



City of Santa Fe

Paseo Real Water Reclamation Facility Master Plan

Public Works/Public Utilities Committee

PRWRF CIP Prioritization and New WRF Considerations


SEPTEMBER 30, 2024



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Overview of Tonight's Topics

- 1** Review PRWRF phased CIP
- 2** Compare to New WRF concept
- 3** Preliminary recommendations



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Key takeaways

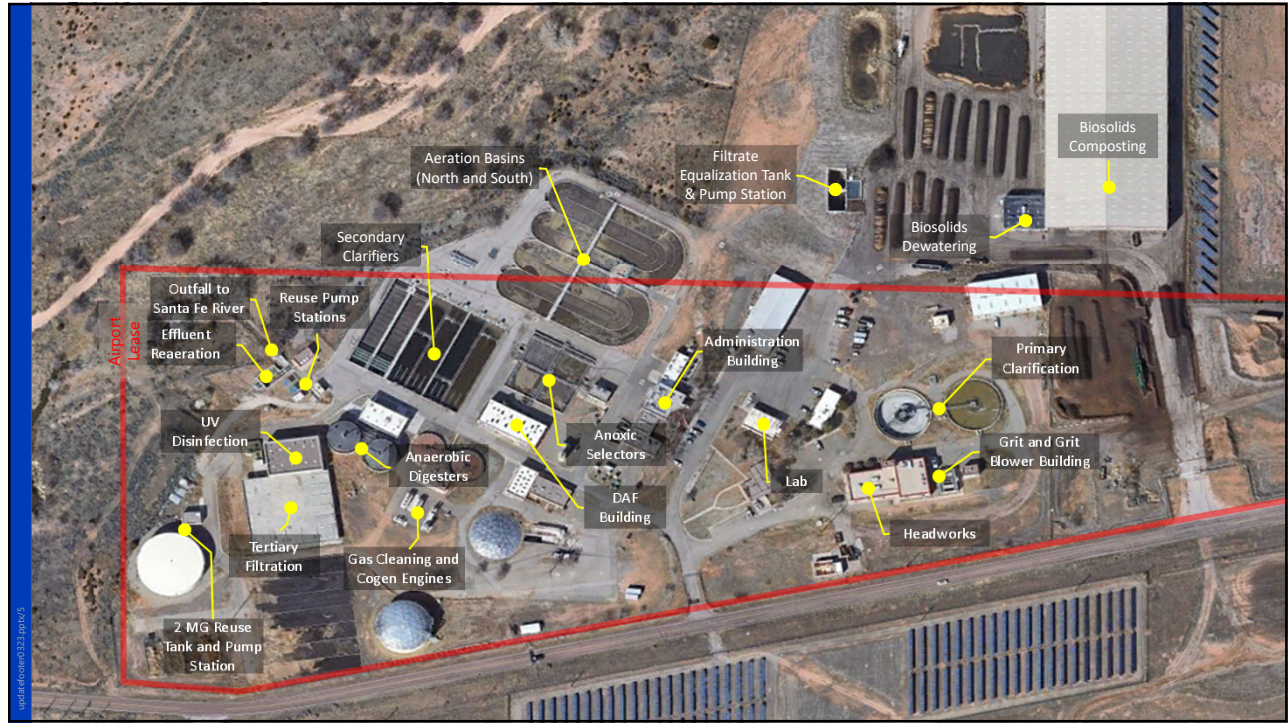
- 1 PRWRF should be re-rated to 7 million gallons per day (mgd) flow and associated influent loadings
- 2 PRWRF Master Plan defines a clear path for meeting current and anticipated discharge permit limits at PRWRF under future flow and load conditions
- 3 Cost to construct New WRF would be significantly higher; New WRF may facilitate some non-monetizable benefits
- 4 Solids management and San Juan-Chama Return & Reuse Pump Station stays at PRWRF site (with or without new WRF)
- 5 Recommend initiating "no-regrets" capital projects at PRWRF and continuing assessment of merits of a New WRF

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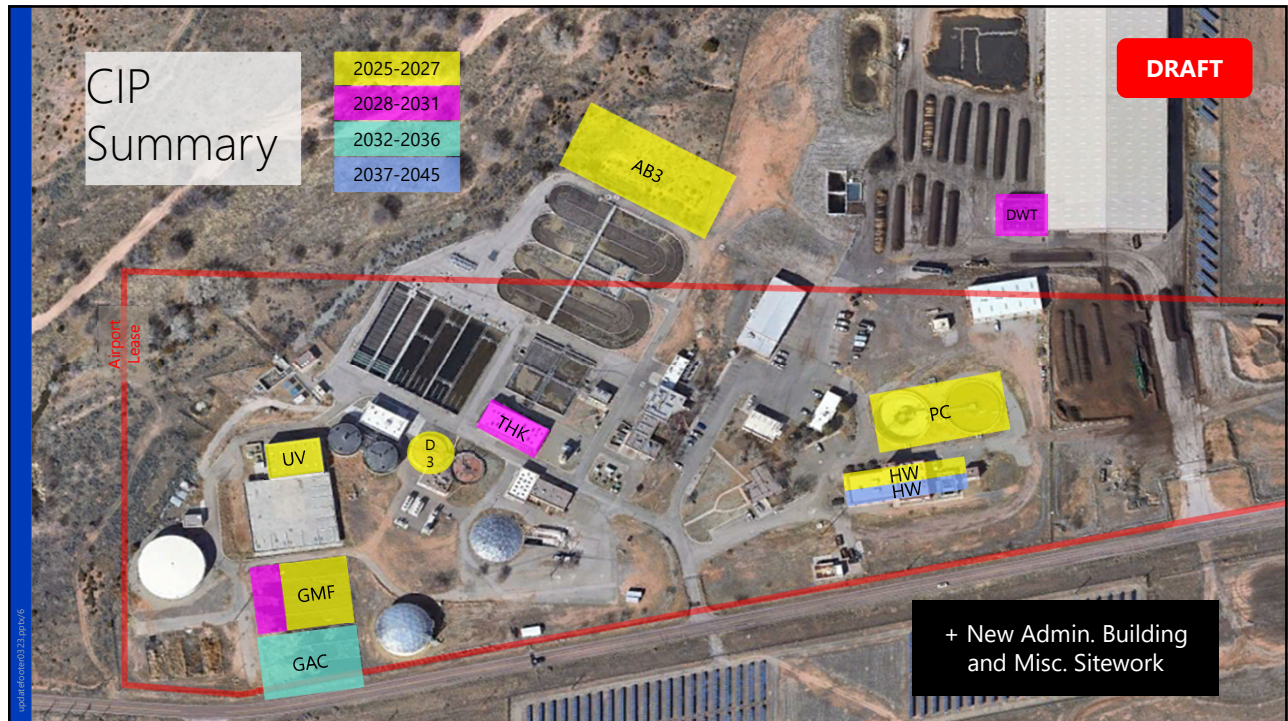
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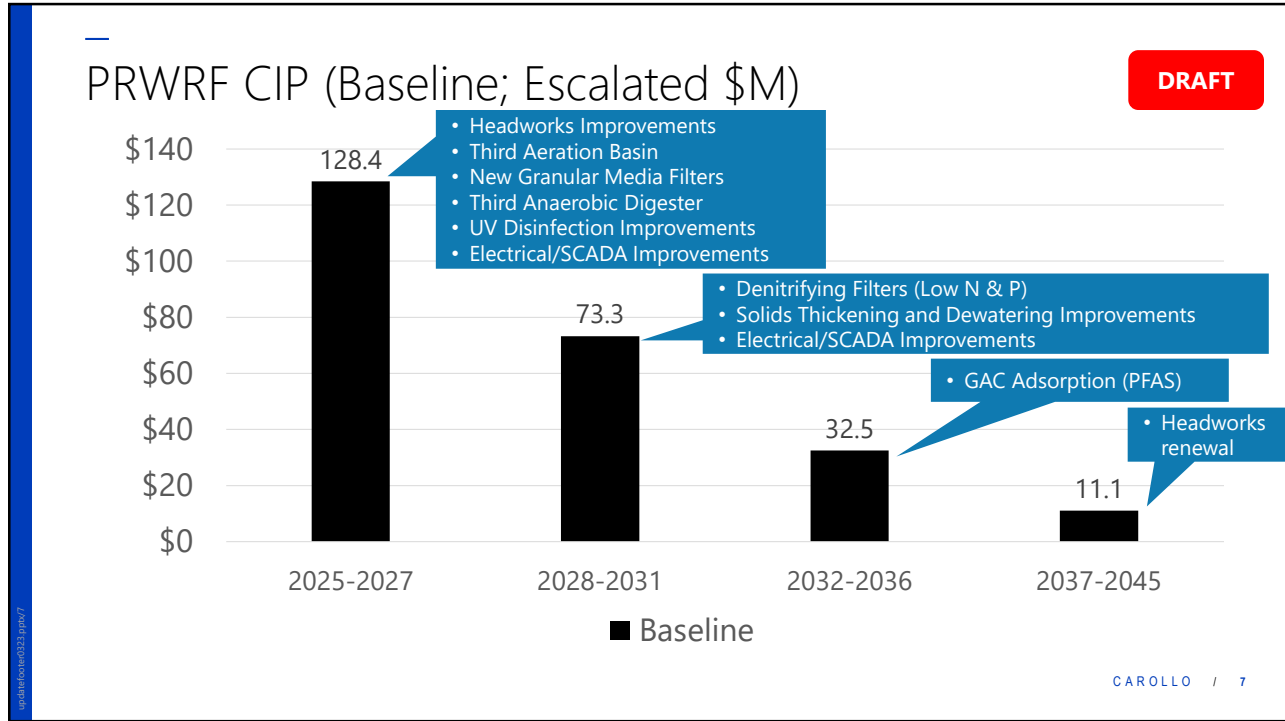
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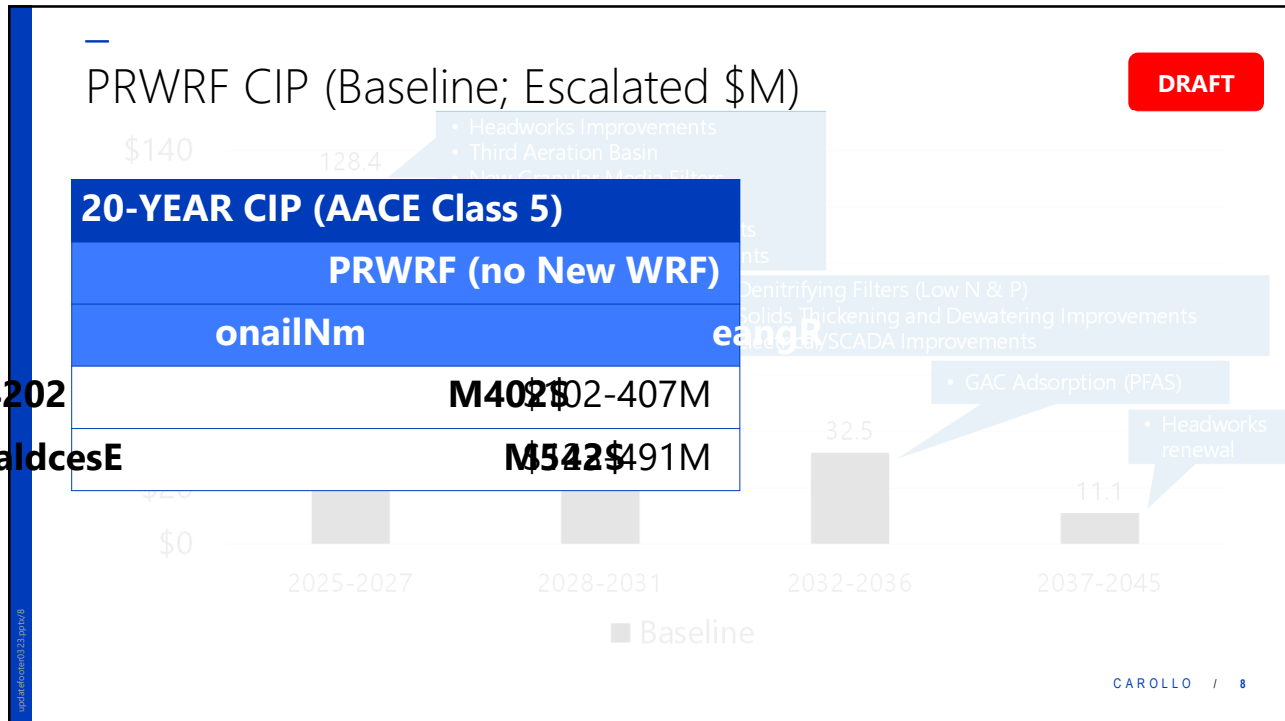
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Key Assumptions

Siting: across Santa Fe River from PRWRF

Solids management (digesters, thickeners, gas cleaning, compost) remains at PRWRF

SJC Return / Reuse Pump Station remains at PRWRF

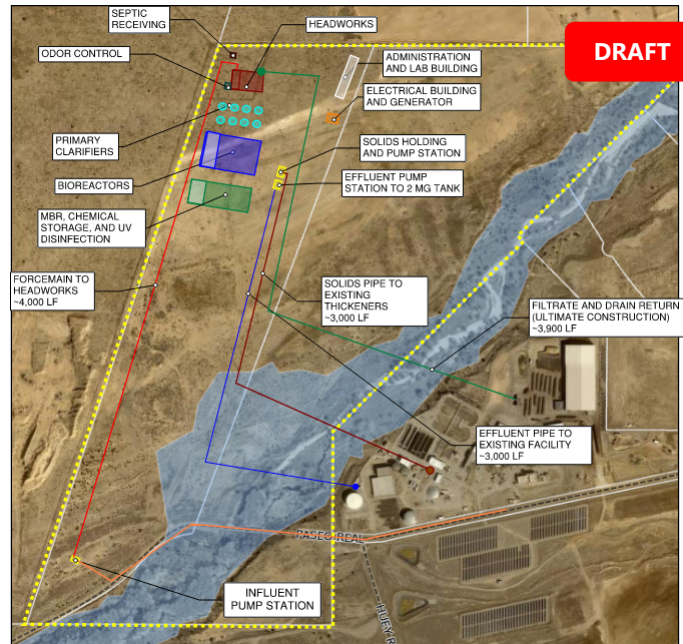
Construct new WRF in 2-mgd phases

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Preliminary Site Layout

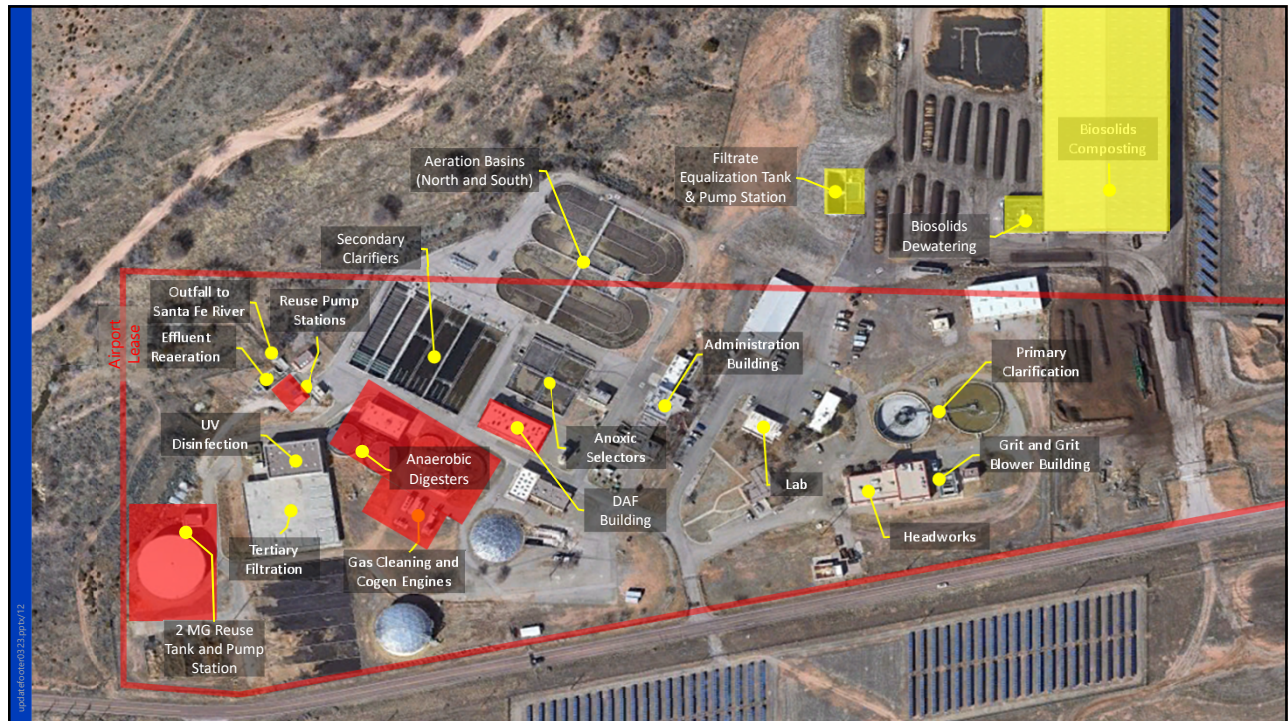
Site challenges that affect project costs:

- Topography / excavation
- Floodplain
- Flow transfer between PRWRF/New WRF sites

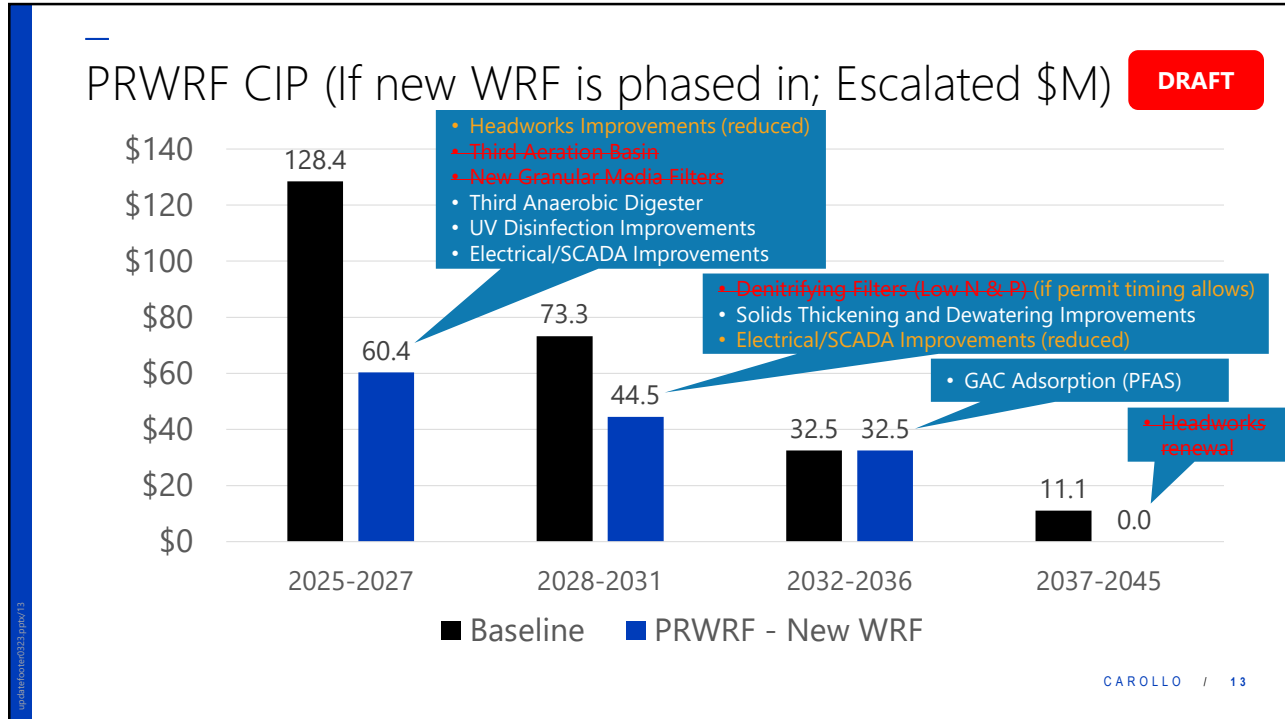


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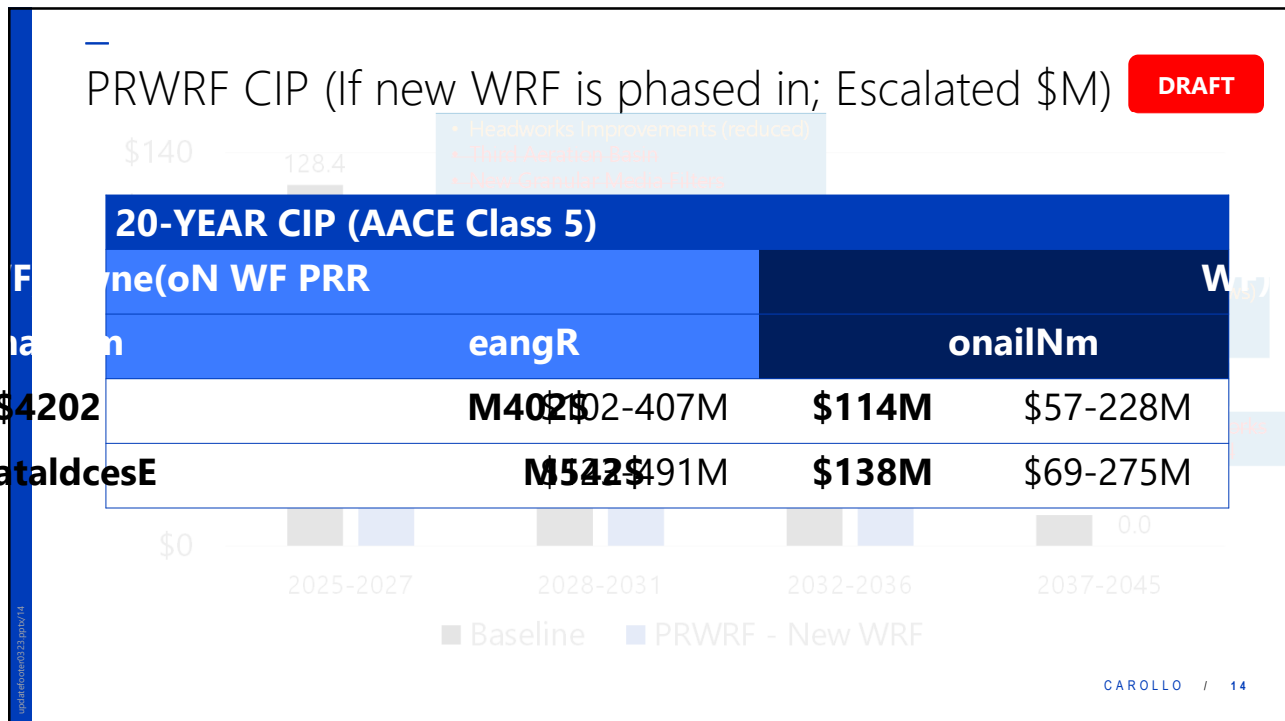
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Capital Cost of New WRF

DRAFT

Item	QTY	UNIT	PRICE	TOTAL
DIRECT COSTS				
Influent Pump Station	1	LS	\$ 1,300,000	\$ 1,300,000
Septic Receiving	1	LS	\$ 750,000	\$ 750,000
Headworks (includes coarse screens, fine screens, grit removal and building)	1	LS	\$ 17,647,626	\$ 17,647,626
Odor Control	1	LS	\$ 2,210,000	\$ 2,210,000
Primary Clarifiers	1	LS	\$ 2,400,000	\$ 2,400,000
Secondary Treatment Process (Aeration Basins, Diffusers, Return Pumps (Submersible), Blowers)	1	LS	\$ 15,213,639	\$ 15,213,639
MBR System (Blowers, Pumps, UV Disinfection, Chemical Addition, Building)	1	LS	\$ 13,931,939	\$ 13,931,939
Effluent Pump Station	1	LS	\$ 1,300,000	\$ 1,300,000
Solids Holding Tanks and Return Pump Station	1	LS	\$ 1,500,000	\$ 1,500,000
Operator/ Administration Building (including lab)	1	LS	\$ 4,860,000	\$ 4,860,000
Electrical Building and Backup Generator (Allowance)	1	LS	\$ 7,000,000	\$ 7,000,000
DIRECT COSTS (excl. NMGR)			\$ 68,173,190	
ALLOWANCE FOR CONSTRUCTION SERVICES				
Site/Civil and Piping Allowance	15	%		\$ 10,225,979
Misc. Structural / Architectural Allowance	3	%		\$ 2,045,196
Coatings and Finishes	0	%		\$ -
Mechanical System Allowance (HVAC, Plumbing, etc)	7	%		\$ 4,772,123
Electrical, I.C, Programming Allowances	20	%		\$ 13,634,638
SUBTOTAL (excl. NMGR)			\$ 88,851,130	
Construction Contingency	35	%		\$ 34,600,000
SUBTOTAL DIRECT COST (excl. NMGR)			\$ 123,451,130	
GENERAL CONDITIONS, CONTRACTOR MARKUPS, TAXES, AND ESCALATION				
General Conditions Allowance	15	%		\$ 20,100,000
GC Overhead and Profit	20	%		\$ 26,700,000
GC Bonds and Insurance	4	%		\$ 5,300,000
TOTAL CONSTRUCTION COST (excl. NMGR)			\$ 185,551,130	
TOTAL PROJECT COST ALLOWANCES (NON-CONSTRUCTION)				
Engineering, legal, and administrative fees	10	%		\$ 18,600,000
Construction Management and ESOCs	10	%		\$ 18,600,000
TOTAL PROJECT COST (2024 \$ excl. NMGR)			\$ 222,800,000	
MM GROSS RECEIPTS TAX (NMGR)			\$ 6,187,500	
TOTAL PROJECT COST (2024 \$ incl. NMGR)			\$ 248,987,500	

TOTAL COST FOR NEW WRF

\$241M Phase 1 (2 mgd)

+ \$114M for Interim PRWRF Improvements

+ New WRF capacity expansions to 7 mgd (~\$600M)

= ~\$950M (plus escalation)

New WRF (Phase 1 ONLY)	
(2 mgd, AACE Class 5)	
Nonimal	Rar
\$241M	\$117-470M

update: 9/26/2024

2024\$

Preliminary Recommendations

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Preliminary Recommendations: Path Forward

1 Define and initiate "no regrets" capital improvements at PRWRF (needed for near-term permit compliance regardless of New WRF)

2 Continue assessment of potential benefits associated with New WRF

3 Thorough condition assessment of PRWRF structural and electrical assets

4 Assess community support and funding/financing opportunities for New WRF → informed go/no-go decision on New WRF

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