SJRA
SAN JACINTO RIVER AUTHORITY

GRP
10-Year Project Plan
2026 – 2035

SJRA
SAN JACINTO RIVER AUTHORITY

GRP

10-Year Project Plan
FY 2026 – FY 2035

Date: 02/28/2025

CONTENTS

SJRA
SAN JACINTO RIVER AUTHORITY

GRP Division
10-Year Project Plan
Executive Summary
FY 2026 – FY 2035 Projects

Introduction

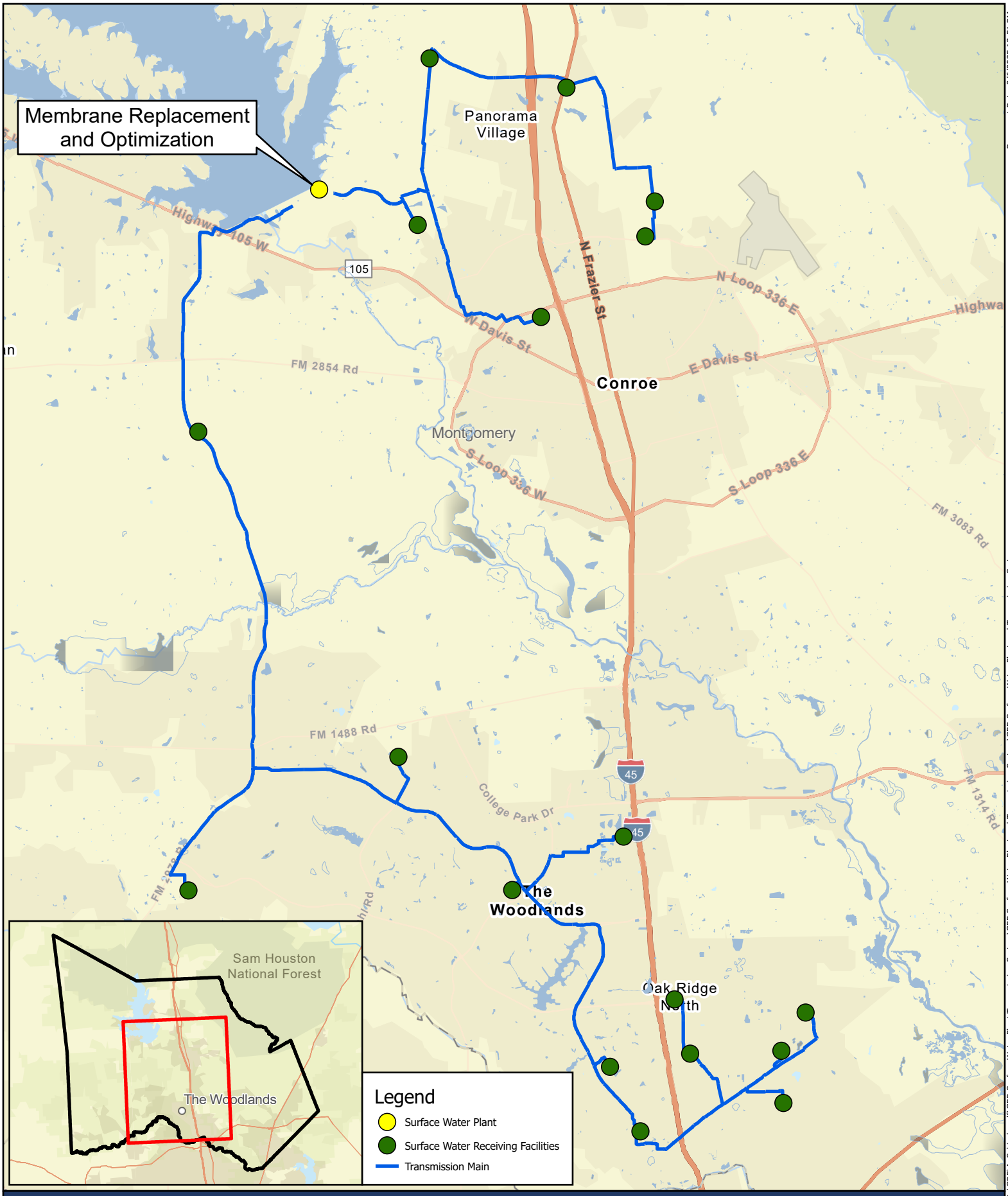
The purpose of the GRP Division 10-Year Project Plan for Fiscal Years (FY) 2026 through 2035 is to identify the potential projects and associated funding requirements and sources to appropriately maintain and manage the SJRA's extensive surface water treatment facility and transmission system assets; 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:

- Replacement of Low-Pressure Microfiltration Membrane Modules and Optimization of Process Water Discharge
    - The low-pressure microfiltration membranes in the GRP Surface Water Treatment Plant have a useful life of 10 years. A study was performed 2024-2025 to assess the feasibility of different manufacturers and assess overall plant capacity. Starting in 2027, the membranes are planned to be replaced with Pall membranes (the current installed manufacturer) in 2027-2028. To optimize process water discharge from the membrane cleaning process, demonstration testing will be performed on the existing membranes in 2026 to refine the cleaning recipe and gain TCEQ approval before installing the new membranes.

- Surface Water Receiving Facility Optimization Project
    - This project first involves an update of the GRP water model to perform an accurate and up-to-date analysis of the system. A study will then be performed to determine where additional flow capacity is needed at the nineteen (19) GRP receiving facilities based upon future demands, and if the receiving facilities can be upsized to allow more flow delivery. Construction budget has been included to upsize up to half of the receiving facilities.

Total Projected Costs (All Projects)	
Previous Expenditures	$636,275
FY 2026	$1,013,000
FY 2027	$5,862,000
FY 2028	$1,600,000
FY 2029 – FY 2035	$0
Total	$9,111,275



GRP Surface Water Plant and Transmission System

0 1 2 Miles

N

SJRA
SAN JACINTO RIVER AUTHORITY

04/21/2025

SJRA
SAN JACINTO RIVER AUTHORITY

GRP Project Summary

GRP Division

FY 2026 - FY 2035 Projects

PAGE NO.	PROJECT ID	PROJECT NAME	ESTIMATED EXPENDITURES THROUGH END OF FY 2025	2026 ESTIMATE	2027 ESTIMATE	2028 ESTIMATE	2029 ESTIMATE	2030 ESTIMATE	2031 ESTIMATE	2032 ESTIMATE	2033 ESTIMATE	2034 ESTIMATE	2035 ESTIMATE	TOTAL
4	GSWRFO	Surface Water Receiving Facility Optimization	$ 100,603	$ 323,000	$ 1,093,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,516,603
5	GSWMRO	Membrane Replacement & Optimization	$ 535,672	$ 690,000	$ 4,769,000	$ 1,600,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 7,594,672
	TOTALS		**$ 636,275**	**$ 1,013,000**	**$ 5,862,000**	**$ 1,600,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 9,111,275**

PROJECT NAME	PROJECT ID	FISCAL YEAR	DIVISION
Surface Water Receiving Facility Optimization	GSWRFO	2025-2027	GRP

PROJECT DESCRIPTION

The SJRA delivers surface water to GRP Participants at nineteen (19) locations. At each location, a surface water receiving facility (SWRF) was constructed as the "entry point" where the delivery rate is controlled, monitored, and measured. The design of the receiving facilities, completed in 2013, was based upon the anticipated maximum required flow for a service area of entities receiving surface water, with the automatic flow control valve and meter being sized to meet that future demand. However, since that time, current and potential future demands surpass the current flow capabilities at the receiving facilities.

The first step will be to update the GRP water model in order to perform an accurate analysis of the hydraulics of the system. This is currently underway. Following the update, a study will be performed for all existing GRP surface water receiving facilities to determine, where additional flow capacity is needed at a receiving facility based upon potential future demands, and where potentially needed, if more flow capacity can be achieved by increasing the size of the flow control valve, flow meter and reduced size piping. Following this study, it is estimated that approximately 50% of the surface water receiving facilities will be upsized. The budget for this project also includes that cost.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	Completed	☑ CSP	☐ O&M
PSA/WO Issued:	Completed	☐ QUOTES	☐ BONDS
Final Proposal Docs:	FY 2026 - Q3	☐ PROFESSIONAL	☑ R&R
Proposals/Bids Received:	FY 2026 - Q3	☐ OTHER	☐ GRANTS
Constr. Contract to Board:	FY 2026 - Q4		☐ OTHER
Substantial Completion:	FY 2027 - Q4		

BUDGET*	TOTAL	PREVIOUS	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Planning/Permitting/PER	$ 70,603	$ 70,603	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 201,000	$ 30,000	$ 171,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 1,132,000	$ -	$ 138,000	$ 994,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ 113,000	$ -	$ 14,000	$ 99,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,516,603	$ 100,603	$ 323,000	$ 1,093,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes 30% contingency, and 3% inflation per year.

PROJECT NAME	PROJECT ID	FISCAL YEAR	DIVISION
Membrane Replacement & Optimization	GSWMRO	2025-2028	GRP

PROJECT DESCRIPTION

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 10-12 years based on the average design flow of 24 MGD.

Prior to replacement of the membranes, a study was approved in FY24 that assessed the feasibility and cost of other manufacturers and membrane types to realize any opportunity for increased membrane treatment and overall plant capacity and more in-house operations and maintenance capabilities. The findings of this study recommended three replacement options including Pall membranes. The decision was made to remain with Pall membranes due to similar overall costs, ease of installation, minimal downtime during replacement and familiarity of operations staff with the membrane modules. The construction cost for this project includes the cost of backwash pump improvements to match the membrane modules' capacity.

Demonstration testing will be conducted on the existing membranes to refine the cleaning recipe and gain TCEQ approval before installing new membranes. Autopsies will be conducted before and after the demonstration testing to determine the remaining useful life of the existing membranes and plan their replacement accordingly.

PROJECT MAP/PICTURE

PROJECT SCHEDULE		DELIVERY	FUNDING
Initiate Cons. Selection:	FY 2025 - Q4	☑ CSP	☑ O&M
PSA/WO Issued:	FY 2026 - Q1	☐ QUOTES	☐ BONDS
Final Proposal Docs:	FY 2027 - Q1	☐ PROFESSIONAL	☑ R&R
Proposals/Bids Received:	FY 2027 - Q2	☑ OTHER	☐ GRANTS
Constr. Contract to Board:	FY 2027 - Q3		☐ OTHER
Substantial Completion:	FY 2028 - Q2		

BUDGET*	TOTAL	PREVIOUS	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Planning/Permitting/PER	$ 513,672	$ 513,672	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering/Design	$ 284,000	$ 22,000	$ 262,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 6,259,000	$ -	$ -	$ 4,659,000	$ 1,600,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CPS, CM&I, and CMT	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Demonstration Testing	$ 538,000	$ -	$ 428,000	$ 110,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 7,594,672	$ 535,672	$ 690,000	$ 4,769,000	$ 1,600,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -

*Budget includes 30% contingency, and 3% inflation per year.