SIERRA LAKES
COUNTY WATER DISTRICT

CAPITAL REPLACEMENT PROGRAM AND REVENUE REQUIREMENTS WORKSHOP

Farr West Engineering
Pre-Construction Services Group (Cost Estimating)
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Workshop Overview

- Why Do We Need a Workshop?
- Existing System Condition and Challenges
- Need for Capital Planning
- Identified Priority Projects
- Current Construction Market and Project Cost Estimating Strategy
- Preliminary 5-Year Capital Planning Project Cost Summary
- Funding Sources
- Identify Next Steps
- Q&A Session

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Why Do We Need A Workshop?

- Provide an overview to the priority steps required to be taken to best position the District.
- Background of current position regarding physical infrastructure and fiscal sustainability.
- Present high-level perspective to make best decisions, with the best information currently available, to move forward with.
- Understand the need for future planning and proactive management.
- This Workshop is the first in a series moving forward.
- Investment into the community and future generations!

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Existing System Needs

Existing System Condition
- Existing Asbestos Cement Pipe
  - Original Water and Sewer System Constructed in 1961 (61 years old)
  - Typical Useful Life of AC Pipe is within the range of 50 to 70 years

Existing System Source Capacity
- Surface Water Treatment: 345 gpm
- Existing Groundwater Well: 60 gpm
- Existing water storage tank provides a buffer for source water to meet existing demands, but will not be sufficient as a reliable alternative to increasing capacity

Operation & Maintenance Challenges and Costs
- Less Efficient System Operation
  - Water System: Water Loss (Non-Revenue Water)
  - Sewer System: Stormwater Inflow & Infiltration
- Higher Pumping and Treatment Costs
- Emergency Repairs
- Further Limits Drinking Water Source Capacity in Meeting System Demands

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Need for Capital Planning

Schedule for Implementation

- Better define capital projects and priorities through planning
- Funding Acquisition, Rate Setting
- Design, Permitting, Construction Bidding and Contracting

Costs and Consequences of Inaction

- Impacts to system efficiency and compliance, increased O&M costs and emergency repairs

Identified Priority Projects

Replacement of AC Pipe

Water Main Replacement

- Five Total Projects - One Project to be completed annually for each fiscal year of the proposed 5-Year CIP
- Each Project to replace 2,000 LF of existing AC Piping
- All 5 projects will replace a total of 10,000 LF of AC Piping (~25% of AC Piping in the system)

Sewer Main Replacement

- Four Total Projects – One Project to be completed annually for four of the five fiscal years of the proposed 5-Year CIP
- Each Project to replace1,500 LF of existing AC Piping

Surface and Groundwater Capacity

Water Treatment Capacity Improvements

- Two additional treatment vessels to increase surface water treatment capacity at existing facility
- Additional structure to house existing generator (to be relocated)
- Pumping improvements

Water Production Well Improvements

- Construction of groundwater well to supplement surface water treatment capacity and existing groundwater well
- Assumed depth of well 600'
- Target capacity 100 gpm

Current Construction Market

Current construction market is challenging.

- What are we seeing?
- What can we do to soften the blow?

Contractor Availability and Costs

- Conservative cost estimates, contingencies, inflation, escalation

Material Availability and Pricing

- Material Procurement, Escalation Clause

Planning and Design Strategies to Reduce Costs

- Identify high-priority sections of system for replacement, preliminary engineering reports/master plans, rate study

Cost Estimating Strategy

- Base Project Costs – Bidding Software
  - Conservative Assumptions to Mitigate Unknown Project Elements
- Experience in the Construction Industry
  - Industry Trends
  - Apply Project-Specific Components of Construction Work
- Escalation Factors
  - Impacts to Extended Capital Planning Period (5-Year v. 10+ Years)

Cost Component	Percent of Project Work	FY 2023-2024		FY 2024-2025		FY 2025-2026 to FY 2027-2028	
		Assumed Esclation	Total % Impact	Assumed Esclation	Total % Impact	Assumed Esclation	Total % Impact
Labor	20%	3.0%	0.6%	4.0%	0.8%	3.5%	0.7%
Materials	25%	14.0%	3.5%	10.0%	2.5%	5.0%	1.3%
Equipment	15%	8.0%	1.2%	6.0%	0.9%	4.0%	0.6%
Overhead	15%	4.0%	0.6%	3.0%	0.5%	2.0%	0.3%
Sub	25%	7.3%	1.8%	5.8%	1.4%	3.6%	0.9%
Applied Escalation Factor:		**7.7%**		**6.1%**		**3.8%**	

5-Year Capital Improvement Cost Summary

Fiscal Year	Project Description	Estimated Project Cost	Low Range (-30%)	High Range (+20%)
2023-2024	Water Main Replacement Project 1	$1,438,654.45		
	Sewer Main Replacement Project 1	$1,027,643.78		
	Fiscal Year 2023-2024 Total Cost:	**$2,466,298.23**	**$1,726,408.76**	**$2,959,557.87**
2024-2025	Water Main Replacement Project 2	$1,526,412.37		
	Sewer Main Replacement Project 2	$1,090,330.05		
	Water Treatment Capacity Improvements	$2,837,216.86		
	Fiscal Year 2024-2025 Total Cost:	**$5,453,959.28**	**$3,817,771.49**	**$6,544,751.13**
2025-2026	Water Main Replacement Project 3	$1,584,416.04		
	Sewer Main Replacement Project 3	$1,131,762.60		
	Fiscal Year 2025-2026 Total Cost:	**$2,716,178.63**	**$1,901,325.04**	**$3,259,414.36**
2026-2027	Water Main Replacement Project 4	$1,644,623.85		
	Sewer Main Replacement Project 4	$1,174,769.57		
	Water Production Well Improvements	$1,564,061.58		
	Fiscal Year 2026-2027 Total Cost:	**$4,383,455.00**	**$3,068,418.50**	**$5,260,146.00**
2027-2028	Water Main Replacement Project 5	$1,707,119.55		
	Fiscal Year 2027-2028 Total Cost:	**$1,707,119.55**	**$1,194,983.69**	**$2,048,543.46**
	5-Year CIP Total:	**$16,727,010.69**	**$11,708,907.48**	**$20,072,412.83**

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Funding Sources

	GENERAL OBLIGATION BONDS	ENTERPRISE REVENUE BONDS	MELLO-ROOS BONDS	SPECIAL BENEFIT ASSESSMENT BONDS	CERTIFICATES OF PARTICIPATION
Authorizing statute	Water Code sections 31370-31482; 31650-31651	Water Code sections 31480-31481 and by x-ref to 21925-21935 and 24950-24963 and Govt. Code sections 54300 et seq. ("Revenue Bond Law of 1941")	Govt. Code sections 53311 et seq.	Streets & Highways Code sections 10000 et seq. ("1913 Act") for the assessments and sections 8500 et seq. ("1915 Act") for the bonds; Constitution Article XIII D and Gov't Code 53750 et seq. (Prop 218 and SB919)	Water Code sections 31040-31042
What capital costs can be financed	Acquisition or improvement of real property (Constitution Article XIIIA, section 1(b)) [Note: water and sewer lines are classified as real property.]	Capital costs	Tangible property with a life of 5 years or more (i.e., land, improvements to land, structures, and equipment)	Land and improvements to land, including structures and fixtures (no equipment); only those parts of the project that specially benefit property may be financed by assessments -- any cost attributed to "general benefit" to the community must be paid from another source	Tangible property (land, improvements to land, structures, and equipment)
Process for approval; vote required	Board resolution declaring necessity; hearing; resolution ordering election; election – 2/3 vote by qualified voters	Board resolution; election -- majority vote by qualified voters	Board resolution ; protest hearing (subject to majority protest); election -- 2/3 vote of qualified electors (landowners or qualified voters)	Board resolution; mailed ballot "protest" proceeding – 50% of ballots cast by property owners (weighted by amount of assessment – one dollar/one vote)	Board resolution; no election required
Source of debt service payments	Ad valorem property taxes	Revenues of the utility	Special taxes collected from a "community facilities district" (CFD), which can (but need not) be District-wide	Assessments (not taxes) levied on all properties benefited by the improvements funded thereby	District general fund and/or utility fund
Territory subject to the tax or assessment	Entire District or a designated improvement district within the District	No tax; utility customers pay rates necessary to generate debt service payments	All or any part of the District (the CFD)	All or any part of the District (those areas benefited)	No tax or other special charge is levied
Property taxed or assessed	All real property in the District or improvement district that is subject to property taxes	No property is taxed	All real property or only certain categories specified in ballot; public property is exempt	All property benefited, including properties owned by public agencies	No property is taxed
Basis of tax, assessment, or other charge	Assessed value of property (ad valorem), same basis as is used for the 1% general property tax	Current utility rate structure	Any reasonable basis other than value (e.g., a fixed amount per parcel); different rates may be applied to different types of property	Based on the relative benefit of improvements to the property	No tax or other special charge is levied
Limits on amount of bonds	Principal amount not more than the cost of the improvements and issuance costs	Amount that can be supported by revenues; not more than cost of the improvements and issuance costs	Principal amount not more than 1/3 of value of property securing the bonds; not more than cost of the improvements and incidental costs	Principal amount not more than cost of the improvements and incidental costs	Amount that can be supported by general fund and/or utility fund; not more than cost of the improvements and issuance costs
Maximum maturity	40 years for each series issued	50 years (Water Code) or 40 years (Government Code) for each series issued	40 years for each series issued	40 years for each series issued	Economic life of facilities

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Funding & Rate Setting

Funding

- The path forward to successful completion of capital projects.
- Through user fees or debt service?

Rate Setting

- Account for District expenditures
- Rate structure strategy and options

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Next Steps

- Identify priority areas for improvements
  - Water system metering to target water loss
  - Sewer System CCTV to target Inflow and Infiltration
- Rate Assessment
- Preliminary Engineering Report and Master Planning
  - Tool for Funding and Transparency for District Stakeholders
- Future Coordination and Capital Plan Development
  - Board and Community Workshops

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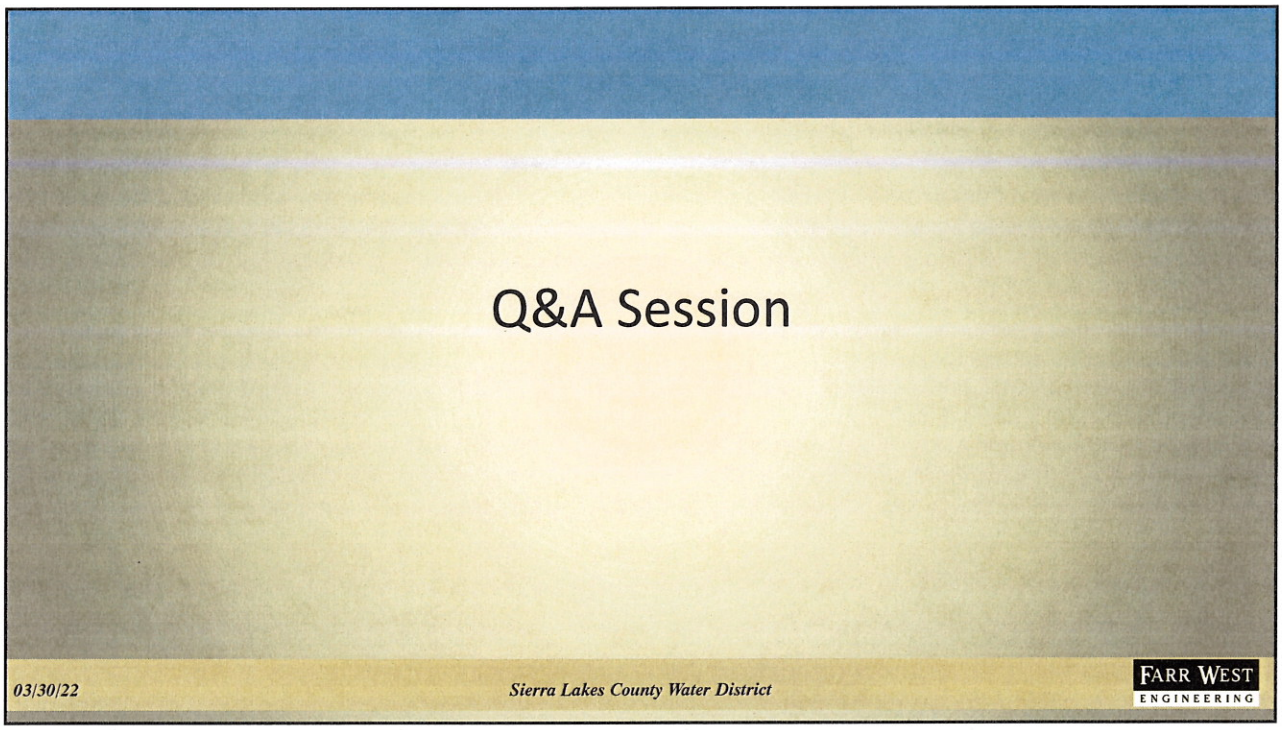
Q&A Session
03/30/22
Sierra Lakes County Water District
FARR WEST
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