

Brine Line On-Call Service Contracts

Carlos Quintero, Operations Manager

PA24 Committee | June 1, 2021

Item No. 5.A.

Recommendation

- Authorize the General Manager to issue a Task Order (HAZ240-11) for \$139,360 and extend the expiration date for the existing General Services Agreement with HazMat Trans Inc. for Line Draining and Emergency Clean-up Services.

On-Call Service Contracts

- *Pipeline cleaning: Vacuum trucks, water trucks, and traffic control for Brine Line cleaning operations. **Current contract with Downstream Services through June 2022, not included in RFPs.***
- *Line draining and emergency clean-up: Tanker trucks for line draining during planned maintenance and emergencies, as well as material support during SSOs.*
- *Debris hauling and disposal: Removal of dewatering bins and hauling to disposal site.*
- *Pipeline inspection (CCTV): Line inspection as required per the Brine Line Sewer System Management Plan.*
- *Flow meter calibration: Annual calibration of dischargers flow meters.*
- *Surveying: On-call surveying services as required.*

Schedule

Activity	Date
PA24 Committee Approves RFPs	3/2/2021
Issue RFPs	3/2/2021
RFP Due Date	4/5/2021
PA24 Committee Approval	6/1/2021
Contract Duration*	7/1/2021 – 6/30/2023

*RFPs allow the renewal for one additional year (7/1/2023 – 6/30/2024)

Proposals Summary

Service Contract	Vendor	Cost
Line Draining and Clean-up	HazMat Trans*	\$139,360
Debris Hauling & Disposal	HazMat Trans*	\$63,990
CCTV (Inspection)	Houston and Harris	\$103,451
	Innerline Engineering*	\$99,050
Flow Meter Calibration	PE Instruments	\$18,490
	Douglas Environmental Group*	\$21,575
Land Surveying	Calvada	\$50,300
	GSI	\$43,350
	Hunsaker	\$41,160
	K+W	\$48,160
	TKE*	\$36,800
	WLG	\$43,200

Recommendation

- Authorize the General Manager to issue a Task Order (HAZ240-11) for \$139,360 and extend the expiration date for the existing General Services Agreement with HazMat Trans Inc. for Line Draining and Emergency Clean-up Services.



Brine Line Criticality Assessment

Santa Ana Watershed Project Authority

PRESENTED BY DAVID RUHL, PE

JUNE 1, 2021

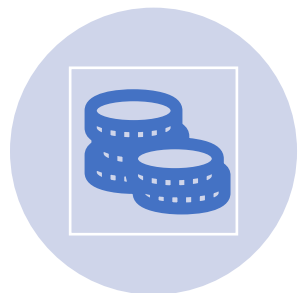
Project Objectives



Understand Brine Line
Risk Factors



Prioritize Capital
Improvement Projects



Formulate Basis for
Capital Reserve
Funding



Focus Operation &
Maintenance Efforts

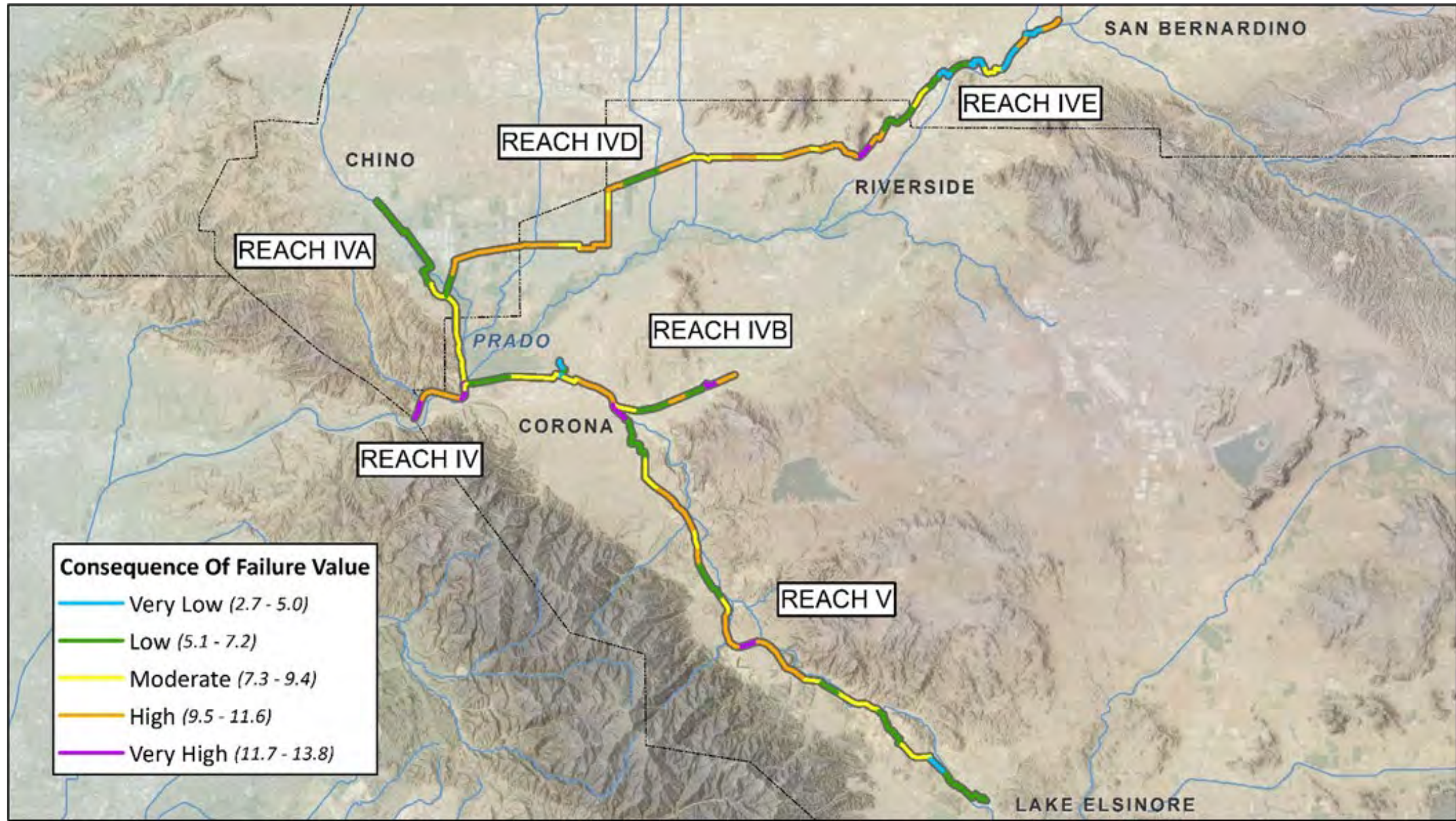
Consequence
of Failure
(CoFA)
Categories

Category	Data Sources
<p><u>Environmental/Regulatory Impact</u></p> <ul style="list-style-type: none"> • Waterbodies & Rivers • Wetlands & Streams 	<p><i>SAWPA GIS Stream Coverage</i> <i>USFWS, National Wetland Inventory (NWI)</i> <i>USGS, National Hydrography Dataset (NHD)</i></p>
<p><u>Health and Safety Impact</u></p> <ul style="list-style-type: none"> • Schools & Hospitals • Medium Density Residential to High Density Residential • Mixed Use • Commercial & Industrial • Low Density Residential to Very Low Density Residential 	<p><i>SAWPA zoning GIS dataset</i></p>
<p><u>Economic/Service Impact</u></p> <ul style="list-style-type: none"> • Existing & Projected Peak Flow • Existing User Flow Contributions 	<p><i>SAWPA hydraulic model</i> <i>Brine line billing data</i></p>
<p><u>Transportation Impact</u></p> <ul style="list-style-type: none"> • Right-of-Way & Roadways • Railroads 	<p><i>Esri GIS</i></p>

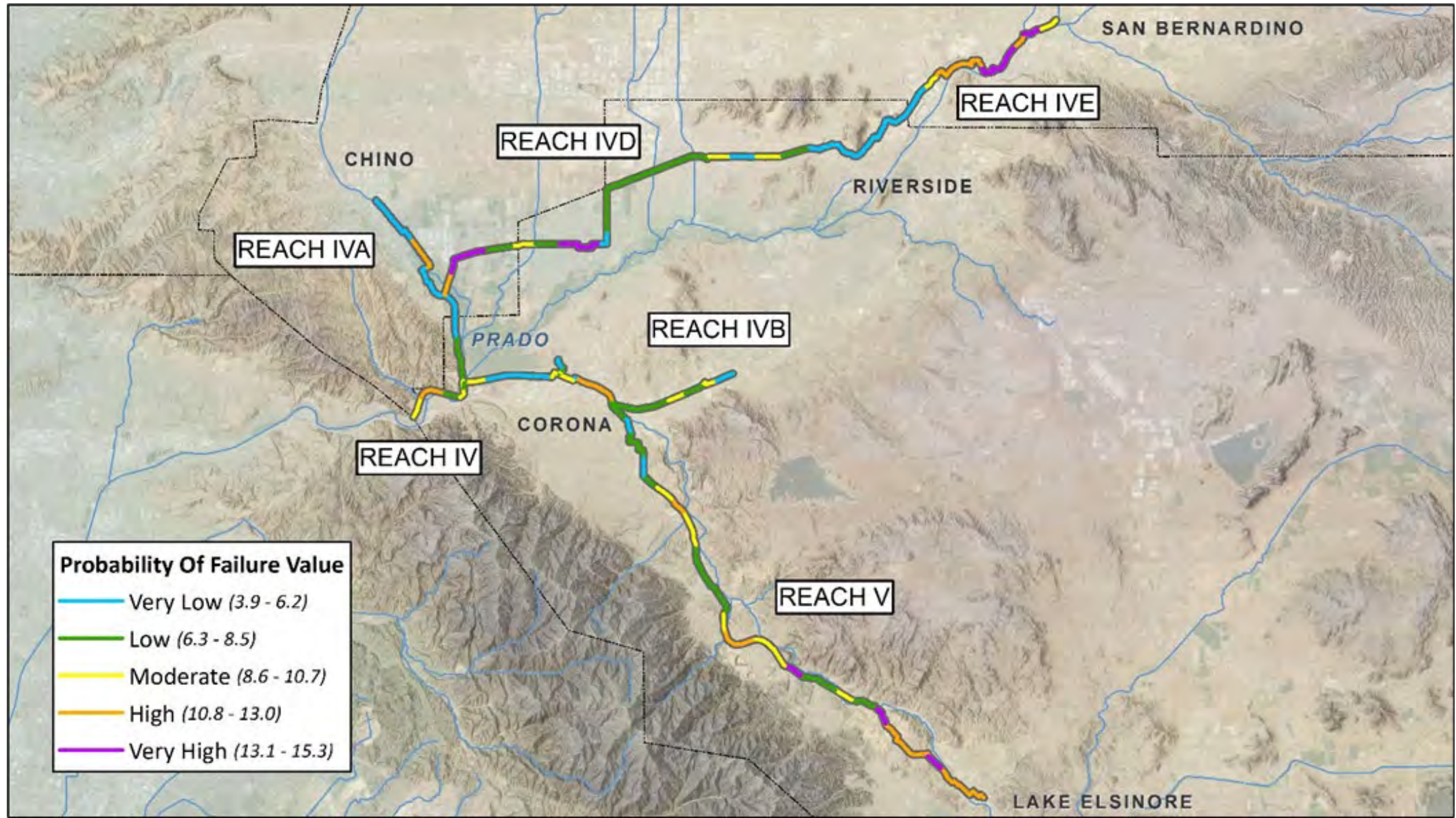
Probability of Failure (PoFA) Categories

CATEGORY	DATA SOURCES
Potential Spill Locations	<i>MAS GIS</i>
Maintenance Accessibility	<i>SAWPA Staff knowledge</i>
Pipe Age	<i>SAWPA GIS attributes</i> <i>SAWPA Staff knowledge</i>
Pipe Material	<i>SAWPA GIS attributes</i> <i>SAWPA Staff knowledge</i>
Surcharge & Siphon Conditions	<i>SAWPA hydraulic model</i>
Fault Zone Proximity	<i>California Geologic Survey</i>
Flood Zone Proximity	<i>FEMA, National Flood Hazard Layer (NFHL)</i>
Future Development Potential	<i>SAWPA zoning GIS dataset vacant parcels</i>
Unpaved Public Roads	<i>SAWPA Staff knowledge</i>

Consequence of Failure (CoFA) Results



Probability of Failure (PoFA) Results



Criticality Results



04 Distribution by Pipeline Length

Consequence of Failure

Probability of Failure	Consequence of Failure				
	<i>Very Low</i> (2.7 - 5.0)	<i>Low</i> (5.1 - 7.2)	<i>Moderate</i> (7.3 - 9.4)	<i>High</i> (9.5 - 11.6)	<i>Very High</i> (11.7 - 13.8)
<i>Very High</i> (13.1 - 15.3)	12,010	3,420	5,085	12,363	–
<i>High</i> (10.8 - 13.0)	7,486	29,320	11,674	27,654	3,756
<i>Moderate</i> (8.6 - 10.7)	466	8,024	25,280	20,198	10,544
<i>Low</i> (6.3 - 8.5)	803	36,869	36,408	35,990	3,572
<i>Very Low</i> (3.9 - 6.2)	1,682	29,056	30,759	23,045	3,826

Criticality Summary by Length

<u>Low</u> 178,424 lf (47%)	<u>Medium</u> 146,549 lf (39%)	<u>High</u> 54,317 lf (14%)
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Distribution by Pipeline Value

Consequence of Failure

	<i>Very Low</i> (2.7 - 5.0)	<i>Low</i> (5.1 - 7.2)	<i>Moderate</i> (7.3 - 9.4)	<i>High</i> (9.5 - 11.6)	<i>Very High</i> (11.7 - 13.8)
<i>Very High</i> (13.1 - 15.3)	\$11,975,400	\$1,691,700	\$6,036,400	\$13,384,100	--
<i>High</i> (10.8 - 13.0)	\$8,887,700	\$23,203,300	\$9,068,400	\$22,181,100	\$1,934,200
<i>Moderate</i> (8.6 - 10.7)	--	\$8,234,500	\$27,737,400	\$14,147,900	\$9,297,700
<i>Low</i> (6.3 - 8.5)	\$251,700	\$25,072,500	\$31,668,100	\$40,437,800	\$2,050,400
<i>Very Low</i> (3.9 - 6.2)	--	\$25,518,800	\$30,813,000	\$25,948,900	\$4,565,300

Criticality Summary

<u><i>Low</i></u> \$160,960,500 (47%)	<u><i>Medium</i></u> \$136,348,800 (39%)	<u><i>High</i></u> \$46,797,100 (14%)
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Proposed Capital Reserve Results



Conclusions and Recommendations

- High Criticality facilities projected to require the most O&M attention in the near term (14% of system or 10 miles)
- Medium Criticality facilities require continued regular monitoring as risk may increase (39% of system or 28 miles)
- Low Criticality facilities require regular monitoring (47% of system or 34 miles)
- Additional Investigations are required in Brine Line CIP and maintenance schedules for High Criticality facilities
- Reprioritize several CIP projects to greater priority due to significant portions of project identified as High Criticality
- Utilize information from Criticality Assessment to assist in decision making process when evaluating existing reserve policy
- Update Criticality Assessment on a regularly basis, approximately every five years

Questions?

Inland Empire Brine Line 10 – Year Capital Improvement Plan

David Ruhl, Engineering Manager
Project Agreement 24 Committee | June 1, 2021
Agenda Item No. 5.C

Capital Improvement Plan

Recommendation: Receive and File.

Capital Improvement Plan

- Assure the long-term future viability and sustainability of the Brine Line
- \$48 Million over 10 Years
- Prepared by Staff, refined during criticality assessment to prioritize high criticality projects, reviewed by Member Agency Staff



Capital Improvement Plan

- CIP addresses:
 - known system improvements
 - Sealing of MAS (Reach IVA and IVD)
 - Reach V MAS
 - known O&M challenges
 - Reach IVA Upper MAS Corrosion
 - Reach V Relocation of Air - Vacs
 - ongoing investigations to monitor system improvement and future needs
 - Reach IVD Corrosion Repairs



Capital Improvement Plan

- Refined due to results of Criticality Assessment
 - Prioritize Projects
 - Inspections, Investigations and Studies
 - Reach IV Condition Assessment
 - Reach IVB Ductile Iron Pipe Condition Assessment
- Review and revise for required changes
 - Maintaining operational capability, serving customer needs, meeting future capacity requirements
 - Upon completion of investigations



CIP – Years 1 - 3

		Year	1	2	3
#	Project Description		FY 2021	FY 2022	FY 2023
1	Alcoa Dike Brine Line Protection (Reach IVB and CRC Lateral)		\$ 1,425,000		
2	Euclid Ave MAS Rehabilitation Project (Reach IV-D and IV- A)		\$ 518,000		
3	Reach IV-A Upper Pine Avenue Siphon Protection/Relocation		\$ 100,000	\$ 1,100,000	
4	Reach IVA MAS Inspection & Condition Study			\$ 350,000	
5	Prado Reservoir (below 556') MAS Protection		\$ 50,000	\$ 150,000	
6	Prado Reservoir (556'-566') MAS Protection		\$ 100,000	\$ 100,000	
7	Reach IV Pipeline Inspection & Condition Study		\$ 100,000	\$ 275,000	
8	Reach IVB DIP Pipeline Inspection & Condition Study			\$ 170,000	\$ 400,000
9	Reach IV-D Corrosion Repair				\$ 750,000
11	Reach V - Temescal Canyon Rd (El Cerrito Segment) Widening			\$ 150,000	\$ 1,250,000
12	Reach V Air Vac Modifications				\$ 400,000
18	Reach V Baker St Protection			\$ 37,500	
			\$ 2,293,000	\$ 2,332,500	\$ 2,800,000

CIP – Years 4 - 10

	Year	4	5	6	7	8	9	10	
#	Project Description	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	Total
7	Reach IV Inspection & Condition Study		\$ 375,000					\$ 900,000	\$ 1,650,000
8	Reach IVB DIP Inspection & Condition Study	\$ 2,500,000	\$ 2,500,000						\$ 5,570,000
9	Reach IV-D Corrosion Repair				\$ 1,050,000	\$ 7,000,000	\$ 7,000,000	\$ 7,000,000	\$ 22,800,000
10	Reach 4E Insection/Repairs	\$ 250,000			\$ 500,000				\$ 750,000
13	Reach V MAS/Condition Assessment	\$ 450,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000				\$ 4,950,000
14	Reach 4D Inspection/Repairs) - Project 1	\$ 500,000							\$ 500,000
15	Reach V Indian Truck Trail Protection			\$ 440,000					\$ 440,000
16	Reach 4D Inspection/Repairs) - Project 2			\$ 500,000					\$ 500,000
17	Reach 4D Inspection/Repairs) - Project 3					\$ 500,000			\$ 500,000
18	Reach V Baker St Protection		\$ 825,000						\$ 862,500
19	Prado Access Road Improvements.		\$ 100,000	\$ 100,000	\$ 100,000	\$ 2,000,000			\$ 2,300,000
20	Reach 4B Inspection/Repairs			\$ 750,000					\$ 750,000
21	Capacity Management	\$ 250,000							\$ 250,000
22	Reach IV-D Mission Tunnel	\$ 160,000							\$ 160,000
23	Hydraulic "Choke Points"				\$ 150,000				\$ 150,000
24	OCSD CIP (Note 1)								Note 1
		\$ 4,110,000	\$ 5,300,000	\$ 3,290,000	\$ 3,300,000	\$ 9,500,000	\$ 7,000,000	\$ 7,900,000	\$ 47,825,500

Note 1: SAWPA is responsible to pay a proportional Share of the capital costs for the SARI owned by OC San. OC San has identified a minimum target level of between \$600,000 and \$1.75 Million annually. SAWPA is working with OC San to define the future CIP

QUESTIONS?



10 – Year CIP

	Year	1	2	3	4	5	6	7	8	9	10	
#	Project Description	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	Total
1	Alcoa Dike Brine Line Protection (Reach IVB and CRC Lateral)	\$ 1,425,000										\$ 1,425,000
2	Euclid Ave. MAS Rehabilitation Project (Reach IV-D and IV- A)	\$ 518,000										\$ 518,000
3	Reach IV-A Upper Pine Avenue Siphon Protection/Relocation	\$ 100,000	\$ 1,100,000									\$ 1,200,000
4	Reach IVA MAS Inspection & Condition Study	\$ 350,000										\$ 350,000
5	Prado Reservoir (below 556') MAS Protection	\$ 50,000	\$ 150,000									\$ 200,000
6	Prado Reservoir (556'-566') MAS Protection	\$ 100,000	\$ 100,000									\$ 200,000
7	Reach IV Pipeline Inspection & Condition Study	\$ 100,000	\$ 275,000			\$ 375,000					\$ 900,000	\$ 1,650,000
8	Reach IVB DIP Pipeline Inspection & Condition Study		\$ 170,000	\$ 400,000	\$ 2,500,000	\$ 2,500,000						\$ 5,570,000
9	Reach IV-D Corrosion Repair			\$ 750,000				\$ 1,050,000	\$ 7,000,000	\$ 7,000,000	\$ 7,000,000	\$ 22,800,000
10	Reach 4E Insection/Repairs				\$ 250,000			\$ 500,000				\$ 750,000
11	Reach V - Temescal Canyon Rd (El Cerrito Segment) Widening		\$ 150,000	\$ 1,250,000								\$ 1,400,000
12	Reach V Air Vac Modifications			\$ 400,000								\$ 400,000
13	Reach V Maintenance Access Structures/Condition Assessment				\$ 450,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000				\$ 4,950,000
14	Reach 4D Inspection/Repairs) - Project 1				\$ 500,000							\$ 500,000
15	Reach V Indian Truck Trail Protection						\$ 440,000					\$ 440,000
16	Reach 4D Inspection/Repairs) - Project 2						\$ 500,000					\$ 500,000
17	Reach 4D Inspection/Repairs) - Project 3								\$ 500,000			\$ 500,000
18	Reach V Baker St Protection		\$ 37,500			\$ 825,000						\$ 862,500
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20	Reach 4B Inspection/Repairs						\$ 750,000					\$ 750,000
21	Capacity Management				\$ 250,000							\$ 250,000
22	Reach IV-D Mission Tunnel				\$ 160,000							\$ 160,000
23	Hydraulic "Choke Points"							\$ 150,000				\$ 150,000
24	OCSD CIP (Note 1)											\$ -
		\$ 2,293,000	\$ 2,332,500	\$ 2,800,000	\$ 4,110,000	\$ 5,300,000	\$ 3,290,000	\$ 3,300,000	\$ 9,500,000	\$ 7,000,000	\$ 7,900,000	\$ 47,825,500
		\$ 2,293,000	\$ 4,625,500	\$ 7,425,500	\$ 11,535,500	\$ 16,835,500	\$ 20,125,500	\$ 23,425,500	\$ 32,925,500	\$ 39,925,500	\$ 47,825,500	\$ 47,825,500

Note 1: SAWPA is responsible to pay a proportional Share of the capital costs for the SARI owned by OC San. OC San has identified a minimum target level of between \$600,000 and \$1.75 Million annually. SAWPA is working with OC San to define the future CIP