,000 kW diesel generator will be installed at Water Plant No. 3 to provide backup power for this increased load.

The 450 kW generator currently at Water Plant No. 3 was installed in 2016, and therefore, has remaining useful life. This generator will be moved to Water Plant No. 1 where it will be able to provide backup power for two booster pumps. Water Plant No. 1 currently has one booster pump with backup power provided by an auxiliary engine installed in 1973 that has reached the end of its useful life.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2023 - Q1	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2023 - Q1	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2023 - Q4		☑ R&R
Proposals/Bids Received:	FY 2023 - Q4		☐ Other
Constr. Contract to Board:	FY 2023 - Q4		
Substantial Completion:	FY 2024 - Q4	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 107,000	$ -	$ 107,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 1,071,000	$ -	$ 1,071,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 107,000	$ -	$ 107,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,285,000	$ -	$ 1,285,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water System Mechanical Asset Replacement	WAMAR1	2023	The Woodlands

The SJRA Woodlands Division water system contains several hundred mechanical assets including motors, pumps, chlorinators engines, motor control valves, generators, transfer switches, and motor control centers. As these assets reach the end of their useful life, these assets require replacement to maintain the current level of service. These replacements will be performed as part of an on-going series of projects.

Other projects in the 10-Year Project Plan to replace Water System Mechanical Assets include WAMAR2, WAMAR3, and WAMAR4.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	As Needed	☑ CSP	☐ O&M
PSA/WO Issued:	As Needed	☐ Other	☐ Bonds
Final Proposal Docs:	As Needed		☑ R&R
Proposals/Bids Received:	As Needed		☐ Other
Constr. Contract to Board:	As Needed		
Substantial Completion:	As Needed	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 475,000	$ -	$ 475,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 10,000	$ -	$ 10,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 485,000	$ -	$ 485,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Line Renewal	WA23WL	2023-2024	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

The SJRA owns and maintains approximately 120 miles of potable water distribution lines 12-inches and larger diameter in the Woodlands. The existing distribution system contains 47 miles of asbestos cement (AC) lines. Approximately 20 miles of all water lines are more than 40 years old, and the majority of which are made of AC material. Industry asset management practices suggest that AC water lines have the higher frequency of failure, and average useful life of 50 years. Historically, SJRA has experienced on average 9 failures per year, and is trending upward.

Due to the aging water distribution infrastructure and increasing rate of breaks, water line renewal is necessary to decrease repair frequencies, improve reliability to end-users and maintain requested level of service. This project is part of a phased asset management approach to continuously replace water lines in the system, with a plan to replace all AC water lines within the next 20 years. Other projects as described in WA21WL, WA24WL, WA25WL, WA26WL, WA27WL, WA28WL, WA29WL, WA30WL, WA31WL, and WA32WL will accomplish the goal of replacing all of the AC pipe in the system. The AC lines will be replaced with PVC or HDPE lines with an average expected useful life of more than 80 years.

Using the SJRA Asset Management Plan strategy, and confirmed by a consultant, Likelihood of Failure, Consequence of Failure, and Mitigation Factors were used to score and prioritize replacement of the AC water lines in the Woodlands Division System. From this, approximately 27,000 linear feet (5 miles) of 12 and 16-inch AC water mains along Lake Front Circle and Pinecroft Drive between Grogan's Mill Road and IH-45 and along Grogan's Mill Road south of Woodlands Parkway were identified for this project scope.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2023 - Q1	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2023 - Q1	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2024 - Q1		☑ R&R
Proposals/Bids Received:	FY 2024 - Q1		☐ Other
Constr. Contract to Board:	FY 2024 - Q2		
Substantial Completion:	FY 2025 - Q2	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 982,000	$ -	$ 982,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 1,011,000	$ -	$ -	$ 1,011,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 10,110,000	$ -	$ -	$ 10,110,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 1,011,000	$ -	$ -	$ 1,011,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 13,114,000	$ -	$ 982,000	$ 12,132,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Well Rehabilitation	WA24WR	2024	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

The Woodlands began receiving treated surface water in 2015, however, peak water demands will continue to be met by existing ground water wells. Consequently, continued well rehabilitation is necessary in order to prolong service life, minimize risk of failure and reduce increased maintenance of the wells. SJRA completes an semi-annual inspection of each water well to determine which well(s) may require rehabilitation. The targeted well(s) are compared to the long-term water production needs of The Woodlands, then evaluated based on the well retirement plan for rehabilitation or abandonment.

Based upon an evaluation of the 38 water wells, Well Nos. 7 and 33 are anticipated to have the need for rehabilitation based upon date of last previous rehabilitation and production capabilities. Rehabilitation of Well Nos. 7 and 33 will begin with an inspection of all well related equipment and a video of the well. Based upon the inspection, the project may include replacement of pump and well equipment; wire brushing the well screen section; jetting out and removing fill material from the bottom of the well; and performing acid chemical treatment of the well screen sections. Rehabilitation may also include adding gravel pack material to the well if needed. This project may include lowering of the well pump and increasing the motor size at both locations.

Water Well No. 7 - Jasper Aquifer; Design GPM: 1,500
Water Well No. 33 - Jasper Aquifer; Design GPM: 1,500

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2024	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2024	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2024		☑ R&R
Proposals/Bids Received:	FY 2024		☐ Other
Constr. Contract to Board:	FY 2024		
Substantial Completion:	FY 2025	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 114,000	$ -	$ -	$ 114,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 1,136,000	$ -	$ -	$ 1,136,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 114,000	$ -	$ -	$ 114,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,364,000	$ -	$ -	$ 1,364,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

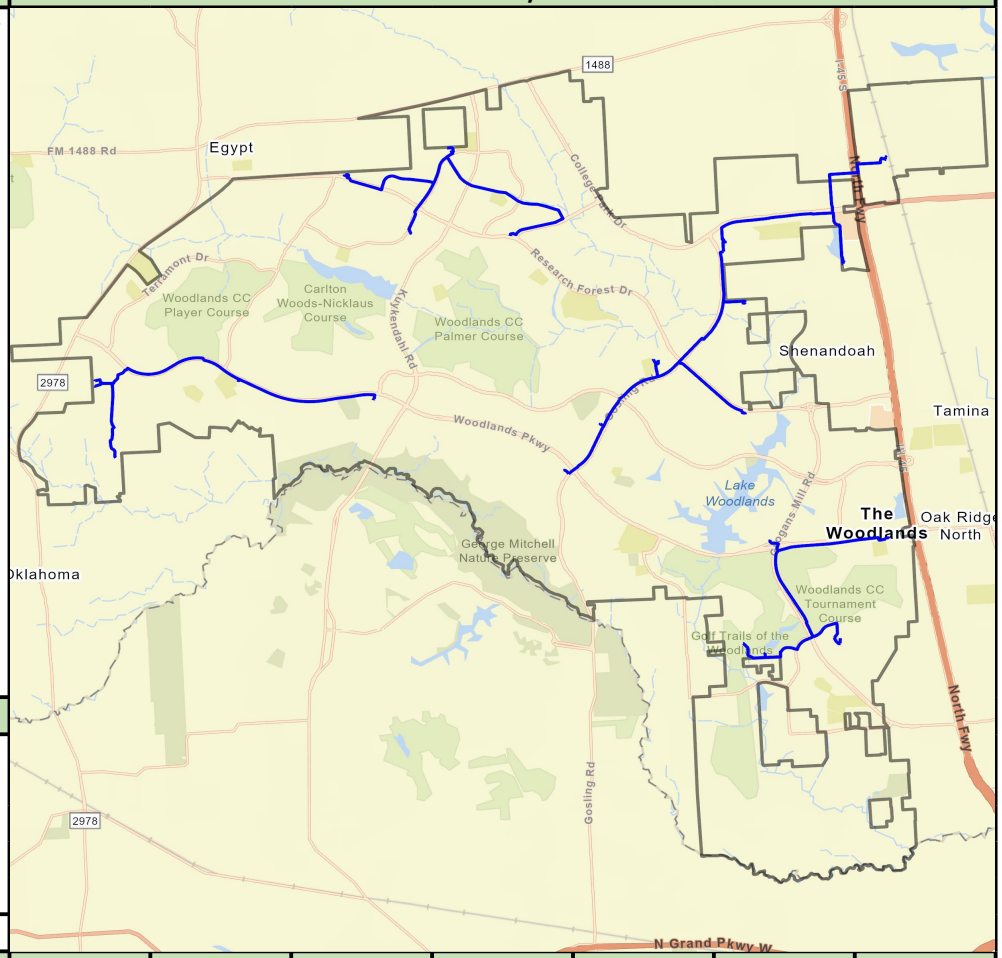
*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Well Collection Line Replacement	WAWCL1	2024-2025	The Woodlands

The SJRA Woodlands Division owns and operates 38 groundwater wells, which produce groundwater which must be conveyed to a water plant to be blended with surface water and chlorinated. Well collection lines are low-pressure water lines which convey this untreated groundwater to the water plant at a ground storage tank.

Several of the well collection lines are nearing 40-years of age, and being comprised of non-plastic materials (asbestos cement, ductile iron, concrete) are nearing the end of their expected useful life. This project is expected to include the replacement of the well collection line from Well Site No. 3.

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2024	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2024	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2025		☑ R&R
Proposals/Bids Received:	FY 2025		☐ Other
Constr. Contract to Board:	FY 2025		
Substantial Completion:	FY 2026	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 696,000	$ -	$ -	$ 696,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 696,000	$ -	$ -	$ 696,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 7,168,000	$ -	$ -	$ -	$ 7,168,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 717,000	$ -	$ -	$ -	$ 717,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 9,277,000	$ -	$ -	$ 1,392,000	$ 7,885,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -

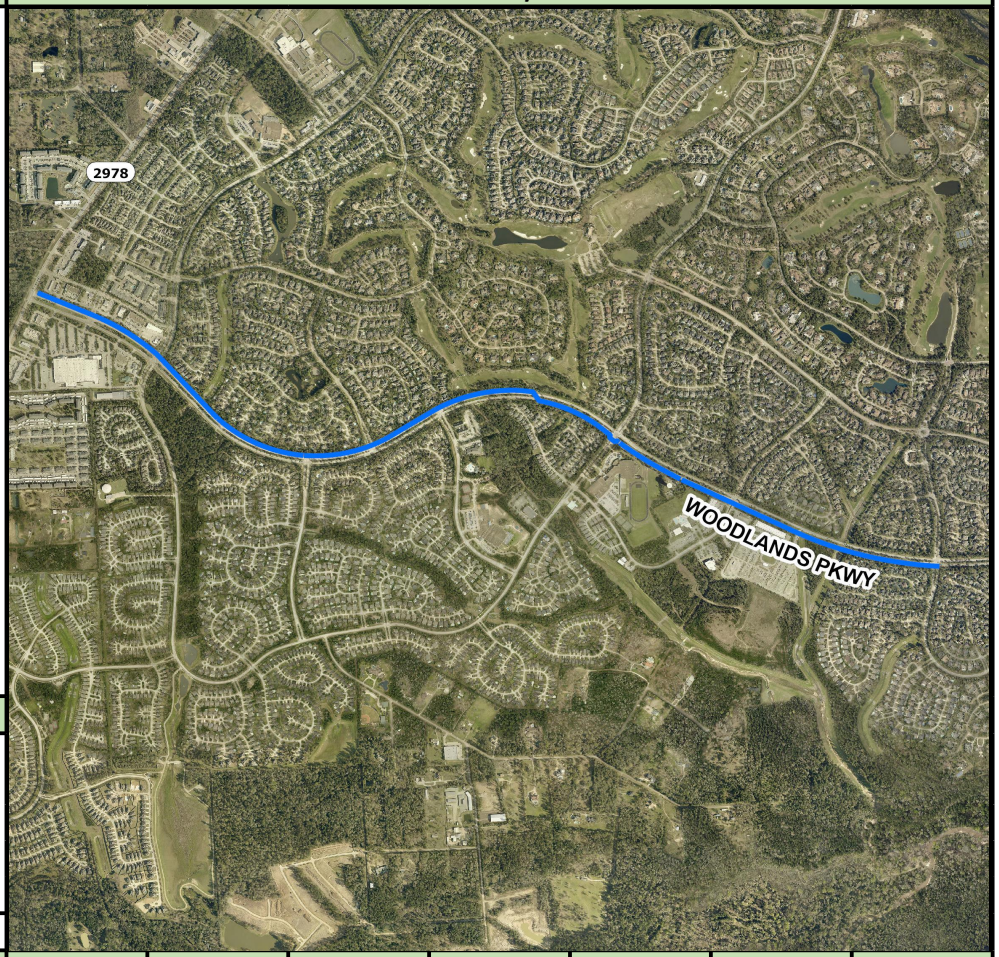
*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Woodlands Parkway Water Line Replacement	WAWPWL	2024-2025	The Woodlands

The 16/24-inch water line along Woodlands Parkway between FM 2978 and Carlton Woods Drive was installed in phases between 2000 and 2005. However, since that time, this water line has experienced approximately 30 breaks in locations along the entire alignment. Most of the failures that have occurred appear to have been a result of installation method, resulting in pipe movement over time, which ultimately results in failure, primarily starting at the fitting connections.

The water line is anticipated to be replaced with a fused PVC or HDPE pipe primarily installed using trenchless methods. This will result in a pipe with few fittings.

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2023	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2024	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2025		☑ R&R
Proposals/Bids Received:	FY 2025		☐ Other
Constr. Contract to Board:	FY 2025		
Substantial Completion:	FY 2027	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 1,122,000	$ -	$ -	$ 1,122,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 1,122,000	$ -	$ -	$ 1,122,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 11,558,000	$ -	$ -	$ -	$ 11,558,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 1,156,000	$ -	$ -	$ -	$ 1,156,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 14,958,000	$ -	$ -	$ 2,244,000	$ 12,714,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Elevated Storage Tank No. 6	WAEST6	2024-2025	The Woodlands

Elevated Storage Tank No. 6 is a proposed 1.0 million gallon (MG) composite elevated storage tank (EST) to be constructed in the Upper Pressure Plane of the Woodlands Division water system. ESTs provide pressure stabilization in the water distribution system, preventing the need for water plant booster pumps to operate constantly to maintain system pressure. ESTs also provide additional water storage in the event of a nearby fire event.

Based upon the updated water model, an additional EST is needed to for pressure maintenance in the Upper, Middle and Lower Pressure Planes. Placing the EST in the Upper Pressure Plane allows for pressure maintenance capability in all three pressure planes due to the ability for water transfer to occur from an upper to a lower pressure plane, but not from a lower to an upper pressure plane. It is anticipated the new EST will be built on land SJRA previously acquired for an EST on Research Forest Blvd.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2023	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2024	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2024		☑ R&R
Proposals/Bids Received:	FY 2024		☐ Other
Constr. Contract to Board:	FY 2025		
Substantial Completion:	FY 2026	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 328,000	$ -	$ -	$ 328,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 655,000	$ -	$ -	$ 655,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 6,748,000	$ -	$ -	$ -	$ 6,748,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 675,000	$ -	$ -	$ -	$ 675,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 8,406,000	$ -	$ -	$ 983,000	$ 7,423,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Line Renewal	WA24WL	2024-2025	The Woodlands

The SJRA owns and maintains approximately 120 miles of potable water distribution lines 12-inches and larger diameter in the Woodlands. The existing distribution system contains 47 miles of asbestos cement (AC) lines. Approximately 20 miles of all water lines are more than 40 years old, and the majority of which are made of AC material. Industry asset management practices suggest that AC water lines have the higher frequency of failure, and average useful life of 50 years. Historically, SJRA has experienced on average 9 failures per year, and is trending upward. Due to the aging water distribution infrastructure and increasing rate of breaks, water line renewal is necessary to decrease repair frequencies, improve reliability to end-users and maintain requested level of service. This project is part of a phased asset management approach to continuously replace water lines in the system, with a plan to replace all AC water lines within the next 20 years. Other projects as described in WA21WL, WA23WL, WA25WL, WA26WL, WA27WL, WA28WL, WA29WL, WA30WL, WA31WL, and WA32WL will accomplish the goal of replacing all of the AC pipe in the system. The AC lines will be replaced with PVC or HDPE lines with an average expected useful life of more than 80 years.

Using the SJRA Asset Management Plan strategy, and confirmed by a consultant, Likelihood of Failure, Consequence of Failure, and Mitigation Factors were used to score and prioritize replacement of the AC water lines in the Woodlands Division System. Also, short sections of water line of other material were identified for replacement using the same criteria. From this, approximately 32,000 linear feet (6 miles) of 12, 16, 20 24, and 30-inch AC, Steel Reinforced Concrete Pipe (SRPC), and Ductile Iron (DI) pipe along New Trails Dr., Technology Forest Blvd., Research Forest Dr., Gosling Rd., Shadowbend Circle, Quiet Oak Circle, and Golden Shadow Circle were identified for this project scope.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2024	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2024	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2024		☑ R&R
Proposals/Bids Received:	FY 2024		☐ Other
Constr. Contract to Board:	FY 2025		
Substantial Completion:	FY 2026	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 2,108,000	$ -	$ -	$ 2,108,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 2,108,000	$ -	$ -	$ 2,108,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 21,715,000	$ -	$ -	$ -	$ 21,715,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 2,171,000	$ -	$ -	$ -	$ 2,171,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 28,102,000	$ -	$ -	$ 4,216,000	$ 23,886,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
SCADA Tower Replacement	WASTR2	2025	The Woodlands

SJRA has utilized radio communication for its SCADA system since the introduction of SCADA at water and wastewater facilities in the early 2000's. Each facility site maintains a radio and a tower to form a communications loop around The Woodlands. Although water plant and wastewater facilities received fiber links as part of the GRP, radio communication is still the only communication method at most water and wastewater facilities. In addition, they are used as a backup method at facilities with fiber.

This project is part of a phased program to replace SCADA towers as they reach the end of their useful life of approximately 30 years. In addition, the current towers are aluminum lattice design and have to be taken out of service and laid on the ground during hurricane events. These projects will replace the lattice towers with hurricane rated monopole towers that will allow radio communication to be maintained during a hurricane event.

This project will replace the tower at the Water Well Nos. 19 and 20 site. Projects WASTR1 and WASTR3 are also included in the 10-Year Project Plan for tower replacements.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2025	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2025	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2025		☑ R&R
Proposals/Bids Received:	FY 2025		☐ Other
Constr. Contract to Board:	FY 2025		
Substantial Completion:	FY 2026	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 8,000	$ -	$ -	$ -	$ 8,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 78,000	$ -	$ -	$ -	$ 78,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 8,000	$ -	$ -	$ -	$ 8,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 94,000	$ -	$ -	$ -	$ 94,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Well Rehabilitation	WA25WR	2025	The Woodlands

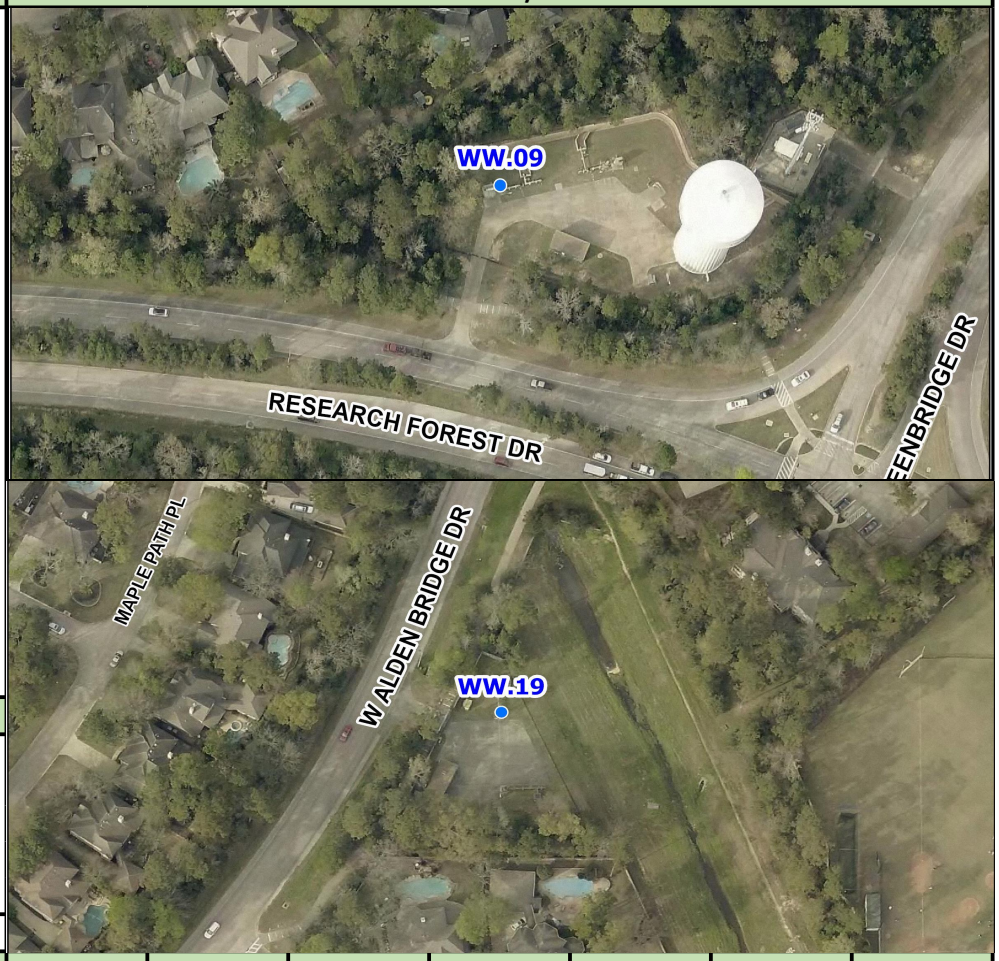
PROJECT DESCRIPTION/JUSTIFICATION:

The Woodlands began receiving treated surface water in 2015, however, peak water demands will continue to be met by existing ground water wells. Consequently, continued well rehabilitation is necessary in order to prolong service life, minimize risk of failure and reduce increased maintenance of the wells. SJRA completes an semi-annual inspection of each water well to determine which well(s) may require rehabilitation. The targeted well(s) are compared to the long-term water production needs of The Woodlands, then evaluated based on the well retirement plan for rehabilitation or abandonment.

Based upon an evaluation of the 38 water wells, Well Nos. 9 and 19 are anticipated to have the need for rehabilitation based upon date of last previous rehabilitation and production capabilities. Rehabilitation of Well Nos. 9 and 19 will begin with an inspection of all well related equipment and a video of the well. Based upon the inspection, the project may include replacement of pump and well equipment; wire brushing the well screen section; jetting out and removing fill material from the bottom of the well; and performing acid chemical treatment of the well screen sections. Rehabilitation may also include adding gravel pack material to the well if needed. This project may include lowering of the well pump and increasing the motor size at both locations.

Water Well No. 9 - Jasper Aquifer; Design GPM: 1,500
Water Well No. 19 - Jasper Aquifer; Design GPM: 650

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2025	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2025	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2025		☑ R&R
Proposals/Bids Received:	FY 2025		☐ Other
Constr. Contract to Board:	FY 2025		
Substantial Completion:	FY 2026	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 269,000	$ -	$ -	$ -	$ 269,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 2,692,000	$ -	$ -	$ -	$ 2,692,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 269,000	$ -	$ -	$ -	$ 269,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 3,230,000	$ -	$ -	$ -	$ 3,230,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Line Renewal	WA25WL	2025-2026	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

The SJRA owns and maintains approximately 120 miles of potable water distribution lines 12-inches and larger diameter in the Woodlands. The existing distribution system contains 47 miles of asbestos cement (AC) lines. Approximately 20 miles of all water lines are more than 40 years old, and the majority of which are made of AC material. Industry asset management practices suggest that AC water lines have the higher frequency of failure, and average useful life of 50 years. Historically, SJRA has experienced on average 9 failures per year, and is trending upward. Due to the aging water distribution infrastructure and increasing rate of breaks, water line renewal is necessary to decrease repair frequencies, improve reliability to end-users and maintain requested level of service. This project is part of a phased asset management approach to continuously replace water lines in the system, with a plan to replace all AC water lines within the next 20 years. Other projects as described in WA21WL, WA23WL, WA24WL, WA26WL, WA27WL, WA28WL, WA29WL, WA30WL, WA31WL, and WA32WL will accomplish the goal of replacing all of the AC pipe in the system. The AC lines will be replaced with PVC or HDPE lines with an average expected useful life of more than 80 years.

Using the SJRA Asset Management Plan strategy, and confirmed by a consultant, Likelihood of Failure, Consequence of Failure, and Mitigation Factors were used to score and prioritize replacement of the AC water lines in the Woodlands Division System. From this, approximately 13,000 linear feet (2.5 miles) of 12 and 16-inch AC water mains in the Village of Grogan's Mill west of Grogan's Mill Road were identified for this project scope.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2025	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2025	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2025		☑ R&R
Proposals/Bids Received:	FY 2026		☐ Other
Constr. Contract to Board:	FY 2026		
Substantial Completion:	FY 2027	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 686,000	$ -	$ -	$ -	$ 686,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 686,000	$ -	$ -	$ -	$ 686,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 7,061,000	$ -	$ -	$ -	$ -	$ 7,061,000	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 706,000	$ -	$ -	$ -	$ -	$ 706,000	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 9,139,000	$ -	$ -	$ -	$ 1,372,000	$ 7,767,000	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Well Rehabilitation	WA26WR	2026	The Woodlands

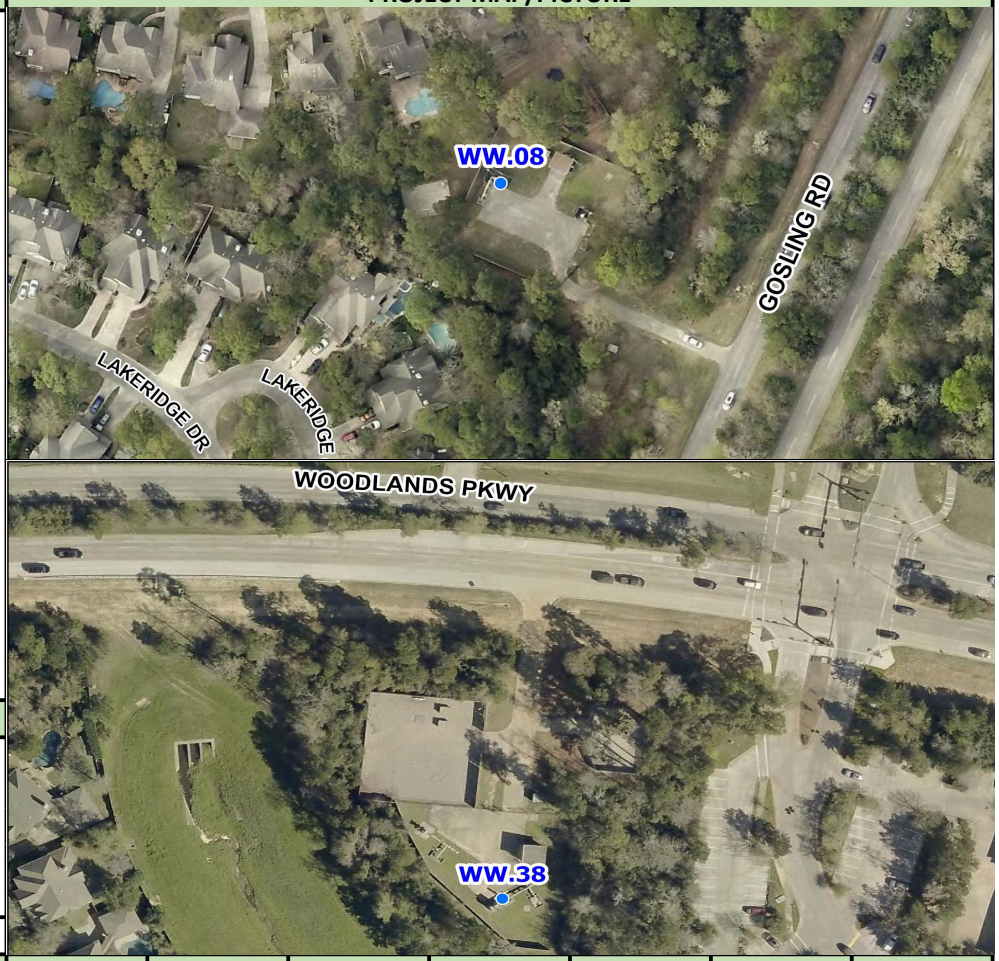
PROJECT DESCRIPTION/JUSTIFICATION:

The Woodlands began receiving treated surface water in 2015, however, peak water demands will continue to be met by existing ground water wells. Consequently, continued well rehabilitation is necessary in order to prolong service life, minimize risk of failure and reduce increased maintenance of the wells. SJRA completes an semi-annual inspection of each water well to determine which well(s) may require rehabilitation. The targeted well(s) are compared to the long-term water production needs of The Woodlands, then evaluated based on the well retirement plan for rehabilitation or abandonment.

Based upon an evaluation of the 38 water wells, Well Nos. 8 and 38 are anticipated to have the need for rehabilitation based upon date of last previous rehabilitation and production capabilities. Rehabilitation of Well Nos. 8 and 38 will begin with an inspection of all well related equipment and a video of the well. Based upon the inspection, the project may include replacement of pump and well equipment; wire brushing the well screen section; jetting out and removing fill material from the bottom of the well; and performing acid chemical treatment of the well screen sections. Rehabilitation may also include adding gravel pack material to the well if needed. No well lowering or capacity increase is planned for these two Evangeline aquifer wells.

Water Well No. 8 - Evangeline Aquifer; Design GPM: 800
Water Well No. 38 - Evangeline Aquifer; Design GPM: 900

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2026	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2026	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2026		☑ R&R
Proposals/Bids Received:	FY 2026		☐ Other
Constr. Contract to Board:	FY 2026		
Substantial Completion:	FY 2027	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 82,000	$ -	$ -	$ -	$ -	$ 82,000	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 818,000	$ -	$ -	$ -	$ -	$ 818,000	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 82,000	$ -	$ -	$ -	$ -	$ 82,000	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 982,000	$ -	$ -	$ -	$ -	$ 982,000	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Line Renewal	WA26WL	2026-2027	The Woodlands

The SJRA owns and maintains approximately 120 miles of potable water distribution lines 12-inches and larger diameter in the Woodlands. The existing distribution system contains 47 miles of asbestos cement (AC) lines. Approximately 20 miles of all water lines are more than 40 years old, and the majority of which are made of AC material. Industry asset management practices suggest that AC water lines have the higher frequency of failure, and average useful life of 50 years. Historically, SJRA has experienced on average 9 failures per year, and is trending upward. Due to the aging water distribution infrastructure and increasing rate of breaks, water line renewal is necessary to decrease repair frequencies, improve reliability to end-users and maintain requested level of service. This project is part of a phased asset management approach to continuously replace water lines in the system, with a plan to replace all AC water lines within the next 20 years. Other projects as described in WA21WL, WA23WL, WA24WL, WA25WL, WA27WL, WA28WL, WA29WL, WA30WL, WA31WL, and WA32WL will accomplish the goal of replacing all of the AC pipe in the system. The AC lines will be replaced with PVC or HDPE lines with an average expected useful life of more than 80 years.

Using the SJRA Asset Management Plan strategy, and confirmed by a consultant, Likelihood of Failure, Consequence of Failure, and Mitigation Factors were used to score and prioritize replacement of the AC water lines in the Woodlands Division System. From this, approximately 21,000 linear feet (4 miles) of 12 and 16-inch water mains along Sawmill Road, Sawdust Road, and Grogan's Point Road were identified for this project scope.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2026	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2026	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2026		☑ R&R
Proposals/Bids Received:	FY 2027		☐ Other
Constr. Contract to Board:	FY 2027		
Substantial Completion:	FY 2028	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 762,000	$ -	$ -	$ -	$ -	$ 762,000	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 762,000	$ -	$ -	$ -	$ -	$ 762,000	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 7,850,000	$ -	$ -	$ -	$ -	$ -	$ 7,850,000	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 785,000	$ -	$ -	$ -	$ -	$ -	$ 785,000	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 10,159,000	$ -	$ -	$ -	$ -	$ 1,524,000	$ 8,635,000	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

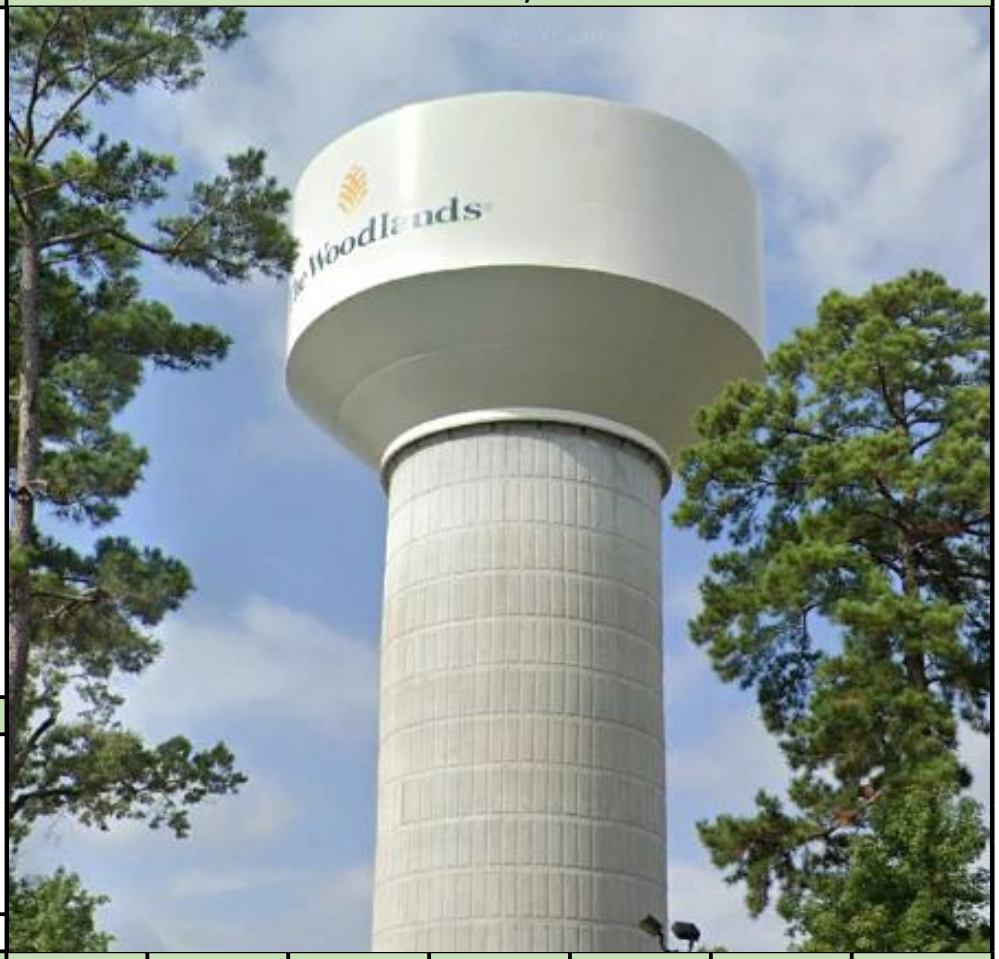
PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Elevated Storage Tank No. 5 Rehabilitation	WAET5R	2027	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

Elevated Storage Tank No. 5 is a 1,000,000 gallon tank and was constructed in 2000. Based on the Dunham Engineering report completed in 2013, the exterior and interior coating systems were replaced in 2015. A follow-up inspection of the tank will be completed in 2026 to identify the need and scope for any additional rehabilitation work. Anticipated rehabilitation of the tank includes recoating of the tank exterior and interior surfaces for maintenance and to continue to protect the exterior and interior from corrosion.

To protect the metal structure from corrosion and to extend the useful life of the tank, periodic protective coating system replacement is required. Interior coating systems meet their protective value in about 12-15 years and require system replacement in order to continue to provide adequate corrosion protection. The useful life of an exterior coating is expected to be 10-12 years depending on the type of paint and thickness applied.

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2027	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2027	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2027		☑ R&R
Proposals/Bids Received:	FY 2027		☐ Other
Constr. Contract to Board:	FY 2027		
Substantial Completion:	FY 2028	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 106,000	$ -	$ -	$ -	$ -	$ -	$ 106,000	$ -	$ -	$ -	$ -	$ -
Construction	$ 1,056,000	$ -	$ -	$ -	$ -	$ -	$ 1,056,000	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 106,000	$ -	$ -	$ -	$ -	$ -	$ 106,000	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,268,000	$ -	$ -	$ -	$ -	$ -	$ 1,268,000	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water System Mechanical Asset Replacement	WAMAR2	2026-2027	The Woodlands

The SJRA Woodlands Division water system contains several hundred mechanical assets including motors, pumps, chlorinators engines, motor control valves, generators, transfer switches, and motor control centers. As these assets reach the end of their useful life, these assets require replacement to maintain the current level of service. These replacements will be performed as part of an on-going series of projects.

Other projects in the 10-Year Project Plan to replace Water System Mechanical Assets include WAMAR1, WAMAR3, and WAMAR4.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	As Needed	☑ CSP	☐ O&M
PSA/WO Issued:	As Needed	☐ Other	☐ Bonds
Final Proposal Docs:	As Needed		☑ R&R
Proposals/Bids Received:	As Needed		☐ Other
Constr. Contract to Board:	As Needed		
Substantial Completion:	As Needed	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 70,000	$ -	$ -	$ -	$ -	$ -	$ 70,000	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 7,000	$ -	$ -	$ -	$ -	$ -	$ 7,000	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 77,000	$ -	$ -	$ -	$ -	$ -	$ 77,000	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
SCADA Tower Replacement	WASTR3	2027	The Woodlands

SJRA has utilized radio communication for its SCADA system since the introduction of SCADA at water and wastewater facilities in the early 2000's. Each facility site maintains a radio and a tower to form a communications loop around The Woodlands. Although water plant and wastewater facilities received fiber links as part of the GRP, radio communication is still the only communication method at most water and wastewater facilities. In addition, they are used as a backup method at facilities with fiber.

This project is part of a phased program to replace SCADA towers as they reach the end of their useful life of approximately 30 years. In addition, the current towers are aluminum lattice design and have to be taken out of service and laid on the ground during hurricane events. These projects will replace the lattice towers with hurricane rated monopole towers that will allow radio communication to be maintained during a hurricane event.

This project will replace the tower at the Water Well Nos. 21 and 22 site. Projects WASTR1 and WASTR2 are also included in the 10-Year Project Plan for tower replacements.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2027	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2027	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2027		☑ R&R
Proposals/Bids Received:	FY 2027		☐ Other
Constr. Contract to Board:	FY 2027		
Substantial Completion:	FY 2028	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 8,000	$ -	$ -	$ -	$ -	$ -	$ 8,000	$ -	$ -	$ -	$ -	$ -
Construction	$ 83,000	$ -	$ -	$ -	$ -	$ -	$ 83,000	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 8,000	$ -	$ -	$ -	$ -	$ -	$ 8,000	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 99,000	$ -	$ -	$ -	$ -	$ -	$ 99,000	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Well Rehabilitation	WA27WR	2027	The Woodlands

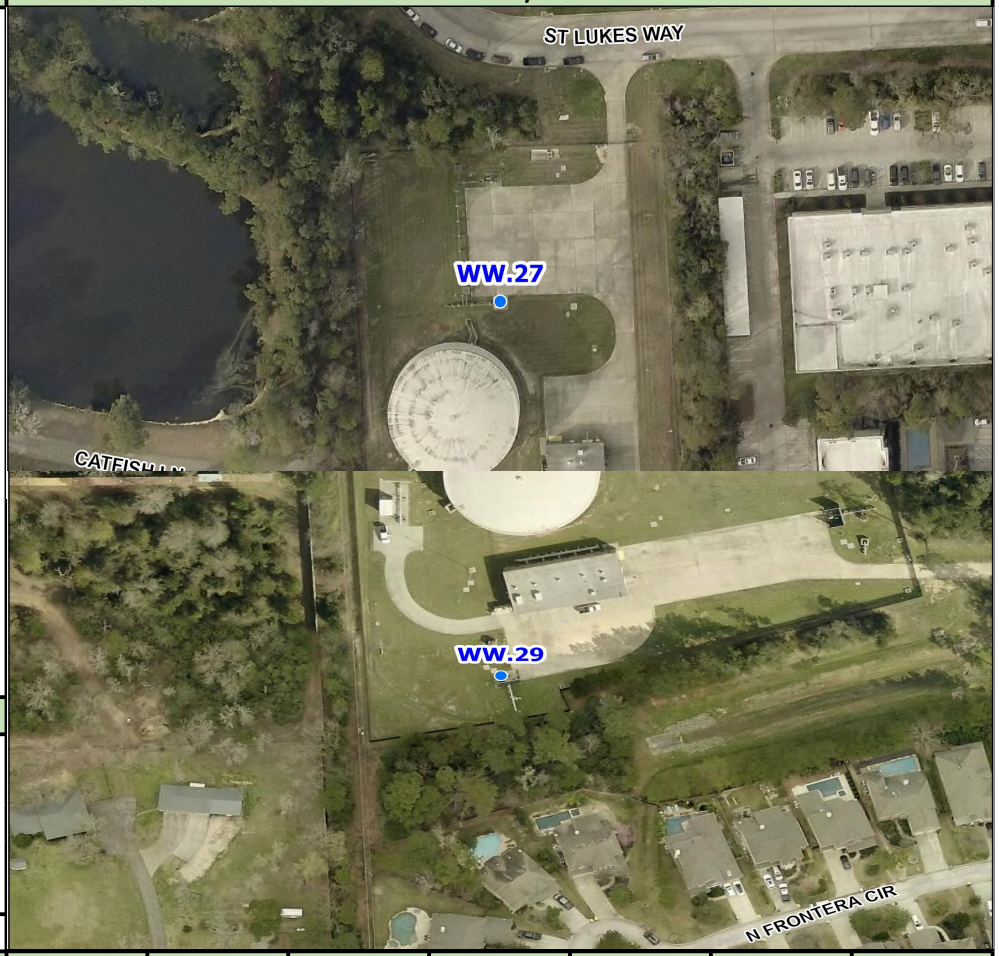
PROJECT DESCRIPTION/JUSTIFICATION:

The Woodlands began receiving treated surface water in 2015, however, peak water demands will continue to be met by existing ground water wells. Consequently, continued well rehabilitation is necessary in order to prolong service life, minimize risk of failure and reduce increased maintenance of the wells. SJRA completes an semi-annual inspection of each water well to determine which well(s) may require rehabilitation. The targeted well(s) are then compared to the long term water production needs to meet the needs of The Woodlands and are then evaluated based on the well retirement plan for either rehabilitation or abandonment.

Based upon an evaluation of the 38 water wells, Well Nos. 27 and 29 are anticipated to have the need for rehabilitation based upon date of last previous rehabilitation and production capabilities. Rehabilitation of Well Nos. 27 and 29 will begin with an inspection of all well related equipment and a video of the well. Based upon the inspection, the project may include replacement of pump and well equipment; wire brushing the well screen section; jetting out and removing fill material from the bottom of the well; and performing acid chemical treatment of the well screen sections. Rehabilitation may also include adding gravel pack material to the well if needed. This project may include lowering of the well pump and increasing the motor size at both locations.

Water Well No. 27 - Jasper Aquifer; Design GPM: 1,500
Water Well No. 29 - Jasper Aquifer; Design GPM: 2,000

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2027	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2027	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2027		☑ R&R
Proposals/Bids Received:	FY 2027		☐ Other
Constr. Contract to Board:	FY 2027		
Substantial Completion:	FY 2028	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 143,000	$ -	$ -	$ -	$ -	$ -	$ 143,000	$ -	$ -	$ -	$ -	$ -
Construction	$ 1,430,000	$ -	$ -	$ -	$ -	$ -	$ 1,430,000	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 143,000	$ -	$ -	$ -	$ -	$ -	$ 143,000	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,716,000	$ -	$ -	$ -	$ -	$ -	$ 1,716,000	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Plant No. 2 Ground Storage Tank No. 1 Replacement	WA2GT1	2027-2028	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

Ground Storage Tank 1 (GST No. 1) at Water Plant 2 is a concrete storage tank with a capacity of 2.0 million gallons (MG), and was originally constructed in 1982. The typical useful life for concrete ground storage tanks storing potable water is 50 years. GST No. 1 will reach the end of its useful life by year 2032, and should be replaced before then in order to maintain adequate storage capacity and reliable potable water service. Also, in 2017, structural deficiencies were identified during an annual inspection and repairs made to maintain service life.

The project will include demolition of the existing 2 MG concrete ground storage tank, construction of a new 2.0 MG concrete ground storage tank, and replacement of associated piping and appurtenances.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2027	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2027	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2027		☑ R&R
Proposals/Bids Received:	FY 2027		☐ Other
Constr. Contract to Board:	FY 2028		
Substantial Completion:	FY 2029	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 400,000	$ -	$ -	$ -	$ -	$ -	$ 400,000	$ -	$ -	$ -	$ -	$ -
Construction	$ 4,118,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,118,000	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 412,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 412,000	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 5,130,000	$ -	$ -	$ -	$ -	$ -	$ 600,000	$ 4,530,000	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Line Renewal	WA27WL	2027-2028	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

The SJRA owns and maintains approximately 120 miles of potable water distribution lines 12-inches and larger diameter in the Woodlands. The existing distribution system contains 47 miles of asbestos cement (AC) lines. Approximately 20 miles of all water lines are more than 40 years old, and the majority of which are made of AC material. Industry asset management practices suggest that AC water lines have the higher frequency of failure, and average useful life of 50 years. Historically, SJRA has experienced on average 9 failures per year, and is trending upward. This project is part of a phased asset management approach to continuously replace water lines in the system, with a plan to replace all AC water lines within the next 20 years. This project is part of a phased asset management approach to continuously replace old AC water lines in the system, to ensure that all the AC lines are replaced within the next 20 years. Other projects as described in WA21WL, WA23WL, WA24WL, WA25WL, WA26WL, WA28WL, WA29WL, WA30WL, WA31WL, and WA32WL will accomplish the goal of replacing all of the AC pipe in the system. The AC lines will be replaced with PVC or HDPE lines with an average expected useful life of more than 80 years.

Using the SJRA Asset Management Plan strategy, and confirmed by a consultant, Likelihood of Failure, Consequence of Failure, and Mitigation Factors were used to score and prioritize replacement of the AC water lines in the Woodlands Division System. From this, approximately 25,500 linear feet (4.8 miles) of 12, 16 and 20-inch AC water mains in the Village of Grogan's Mill east of Grogan's Mill Road were identified for this project scope.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2027	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2027	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2027		☑ R&R
Proposals/Bids Received:	FY 2028		☐ Other
Constr. Contract to Board:	FY 2028		
Substantial Completion:	FY 2029	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 1,169,000	$ -	$ -	$ -	$ -	$ -	$ 1,169,000	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 1,169,000	$ -	$ -	$ -	$ -	$ -	$ 1,169,000	$ -	$ -	$ -	$ -	$ -
Construction	$ 12,042,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 12,042,000	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 1,204,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,204,000	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 15,584,000	$ -	$ -	$ -	$ -	$ -	$ 2,338,000	$ 13,246,000	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Elevated Storage Tank No. 7 Rehabilitation	WAET7R	2028	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

Elevated Storage Tank No. 7 is a 500,000 gallon tank and was constructed in 1977. Based on the Dunham Engineering report completed in 2013, the exterior and interior coating systems were replaced in 2016. A follow-up inspection of the tank will be completed in 2027 to identify the need and scope for any additional rehabilitation work. Anticipated rehabilitation of the tank includes recoating of the tank exterior and interior surfaces for maintenance and to continue to protect the exterior and interior from corrosion.

To protect the metal structure from corrosion and to extend the useful life of the tank, periodic protective coating system replacement is required. Interior coating systems meet their protective value in about 12-15 years and require system replacement in order to continue to provide adequate corrosion protection. The useful life of an exterior coating is expected to be 10-12 years depending on the type of paint and thickness applied.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2028	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2028	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2028		☑ R&R
Proposals/Bids Received:	FY 2028		☐ Other
Constr. Contract to Board:	FY 2028		
Substantial Completion:	FY 2029	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 106,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 106,000	$ -	$ -	$ -	$ -
Construction	$ 1,055,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,055,000	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 106,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 106,000	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,267,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,267,000	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Pressure Regulating Valve Rehabilitation	WAPRV2	2028	The Woodlands

The Woodlands Water System is divided into three pressure planes as a result of elevation differences across the Woodlands geographic area. Where water lines cross the pressure plane boundaries, pressure regulating valves (PRVs) have been installed to maintain consistent pressures in each pressure plane, but allow for cross-over flow from one pressure plane to the other in the event of a pressure drop resulting from a water line failure or fire event. The expected useful life of the PRV assembly is 30 years and several PRVs in the system have reached or are near reaching the end of this lifespan.

This project will be for the replacement of the internal components of PRV Nos. 6 and 7, which were installed in 2000.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2028	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2028	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2028		☑ R&R
Proposals/Bids Received:	FY 2028		☐ Other
Constr. Contract to Board:	FY 2028		
Substantial Completion:	FY 2029	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 155,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 155,000	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 10,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,000	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 165,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 165,000	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Well Rehabilitation	WA28WR	2028	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

The Woodlands began receiving treated surface water in 2015, however, peak water demands will continue to be met by existing ground water wells. Consequently, continued well rehabilitation is necessary in order to prolong service life, minimize risk of failure and reduce increased maintenance of the wells. SJRA completes an semi-annual inspection of each water well to determine which well(s) may require rehabilitation. The targeted well(s) are compared to the long-term water production needs of The Woodlands, then evaluated based on the well retirement plan for rehabilitation or abandonment.

Based upon an evaluation of the 38 water wells, Well Nos. 10, 20 and 36 are anticipated to have the need for rehabilitation based upon date of last previous rehabilitation and production capabilities. Rehabilitation of Well Nos. 10, 20 and 36 will begin with an inspection of all well related equipment and a video of the well. Based upon the inspection, the project may include replacement of pump and well equipment; wire brushing the well screen section; jetting out and removing fill material from the bottom of the well; and performing acid chemical treatment of the well screen sections. Rehabilitation may also include adding gravel pack material to the well if needed. No well lowering or capacity increase is planned for these two Evangeline aquifer wells.

Water Well No. 10 - Evangeline Aquifer; Design GPM: 800
Water Well No. 20 - Evangeline Aquifer; Design GPM: 1,100
Water Well No. 36 - Evangeline Aquifer; Design GPM: 950

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2028	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2028	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2028		☑ R&R
Proposals/Bids Received:	FY 2028		☐ Other
Constr. Contract to Board:	FY 2028		
Substantial Completion:	FY 2029	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 130,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 130,000	$ -	$ -	$ -	$ -
Construction	$ 1,302,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,302,000	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 130,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 130,000	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,562,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,562,000	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Line Renewal	WA28WL	2028-2029	The Woodlands

The SJRA owns and maintains approximately 120 miles of potable water distribution lines 12-inches and larger diameter in the Woodlands. The existing distribution system contains 47 miles of asbestos cement (AC) lines. Approximately 20 miles of all water lines are more than 40 years old, and the majority of which are made of AC material. Industry asset management practices suggest that AC water lines have the higher frequency of failure, and average useful life of 50 years. Historically, SJRA has experienced on average 9 failures per year, and is trending upward. Due to the aging water distribution infrastructure and increasing rate of breaks, water line renewal is necessary to decrease repair frequencies, improve reliability to end-users and maintain requested level of service. This project is part of a phased asset management approach to continuously replace water lines in the system, with a plan to replace all AC water lines within the next 20 years. Other projects as described in WA21WL, WA23WL, WA24WL, WA25WL, WA26WL, WA27WL, WA29WL, WA30WL, WA31WL, and WA32WL will accomplish the goal of replacing all of the AC pipe in the system. The AC lines will be replaced with PVC or HDPE lines with an average expected useful life of more than 80 years.

Using the SJRA Asset Management Plan strategy, and confirmed by a consultant, Likelihood of Failure, Consequence of Failure, and Mitigation Factors were used to score and prioritize replacement of the AC water lines in the Woodlands Division System. Also, short sections of water line of other material were identified for replacement using the same criteria. From this, approximately 21,000 linear feet (4 miles) of 12 and 24-inch AC and Steel Reinforced Concrete Pipe (SRPC) pipe along Woodlands Parkway, East Panther Creek Drive, West Isle Place, and Lake Woodlands Drive were identified for this project scope.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2028	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2028	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2028		☑ R&R
Proposals/Bids Received:	FY 2028		☐ Other
Constr. Contract to Board:	FY 2029		
Substantial Completion:	FY 2030	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 788,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 788,000	$ -	$ -	$ -	$ -
Engineering/Design	$ 788,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 788,000	$ -	$ -	$ -	$ -
Construction	$ 8,121,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,121,000	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 812,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 812,000	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 10,509,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,576,000	$ 8,933,000	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water System Mechanical Asset Replacement	WAMAR3	2028-2029	The Woodlands

The SJRA Woodlands Division water system contains several hundred mechanical assets including motors, pumps, chlorinators engines, motor control valves, generators, transfer switches, and motor control centers. As these assets reach the end of their useful life, these assets require replacement to maintain the current level of service. These replacements will be performed as part of an on-going series of projects.

Other projects in the 10-Year Project Plan to replace Water System Mechanical Assets include WAMAR1, WAMAR2, and WAMAR4.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	As Needed	☑ CSP	☐ O&M
PSA/WO Issued:	As Needed	☐ Other	☐ Bonds
Final Proposal Docs:	As Needed		☑ R&R
Proposals/Bids Received:	As Needed		☐ Other
Constr. Contract to Board:	As Needed		
Substantial Completion:	As Needed	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 13,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,000	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 1,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,000	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 14,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 14,000	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Elevated Storage Tank No. 3 Rehabilitation	WAET3R	2029	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

Elevated Storage Tank No. 3 is a 750,000 gallon tank and was constructed in 1990. Based on the Dunham Engineering report completed in 2013, the exterior and interior coating systems were replaced in 2017. A follow-up inspection of the tank will be completed in 2028 to identify the need and scope for any additional rehabilitation work. Anticipated rehabilitation of the tank includes recoating of the tank exterior and interior surfaces for maintenance and to continue to protect the exterior and interior from corrosion.

To protect the metal structure from corrosion and to extend the useful life of the tank, periodic protective coating system replacement is required. Interior coating systems meet their protective value in about 12-15 years and require system replacement in order to continue to provide adequate corrosion protection. The useful life of an exterior coating is anticipated to be 10-12 years depending on the type of paint and thickness applied.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2029	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2029	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2029		☑ R&R
Proposals/Bids Received:	FY 2029		☐ Other
Constr. Contract to Board:	FY 2029		
Substantial Completion:	FY 2030	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 133,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 133,000	$ -	$ -	$ -
Construction	$ 1,285,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,285,000	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 133,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 133,000	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,551,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,551,000	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Well Rehabilitation	WA29WR	2029	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

The Woodlands began receiving treated surface water in 2015, however, peak water demands will continue to be met by existing ground water wells. Consequently, continued well rehabilitation is necessary in order to prolong service life, minimize risk of failure and reduce increased maintenance of the wells. SJRA completes an semi-annual inspection of each water well to determine which well(s) may require rehabilitation. The targeted well(s) are compared to the long-term water production needs of The Woodlands, then evaluated based on the well retirement plan for rehabilitation or abandonment.

Based upon an evaluation of the 38 water wells, Well Nos. 22, 26 and 35 are anticipated to have the need for rehabilitation based upon date of last previous rehabilitation and production capabilities. Rehabilitation of Well Nos. 22, 26 and 35 will begin with an inspection of all well related equipment and a video of the well. Based upon the inspection, the project may include replacement of pump and well equipment; wire brushing the well screen section; jetting out and removing fill material from the bottom of the well; and performing acid chemical treatment of the well screen sections. Rehabilitation may also include adding gravel pack material to the well if needed. This project may include lowering of the well pump and increasing the motor size for the Jasper aquifer well.

Water Well No. 22 - Evangeline Aquifer; Design GPM: 850
Water Well No. 26 - Evangeline Aquifer; Design GPM: 800
Water Well No. 35 - Jasper Aquifer; Design GPM: 1,700

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2029	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2029	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2029		☑ R&R
Proposals/Bids Received:	FY 2029		☐ Other
Constr. Contract to Board:	FY 2029		
Substantial Completion:	FY 2030	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 140,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 140,000	$ -	$ -	$ -
Construction	$ 1,405,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,405,000	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 140,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 140,000	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,685,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,685,000	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Line Renewal	WA29WL	2029-2030	The Woodlands

The SJRA owns and maintains approximately 120 miles of potable water distribution lines 12-inches and larger diameter in the Woodlands. The existing distribution system contains 47 miles of asbestos cement (AC) lines. Approximately 20 miles of all water lines are more than 40 years old, and the majority of which are made of AC material. Industry asset management practices suggest that AC water lines have the higher frequency of failure, and average useful life of 50 years. Historically, SJRA has experienced on average 9 failures per year, and is trending upward. Due to the aging water distribution infrastructure and increasing rate of breaks, water line renewal is necessary to decrease repair frequencies, improve reliability to end-users and maintain requested level of service. This project is part of a phased asset management approach to continuously replace water lines in the system, with a plan to replace all AC water lines within the next 20 years. Other projects as described in WA21WL, WA23WL, WA24WL, WA25WL, WA26WL, WA27WL, WA28WL, WA30WL, WA31WL, and WA32WL will accomplish the goal of replacing all of the AC pipe in the system. The AC lines will be replaced with PVC or HDPE lines with an average expected useful life of more than 80 years.

Using the SJRA Asset Management Plan strategy, and confirmed by a consultant, Likelihood of Failure, Consequence of Failure, and Mitigation Factors were used to score and prioritize replacement of the AC water lines in the Woodlands Division System. Also, short sections of water line of other material were identified for replacement using the same criteria. From this, approximately 19,700 linear feet (3.7 miles) of 12, 16 and 24-inch AC and Steel Reinforced Concrete Pipe (SRPC) pipe along Gosling Road, West Panther Creek Drive, Interfaith Way, Split Rock Road, and Lake Woodlands Drive were identified for this project scope.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2029	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2029	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2029		☑ R&R
Proposals/Bids Received:	FY 2029		☐ Other
Constr. Contract to Board:	FY 2030		
Substantial Completion:	FY 2031	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 879,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 879,000	$ -	$ -	$ -
Engineering/Design	$ 879,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 879,000	$ -	$ -	$ -
Construction	$ 9,057,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,057,000	$ -	$ -
CPS, CM&I, and CMT	$ 906,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 906,000	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 11,721,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,758,000	$ 9,963,000	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Well Rehabilitation	WA30WR	2030	The Woodlands

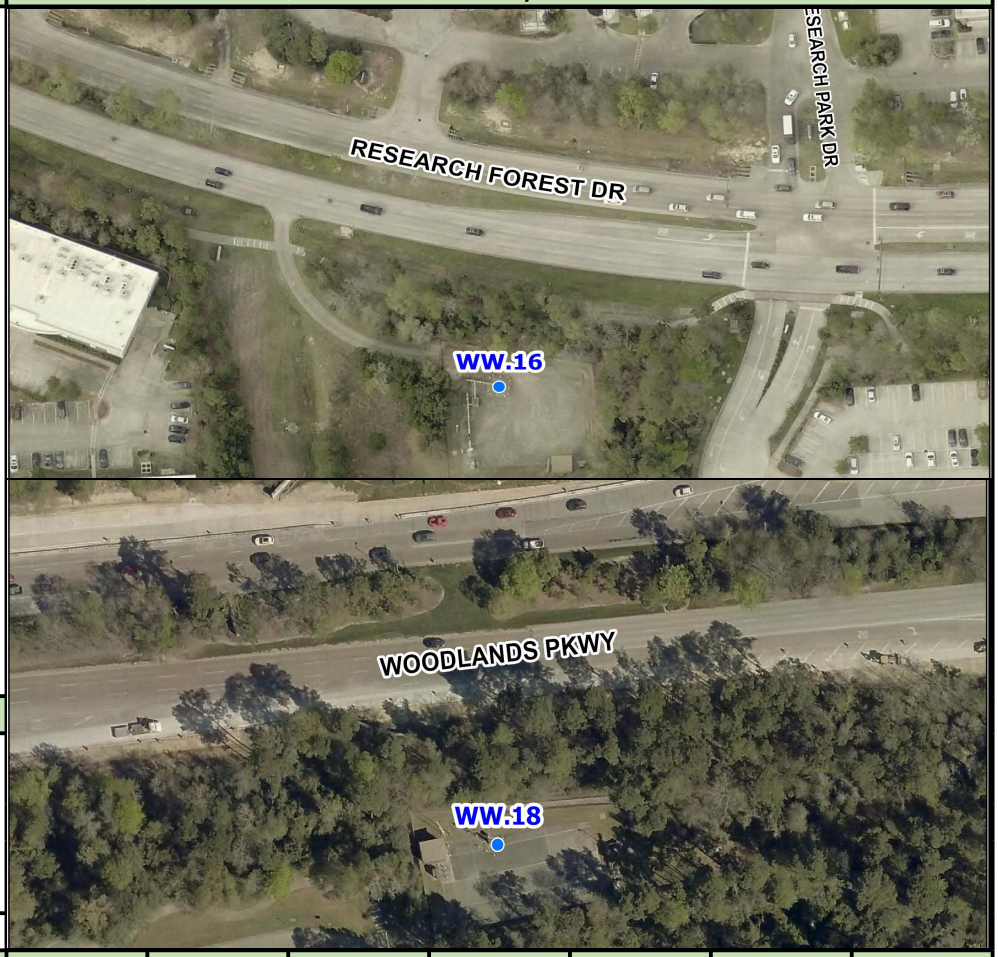
PROJECT DESCRIPTION/JUSTIFICATION:

The Woodlands began receiving treated surface water in 2015, however, peak water demands will continue to be met by existing ground water wells. Consequently, continued well rehabilitation is necessary in order to prolong service life, minimize risk of failure and reduce increased maintenance of the wells. SJRA completes an semi-annual inspection of each water well to determine which well(s) may require rehabilitation. The targeted well(s) are compared to the long-term water production needs of The Woodlands, then evaluated based on the well retirement plan for rehabilitation or abandonment.

Based upon an evaluation of the 38 water wells, Well Nos. 16 and 18 are anticipated to have the need for rehabilitation based upon date of last previous rehabilitation and production capabilities. Rehabilitation of Well Nos. 16 and 18 will begin with an inspection of all well related equipment and a video of the well. Based upon the inspection, the project may include replacement of pump and well equipment; wire brushing the well screen section; jetting out and removing fill material from the bottom of the well; and performing acid chemical treatment of the well screen sections. Rehabilitation may also include adding gravel pack material to the well if needed. No well lowering or capacity increase is planned for these two Evangeline aquifer wells.

Water Well No. 16 - Evangeline Aquifer; Design GPM: 1,000
Water Well No. 18 - Evangeline Aquifer; Design GPM: 900

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2030	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2030	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2030		☑ R&R
Proposals/Bids Received:	FY 2030		☐ Other
Constr. Contract to Board:	FY 2030		
Substantial Completion:	FY 2031	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 72,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 72,000	$ -	$ -
Construction	$ 723,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 723,000	$ -	$ -
CPS, CM&I, and CMT	$ 72,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 72,000	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 867,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 867,000	$ -	$ -

*Budget includes contingency.

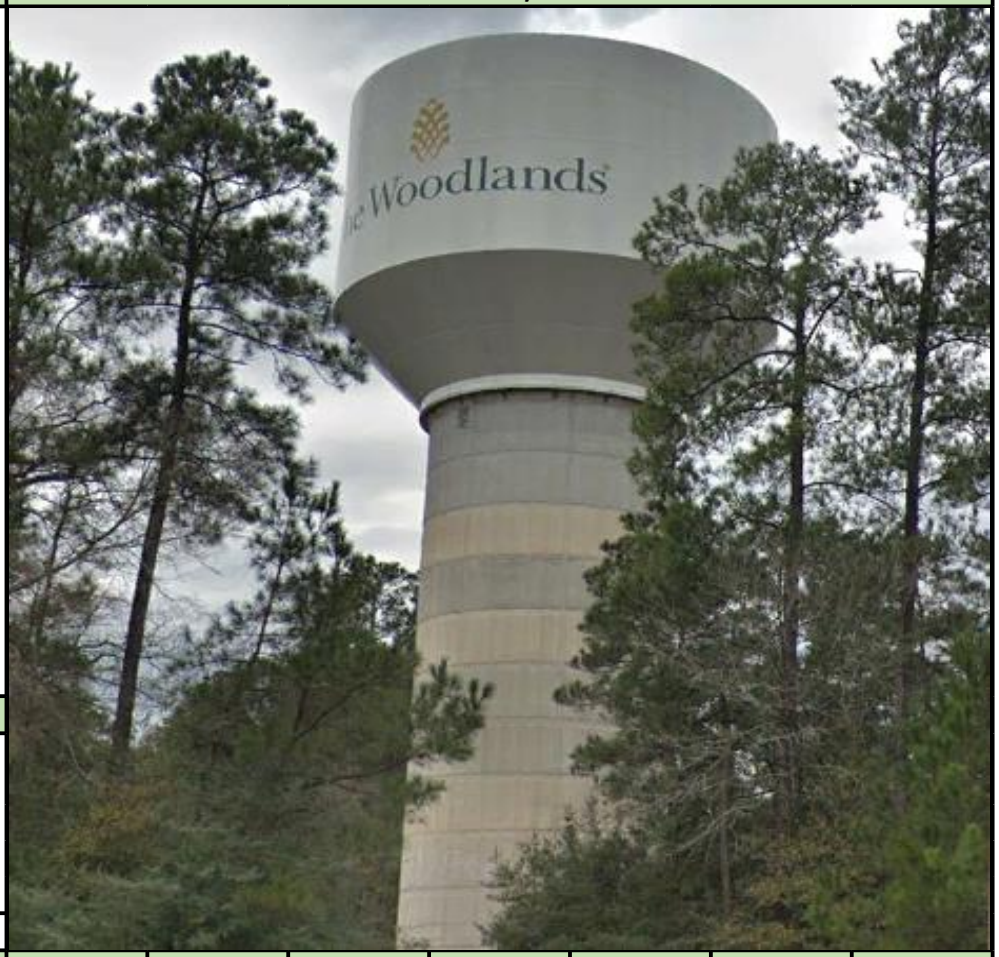
PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Elevated Storage Tank No. 4 Rehabilitation	WAET4R	2030	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

Elevated Storage Tank No. 4 is a 750,000 gallon tank and was constructed in 1990. Based on the Dunham Engineering report completed in 2013, the exterior and interior coating systems were replaced in 2017 per the engineer's recommendation. A follow-up inspection of the tank will be completed in 2029 to identify the need and scope for any additional rehabilitation work. Anticipated rehabilitation of the tank includes recoating of the tank exterior and interior surfaces for maintenance and to continue to protect the exterior and interior from corrosion.

To protect the metal structure from corrosion and to extend the useful life of the tank, periodic protective coating system replacement is required. Interior coating systems meet their protective value in about 12-15 years and require system replacement in order to continue to provide adequate corrosion protection. The useful life of an exterior coating is expected to be 10-12 years depending on the type of paint and thickness applied.

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2030	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2030	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2030		☑ R&R
Proposals/Bids Received:	FY 2030		☐ Other
Constr. Contract to Board:	FY 2030		
Substantial Completion:	FY 2031	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 105,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 105,000	$ -	$ -
Construction	$ 1,055,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,055,000	$ -	$ -
CPS, CM&I, and CMT	$ 105,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 105,000	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,265,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,265,000	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Abandon Water Well Nos. 1, 2 and 3	WA123A	2030	The Woodlands

The expected useful life of a water well is 50 years, unless operational or structural issues arise that would reduce the life of the well.

Water Well Nos. 1, 2 and 3 were installed in 1974, 1982 and 1979, respectively. By 2030, these water wells will be near or over 50 years of age, and in some cases, have already had operational and/or structural issues which prohibit or reduce their rehabilitation potential. These water wells reside in the Lower Pressure Plane of the Woodlands system. Water Well No. 1 pumps from the Evangeline Aquifer and Water Well Nos. 2 and 3 pump from the Upper Jasper Aquifer.

Water Well No. 1	Water Well No. 2	Water Well No. 3
Design GPM: 450	Design GPM: 1,200	Design GPM: 1,300
Evangeline Aquifer	Jasper Aquifer	Jasper Aquifer
Installed: 1973	Installed: 1979	Installed: 1979

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2029	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2029	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2030		☑ R&R
Proposals/Bids Received:	FY 2030		☐ Other
Constr. Contract to Board:	FY 2030		
Substantial Completion:	FY 2031	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 54,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 54,000	$ -	$ -
Construction	$ 543,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 543,000	$ -	$ -
CPS, CM&I, and CMT	$ 54,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 54,000	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 651,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 651,000	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Line Renewal	WA30WL	2030-2031	The Woodlands

The SJRA owns and maintains approximately 120 miles of potable water distribution lines 12-inches and larger diameter in the Woodlands. The existing distribution system contains 47 miles of asbestos cement (AC) lines. Approximately 20 miles of all water lines are more than 40 years old, and the majority of which are made of AC material. Industry asset management practices suggest that AC water lines have the higher frequency of failure, and average useful life of 50 years. Historically, SJRA has experienced on average 9 failures per year, and is trending upward. Due to the aging water distribution infrastructure and increasing rate of breaks, water line renewal is necessary to decrease repair frequencies, improve reliability to end-users and maintain requested level of service. This project is part of a phased asset management approach to continuously replace water lines in the system, with a plan to replace all AC water lines within the next 20 years. Other projects as described in WA21WL, WA23WL, WA24WL, WA25WL, WA26WL, WA27WL, WA28WL, WA29WL, WA31WL, and WA32WL will accomplish the goal of replacing all of the AC pipe in the system. The AC lines will be replaced with PVC or HDPE lines with an average expected useful life of more than 80 years.

Using the SJRA Asset Management Plan strategy, and confirmed by a consultant, Likelihood of Failure, Consequence of Failure, and Mitigation Factors were used to score and prioritize replacement of the AC water lines in the Woodlands Division System. From this, approximately 23,000 linear feet (4.3 miles) of 12-inch AC pipe along South Panther Creek, Coralberry Road, Woodstock Circle Drive, Flintridge Drive, Rush Haven Drive, Falconwing Drive, and McCullough Circle were identified for this project scope.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2030	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2030	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2030		☑ R&R
Proposals/Bids Received:	FY 2030		☐ Other
Constr. Contract to Board:	FY 2031		
Substantial Completion:	FY 2032	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 887,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 887,000	$ -	$ -
Engineering/Design	$ 887,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 887,000	$ -	$ -
Construction	$ 9,137,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,137,000	$ -
CPS, CM&I, and CMT	$ 914,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 914,000	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 11,825,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,774,000	$ 10,051,000	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Well No. 40	WAWW40	2030-2031	The Woodlands

The Woodlands began receiving treated surface water in 2015; however, peak water demands will continue to be met by ground water. As of 2030, several water wells in the Woodlands system will have met or exceeded their useful life of 50 years, and will be recommended for abandonment. For peak demands, and to not decrease the amount of groundwater production capability, construction of a high production Upper Jasper Aquifer water well is recommended. Land will need to be acquired to allow for an estimated 1/2 acre site. The proposed water well is planned to be capable of producing 3,000 gallons per minute.

This project will also include the installation of a 24-inch well collection line from the water well to the nearest SJRA Woodlands Division water plant.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2029	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2030	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2030		☑ R&R
Proposals/Bids Received:	FY 2030		☐ Other
Constr. Contract to Board:	FY 2031		
Substantial Completion:	FY 2032	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 706,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 706,000	$ -	$ -
Engineering/Design	$ 706,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 706,000	$ -	$ -
Construction	$ 7,167,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 7,167,000	$ -
CPS, CM&I, and CMT	$ 717,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 717,000	$ -
Land Acquisition	$ 163,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 163,000	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 9,459,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,575,000	$ 7,884,000	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Well Site Generator	WA1WGN	2030-2031	The Woodlands

The San Jacinto River Authority (SJRA) Woodlands Division owns and operates thirty-eight (38) groundwater wells. The Woodlands began receiving treated surface water in 2015; however, existing groundwater wells will continue to be used by the Woodlands Division to meet demands. The groundwater produced by these wells is conveyed to the five (5) water plants where it is mixed with surface water, chlorinated, and pumped into the distribution system.

Currently backup power at off-site (non-water plant) well locations and wells at elevated storage tank sites (EST) is provided by natural gas auxiliary engines (except EST 5), which are connected to water wells via a right-angle gear connection, which has to be manually engaged during a power outage to operate the well. Most of the existing engines are over 20 years in age, and will be reaching the end of their useful life in 10-20 years. Also, most of the engines operate the smaller Evangeline aquifer wells, whereas the preference would be allow for operation of the larger Jasper aquifer wells in a power outage. Therefore, the SJRA Woodlands Division will implement a program to replace the existing auxiliary engines with natural gas or diesel generators (as the sites permit) over the next 25 years. The well site locations where the replacement could take place are for the Wells 7/8 site, Wells 9/10 (at EST 3), Wells 11/12 site, Wells 15/16 site, Wells 17/18 site, Wells 21/22 site, Wells 23/24 site, Wells 31/32, Wells 33/34 (at EST 7), Wells 35/36, Wells 37/38 and Well 39.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2030	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2030	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2030		☑ R&R
Proposals/Bids Received:	FY 2030		☐ Other
Constr. Contract to Board:	FY 2031		
Substantial Completion:	FY 2031	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 42,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 42,000	$ -	$ -
Engineering/Design	$ 83,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 83,000	$ -	$ -
Construction	$ 857,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 857,000	$ -
CPS, CM&I, and CMT	$ 86,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 86,000	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,068,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 125,000	$ 943,000	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water System Mechanical Asset Replacement	WAMAR4	2030-2031	The Woodlands

The SJRA Woodlands Division water system contains several hundred mechanical assets including motors, pumps, chlorinators, engines, motor control valves, generators, transfer switches, and motor control centers. As these assets reach the end of their useful life, these assets require replacement to maintain the current level of service. These replacements will be performed as part of an on-going series of projects.

Other projects in the 10-Year Project Plan to replace Water System Mechanical Assets include WAMAR1, WAMAR2, and WAMAR3.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	As Needed	☑ CSP	☐ O&M
PSA/WO Issued:	As Needed	☐ Other	☐ Bonds
Final Proposal Docs:	As Needed		☑ R&R
Proposals/Bids Received:	As Needed		☐ Other
Constr. Contract to Board:	As Needed		
Substantial Completion:	As Needed	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 1,315,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,315,000	$ -
CPS, CM&I, and CMT	$ 10,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,000	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,325,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,325,000	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Well Rehabilitation	WA31WR	2031	The Woodlands

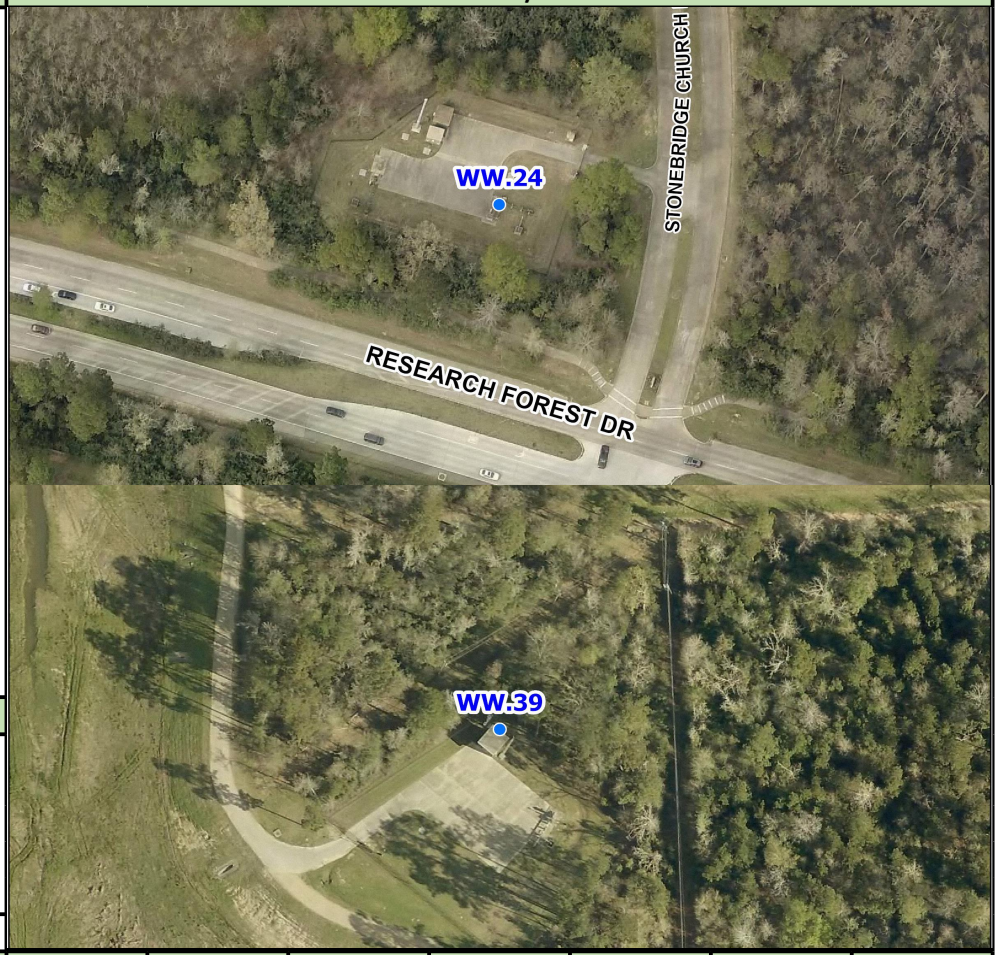
PROJECT DESCRIPTION/JUSTIFICATION:

The Woodlands began receiving treated surface water in 2015, however, peak water demands will continue to be met by existing ground water wells. Consequently, continued well rehabilitation is necessary in order to prolong service life, minimize risk of failure and reduce increased maintenance of the wells. SJRA completes an semi-annual inspection of each water well to determine which well(s) may require rehabilitation. The targeted well(s) are compared to the long-term water production needs of The Woodlands, then evaluated based on the well retirement plan for rehabilitation or abandonment.

Based upon an evaluation of the 38 water wells, Well Nos. 24 and 39 are anticipated to have the need for rehabilitation based upon date of last previous rehabilitation and production capabilities. Rehabilitation of Well Nos. 24 and 39 will begin with an inspection of all well related equipment and a video of the well. Based upon the inspection, the project may include replacement of pump and well equipment; wire brushing the well screen section; jetting out and removing fill material from the bottom of the well; and performing acid chemical treatment of the well screen sections. Rehabilitation may also include adding gravel pack material to the well if needed. This project may include lowering of the well pump and increasing the motor size for the Jasper aquifer well.

Water Well No. 24 - Evangeline Aquifer; Design GPM: 900
Water Well No. 39 - Jasper Aquifer; Design GPM: 2,000

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2031	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2031	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2031		☑ R&R
Proposals/Bids Received:	FY 2031		☐ Other
Constr. Contract to Board:	FY 2031		
Substantial Completion:	FY 2032	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 97,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 97,000	$ -
Construction	$ 965,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 965,000	$ -
CPS, CM&I, and CMT	$ 97,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 97,000	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,159,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,159,000	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Line Renewal	WA31WL	2031-2032	The Woodlands

The SJRA owns and maintains approximately 120 miles of potable water distribution lines 12-inches and larger diameter in the Woodlands. The existing distribution system contains 47 miles of asbestos cement (AC) lines. Approximately 20 miles of all water lines are more than 40 years old, and the majority of which are made of AC material. Industry asset management practices suggest that AC water lines have the higher frequency of failure, and average useful life of 50 years. Historically, SJRA has experienced on average 9 failures per year, and is trending upward. Due to the aging water distribution infrastructure and increasing rate of breaks, water line renewal is necessary to decrease repair frequencies, improve reliability to end-users and maintain requested level of service. This project is part of a phased asset management approach to continuously replace water lines in the system, with a plan to replace all AC water lines within the next 20 years. Other projects as described in WA21WL, WA23WL, WA24WL, WA25WL, WA26WL, WA27WL, WA28WL, WA29WL, WA30WL, and WA32WL will accomplish the goal of replacing all of the AC pipe in the system. The AC lines will be replaced with PVC or HDPE lines with an average expected useful life of more than 80 years.

Using the SJRA Asset Management Plan strategy, and confirmed by a consultant, Likelihood of Failure, Consequence of Failure, and Mitigation Factors were used to score and prioritize replacement of the AC water lines in the Woodlands Division System. From this, approximately 12,000 linear feet (2.3 miles) of 12 and 16-inch AC pipe along SH242 and Trade Center Parkway were identified for this project scope.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2031	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2031	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2031		☑ R&R
Proposals/Bids Received:	FY 2031		☐ Other
Constr. Contract to Board:	FY 2032		
Substantial Completion:	FY 2033	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 610,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 610,000	$ -
Engineering/Design	$ 610,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 610,000	$ -
Construction	$ 6,286,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,286,000
CPS, CM&I, and CMT	$ 629,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 629,000
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 8,135,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,220,000	$ 6,915,000

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Line Renewal	WA32WL	2032-2033	The Woodlands

The SJRA owns and maintains approximately 120 miles of potable water distribution lines 12-inches and larger diameter in the Woodlands. The existing distribution system contains 47 miles of asbestos cement (AC) lines. Approximately 20 miles of all water lines are more than 40 years old, and the majority of which are made of AC material. Industry asset management practices suggest that AC water lines have the higher frequency of failure, and average useful life of 50 years. Historically, SJRA has experienced on average 9 failures per year, and is trending upward. Due to the aging water distribution infrastructure and increasing rate of breaks, water line renewal is necessary to decrease repair frequencies, improve reliability to end-users and maintain requested level of service. This project is part of a phased asset management approach to continuously replace water lines in the system, with a plan to replace all AC water lines within the next 20 years. Other projects as described in WA21WL, WA23WL, WA24WL, WA25WL, WA26WL, WA27WL, WA28WL, WA29WL, WA30WL, and WA31WL will accomplish the goal of replacing all of the AC pipe in the system. The AC lines will be replaced with PVC or HDPE lines with an average expected useful life of more than 80 years.

Using the SJRA Asset Management Plan strategy, and confirmed by a consultant, Likelihood of Failure, Consequence of Failure, and Mitigation Factors were used to score and prioritize replacement of the AC water lines in the Woodlands Division System. From this, approximately 27,000 linear feet (5.2 miles) of 12, 16 and 20-inch AC and Ductile Iron (DI) pipe along Lake Woodlands Drive, Falconwing Drive, Sylvan Forest Drive, Shadowbend Place, Cochran's Crossing Drive, John Cooper Drive and Elevated Storage Tank No. 2 were identified for this project scope.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2032	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2032	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2032		☑ R&R
Proposals/Bids Received:	FY 2032		☐ Other
Constr. Contract to Board:	FY 2033		
Substantial Completion:	FY 2034	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 1,564,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,564,000
Engineering/Design	$ 1,564,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,564,000
Construction	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 3,128,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,128,000

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Well Rehabilitation	WA32WR	2032	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

The Woodlands began receiving treated surface water in 2015, however, peak water demands will continue to be met by existing ground water wells. Consequently, continued well rehabilitation is necessary in order to prolong service life, minimize risk of failure and reduce increased maintenance of the wells. SJRA completes an semi-annual inspection of each water well to determine which well(s) may require rehabilitation. The targeted well(s) are compared to the long-term water production needs of The Woodlands, then evaluated based on the well retirement plan for rehabilitation or abandonment.

Based upon an evaluation of the 38 water wells, Well Nos. 12, 15, 21 and 23 are anticipated to have the need for rehabilitation based upon date of last previous rehabilitation and production capabilities. Rehabilitation of Well Nos. 12, 15, 21 and 23 will begin with an inspection of all well related equipment and a video of the well. Based upon the inspection, the project may include replacement of pump and well equipment; wire brushing the well screen section; jetting out and removing fill material from the bottom of the well; and performing acid chemical treatment of the well screen sections. Rehabilitation may also include adding gravel pack material to the well if needed. This project may include lowering of the well pump and increasing the motor size for the Jasper aquifer wells.

Water Well No. 12 - Evangeline Aquifer; Design GPM: 1,000
Water Well No. 15 - Jasper Aquifer; Design GPM: 1,600
Water Well No. 21 - Jasper Aquifer; Design GPM: 1,600
Water Well No. 23 - Jasper Aquifer; Design GPM: 1,500

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2032	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2032	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2032		☑ R&R
Proposals/Bids Received:	FY 2032		☐ Other
Constr. Contract to Board:	FY 2032		
Substantial Completion:	FY 2033	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 219,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 219,000
Construction	$ 2,188,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,188,000
CPS, CM&I, and CMT	$ 219,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 219,000
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 2,626,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,626,000

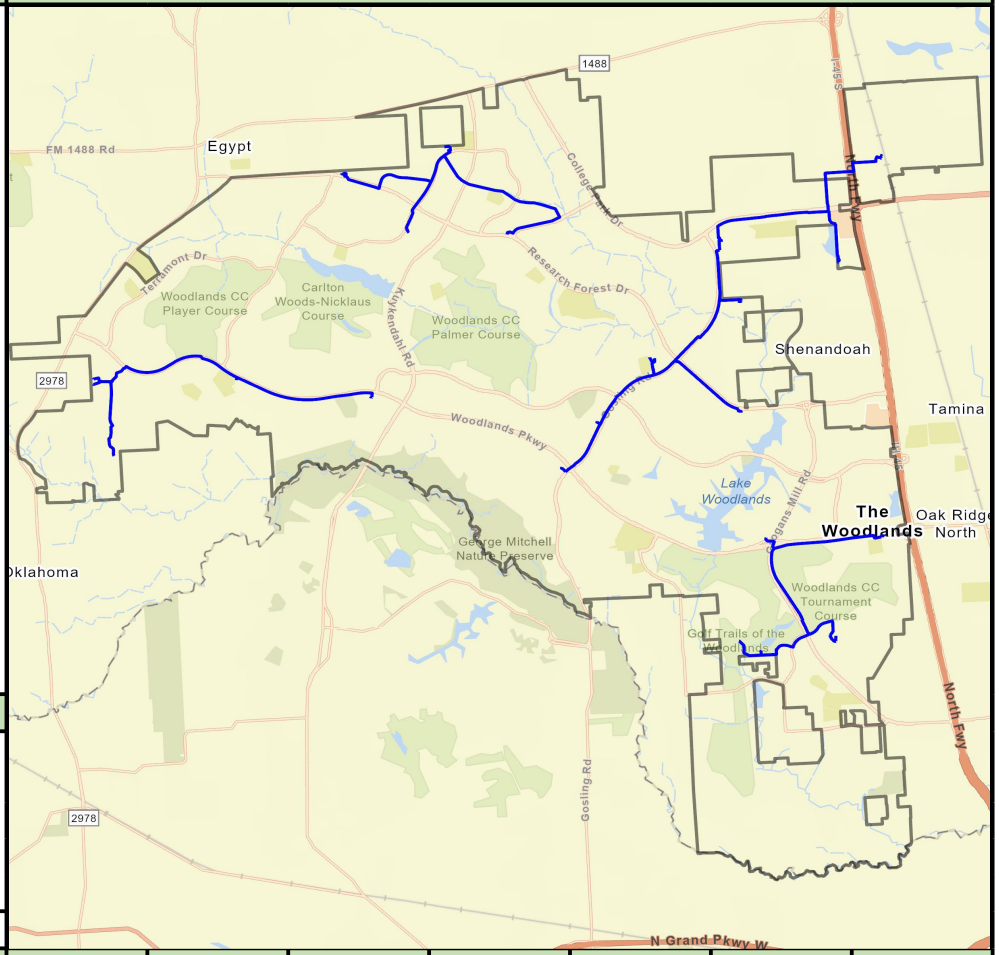
*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Water Well Collection Line Replacement	WAWCL2	2032-2033	The Woodlands

The SJRA Woodlands Division owns and operates 38 groundwater wells, which produce groundwater which must be conveyed to a water plant to be blended with surface water and chlorinated. Well collection lines are low-pressure water lines which convey this untreated groundwater to the water plant at a ground storage tank.

Several of the well collection lines are nearing 40-years of age, and being comprised of non-plastic materials (asbestos cement, ductile iron, concrete) are nearing the end of their expected useful life. This project is expected to include the replacement of the well collection lines from Well Site Nos. 17/18 and 21/22.

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2032	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2032	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2032		☑ R&R
Proposals/Bids Received:	FY 2032		☐ Other
Constr. Contract to Board:	FY 2033		
Substantial Completion:	FY 2034	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 1,881,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,881,000
Engineering/Design	$ 1,881,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,881,000
Construction	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 3,762,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,762,000

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
WWTF No. 3 PPW Pressure System Rehabilitation	WWF3PW	2022	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

The Plant Process Water (PPW) system at Wastewater Treatment Facility (WWTF) No. 3 was installed in 2001. For this facility, the PPW system includes a hydropneumatic tank which serves to maintain pressure within the PPW system piping during periods of less PPW use and allow the PPW pumps to shut off.

The hydropneumatic tank will be removed and the system reconfigured to allow for on-demand continuous pumping, but with the flexibility to rotate the pumps so that not all are running continuously. SCADA controls will be added to allow for the pump rotation based upon run-time. Also, new pumps will be installed to replace the original pumps for this system.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2021 - Q3	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2021 - Q4	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2022 - Q3		☑ R&R
Proposals/Bids Received:	FY 2022 - Q3		☐ Other
Constr. Contract to Board:	FY 2022 - Q4		
Substantial Completion:	FY 2023 - Q4	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 50,000	$ 50,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 300,000	$ 300,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 25,000	$ 25,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 375,000	$ 375,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
WWTF No. 2 Headworks Rehabilitation	WWP2HW	2022	The Woodlands

The Headworks at Wastewater Treatment Facility No. 2 was built as part of the original Phase I of the facility in 1996. The facility was inspected in 2018 and moderate degradation of the concrete was found. Potential rehabilitation could include cleaning, repairing/coating of concrete walls, removal of existing plates and replacement with grates for access, and installation of a permanent diversion system. Also, an access stairway is needed to safely access the splitter box.

This project will also include the replacement of the grit classifier at the headworks. The grit classifier at Wastewater Treatment Facility No. 2 was originally installed as the grit classifier at Wastewater Treatment Facility No. 1 in 2009. When the new grit chamber system was constructed at Wastewater Treatment Facility No. 1 in 2017, this grit classifier was moved and installed at Wastewater Treatment Facility No. 2 to replace the original classifier which had deteriorated and had many mechanical issues. After several years of use, it has become apparent that this classifier does not have sufficient grit classifying capacity for this facility. Therefore, a new classifier is required which will be designed specifically to meet the parameters of the wastewater treatment facility.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2021 - Q3	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2021 - Q4	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2023 - Q3		☑ R&R
Proposals/Bids Received:	FY 2023 - Q3		☐ Other
Constr. Contract to Board:	FY 2023 - Q4		
Substantial Completion:	FY 2024 - Q4	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 231,000	$ 231,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 231,000	$ 231,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 2,307,000	$ 2,307,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 231,000	$ 231,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 3,000,000	$ 3,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
WWTF No. 2 Tertiary Filter Improvements (2nd and 3rd Filter)	WW02FR	2021-2024	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

Wastewater Treatment Facility (WWTF) No. 2 utilizes tertiary filters to treat effluent prior to disinfection. Filters 1 and 2 are sand filters, while Filter 3 was replaced with a new cloth media filter in 2016. The current sand filters are rated for 2 MG of flow each, with the one installed cloth media filter rated for 6 MG of flow. The TCEQ discharge permit allows for 15.6 MG of flow during a rain event, of which only 10.0 MG is able to be treated with the current filters.

The existing sand filters have been in service since 2006, have a service life of 15-25 years, are rated for 2 MG each, and have experienced performance issues which limit wastewater flows through WWTF No. 2. This project will replace the remaining two sand filters with cloth media filters which will eliminate the performance issues, allow all flow during a rain event to pass through the filters and have a 30 year service life.

An evaluation was conducted to determine the capital and O&M cost of replacing the existing unit with a similar unit versus a modification to a newer technology (cloth media). To replace the existing unit with a similar unit, capital and O&M costs were $106.85/MG and $27.40, respectively. The capital and O&M cost to modify to cloth media is $41.76/MG and $7.99/MG, respectively.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2020 - Q4	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2021 - Q1	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2022 - Q2		☑ R&R
Proposals/Bids Received:	FY 2024 - Q2		☐ Other
Constr. Contract to Board:	FY 2024 - Q3		
Substantial Completion:	FY 2025 - Q3	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 100,000	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 276,118	$ 276,118	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 4,040,000	$ -	$ -	$ 4,040,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 252,000	$ -	$ -	$ 252,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 4,668,118	$ 376,118	$ -	$ 4,292,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Lift Station No. 5 Force Main Replacement	WWFM5R	2018 - 2024	The Woodlands

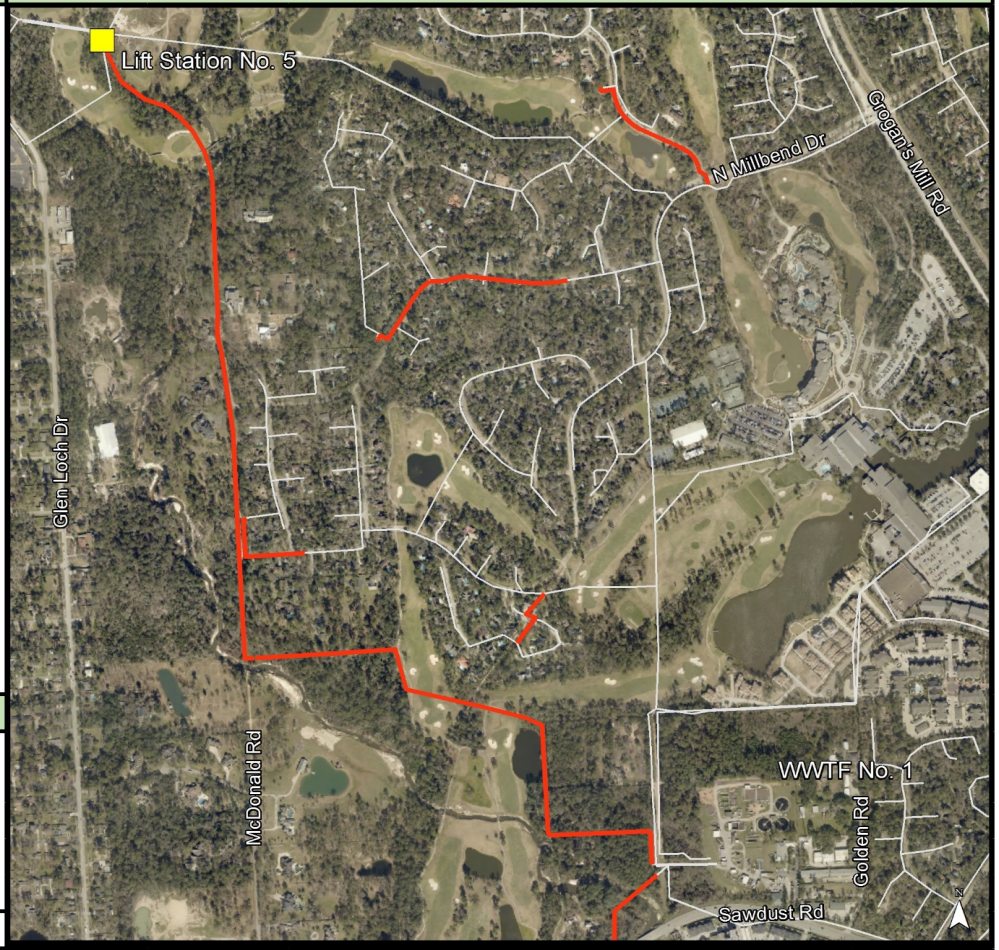
PROJECT DESCRIPTION/JUSTIFICATION:

Some parts of the existing collection system have been in service in excess of 40 years. The aging system requires rehabilitation or replacement to avoid collection system failure. Through the Asset Management Program, specific force mains were identified as high risk for failure and were evaluated for rehabilitation or replacement.

Based on a risk analysis of all force mains, the force main associated with Lift Station No. 5 was identified as a candidate for replacement based on pipe material, age, and likelihood and consequence of failure. In 2014, a Smart Ball condition assessment was performed for this force main which showed several areas of corrosion throughout the force main. Constructed in the early 1980's, this force main consists of approximately 8,100 linear feet of 24-inch cement mortar lined ductile iron pipe, all of which is recommended for replacement.

Permanent easements have been acquired for this project.

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2018 - Q2	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2018 - Q3	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2023 - Q3		☑ R&R
Proposals/Bids Received:	FY 2023 - Q4		☐ Other
Constr. Contract to Board:	FY 2024 - Q1		
Substantial Completion:	FY 2025 - Q2	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 688,000	$ 688,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 6,100,000	$ 4,100,000	$ -	$ 2,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 710,000	$ 510,000	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 7,498,000	$ 5,298,000	$ -	$ 2,200,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Forcemain Renewal	WW22FM	2022-2027	The Woodlands

Some parts of the existing collection system have been in service for over 40 years. The aging system requires renewal to avoid collection system failure. Through the Asset Management Program, specific force mains were identified as high risk for failure and were evaluated for rehabilitation or replacement.

The SSTAR Program in 2019-2020 included a condition assessment of these force mains, which showed signs of corrosion based on a camera survey. Based on the condition assessment, additional investigation of several force mains will be conducted in the future to further determine the extent of corrosion.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	As Needed	☑ CSP	☐ O&M
PSA/WO Issued:	As Needed	☐ Other	☐ Bonds
Final Proposal Docs:	As Needed		☑ R&R
Proposals/Bids Received:	As Needed		☐ Other
Constr. Contract to Board:	As Needed		
Substantial Completion:	As Needed	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 75,000	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 75,000	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 3,662,000	$ -	$ -	$ 918,000	$ 922,000	$ 904,000	$ 918,000	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 366,000	$ -	$ -	$ 92,000	$ 92,000	$ 90,000	$ 92,000	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 4,178,000	$ 150,000	$ -	$ 1,010,000	$ 1,014,000	$ 994,000	$ 1,010,000	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Lift Station Rehabilitation	WW21LS	2021-2030	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

Each year, a comprehensive evaluation of all thirty lift stations in The Woodlands is conducted. This evaluation includes visual inspection and condition assessment ranking of each lift station by SJRA staff which results in a prioritized list of lift stations to be rehabilitation. In addition, the Sanitary Sewer Transmission Asset Renewal Program included a comprehensive condition assessment, with results incorporated into SJRA's prioritized list. Based on this list, several lift stations were identified as needing minor rehabilitation work, such as replacement or addition of the wet well coating, minor structural repairs, and minor electrical improvements. This project, and lift station projects in the future, will allow for on-going maintenance and rehabilitation to extend the effective useful life of the thirty lift stations, and prevent the likelihood of failure requiring emergency repairs. In addition, consideration will be taken to elevate controls for facilities in flood-prone locations, and to add back-up power systems at strategic locations to ensure for continued service during power outages.

FY2023 funds include the purchase and installation of generators at several lift stations.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	As Needed	☑ CSP	☐ O&M
PSA/WO Issued:	As Needed	☐ Other	☐ Bonds
Final Proposal Docs:	As Needed		☑ R&R
Proposals/Bids Received:	As Needed		☐ Other
Constr. Contract to Board:	As Needed		
Substantial Completion:	As Needed	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 241,000	$ 33,000	$ 21,000	$ 21,000	$ 22,000	$ 22,000	$ 23,000	$ 24,000	$ 24,000	$ 25,000	$ 26,000	$ -
Construction	$ 2,608,000	$ 338,000	$ 400,000	$ 212,000	$ 218,000	$ 223,000	$ 229,000	$ 236,000	$ 243,000	$ 251,000	$ 258,000	$ -
CPS, CM&I, and CMT	$ 241,000	$ 33,000	$ 21,000	$ 21,000	$ 22,000	$ 22,000	$ 23,000	$ 24,000	$ 24,000	$ 25,000	$ 26,000	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 3,090,000	$ 404,000	$ 442,000	$ 254,000	$ 262,000	$ 267,000	$ 275,000	$ 284,000	$ 291,000	$ 301,000	$ 310,000	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Wastewater System Technology Improvements	WWWSTI	2023-2032	The Woodlands

The Woodlands Division water and wastewater systems have various software and technology assets that require updating and replacement in order to achieve or maintain efficiencies. The Division uses software for operational data storage, calculating and reporting, modeling of water and wastewater systems, GIS mapping, SCADA data storage and reporting, electronic record keeping, and asset management. These softwares generally require occasional updates based on technological advancements as well as process changes within the water and wastewater systems.

These funds will be used to maintain and update technology in terms of software functionality, hardware needs, and hardware required for updated software.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	As Needed	☑ CSP	☐ O&M
PSA/WO Issued:	As Needed	☐ Other	☐ Bonds
Final Proposal Docs:	As Needed		☑ R&R
Proposals/Bids Received:	As Needed		☐ Other
Constr. Contract to Board:	As Needed		
Substantial Completion:	As Needed	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 125,000	$ -	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500
Construction	$ 1,250,000	$ -	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 125,000
CPS, CM&I, and CMT	$ 125,000	$ -	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 12,500
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,500,000	$ -	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
WWTF No. 1 Effluent Channel Rehabilitation	WWP1EC	2024	The Woodlands

The Effluent Parshall Flume Channel at Wastewater Treatment Facility No. 1 was constructed in 1995 as part of the Stage IV improvements at the facility. This channel allows for both the accurate measurement of the effluent discharge from the wastewater facility prior to the storm water pump basin.

After 20 years of continuous use, the concrete in the channel has began to show signs of deterioration, including exposed aggregate in the bottom of the channel. Therefore, the channel is to be coated to maintain the useful life of the structure. As part of the project, possible options for diverting the flow from the effluent channel will be analyzed.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2024	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2024	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2025		☑ R&R
Proposals/Bids Received:	FY 2025		☐ Other
Constr. Contract to Board:	FY 2025		
Substantial Completion:	FY 2026	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 78,000	$ -	$ -	$ 78,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 780,000	$ -	$ -	$ 780,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 78,000	$ -	$ -	$ 78,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 936,000	$ -	$ -	$ 936,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Gravity Main Rehabilitation	WW23GR	2024-2025	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

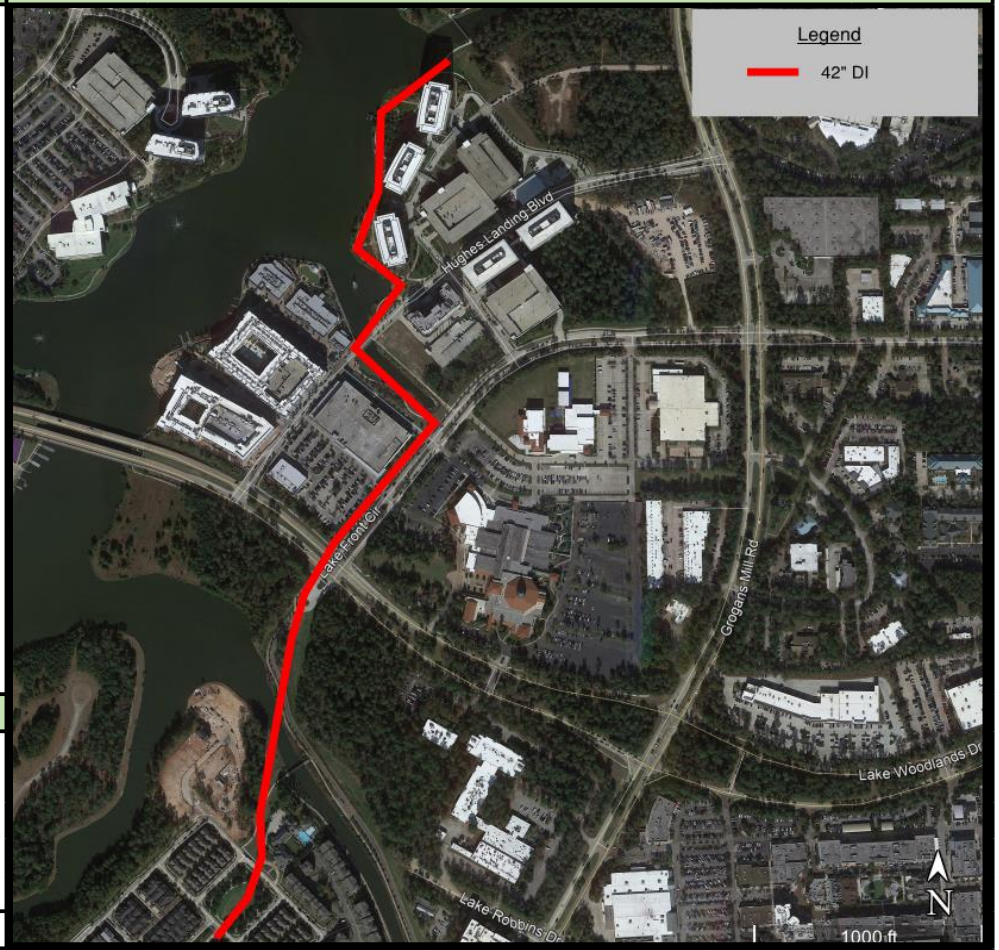
Some wastewater lines within the collection system have been in service for over 40 years. The aging system requires rehabilitation to avoid collection system failure, sewage overflows, and permit violations. Through the Asset Management Program and the Sanitary Sewer Transmission Assessment and Renewal (SSTAR) Program, specific line segments were identified as high risk for failure and should be rehabilitated within the next few years.

The SSTAR Program conducted in 2019 and 2020 included a condition assessment consisting of closed circuit television (CCTV) inspection and analysis of expected remaining useful life. CCTV video footage showed significant deterioration of the existing gravity mains, requiring rehabilitation or replacement. Additionally, these line segments were scored with a high consequence of failure due to their criticality (loss of service) and proximity to a waterway.

The line segments included in this project include approximately 5,000 linear feet of 42" ductile iron (DI) pipe located east of Lake Woodlands.

This project is part of a phased asset management approach to continuously rehabilitate sanitary sewer gravity mains in the system, to avoid collection system failure, sewage overflows, and permit violations. Other projects as described in WW21GR, WW25GR, and WW27GR will accomplish the goal of rehabilitating the gravity mains identified as being the highest risk for failure.

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2023	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2024	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2025		☑ R&R
Proposals/Bids Received:	FY 2025		☐ Other
Constr. Contract to Board:	FY 2025		
Substantial Completion:	FY 2026	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 305,000	$ -	$ -	$ 305,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 608,000	$ -	$ -	$ 608,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 6,117,000	$ -	$ -	$ -	$ 6,117,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 408,000	$ -	$ -	$ -	$ 408,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 7,438,000	$ -	$ -	$ 913,000	$ 6,525,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
WWTF No. 1 Clarifier Rehabilitation	WW01CR	2024-2026	The Woodlands

Two clarifiers at Wastewater Treatment Facility (WWTF) No. 1 were installed in 1982, and one clarifier was installed in 1994. The existing metal components are beginning to show signs of corrosion. However the corrosion is being monitoring and temporarily mitigated. Typical effective useful life for wastewater treatment facility mechanical equipment is 20 years. The mechanical equipment in Clarifiers Nos. 1 and 2 have reached the end of its useful life, and the mechanical equipment in Clarifier No. 3 is near the end of its useful life. Therefore, it is recommended to replace this equipment at all three clarifiers.

The project includes replacement of the mechanical components of all three clarifiers including clarifier mechanisms, weirs and baffles, weir cleaning brushes, electrical and instrumentation systems. The stilling well of Clarifier No. 3 will also be replaced. At all three clarifiers, technologies will be incorporated for increased solids handling capability and increase the overall capacity of the clarification system.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2024	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2024	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2025		☑ R&R
Proposals/Bids Received:	FY 2025		☐ Other
Constr. Contract to Board:	FY 2026		
Substantial Completion:	FY 2026	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 203,000	$ -	$ -	$ 203,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 1,537,000	$ -	$ -	$ -	$ -	$ 1,537,000	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 102,000	$ -	$ -	$ -	$ -	$ 102,000	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,842,000	$ -	$ -	$ 203,000	$ -	$ 1,639,000	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
WWTF No. 1 Lift Station Rehabilitation	WWF1LS	2026-2027	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

Wastewater Treatment Facility (WWTF) No. 1, Lift Station No. 1 was constructed in 1975 and Lift Station No. 2 was constructed in 1982. To optimize operational efficiency and reduce maintenance of these facilities, Lift Station No. 2 will be converted to a full submersible lift station, which will allow for the abandonment of Lift Station No. 1, which has reached the end of its useful life. After a visual inspection of Lift Station No. 2 by SJRA staff, it was found the wet well concrete structures display corrosion and should be repaired and coated to prevent additional corrosion in the future. As part of the conversion to a full submersible lift station, the pumps, piping, valves, and electrical equipment will be replaced at Lift Station No. 2. Additionally, mechanical ventilation and odor control may be included as further means for corrosion reduction. By rehabilitating the concrete structure with a coating that is resistant to wastewater gases, it is estimated that the life of the structure can be maintained with continued preventative maintenance. This project will also include rehabilitating the asphalt pavement in front of the lift stations.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2026	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2026	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2026		☑ R&R
Proposals/Bids Received:	FY 2027		☐ Other
Constr. Contract to Board:	FY 2027		
Substantial Completion:	FY 2028	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 256,000	$ -	$ -	$ -	$ -	$ 256,000	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 307,000	$ -	$ -	$ -	$ -	$ 307,000	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 3,119,000	$ -	$ -	$ -	$ -	$ -	$ 3,119,000	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 312,000	$ -	$ -	$ -	$ -	$ -	$ 312,000	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 3,994,000	$ -	$ -	$ -	$ -	$ 563,000	$ 3,431,000	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
WWTF No. 1 Generator Replacement	WWF1GN	2026-2027	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

The 2,000 kW diesel standby generator at Wastewater Treatment Facility No. 1 was installed in 2000. This generator provides the primary backup power source for Wastewater Treatment Plant No. 1 in the event of power outage. In order to maintain reliable power backup for the wastewater facility, it is recommended to replace this generator before it is anticipated to reach the end of its useful life, which is approximately 30 years. Also, continued maintenance costs rise as replacement parts become less available. A new diesel standby generator of the same size is expected to replace the current generator.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2026	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2026	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2026		☑ R&R
Proposals/Bids Received:	FY 2026		☐ Other
Constr. Contract to Board:	FY 2027		
Substantial Completion:	FY 2027	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 102,000	$ -	$ -	$ -	$ -	$ 102,000	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 1,040,000	$ -	$ -	$ -	$ -	$ -	$ 1,040,000	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 104,000	$ -	$ -	$ -	$ -	$ -	$ 104,000	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,246,000	$ -	$ -	$ -	$ -	$ 102,000	$ 1,144,000	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
WWTF No. 2 Belt Press and Conveyor Replacement	WW2SCR	2027-2028	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

Wastewater Treatment Facility (WWTF) No. 2 includes a 1.5 meter belt press and sludge conveyor system, installed in 1997. Additionally, in 2003 a 2.0 meter belt press was installed. These belt filter presses and the conveyor are experiencing recurring mechanical issues which require more frequent repairs. Replacing both belt presses with modern technology will replace with what is expected to increase the percentage of solids production, decrease the chemical costs, and decrease overall operation and maintenance costs.

The current conveyor system is steep and has required modification over its service life to reduce potential safety issues. The current belt-type conveyor system will be replaced with a screw-type conveyance system. The screw-type conveyor is in an enclosed unit, which will prevent spillage of dewatered sludge onto the floor, eliminating the need for regular cleaning.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2027	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2027	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2027		☑ R&R
Proposals/Bids Received:	FY 2027		☐ Other
Constr. Contract to Board:	FY 2028		
Substantial Completion:	FY 2028	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 156,000	$ -	$ -	$ -	$ -	$ -	$ 156,000	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 312,000	$ -	$ -	$ -	$ -	$ -	$ 312,000	$ -	$ -	$ -	$ -	$ -
Construction	$ 3,166,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,166,000	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 264,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 264,000	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 3,898,000	$ -	$ -	$ -	$ -	$ -	$ 468,000	$ 3,430,000	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Gravity Main Rehabilitation	WW25GR	2027-2028	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

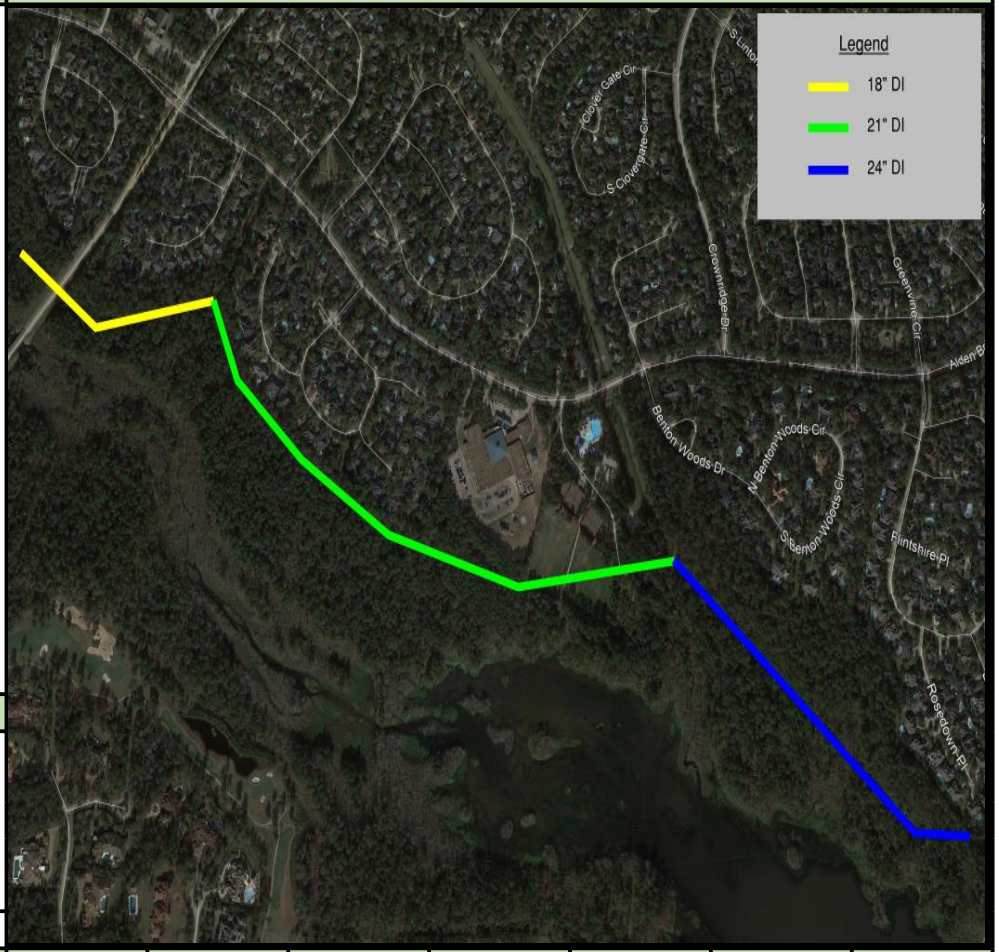
Some wastewater lines within the collection system have been in service for over 40 years. The aging system requires rehabilitation to avoid collection system failure, sewage overflows, and permit violations. Through the Asset Management Program and the Sanitary Sewer Transmission Assessment and Renewal (SSTAR) Program, specific line segments were identified as high risk for failure and should be rehabilitated within the next few years.

The SSTAR Program conducted in 2019 and 2020 included a condition assessment consisting of closed circuit television (CCTV) inspection and analysis of expected remaining useful life. CCTV video footage showed significant deterioration of the existing gravity mains, requiring rehabilitation or replacement. Additionally, these line segments were scored with a high consequence of failure due to their proximity to a sensitive environmental waterway.

The line segments included in this project include approximately 1,400 linear feet of 18" ductile iron (DI) pipe, 3300 linear feet of 21" DI pipe, and 2100 linear feet of 24" DI pipe.

This project is part of a phased asset management approach to continuously rehabilitate sanitary sewer gravity mains in the system, to avoid collection system failure, sewage overflows, and permit violations. Other projects as described in WW21GR, WW23GR, and WW27GR will accomplish the goal of rehabilitating the gravity mains identified as being the highest risk for failure.

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2026	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2027	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2027		☑ R&R
Proposals/Bids Received:	FY 2027		☐ Other
Constr. Contract to Board:	FY 2028		
Substantial Completion:	FY 2029	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 177,000	$ -	$ -	$ -	$ -	$ -	$ 177,000	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 416,000	$ -	$ -	$ -	$ -	$ -	$ 416,000	$ -	$ -	$ -	$ -	$ -
Construction	$ 4,212,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,212,000	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 251,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 251,000	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 5,056,000	$ -	$ -	$ -	$ -	$ -	$ 593,000	$ 4,463,000	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Gravity Main Rehabilitation	WW27GR	2029-2030	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

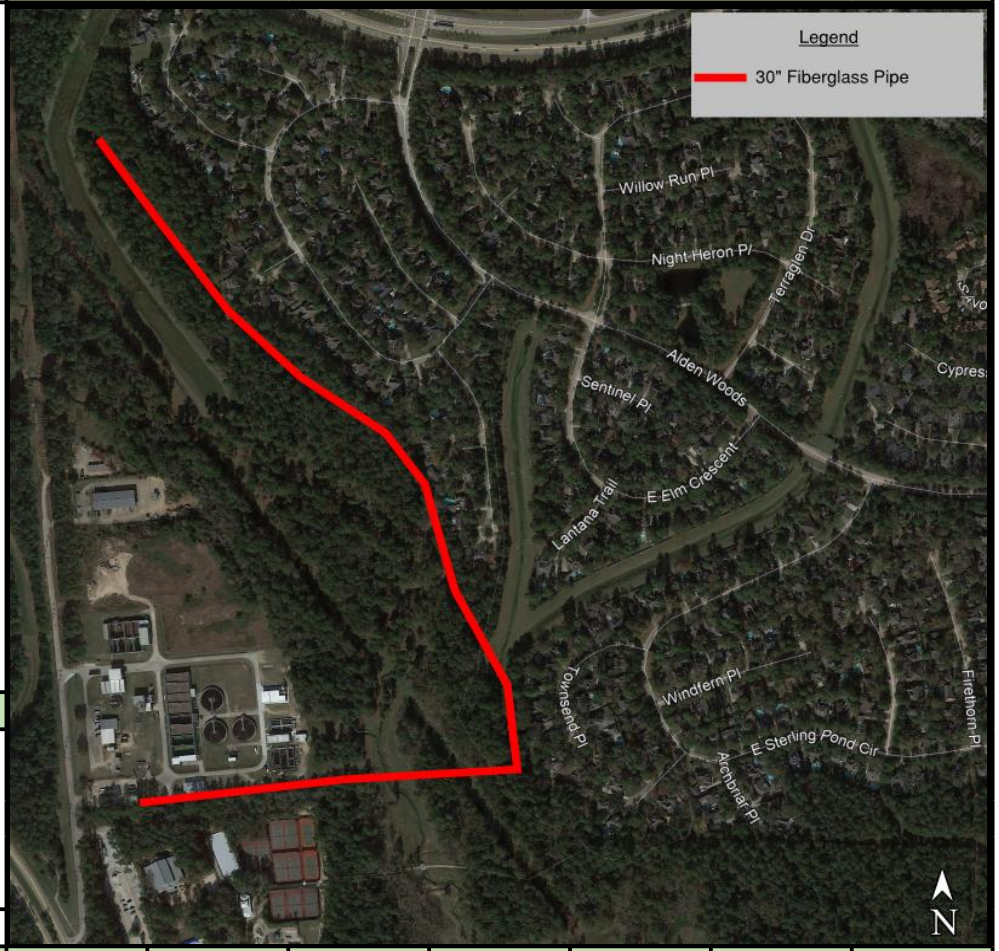
Some wastewater lines within the collection system have been in service for over 40 years. The aging system requires rehabilitation or renewal to avoid collection system failure, sewage overflows, and permit violations. Through the Asset Management Program, specific line segments were identified as high risk for failure and should be rehabilitated within the next few years.

The SSTAR Program conducted in 2019 and 2020 included assessment of the expected remaining useful life for collection system assets. Aging fiberglass pipe was identified as a high-risk asset, but the exact condition of the existing pipe is unknown. Additional closed circuit television (CCTV) inspection will be conducted to confirm the need for this project and its timing.

The line segments included in this project include approximately 4,300 linear feet of 30" fiberglass reinforced plastic (FRP) pipe located north of Research Forest Drive, near Wastewater Treatment Facility No. 2.

This project is part of a phased asset management approach to continuously rehabilitate sanitary sewer gravity mains in the system, to avoid collection system failure, sewage overflows, and permit violations. Other projects as described in WW21GR, WW23GR, and WW25GR will accomplish the goal of rehabilitating the gravity mains identified as being the highest risk for failure.

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2028	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2029	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2029		☑ R&R
Proposals/Bids Received:	FY 2029		☐ Other
Constr. Contract to Board:	FY 2029		
Substantial Completion:	FY 2030	☐ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 321,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 321,000	$ -	$ -	$ -
Engineering/Design	$ 642,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 642,000	$ -	$ -	$ -
Construction	$ 6,791,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,791,000	$ -	$ -
CPS, CM&I, and CMT	$ 652,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 652,000	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 8,406,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 963,000	$ 7,443,000	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
WWTF No. 1 Digester No. 1 Replacement	WW1D1R	2030-2031	The Woodlands

Digester No. 1 at Wastewater Treatment Facility No. 1 was constructed in 1982. Over the course of several wastewater facility expansions, this digester has been modified numerous times to allow for its continued use. However, the digester does not perform at an efficient hydraulic capacity for the current facility operations. In addition, as the basin will be reaching the end of its effective useful life by 2030. Therefore, a new basin is planned to be constructed adjacent to Digester 2 and Digester 1 will be demolished. The new basin will be designed to handle ultimate peak flow as required from the analysis performed for the 6th and Final Accounting.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2030	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2030	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2030		☑ R&R
Proposals/Bids Received:	FY 2031		☐ Other
Constr. Contract to Board:	FY 2031		
Substantial Completion:	FY 2032	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 163,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 163,000	$ -	$ -
Engineering/Design	$ 163,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 163,000	$ -	$ -
Construction	$ 1,654,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,654,000	$ -
CPS, CM&I, and CMT	$ 165,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 165,000	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 2,145,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 326,000	$ 1,819,000	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
WWTF No. 2 Blower Replacement	WWP2BR	2031	The Woodlands

Phase I of Wastewater Treatment Facility No. 2 was constructed in 1995. The blowers for the aeration basins and the post-aeration blowers at the filter basin are original to the 1995 construction and have reached the end of their useful life. The blowers are planned to be replaced with high-efficiency positive displacement blowers of equal capacity. The size of the blowers at the aeration basin will be increased from 150 hp to 200 hp.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2030	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2031	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2031		☑ R&R
Proposals/Bids Received:	FY 2031		☐ Other
Constr. Contract to Board:	FY 2031		
Substantial Completion:	FY 2032	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 110,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 110,000	$ -
Engineering/Design	$ 165,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 165,000	$ -
Construction	$ 1,433,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,433,000	$ -
CPS, CM&I, and CMT	$ 165,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 165,000	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,873,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,873,000	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
WWTF No. 2 Clarifier Rehabilitation	WW02CR	2031	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

Two clarifiers at Wastewater Treatment Facility (WWTF) No. 2 were installed in 1995, and one clarifier was installed in 2003. The existing metal components are beginning to show signs of corrosion, however, the corrosion is currently being monitored and temporarily mitigated. Typical effective useful life for wastewater treatment facility mechanical equipment is 20 years. The mechanical equipment in all three clarifiers have reached the end of their useful life. Therefore, it is recommended to replace this equipment at all three clarifiers.

The project includes replacement of the mechanical components of Clarifier Nos. 1, 2 and 3 including clarifier mechanisms, weirs and baffles, weir cleaning brushes, electrical, and instrumentation. This includes replacement of single skimmer arms with dual skimmer arm, and replacement of the Clarifier No. 3 stilling well.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2030	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2031	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2031		☑ R&R
Proposals/Bids Received:	FY 2031		☑ Other
Constr. Contract to Board:	FY 2031		
Substantial Completion:	FY 2032	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 220,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 220,000	$ -
Construction	$ 1,654,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,654,000	$ -
CPS, CM&I, and CMT	$ 166,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 166,000	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 2,040,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,040,000	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
WWTF No. 2 Basin Coating	WWP2BC	2031	The Woodlands

Wastewater Treatment Facility No. 2 was primarily constructed in two phases, with Phase I occurring in 1995 and Phase II occurring in 2003. Long-term exposure to corrosive gas in the wastewater facility will degrade the concrete structures over-time. The basins at Wastewater Treatment Facility No. 2 exposed to the most corrosive gases are the aeration basins, digester, and thickener. To remedy any damage and prevent further concrete degradation, the basins will be coated with a material which will provide additional structural integrity as well as protect the concrete from further degradation. This coating is estimated to extend the service life of the basins by another 15-20 years.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2030	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2031	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2031		☑ R&R
Proposals/Bids Received:	FY 2031		☐ Other
Constr. Contract to Board:	FY 2031		
Substantial Completion:	FY 2032	☐ Capitalized	☑ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 331,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 331,000	$ -
Construction	$ 3,583,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,583,000	$ -
CPS, CM&I, and CMT	$ 220,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 220,000	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 4,134,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,134,000	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
WWTF No. 1 Replacement of Aeration Basin Nos. 1 and 2	WWF1AB	2018-2023	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

Aeration Basin Nos. 1 and 2 at Wastewater Treatment Facility (WWTF) No. 1 were part of the original plant construction in 1974. Aeration Basin 1 is currently not in operation due to poor condition, and the current treatment capacity of Aeration Basin 2 is limited due to aeration limitations. A comprehensive evaluation of WWTF No. 1 was performed in 2014, which recommended that Aeration Basin Nos. 1 and 2 be repaired or replaced and that both basins be upgraded to a more efficient fine bubble diffused aeration system. A Preliminary Engineering Report (PER) completed in 2019 recommended replacing Aeration Basin Nos. 1 and 2 and upgrading to fine bubble diffused aeration.

Based on the recommendations provided in the PER, final design of the project will be completed in 2020. The project scope includes replacement of Aeration Basin Nos. 1 and 2 including a fine bubble diffused aeration system, replacement of the aeration basin splitter box, replacement of aeration basin blowers and digester blowers, addition of two new aeration basin blowers, and miscellaneous related improvements.

Continued growth within The Woodlands will require these basins to be operational in the future in order to meet Texas Commission on Environmental Quality (TCEQ) discharge permit requirements.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2018 - Q1	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2018 - Q2	☐ Other	☑ Bonds
Final Proposal Docs:	FY 2022 - Q2		☐ R&R
Proposals/Bids Received:	FY 2023 - Q3		☐ Other
Constr. Contract to Board:	FY 2023 - Q4		
Substantial Completion:	FY 2025 - Q1	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 654,000	$ 654,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 537,000	$ 537,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 10,564,000	$ 10,564,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 1,057,000	$ 1,057,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 12,812,000	$ 12,812,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
South Shore Gravity Main Rehabilitation	WW21GR	2021-2024	The Woodlands

PROJECT DESCRIPTION/JUSTIFICATION:

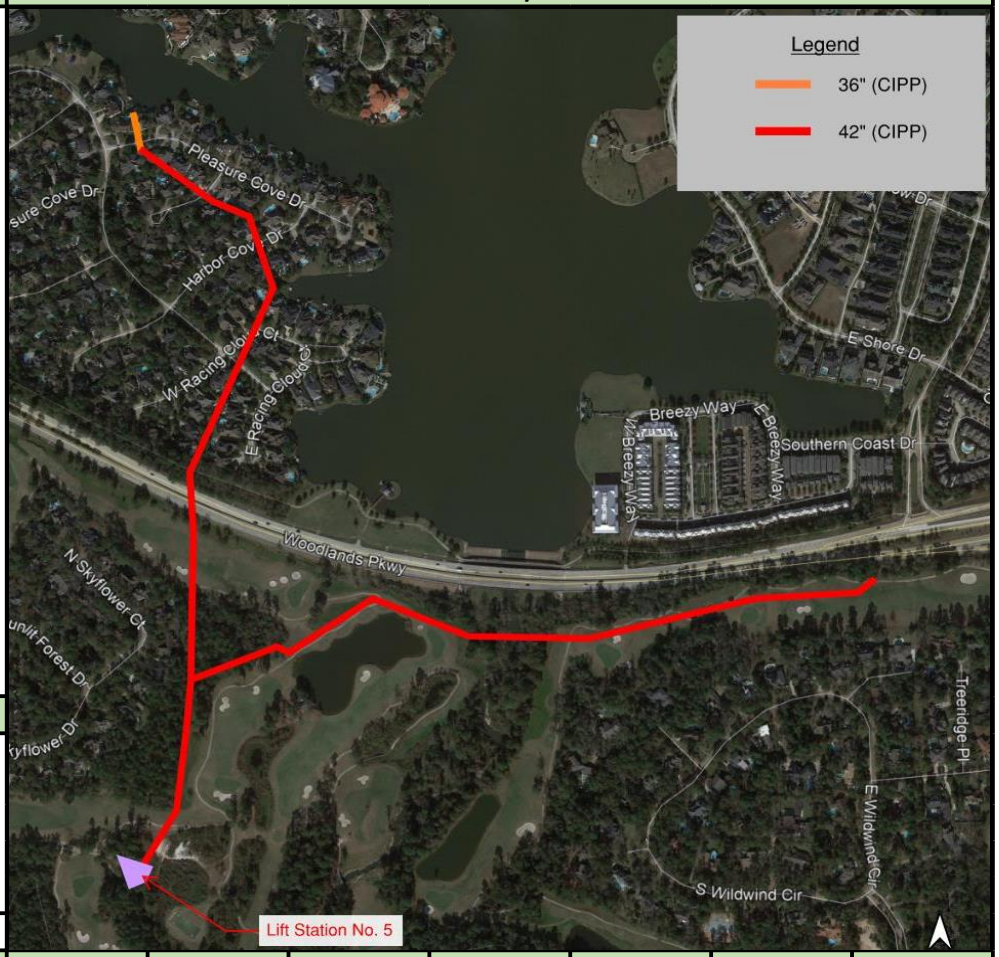
Some wastewater lines within the collection system have been in service for over 40 years. The aging system requires rehabilitation to avoid collection system failure, sewage overflows, and permit violations. Through the Asset Management Program and the Sanitary Sewer Transmission Assessment and Renewal (SSTAR) Program, specific line segments were identified as high risk for failure and should be replaced or rehabilitated in the near term.

The SSTAR Program conducted in 2019 and 2020 included a condition assessment consisting of closed circuit television (CCTV) inspection and analysis of expected remaining useful life. CCTV video footage showed significant deterioration of the existing gravity mains, requiring rehabilitation or replacement. Additionally, these line segments were scored with a high consequence of failure, due to their location, difficulties with access, and their criticality.

The line segments included in this project include approximately 157 linear feet of 36" DI pipe and 6496 linear feet of 42" DI pipe.

This project is part of a phased asset management approach to continuously rehabilitate sanitary sewer gravity mains in the system, to avoid collection system failure, sewage overflows, and permit violations. Other projects as described in WW23GR, WW25GR, and WW27GR will accomplish the goal of rehabilitating the gravity mains identified as being the highest risk for failure.

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2020 - Q3	☑ CSP	☑ O&M
PSA/WO Issued:	FY 2021 - Q1	☐ Other	☑ Bonds
Final Proposal Docs:	FY 2022 - Q2		☐ R&R
Proposals/Bids Received:	FY 2023 - Q3		☐ Other
Constr. Contract to Board:	FY 2023 - Q4		
Substantial Completion:	FY 2025 - Q1	☐ Capitalized	☑ Expensed

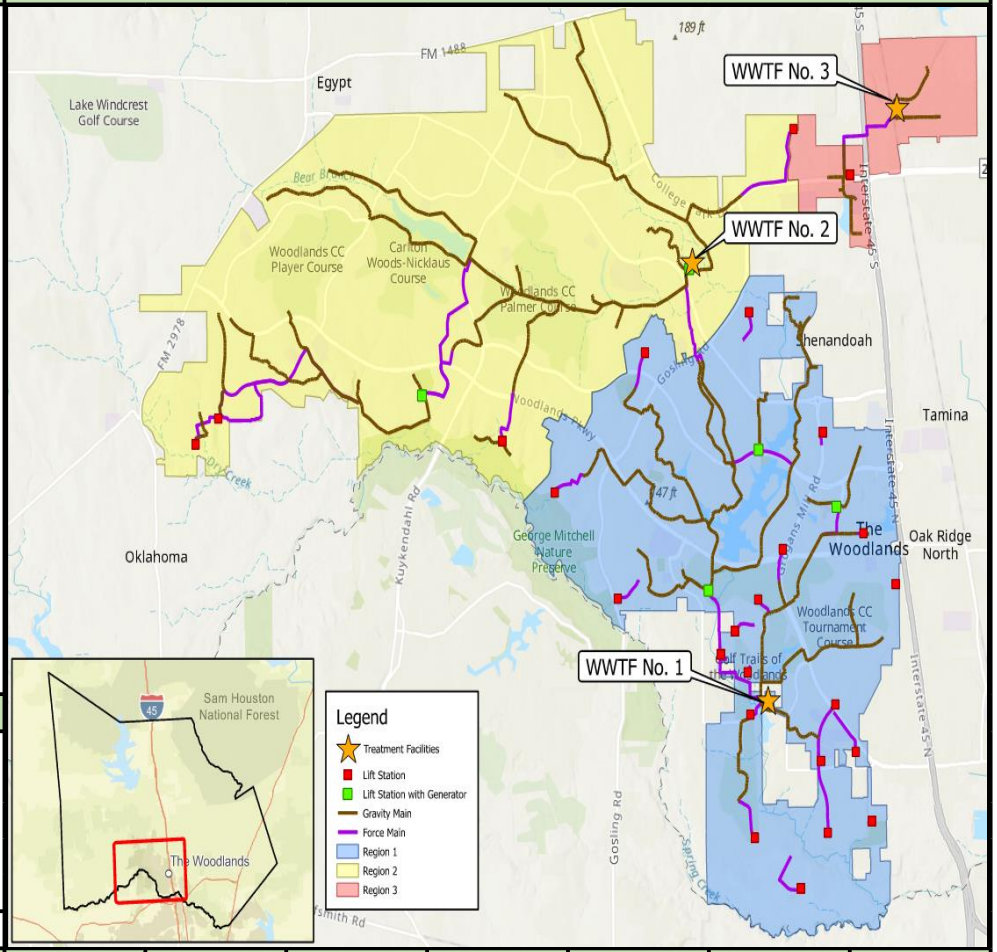
BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 350,000	$ 350,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 815,000	$ 815,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 8,352,000	$ 8,352,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 835,000	$ 835,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ 407,000	$ 407,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 10,759,000	$ 10,759,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Wastewater System Consolidation	WWTREG	2022-2023	The Woodlands

SJRA owns and operates three (3) wastewater treatment facilities in The Woodlands. Multiple components of these facilities are nearing the end of their useful life and will need to be renewed/replaced in the near future. A currently ongoing high-level feasibility study is evaluating alternative(s) for consolidating the existing wastewater collection and treatment system and compare the alternative(s) to a baseline scenario of replacing the existing infrastructure based on its service life. The feasibility study is evaluating alternative(s) in order to present information and data to The Woodlands MUD Boards to make an informed decision regarding the path forward for aging infrastructure renewal. This project sheet includes a proposed budget for the next potential phase which would include master planning.

PROJECT MAP/PICTURE



PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	Completed	☐ CSP	☐ O&M
PSA/WO Issued:	Completed	☑ Other	☑ Bonds
Final Proposal Docs:	N/A		☐ R&R
Proposals/Bids Received:	N/A		☐ Other
Constr. Contract to Board:	N/A	Professional	
Substantial Completion:	FY 2023 - Q1	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 1,287,331	$ 1,287,331	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 5,356,000	$ -	$ 5,356,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 6,643,331	$ 1,287,331	$ 5,356,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
WWTF No. 1 Aeration Basin Nos. 1 and 2 Capacity Increase	WW1AB	2018-2023	The Woodlands

Aeration Basin Nos. 1 and 2 at Wastewater Treatment Facility (WWTF) No. 1 were part of the original plant construction in 1974. Aeration Basin 1 is currently not in operation due to poor condition, and the current treatment capacity of Aeration Basin 2 is limited due to aeration limitations. A comprehensive evaluation of WWTF No. 1 was performed in 2014, which recommended that Aeration Basin Nos. 1 and 2 be repaired or replaced and that both basins be upgraded to a more efficient fine bubble diffused aeration system. A Preliminary Engineering Report (PER) completed in 2019 recommended replacing Aeration Basin Nos. 1 and 2 and upgrading to fine bubble diffused aeration.

Based on the recommendations provided in the PER, final design of the project will be completed in 2020. The project scope includes replacement of Aeration Basin Nos. 1 and 2 including a fine bubble diffused aeration system, replacement of the aeration basin splitter box, replacement of aeration basin blowers and digester blowers, addition of two new aeration basin blowers, and miscellaneous related improvements.

Continued growth within The Woodlands will require these basins to be operational in the future in order to meet Texas Commission on Environmental Quality (TCEQ) discharge permit requirements.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2018 - Q1	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2018 - Q2	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2022 - Q2		☐ R&R
Proposals/Bids Received:	FY 2023 - Q3		☑ Other
Constr. Contract to Board:	FY 2023 - Q4		Capacity
Substantial Completion:	FY 2025 - Q1	☐ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 117,000	$ 117,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 1,745,000	$ 1,745,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 175,000	$ 175,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 2,037,000	$ 2,037,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes contingency.

PROJECT NAME:	PROJECT ID	FISCAL YEAR	DIVISION
Wet Weather Flow Capacity Projects	WW2HPF	2024-2030	The Woodlands

The Wastewater System Optimization Study, which was performed in 2017, studied the effect of inflow and infiltration into the gravity sewer system in The Woodlands, Texas. The study concluded that not addressing current and future inflow and infiltration into both the SJRA Woodlands Division gravity sewer system as well as the gravity sewer system owned by the 11 Woodlands, Texas Municipal Utility Districts (MUDs) would result in future peak flow violations at the three wastewater treatment plants owned and operated by the SJRA Woodlands Division. To address this, the study recommended ten (10) projects costing approximately $70 million over a five year period. These projects are as follows:

WWT No. 2 Lift Station Pumping Improvements
WWTF No. 1 Addition of 4th Clarifier
WWTF No. 1 Disinfection System Improvements
Lift Station 24B Expansion and Force Main Replacement
Enlargement of Lift Station 24 Gravity Line
Lift Station No. 7 Expansion
Lift Station No. 6 Expansion
WWTF No. 2 Clarifier No. 4 Addition
Lift Station No. 2 Expansion
Lift Station No. 3 Expansion
Lift Station No. 8 Expansion

This project sheet consolidates these projects into a single project as the current SSTAR Program Phase I seeks to address the inflow and infiltration with gravity sewer rehabilitation projects.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2024	☑ CSP	☐ O&M
PSA/WO Issued:	FY 2024	☐ Other	☐ Bonds
Final Proposal Docs:	FY 2025		☑ R&R
Proposals/Bids Received:	FY 2025		☐ Other
Constr. Contract to Board:	FY 2025		
Substantial Completion:	FY 2031	☑ Capitalized	☐ Expensed

BUDGET*	TOTAL	PREVIOUS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Planning/Permitting/PER	$ 4,697,000	$ -	$ -	$ 304,000	$ 1,223,000	$ 1,383,000	$ 780,000	$ 686,000	$ 321,000	$ -	$ -	$ -
Engineering/Design	$ 4,697,000	$ -	$ -	$ 304,000	$ 1,223,000	$ 1,383,000	$ 780,000	$ 686,000	$ 321,000	$ -	$ -	$ -
Construction	$ 47,792,000	$ -	$ -	$ -	$ 3,059,000	$ 12,295,000	$ 14,037,000	$ 8,177,000	$ 6,693,000	$ 3,531,000	$ -	$ -
CPS, CM&I, and CMT	$ 4,771,000	$ -	$ -	$ -	$ 306,000	$ 1,229,000	$ 1,456,000	$ 812,000	$ 642,000	$ 326,000	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 61,957,000	$ -	$ -	$ 608,000	$ 5,811,000	$ 16,290,000	$ 17,053,000	$ 10,361,000	$ 7,977,000	$ 3,857,000	$ -	$ -

*Budget includes contingency.