

FYE 2024 and 2025 Budget Brine Line Goals and Objectives

David Ruhl, Executive Manager of Engineering and Operations

February 7, 2023 | Item No. 4.B

Brine Line – Goals and Objectives

Organization (Engineering and Operations Department):

1. Operations (Fund 240)
 - Engineering Activities
 - Operations Activities
 - Permitting and Pre-treatment Activities
2. Capital Projects (Fund 320, 327 and 328)
 - Engineering and Construction
3. Grant Administration and QA / QC (Fund 145 and 150)

Operations – Fund 240 (1 of 3)

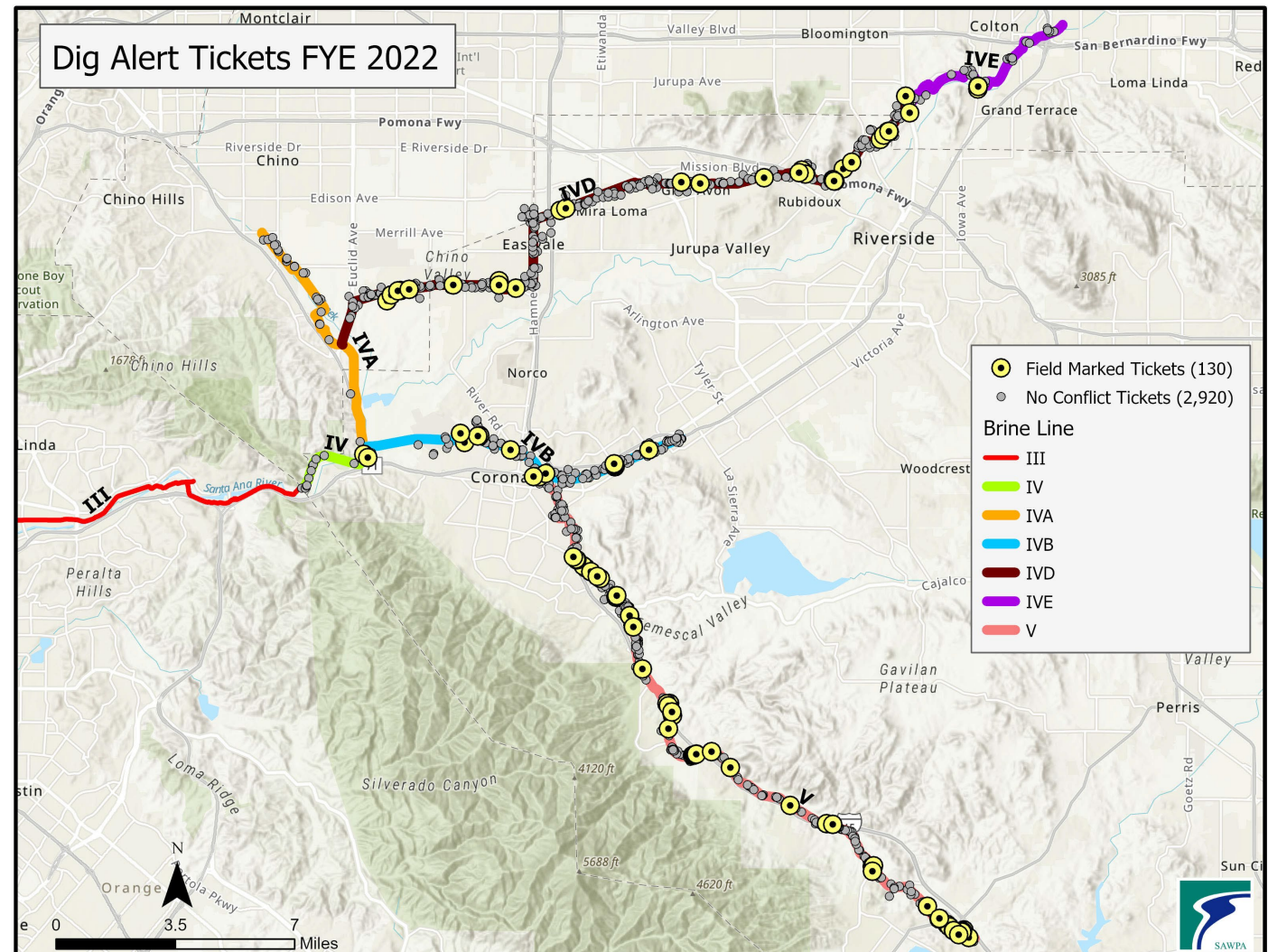
- Operations and Maintenance
 - Inspections
 - Line Cleaning and CCTV Inspection
 - Maintenance Access Structure (MAS) Inspections
 - Maintenance
 - Air Vacuum Valves Maintenance
 - Right-of-way Maintenance
 - Sewer System Management Plan Audit
 - Implement any Corrective Actions
 - Update Sewer System Management Plan
 - Increase in-house Field Staff Capability
 - Reduce Reliance on Contractors
 - Coordination with outside contractors working near the Brine Line
 - Reduce the Risk of SSO's



Air Vacuum Valve Maintenance



Underground Service Alert (USA) Markings (Contractor Coordination)



Operations – Fund 240 (2 of 3)

- Engineering
 - Brine Line Master Plan
 - Additional Studies as Recommended
 - Discharger Lease Agreements
 - Evaluate impacts of tributary flows on Reach IV-B Lower within the Prado inundation area
 - Coordination with Agencies and Developers on review of infrastructure plans with potential to impact the Brine Line
 - Maintain / Grow Partnership with OC San
 - Joint Operations Committee
 - Joint Policy Committee
 - Update Marketing plan, Brochure and Implement Program
 - Other Studies as Needed

Operations – Fund 240 (3 of 3)

- Permitting and Pre-treatment
 - Continue to Administer Program
 - Update Brine Line Ordinance
 - Update Policies and Procedures
 - Audit of Member Agencies and Contract Agencies Programs
 - Audit of SAWPA's Pre-treatment Program
 - Implement any Corrective Actions
 - Monitoring at OC San SARI Metering Station (SMS)
 - Support Billing between SAWPA and OC San

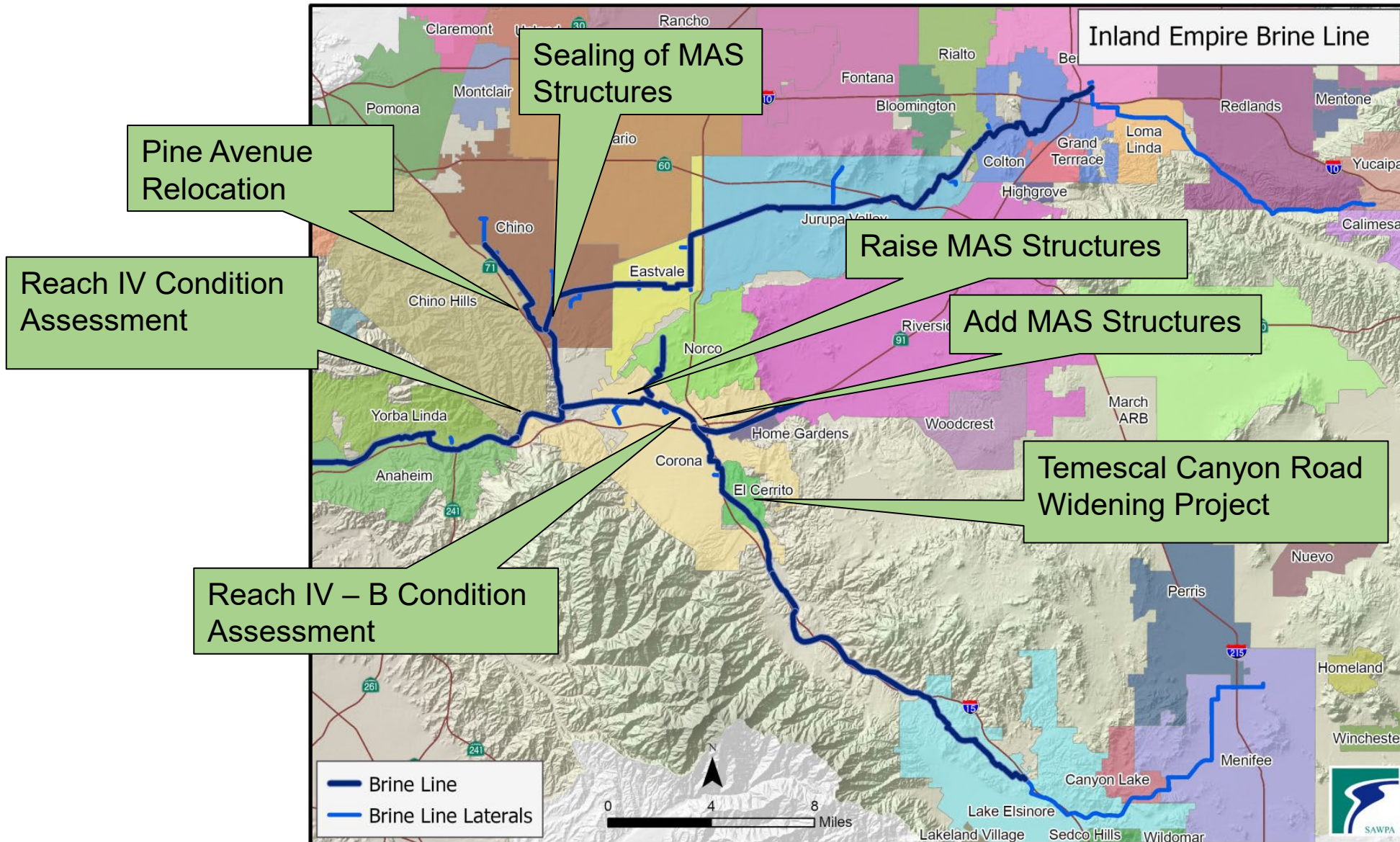


Capital Projects (Fund 320)

- Reach IV Pipeline Inspection and Condition Assessment
- Reach IV – B Lower
 - Pipeline Inspection and Condition Assessment
 - Improvements
 - Add up to two MAS to provide access for cleaning and inspection
 - Raise two MAS within the Prado inundation area
- Protection / Relocation
 - RCTD Widening of Temescal Canyon Road (Reach V)
 - Caltrans / City of Chino Hwy 71 / Pine Avenue off – ramp (Reach IV-A Upper)
 - Relocation of Pine Avenue Siphon
- Complete sealing of MAS structures within the Prado Basin Inundation area below elevation of 556 feet



Capital Projects (Fund 320)

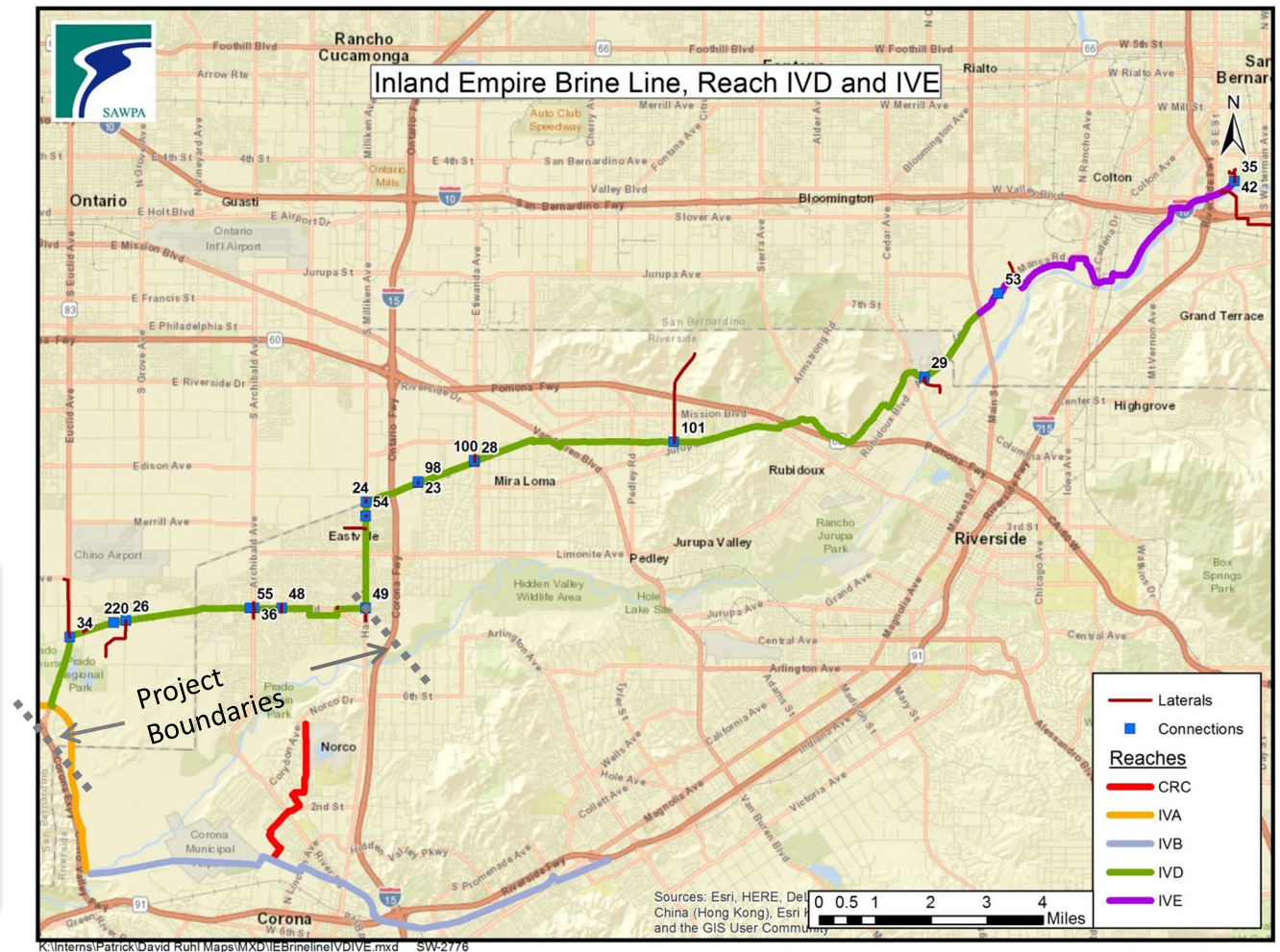


Capital Projects (Fund 327)

- Reach IV – D Corrosion Repairs
 - Mid-term pipe inspection as recommended in the 2019 Reach IV-D Work Plan and Condition Assessment

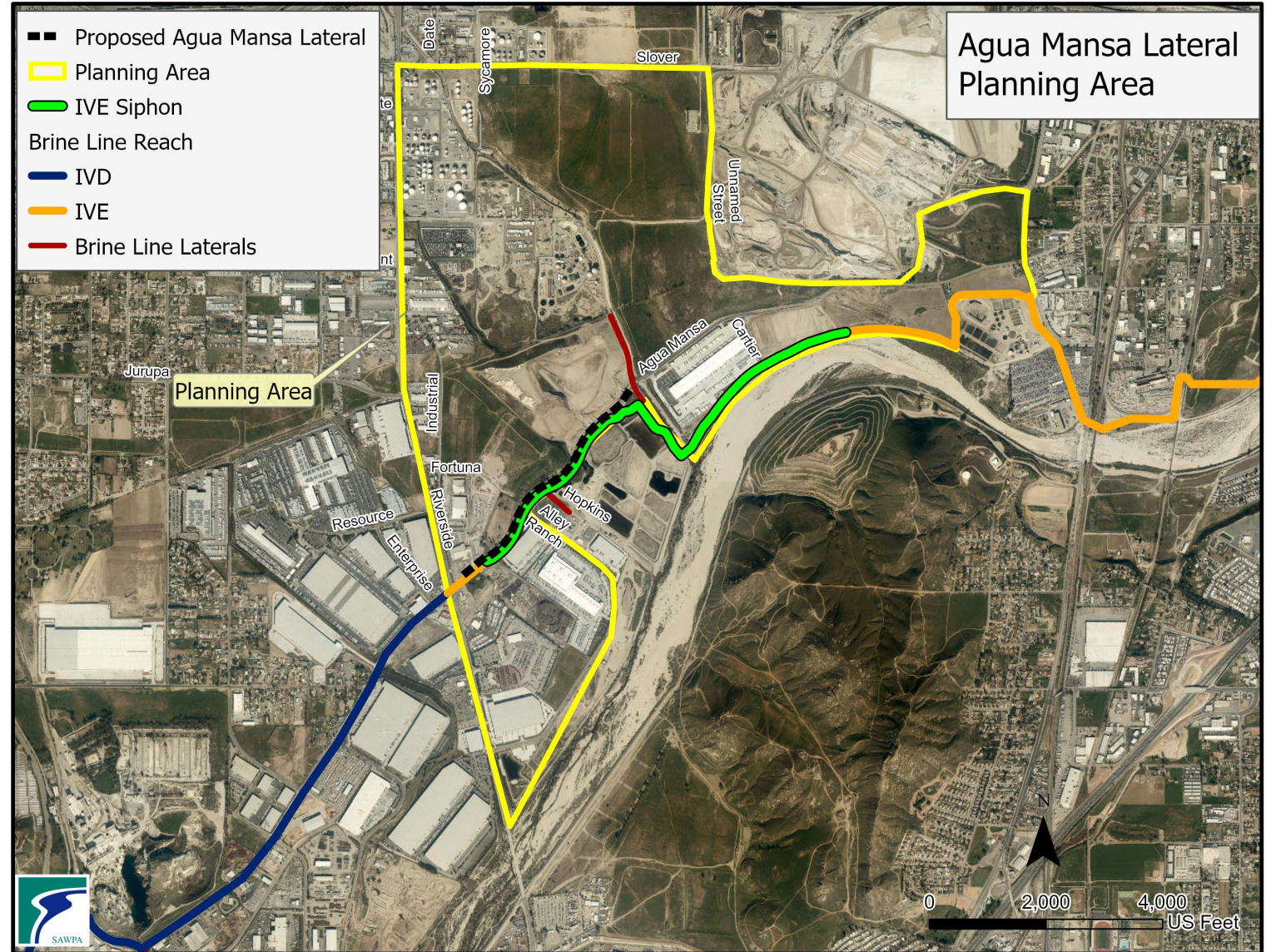


Exposed Concrete Pipe Invert



Capital Projects (Fund 328)

- Agua Mansa Lateral (Reach IV – E)
 - Complete Construction of the Agua Mansa Lateral



FYE 2024 and 2025 Budget
Brine Line
Goals and Objectives

Questions?



Reach IV and IV-B DIP Condition Assessment

Daniel Vasquez, Manager of Operations
Project Agreement 24 Committee
February 7, 2023 | Item No. 5.A

Reach IV and IV-B DIP Section Condition Assessment

Recommendation:

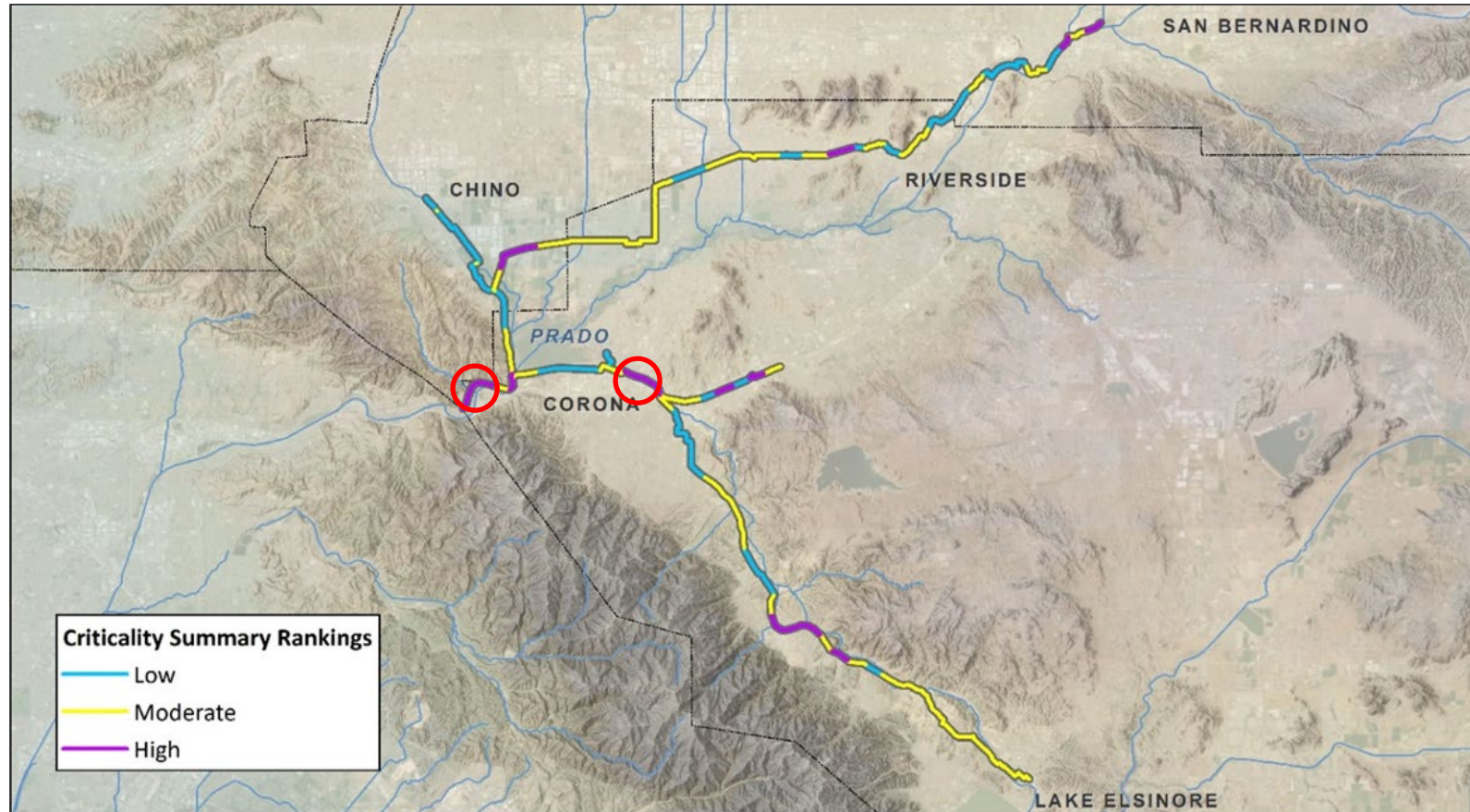
- That the PA 24 Committee authorize the General Manager to execute Task Order W&C320-01 with Woodard & Curran in an amount not to exceed \$392,356 for the Reach IV and Reach IV-B Ductile Iron Pipe (DIP) Brine Line Condition Assessment.

Background

In 2021, the Criticality Assessment established Criticality Rankings for Brine Line Infrastructure using both probability of failure and consequence of failure analysis.

$$\textit{Criticality Value} = \sqrt{\textit{Consequence of Failure Value}^2 + \textit{Probability of Failure Value}^2}$$

Criticality Map



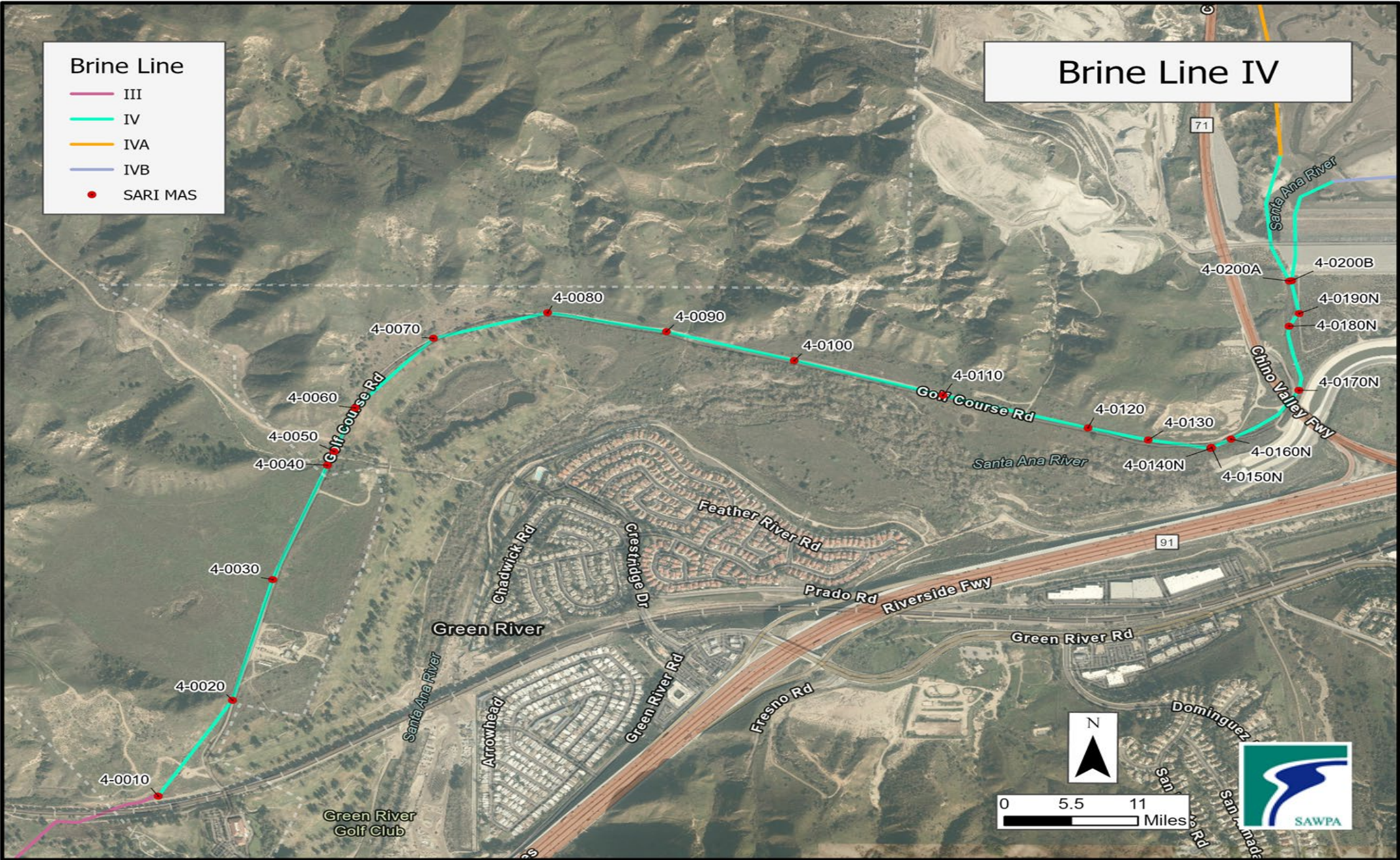
These areas were Identified by 2021 Criticality Assessment for condition assessment.

The 10-Year CIP was refined in 2021 to include these condition assessments for the long-term future sustainability and reliability of the Inland Empire Brine Line.

Brine Line

- III
- IV
- IVA
- IVB
- SARI MAS

Brine Line IV



Reach IV Considerations



Reach IV was constructed in 1975 and is the oldest portion of the Inland Empire Brine Line

42"-48" Reinforced Concrete Pipe with T-Lock 360°

Point of combined flow from every reach.

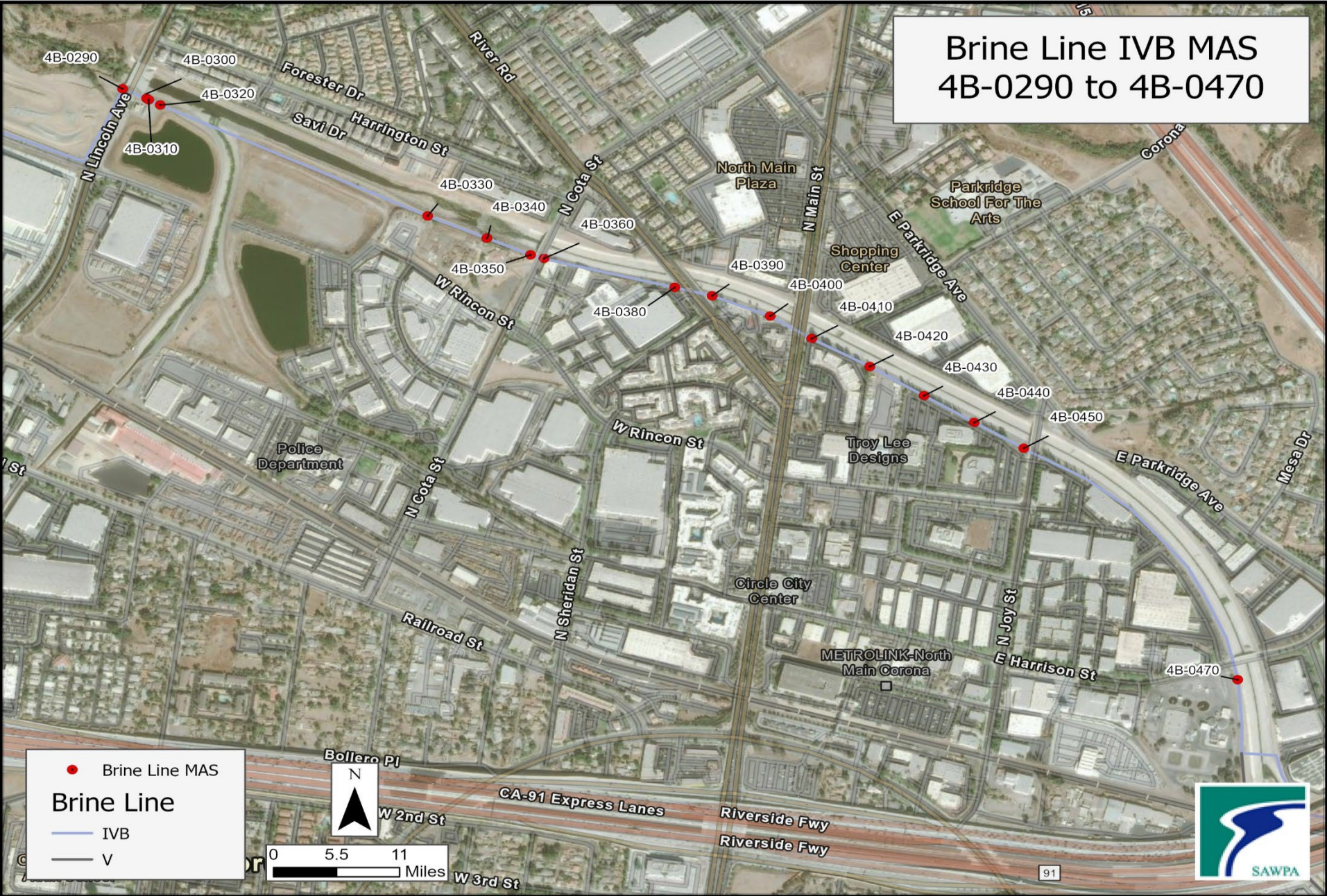
Nesting Season work impediments and Biological Surveys

Necessity of bypass plan and spill prevention plan.

Coordinating work with Green River Golf Course and Army Corps of Engineers.

Storm season may impact the use of vehicles/heavy machinery or general access.

Brine Line IVB MAS 4B-0290 to 4B-0470



Reach IV-B DIP Section Considerations



Approximately 1.6 miles of 36" Ductile Iron Pipe

Requires coordination with Riverside County Flood Control

Traffic Control for street cross sections if bypass is required.

Necessity of Spill Prevention Plan.

Possible coordination of Month-Long Shutdown of EMWD Desalter.

Possible coordination of additional member agency planned shutdowns.

Reach IV and IV-B DIP Condition Assessment– Scope of Work

The Project Scope will include 4 Phases:

Phase 1: Project preparation and planning.

Phase 2: Develop Field Inspection Plan (FIP) for staff approval.

Phase 3: Implement the Field Inspection Plan (FIP).

Phase 4: Prepare the Draft and Final Report.



Selection Process

- 2 Proposals Received:
 1. Atkins
 2. Woodard & Curran
- Both firms selected for interview
- Selection based on scoring of the proposals, interviews, and fee proposal



Selection Process

<u>Firm</u>	<u>Fee Proposal</u>	<u>Optional Tasks</u>	<u>Total Fee</u>	<u>Score</u>
Atkins	\$411,939	\$127,664	\$539,603	81.6
Woodard & Curran	\$353,778	\$78,710	\$432,488	93.8

Woodard & Curran selected as most qualified

Additional tasks were considered and added to Scope of Work:

- Coordination with SAWPA's CCTV Contractor (\$25,198)
- Implementation of Traffic Control at field test sites (\$11,020)
- Minor GSA changes were requested by Woodard & Curran. These changes were reviewed by legal counsel and were considered acceptable.

Based on additional tasks, revised total fee for Woodard & Curran is **\$392,356.00**

Reach IV and IV-B DIP Section Condition Assessment

Recommendation:

- That the PA 24 Committee authorize the General Manager to execute Task Order W&C320-01 with Woodard & Curran in an amount not to exceed \$392,356 for the Reach IV and Reach IV-B Ductile Iron Pipe (DIP) Brine Line Condition Assessment.

Questions?



Inland Empire Brine Line Reserve Funds

Karen Williams, Deputy General Manager/ Chief Financial Officer
Project Agreement 24 Committee
February 7, 2023

Brine Line Reserve Policy

Recommendation on November 1, 2022:

That the Project Agreement 24 Committee:

1. Receive the Draft Brine Line Reserves and Capacity Lease Memorandum and direct staff to finalize the report.
2. Approve the updated SAWPA Reserve Policy contingent on approval of the Reserve Policy by the SAWPA Commission
3. Approve the transfer of the balance of the Self-Insurance Reserve, Rate Stabilization Reserve and the Flow Imbalance Reserve to the Pipeline Replacement and Capital Investment Reserve (formerly the Pipeline Replacement Reserve), upon approval of the Reserve Policy by the SAWPA Commission.

Summary of Recommendations (1 of 2)

Draft Brine Line Reserve Memorandum

- Maintain 6 reserves, rename 4 to provide greater clarity, and add ID numbers
 - Brine Line Operating (R-01)
 - Debt Retirement (R-02)
 - Pipeline Capacity Management (R-04), formerly Capacity Management
 - OC San Future Treatment and Disposal Capacity (R-05), formerly OCSD Future Capacity
 - OC San Pipeline Rehabilitation (R-06), formerly OCSD Rehabilitation
 - Pipeline Replacement and Capital Investment (R-07), formerly Pipeline Replacement
- Establish minimum and target levels for each reserve
 - Establish methodology

Summary of Recommendations (2 of 2)

Draft Brine Line Reserve Memorandum

- Eliminate 3 reserves that were either duplicative or low-risk and can be covered by other reserves
 - Rate Stabilization (R-03)
 - Flow Imbalance (R-08)
 - Self-Insurance (R-09)
- Combine the functions of the 3 eliminated reserves with other reserves and transfer the reserve funds to Pipeline Replacement and Capital Investment Reserve (R-07)
- Capacity lease calculation is typical and appropriate
 - Carry cost (interest rate) is recommended as a % annual depreciation plus the average cost of existing debt (6.4% for 2022)

Results and recommendations

Fund	Eliminate/ Retain	January 31, 2023 Ending Balance	Minimum	Target
R-01 Brine Line Operating	Retain	\$2,288,209	\$2,273,388	\$2,273,388
R-02 Debt Retirement	Retain	\$2,858,445	\$1,709,476	\$1,709,476
R-03 Rate Stabilization	Eliminate & Transfer to R-07	\$1,042,957	--	--
R-04 Pipeline Capacity Management	Retain	\$12,156,407	\$3,894,181	\$9,735,454
R-05 OC San Future Treatment and Disposal Capacity	Retain	\$1,861,185	\$1,842,396	\$1,842,396
R-06 OC San Pipeline Rehabilitation	Retain	\$2,414,028	\$2,425,147	\$7,250,000
R-07 Pipeline Replacement and Capital Investment	Retain	\$23,662,622	\$16,594,000	\$40,640,000
Resiliency Component			\$2,338,000	\$5,000,000
CIP Component			\$3,013,000	\$7,531,000
R&R Component			\$11,243,000	\$28,109,000
R-08 Flow Imbalance	Eliminate & transfer to R- 07	\$85,435	--	--
R-09 Self-Insurance	Eliminate & transfer to R- 07	\$4,396,654	--	--
Total - Unrestricted		\$49,056,466	\$27,029,113	\$61,741,236
Total – Restricted		\$1,709,476	\$1,709,477	\$1,709,478
Total		\$50,765,942	\$28,738,590	\$63,450,714

Elimination and Transfer of Funds

- Eliminate
 - R-03 Rate Stabilization - \$1,042,957
 - R-08 Flow Imbalance - \$85,435
 - R-09 Self-Insurance - \$4,396,654
- Transfer
 - R-07 Pipeline Replacement and Capital Investment - \$5,525,046

Elimination and Transfer of Funds

Reserve Fund	Reserve Balance	Transfer Amount	Balance @ 01/31/2023
R-03 Rate Stabilization	\$1,042,957	(\$1,042,957)	\$0
R-08 Flow Imbalance	\$85,435	(\$85,435)	\$0
R-09 Self-Insurance	\$4,396,654	(\$4,396,654)	\$0
R-07 Pipeline Replacement and Capital Investment	\$23,662,622	\$5,525,046	\$29,187,668

Results of Elimination and Transfer

Fund	01/31/2023 Ending Balance	Minimum	Target	Over or Under Target	Amount Over or (Under) Target	Comment
R-01 Brine Line Operating	\$2,288,209	\$2,273,388	\$2,273,388	Over	\$14,821	Interest through 12/31/2022
R-02 Debt Retirement	\$2,858,445	\$1,709,476	\$1,709,476	Over	\$1,148,969	Interest through 12/31/2022
R-04 Pipeline Capacity Management	\$12,156,407	\$3,894,181	\$9,735,454	Over	\$2,420,953	Funds from pipeline capacity sales
R-05 OC San Future Treatment and Disposal Capacity	\$1,861,185	\$1,842,396	\$1,842,396	Over	\$18,789	Target set at 06/30/22 balance Interest through 12/31/2022
R-06 OC San Pipeline Rehabilitation	\$2,414,028	\$2,425,147	\$7,250,000	Under	(\$4,835,972)	Budget for contributions?
R-07 Pipeline Replacement and Capital Investment	\$29,187,668	\$16,594,000	\$40,640,000	Under	(\$11,452,332)	Budget for contributions?
Resiliency Component		\$2,338,000	\$5,000,000	--	--	--
CIP Component		\$3,013,000	\$7,531,000	--	--	--
R&R Component		\$11,243,000	\$28,109,000	--	--	--
Total - Unrestricted	\$49,056,466	\$27,029,113	\$61,741,236	--	--	--
Total – Restricted	\$1,709,476	\$1,709,477	\$1,709,478	--	--	--
Total	\$50,765,942	\$28,738,590	\$63,450,714	--	--	--

Recommendation:

That the Project Agreement 24 Committee:

- Transfer \$5,525,046 from the eliminated reserves to the Pipeline Replacement and Capital Investment Reserve (R-07).
- Receive and file Reserve Review.

Questions?