

Tropical Farms Water Treatment Plant CO2 System - Revised

Category	Concurrency
Project Number	3159
Location	Tropical Farms
District	4

Project Limits

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 ORIGINATION

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 6/17/24

AFTER 6/17/24				Funded					Unfunded
Expenditures	Total	To Date		FY22	FY23	FY24	FY25	FY26	FY27-FY31
Engineering & Planning	66,000	66,000							
Construction	2,325,000			2,325,000					
Expenditure Total	2,391,000	66,000		2,325,000	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	2,191,000	66,000		2,125,000					
Revenue Total	2,391,000	66,000		2,325,000	0	0	0	0	0
								Total Unfunded	

OPERATING BUDGET IMPACT

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

AFTER 5/2/22

AFTER 5/2/22				Funded					Unfunded
Expenditures	Total	To Date		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	

BEFORE 5/2/22

BEFORE 5/2/22			Funded						Unfunded
Expenditures	Total	To Date		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			