



Brine Line Criticality Assessment - Status Update

Daniel Vasquez, Operations Manager

October 7, 2025

Project Agreement 24 Committee

Recommendation

That the Project Agreement 24 Committee receive and file a status update for the 2021 Inland Empire Brine Line Criticality Assessment Recommendations.

Criticality Assessment

Purposes

- Prioritize Capital Improvement Projects
- Understand Brine Line Risk Factors
- Formulate Basis for Capital Reserve Funding
- Focus Operation & Maintenance Efforts

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

Consequence of Failure Analysis (CoFA)

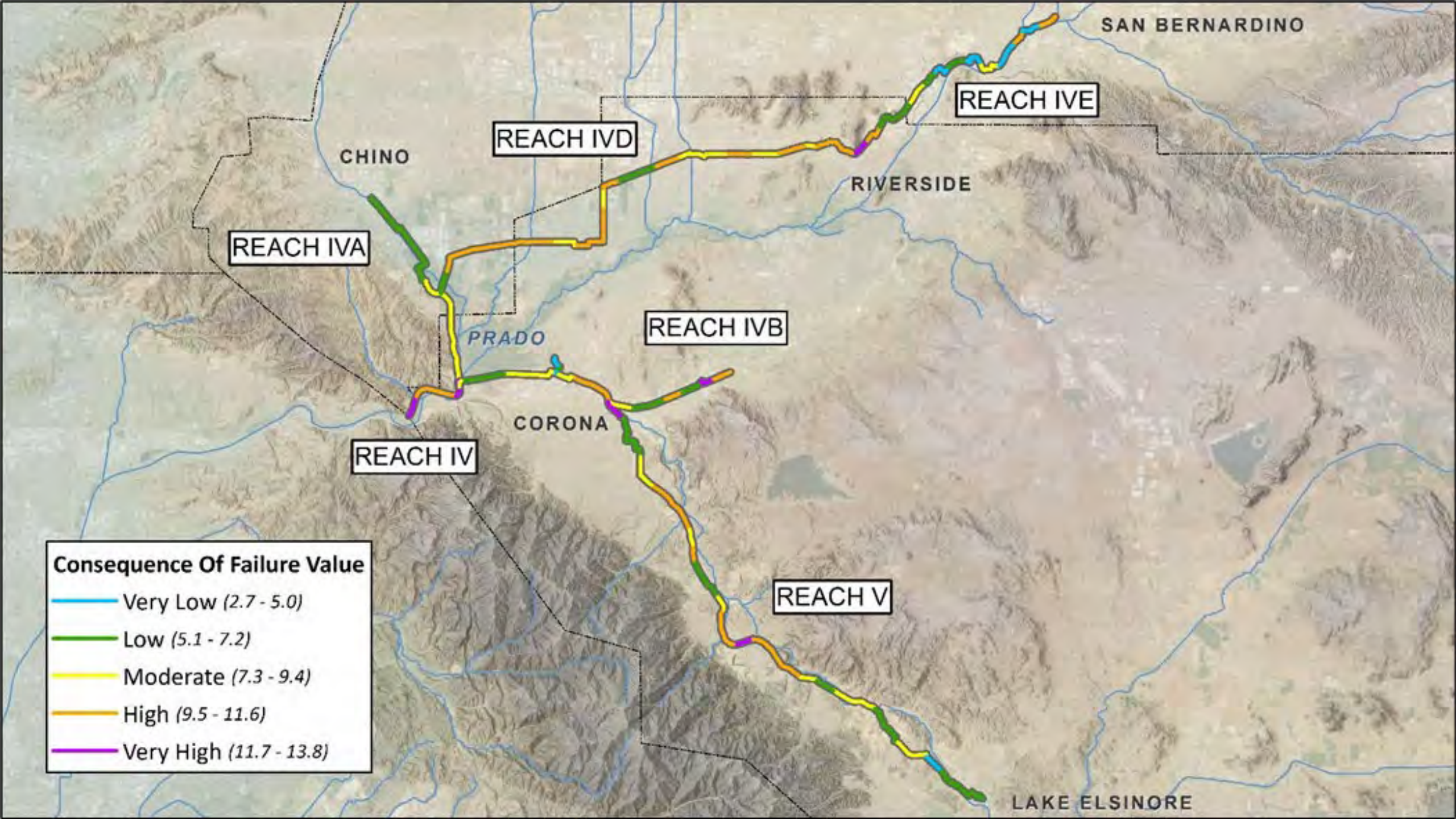


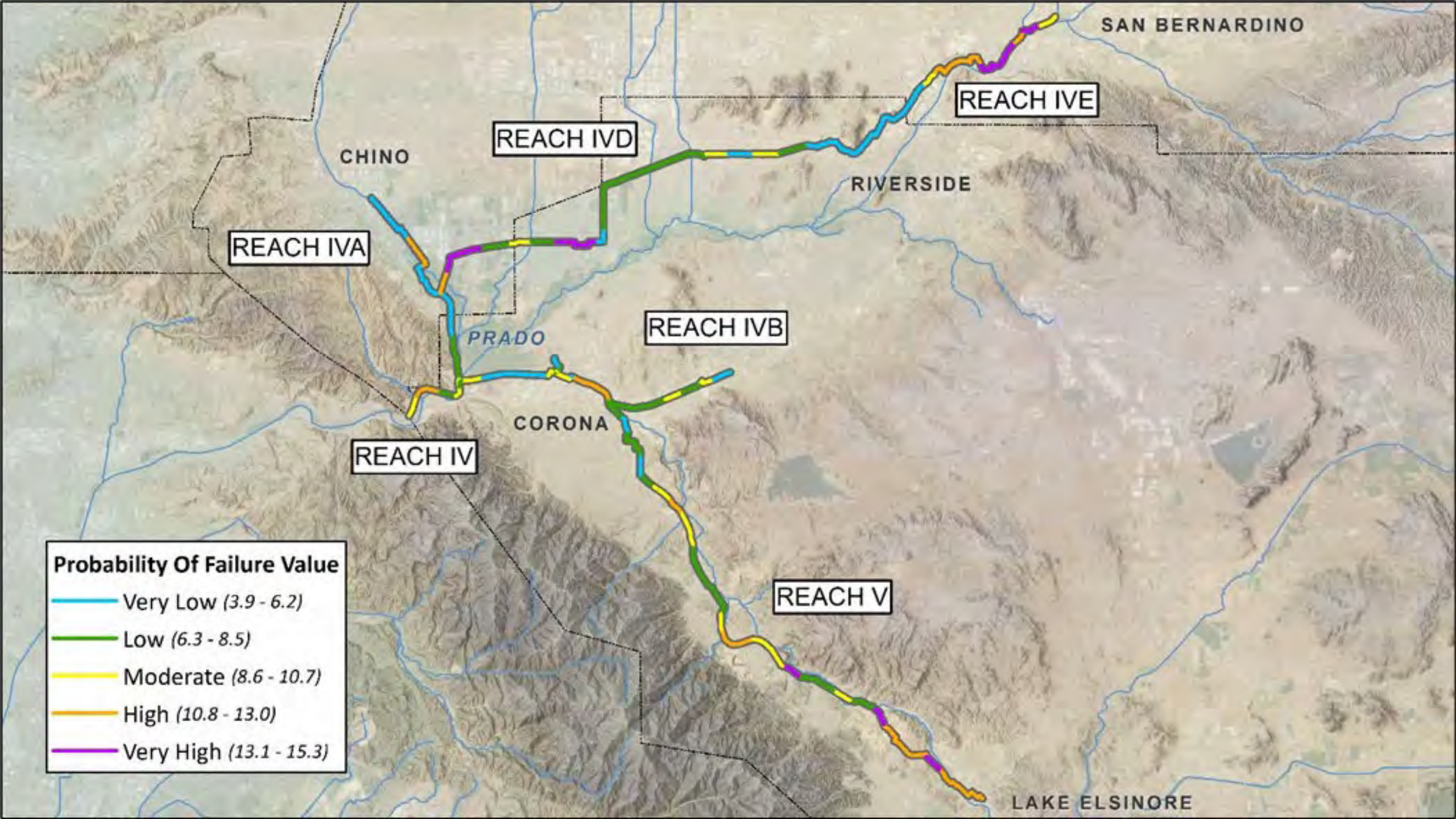
Category	Data Sources
<u>Environmental/Regulatory Impact</u> • Waterbodies & Rivers • Wetlands & Streams	SAWPA GIS Stream Coverage USFWS, National Wetland Inventory (NWI) USGS, National Hydrography Dataset (NHD)
<u>Health and Safety Impact</u> • Schools & Hospitals • Medium Density Residential to High Density Residential • Mixed Use • Commercial & Industrial • Low Density Residential to Very Low Density Residential	SAWPA zoning GIS dataset
<u>Economic/Service Impact</u> • Existing & Projected Peak Flow • Existing User Flow Contributions	SAWPA hydraulic model Brine line billing data
<u>Transportation Impact</u> • Right-of-Way & Roadways • Railroads	Esri GIS

Probability of Failure Analysis (PoFA)



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





Distribution by Pipeline Length

Consequence of Failure

Probability of Failure		Very Low (2.7 – 5.0)	Low (5.1 – 7.2)	Moderate (7.3 – 9.4)	High (9.5 – 11.6)	Very High (11.7 – 13.8)
	Very High (13.1 – 15.3)	12,010	3,420	5,085	12,363	--
	High (10.8 – 13.0)	7,486	29,320	11,674	27,654	3,756
	Moderate (8.6 – 10.7)	466	8,024	25,280	20,198	10,544
	Low (6.3 – 8.5)	803	36,869	36,408	35,990	3,572
	Very Low (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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Recommendations Summary

2021 Criticality Recommendation	Status	Work Performed
Reach IV-D Inspection	Completed	Rehabilitation work and condition assessment performed in 2024 with rehabilitation (23,000 ft) planned within ten to fifteen (10-15) years.
Reach IV-E Inspection	Actively Monitored	Prioritized to be performed in 2027 and 2028
Reach IV-B DIP Section Condition Assessment	Completed	Performed in 2024 with reinspection planned in 2029.
Reach IV-A MAS Rehabilitation	Completed	Performed in 2021 with regular ongoing inspections
Reach IV Condition Assessment	Completed	Performed in 2024 with reinspection planned within ten (10) years.
Reach V Condition Assessment	Actively Monitored	Prioritized to be performed in 2031
Obtain storm drain data for future Criticality Assessments	Completed	Performed in 2024 by Staff GIS Team
Long-term planning for capacity management	Completed	Master Plan was completed in 2025

Criticality Assessment Update



Next Steps

- An update to the Criticality Assessment is required every five (5) years
- Next update is anticipated in 2026
- A Request for Proposals (RFP) to be presented to PA 24

Recommendation

That the Project Agreement 24 Committee receive and file a status update for the 2021 Inland Empire Brine Line Criticality Assessment Recommendations.

Contact Information

Daniel Vasquez

Operations Manager

SAWPA

Dvasquez@sawpa.gov



Inland Empire Brine Line Reach IV-B Lower Maintenance Access Structure Project

David Ruhl, Executive Manager of
Engineering and Operations

October 7, 2025

Project Agreement 24 Committee

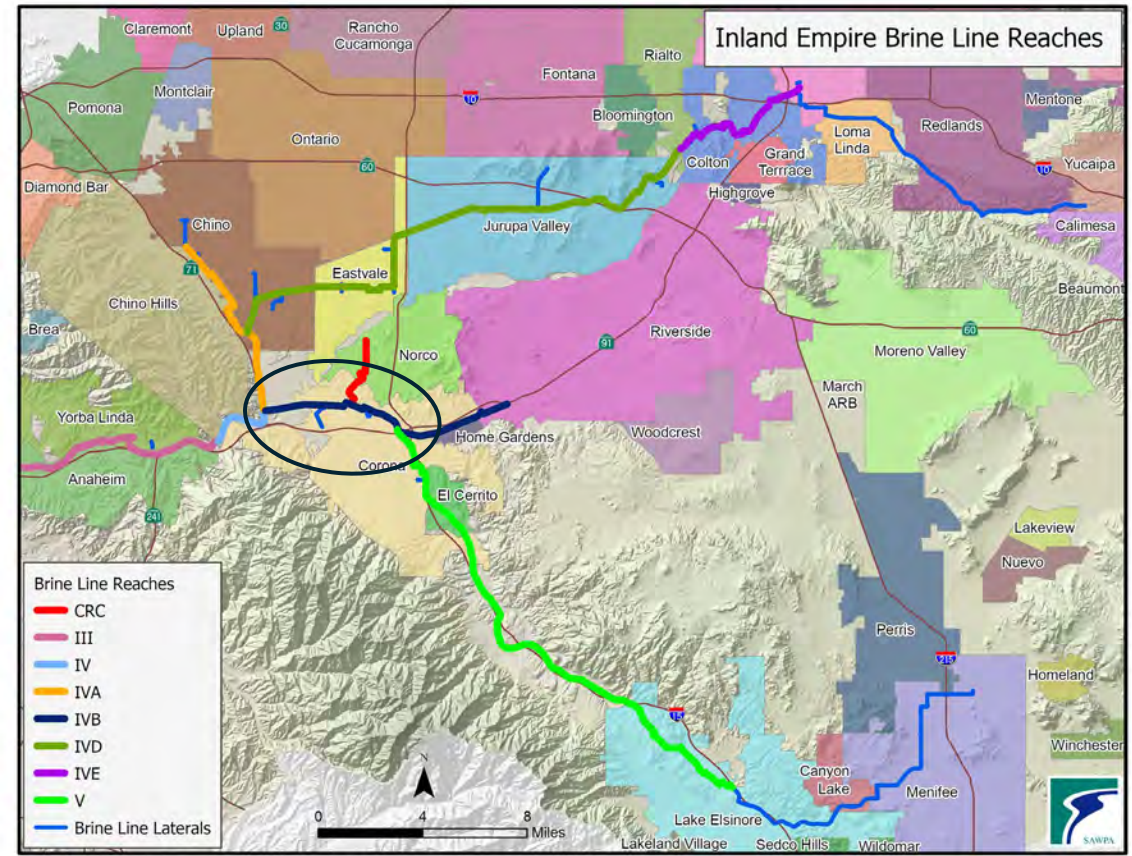
Recommendation

That the Project Agreement 24 Committee direct staff to issue an RFP for engineering services for the Inland Empire Brine Line Reach IV-B Lower Maintenance Access Structure Project.

Reach IV-B

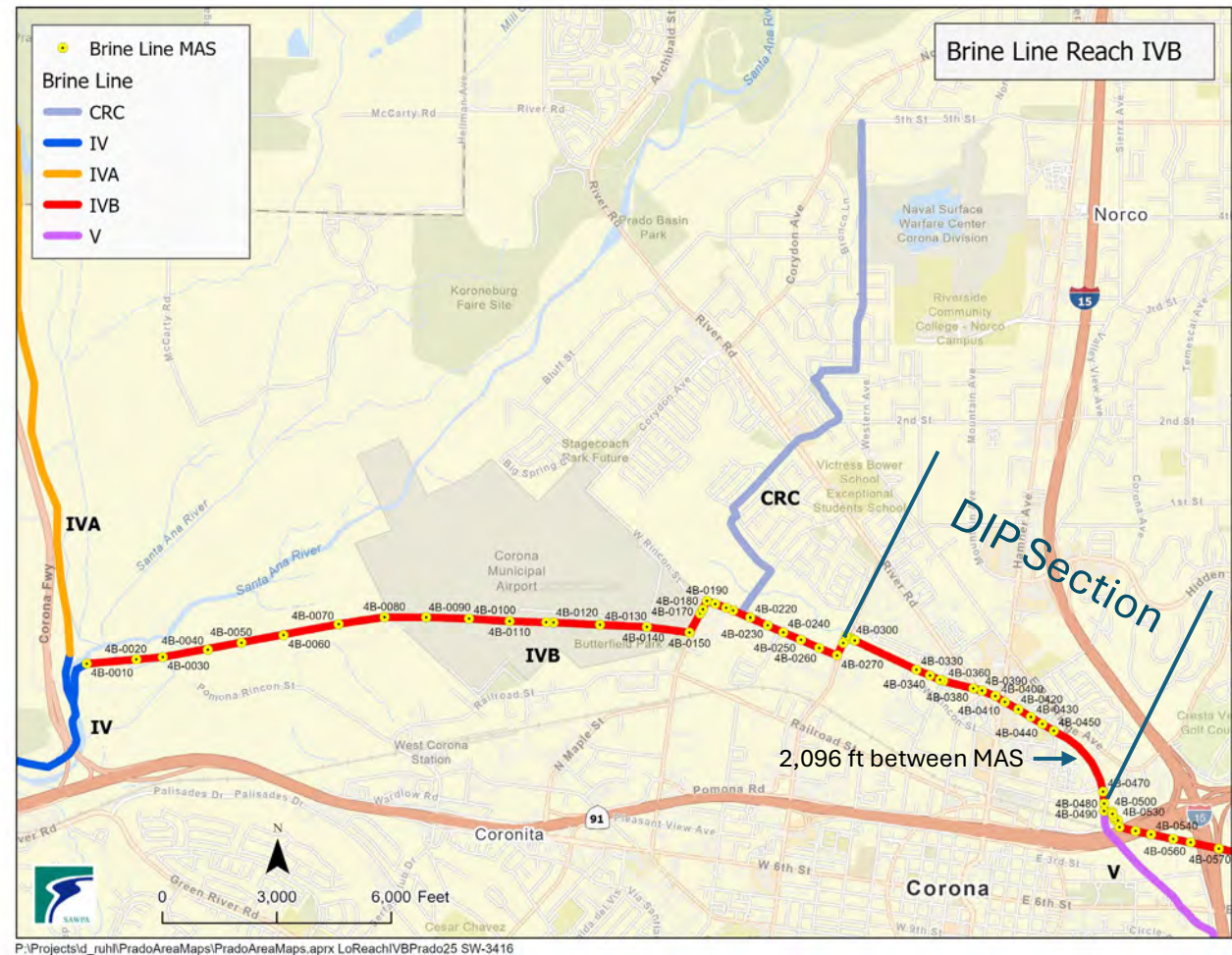
Reach IV-B Lower Background

- Constructed in mid 1990's
- Approximately 5.5 miles
- Pipeline size 30 – 36 inches in Diameter
- 47 Maintenance Access Structure
- Daily flow 5 – 7 MGD
- Maximum Capacity 13 MGD



Reach IV-B Condition Assessment

- Condition Assessment May 2023
- Final Report to PA 24 September 2024
- Near term recommendation to add additional MAS's
 - Access for cleaning, inspection and repairs limited due to distance between MAS
 - Issue RFP for design of new MAS



Schedule and Budget



Schedule

- Issue RFP Oct 7, 2025
- Receive Proposals Nov 18, 2025
- PA 24 Award Jan 7, 2025

Budget

- Design and Related Field Work \$150,000
- Construction \$375,000

Estimate of construction costs will be refined during design.

Recommendation

That the Project Agreement 24 Committee direct staff to issue an RFP for engineering services for the Inland Empire Brine Line Reach IV-B Lower Maintenance Access Structure Project.

Contact Information

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*Executive Manager of Engineering and
Operations*

Druhl@sawpa.gov