



GRP
Ten-Year Project Plan
FY 2024 – FY 2033

Date: 02/28/2023

CONTENTS

GRP Executive Summary	1
GRP Project Location Map.....	2
GRP Projects Summary Sheet.....	3
Individual Project Sheets.....	4

GRP Division
Ten Year Project Plan Executive Summary
FY 2024 – FY 2033 Projects

Introduction

The purpose of the GRP Division 10-Year Project Plan for Fiscal Years (FY) 2024 through 2033 is to identify the potential projects and associated funding requirements and sources to appropriately maintain and manage the SJRA’s extensive surface water treatment facility and transmission system assets; to continue to provide efficient and reliable services which is compliant to all state and federal regulations for the 149 GRP Participants in Montgomery County, Texas.

Key Focus Areas:

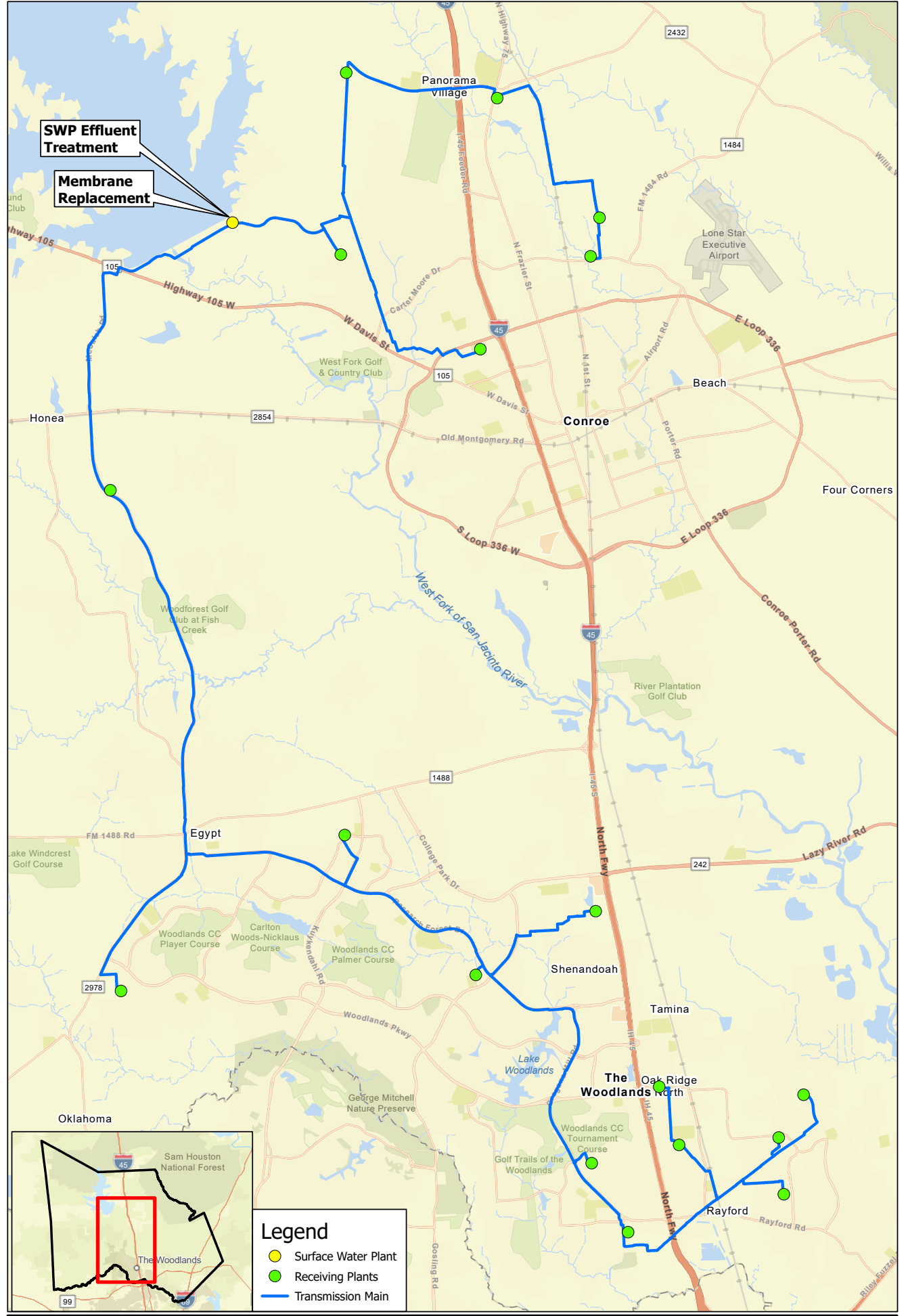
- Construction of facility for on-site discharge water treatment
 - This project would allow for treatment of process wastewater produced from the GRP Surface Water Treatment Plant and discharge to the river or return to the Surface Water Treatment Plant rather than having to discharge into the City of Conroe sewer system. This would allow for a long-term cost savings as the return on investment for a small on-site facility would be approximately 10 years based on 2023 rates.
- Replacement of Low-Pressure Microfiltration Membrane Modules
 - The low-pressure microfiltration membranes in the GRP Surface Water Treatment Plant have a useful life of 10 years. Starting in 2025, the membranes are planned to be replaced in three phases over a three-year period.

Total Projected Costs (All Projects)	
FY 2024	\$105,000
FY 2025	\$2,104,000
FY 2026	\$3,053,000
FY 2027 – FY 2033	\$3,067,000
Total	\$8,329,000


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 timeline.


Projects that may improve operational efficiencies through plant operations, reliability, or O&M cost reductions are not included in this Project Plan due to lack of funding availability.



GRP Surface Water Plant and Transmission System

PROJECT NAME				PROJECT ID		FISCAL YEAR			DIVISION				
Process Water Discharge Optimization				GSWPET		2024-2027			GRP				
PROJECT DESCRIPTION						PROJECT MAP/PICTURE							
<p>The GRP Surface Water Treatment Plant is permitted to treat up to 30 million gallons per day (MGD) of water from Lake Conroe to produce drinking water utilizing chemical dosing, membrane filtration, and granular activity carbon polishing. Wastewater generated on-site is currently discharged to the City of Conroe's sanitary sewer system for treatment and disposal.</p> <p>SJRA is exploring the possibility of treating its wastewater on-site, rather than continue discharging to the City of Conroe's sewer system. A feasibility study was performed that showed that treatment could be performed on-site through the installation of a small wastewater treatment package plant. Each year, SJRA is charged for wastewater fees ranging from \$150K to \$300K, at a rate twice normal City of Conroe discharge cost due to the location being outside the city limits. The expected Return on Investment (ROI) is expected to be 10 years, with 40 years of remaining service life once the package plant is complete. The treated water would be evaluated to determine its suitability to be recycled through the treatment plant for further potential cost savings.</p> <p>Preliminary engineering would be performed to further define the project prior to final design. Project costs were based upon a feasibility study performed in 2022.</p>													
PROJECT SCHEDULE				DELIVERY	FUNDING								
Initiate Cons. Selection:		FY 2024 - Q2		<input checked="" type="checkbox"/> CSP	<input checked="" type="checkbox"/> O&M								
PSA/WO Issued:		FY 2024 - Q3		<input type="checkbox"/> Other	<input type="checkbox"/> Bonds								
Final Proposal Docs:		FY 2026 - Q1			<input type="checkbox"/> R&R								
Proposals/Bids Received:		FY 2026 - Q2			<input type="checkbox"/> Other								
Constr. Contract to Board:		FY 2026 - Q2											
Substantial Completion:		FY 2027 - Q3		<input type="checkbox"/> Capitalized	<input checked="" type="checkbox"/> Expensed								
BUDGET*	TOTAL	PREVIOUS	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
Planning/Permitting/PER	\$ 214,000	\$ -	\$ 105,000	\$ 109,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Engineering/Design	\$ 217,000	\$ -	\$ -	\$ 195,000	\$ 22,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Construction	\$ 2,271,000	\$ -	\$ -	\$ -	\$ 1,119,000	\$ 1,152,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
CPS, CM&I, and CMT	\$ 227,000	\$ -	\$ -	\$ -	\$ 112,000	\$ 115,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Land Acquisition	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Equipment Purchase	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Total	\$ 2,929,000	\$ -	\$ 105,000	\$ 304,000	\$ 1,253,000	\$ 1,267,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

*Budget includes contingency.

PROJECT NAME				PROJECT ID		FISCAL YEAR			DIVISION				
Membrane Replacement				GW1901		2025-2027			GRP				
PROJECT DESCRIPTION						PROJECT MAP/PICTURE							
<p>The GRP Surface Water Plant utilizes low pressure microfiltration membranes to remove particulates from water within the core of the treatment process. There are nine membrane racks, and each rack contains 152 modules (1,368 total modules). The membranes, installed in 2015, have a useful life of 10 years based on the average design flow of 24 MGD. A membrane condition assessment will be performed in 2025 to better assess the start of initial replacement. The cost for the membrane replacement is based on a vendor estimate from early 2023.</p>													
PROJECT SCHEDULE				DELIVERY	FUNDING								
Initiate Cons. Selection: N/A				<input type="checkbox"/> CSP	<input type="checkbox"/> O&M								
PSA/WO Issued: N/A				<input checked="" type="checkbox"/> Other	<input type="checkbox"/> Bonds								
Final Proposal Docs: N/A					<input checked="" type="checkbox"/> R&R								
Proposals/Bids Received: FY 2025-2027					<input type="checkbox"/> Other								
Constr. Contract to Board: FY 2025-2027													
Substantial Completion: FY 2025-2027				<input type="checkbox"/> Capitalized	<input checked="" type="checkbox"/> Expensed								
BUDGET*	TOTAL	PREVIOUS	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
Planning/Permitting/PER	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Engineering/Design	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Construction	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
CPS, CM&I, and CMT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Land Acquisition	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Equipment Purchase	\$ 5,400,000	\$ -	\$ -	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Total	\$ 5,400,000	\$ -	\$ -	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

*Budget includes contingency.