

Tropical Farms Water Treatment Plant CO2 System - Modified

Category Concurrency
Project Number 3159
Location Tropical Farms
District 4

Project Limits Tropical Farms Water Treatment Plant

Related Projects
Lead Dept/Division Utilities
Year Project Initiated Proposed during FY22 CIP Workshop



DESCRIPTION

Construction of a carbon dioxide (CO₂) storage and feed system at the Tropical Farms Water Treatment Plant.

BACKGROUND

The Tropical Farms Water Treatment Plant has ten (10) Surficial Aquifer Supply (SAS) wells that are used as blend water to stabilize the permeate from the Reverse Osmosis Plant. Water from these wells is oxidized, filtered, and degasified prior to combining with the RO permeate to add hardness and alkalinity to the finished water. Two (2) of these wells are intended to be abandoned in the immediate future and further reduction of this allocation is expected. As such, post-treatment stabilization measures are required to supplement the reduction in alkalinity due to the reduced flows from the SAS wellfield.

PROJECT ORIGATION

Infrastructure Needs

JUSTIFICATION

Increases in alkalinity in the treated finished water can be achieved through a combination of carbon dioxide (CO₂) and caustic addition. The caustic system is already in place and the CO₂ system is being proposed.

AFTER 5/2/22

Expenditures	Total	To Date		Funded					Unfunded
				FY22	FY23	FY24	FY25	FY26	FY27-FY31
Engineering & Planning	66,000	66,000							
Construction	2,200,000			2,200,000					
Expenditure Total	2,266,000	66,000		2,200,000	0	0	0	0	0
Revenues	Total	To Date	Carryover	FY22	FY23	FY24	FY25	FY26	FY27-FY31
Utilities Fees	200,000	0		200,000					
CFC Water	2,066,000	66,000		2,000,000					
Revenue Total	2,266,000	66,000		2,200,000	0	0	0	0	0
								Total Unfunded	0

OPERATING BUDGET IMPACT

There will be additional maintenance costs associated with the addition of a CO₂ system.

Expenditures	Total	To Date		Funded					Unfunded
				FY22	FY23	FY24	FY25	FY26	FY27-FY31
Engineering & Planning	66,000	66,000							
Construction	1,300,000			1,300,000					
Expenditure Total	1,366,000	66,000		1,300,000	0	0	0	0	0
Revenues	Total	To Date	Carryover	FY22	FY23	FY24	FY25	FY26	FY27-FY31
CFC Water	1,366,000	66,000		1,300,000					
Revenue Total	1,366,000	66,000		1,300,000	0	0	0	0	0
								Total Unfunded	0