



PROJECT AGREEMENT 24 COMMITTEE
Inland Empire Brine Line
REGULAR MEETING MINUTES
August 6, 2024

COMMITTEE MEMBERS PRESENT

T. Milford Harrison, Chair, San Bernardino Valley Municipal Water District Governing Board [via - zoom]
Mike Gardner, Vice Chair, Western Municipal Water District Governing Board
David Slawson, Alternate, Eastern Municipal Water District Governing Board
Jasmin A. Hall, Inland Empire Utilities Agency Governing Board

COMMITTEE MEMBERS ABSENT

None.

ALTERNATE COMMITTEE MEMBERS PRESENT [Non-Voting]

Gil Botello, San Bernardino Valley Municipal Water District Governing Board [via - zoom]
Joe Mouawad, Eastern Municipal Water District General Manager [via - zoom]

STAFF PRESENT

Jeff Mosher, Karen Williams, David Ruhl, Dean Unger, John Leete, Sara Villa, Shavonne Turner

OTHERS PRESENT

Andrew D. Turner, Lagerlof, LLP; Derek Kawaii, Western Municipal Water District; Bruce Whitaker, Orange County Water District; Tammie Myers, Monte Vista Water District

1. CALL TO ORDER | PLEDGE OF ALLEGIANCE

The Regular Meeting of the PA 24 Committee was called to order at 10:42 a.m. by Chair T. Milford Harrison's location, Hotel La Jolla, Curio Collection by Hilton, 7955 La Jolla Shores Drive, Room #308, La Jolla, CA 92037 on behalf of the Santa Ana Watershed Project Authority, 11615 Sterling Avenue, Riverside, CA 92503.

2. ROLL CALL

3. PUBLIC COMMENTS

There were no public comments; there were no public comments received via email.

4. ITEMS TO BE ADDED OR DELETED

There were no added or deleted items.

5. CONSENT CALENDAR

A. APPROVAL OF MEETING MINUTES: JULY 2, 2024

Recommendation: Approve as posted.

MOVED, to approve the Consent Calendar as posted.

Result:	Adopted by Roll Call Vote
Motion/Second:	Gardner/Hall
Ayes:	Gardner, Hall, Harrison, Slawson
Nays:	None
Abstentions:	None
Absent:	None

6. COMMITTEE DISCUSSION/ACTION ITEMS

A. INLAND EMPIRE BRINE LINE RESERVE FUNDS REVIEW (PA24#2024.16)

Karen Williams provided a presentation titled Inland Empire Brine Line Reserves Funds Review, contained in the agenda packet on pages 23-34. A brief overview of the Brine Line Reserve Policy (Policy) was provided. As per the approved Policy, funding above the target levels in the reserve funds will be discussed and approved by the PA 24 Committee and the Commission annually and during the biennial budget adoption process. Reserves under the target level, staff will involve member agencies in reviewing the timing for each reserve to achieve the target and will bring the evaluation of reserves above the targets to the PA 24 Committee and the Commission in August each year.

SAWPA currently maintains six (6) distinct reserve funds that pertain to the Brine Line. The six (6) reserve funds are as follows:

1. R-01 Brine Line Operating Reserve
2. R-02 Brine Line Debt Retirement Reserve
3. R-04 Pipeline Capacity Management Reserve
4. R-05 OC San Future Treatment & Disposal Capacity Reserve
5. R-06 OC San Pipeline Rehabilitation Reserve
6. R-07 Brine Line Replacement and Capital Investment Reserve

Ms. Williams provided a brief breakdown for each of the six (6) reserve funds. The R-01 Brine Line Operating Reserve, the target set for this reserve was \$2,179,659 for FYE 2024. The target level set for this reserve is 25% of total operating expenses each year. Interest is earned each quarter and is based on the average monthly balance. It is recommended that the target level for this reserve be changed to \$2,291,108 based on budgeted operating expenses of \$9,164,430 for FYE 2025. The R-02 Debt Retirement, the target set for this reserve is \$1,709,476. The target level set for this reserve is equivalent to the annual debt service payments and is required per the SRF Loan agreements. Interest is earned each quarter and is based on the average monthly balance. Currently, this reserve is over the target. The staff's recommendation is to allow R-02 to continue to earn interest and keep a balance over the target level.

The R-04 Pipeline Capacity Management, the target set for this reserve is \$9,735,454. The target level set for this reserve is equal to 25% of the annual average CIP project costs associated with managing pipeline capacity. Interest is earned each quarter and is based on the average monthly balance. Currently, this reserve is over the target. The staff's recommendation is to allow R-04 to continue to earn interest and keep a balance over the target level. The R-05 OC San Future Treatment and Disposal Capacity, the target set for this reserve is \$1,842,396. The target level set for this reserve was the June 30, 2022, reserve balance. Interest is earned each quarter and is based on the average monthly balance. Funds in this reserve are from treatment capacity purchases from San Bernardino Valley Municipal Water District. These funds will be used to purchase treatment & disposal capacity from OC Sanitation District. The current price to purchase

1 MGD of treatment & disposal capacity is \$7.4 million. Currently, this reserve is over the target. The staff’s recommendation is to allow R-05 to continue to earn interest and keep a balance over the target level.

The R-06 OC San Pipeline Rehabilitation, the target set for this reserve is \$7,250,000. The target level set for this reserve is based on SAWPA’s share of future OC San capital project costs. Currently this reserve is at \$2,880,674, which is below the target level. During the FYE 2024 and 2025 budget process, contributions to this reserve were set at \$325,309 and \$155,786. Interest is earned each quarter and is based on the average monthly balance. This reserve and future contributions will be reviewed during the FYE 2026 and 2027 budget process. The R-07 Brine Line Replacement and Capital Investment, the target set for this reserve is \$42,911,000. The target level set for this reserve is based on three components (Resiliency, CIP, and Renew and Replacement) and is reviewed each year. After the review by Engineering, the new maximum target needs to be set to \$46,364,000 based on the current CIP. Currently this reserve is at \$34,346,201, which is below the target level. During the FYE 2024 and 2025 budget process, contributions to this reserve were set at \$1.9 million each year. Interest is earned each quarter and is based on the average monthly balance. This reserve and future contributions will be reviewed during the FYE 2026 and 2027 budget process.

Ms. Williams noted that with PA 24 Committee approval, this item will be brought forward for Commission approval at the next meeting.

MOVED, that the PA 24 Committee approve the following:

1. For R-01 Brine Line Operating Reserve set target to \$2,291,108 based on 25% of total operating expenses of \$9,164,430 for FYE 2025 (increase of \$111,449) and continue to accrue interest, and
2. For R-07 Pipeline and Replacement and Capital Investment Reserve set the minimum and target limits to \$18,884,000 and \$46,364,000 based on the new CIP amount of \$69 million, based on Engineering’s review, and
3. Approve the funding levels (as of June 30, 2024) above the target levels and continue to accrue interest in FYE 2025 for the following reserve funds:
 - a. R-02 Brine Line Debt Service Reserve
 - b. R-04 Pipeline Capacity Management Reserve
 - c. R-05 OC Future Treatment & Disposal Capacity Reserve

Result:	Adopted by Roll Call Vote
Motion/Second:	Slawson/Gardner
Ayes:	Gardner, Hall, Harrison, Slawson
Nays:	None
Abstentions:	None
Absent:	None

B. INLAND EMPIRE BRINE LINE MASTER PLAN UPDATE (PA24#2024.17)

David Ruhl provided a presentation titled Inland Empire Brine Line Master Plan (Master Plan) Update, contained in the agenda packet on pages 41-74. The Master Plan aims to guide the effective management and expansion of the Brine Line to best serve the Santa Ana River Watershed, Member Agencies, and Brine Line dischargers. It also seeks to address infrastructure needs for handling increasing salinity levels and evolving regulatory demands.

The Master Plan's objectives include identifying potential regional markets for future dischargers, assessing the Brine Line system's capacity under various flow conditions, and developing improvements to address any identified deficiencies. Additionally, it outlines potential capacity management strategies to optimize the regional use of the Brine Line.

Mr. Ruhl provided an overview of the Master Plan report organization and highlighted the summary of work and key findings for the following: 1) Market Assessment and Future Flow Projections, 2) Hydraulic Model Update and Calibration, 3) Brine Line System Capacity Analysis, 4) Capacity Management and Long-Term Planning Efforts, Brine Line Multi-Use Benefits, and 5) Future Facilities, Improvement, and Expansion.

Member Agency and stakeholder meetings were conducted over a one-year period from February 2023 through February 2024. Information was obtained on the brine management needs of each agency including groundwater desalination, wastewater desalination and industries that have a high salinity discharge. Information obtained from the stakeholder meetings was used to quantify the discharge projections over a defined period. Discharge projections were broken down into the Near – Term (1 – 10 years), Long – Term (11 – 35 years) and Build – Out (greater than 35 years).

Key findings with respect to the market assessment and future growth expectations include:

- Potable water production and RO concentrate from groundwater desalters and ion exchange desalters maintain the largest discharge to the Brine Line by volume for all planning periods.
- Wastewater desalination, which includes RO treatment of recycled water for discharge or indirect potable recharge increases by 500% over the planning period.
- Dry weather flow diversions that have a high salinity have a potential discharge to the Brine Line in the long term.
- Industrial discharges have a moderate increase while power generation and domestic flows remain about the same through the planning period.
- Additional treatment and disposal capacity will be required to accommodate future growth. It is projected that further capacity purchases will be needed in 2026, 2034, 2042, and 2051.
- Future growth in the two (2) Member Agency services areas is expected to exceed their current capacity in the Brine Line.

The existing and future Brine Line System Capacity Analysis conditions were modeled utilizing the calibrated hydraulic model, growth projections and planning periods previously defined. Key findings with respect to the Brine Line System Capacity Analysis include:

Existing Discharge Capacity (June 2023)

- All gravity flow pipelines maintained a d/D below 0.75
- Pressures and velocities remain within design limits

Near-Term Discharge Capacity (2023-2033)

- Same as existing discharge capacity.

Long-Term Discharge Capacity (2034-2058)

- Portions of Reaches IV-D, IV-A, and IV are projected to exceed d/D criteria.
- Maximum pressures and velocities remain within design limits, though closer to thresholds.

Buildout Discharge Capacity (Beyond 2058)

- Additional segments are expected to exceed d/D criteria, with increased risks of surcharging and overflows.
- Higher flows necessitate potential infrastructure improvements to prevent system deficiencies.

Ownership Discharge Capacity

- Similar to Long-Term and Buildout scenarios, specific segments are projected to exceed the d/D criterion, requiring monitoring and potential upgrades.
- Maximum pressures and velocities remain within acceptable ranges but approach critical limits.

The anticipated improvements to address findings for the Brine Line Capacity Analysis are the following:

- Critical infrastructure was identified on Reach IV, Reach IV-A lower and Reach IV-D.
- Implement smart manhole covers for real-time monitoring of critical segments to proactively manage and mitigate potential overflows and system failures.
- Continue to evaluate and monitor segments that flow 75% to 100% full.

Mr. Ruhl noted that key findings and recommendations with respect to the capacity management and long-term planning efforts include:

- Brine minimization is necessary by 2065.
- In-line centralized brine concentration approach was not considered to be feasible. However, advancements in treatment technologies and treatment requirements for emerging constituents of concern could change this finding.
- It may be more economical to remove PFAS from a few select dischargers rather than treating the Brine Flow at a centralized treatment facility.
- Evaluate the viability of point source PFAS treatment using a smaller scalable system, after performing PFAS sampling from individual dischargers.
- Conduct future study to more thoroughly assess the feasibility of Brine Line storage reservoirs.
- Conduct future studies and pilot projects to evaluate brine management technologies.
- Conduct a pilot study to better understand and manage PFAS concentrations in the Brine Line.

Mr. Ruhl noted that the future facilities, improvements, and expansions are the following:

- Pipeline Capacity Improvement Projects
- Operation and Maintenance Projects
- System Monitoring Projects
- Expansion Areas
 - EMWD / WMWD Service Area: Southern Riverside County Regional Brine Line
 - IEUA Service Area: Intertie with North System and Chino Basin Program
 - SBVMWD Service Area: Regional Recycled Water Facilities Project
 - WMWD Service Area: City of Riverside Recycled Water Desalination Plant
- On-going or Future Project Evaluations
 - Brine Minimization
 - PFAS Management
 - Green Hydrogen

Mr. Ruhl indicated that as brine discharges increase, SAWPA faces the challenge of maintaining and/or expanding the Brine Line system. To address this a variety of policy measures may be necessary to improve brine management and efficiency. These policies would address environmental, economic, and regulatory considerations to ensure sustainable and equitable brine management. Key policy areas for consideration include:

- Environmental Policies. Enhancing monitoring and reporting capabilities for continuous monitoring of brine discharges. Limits on brine discharge concentrations and constituents may be needed, particularly with emerging concerns (i.e., PFAS). Policies are intended to promote projects that restore and protect natural habitats, mandate advanced brine treatment technologies, and support stricter permitting processes for industries discharging brine.
- Economic Policies. Current practices require dischargers to bear the cost of facilities necessary for brine disposal, which can be cost-prohibitive. SAWPA may consider cost-sharing mechanisms, financial assistance programs, and infrastructure investments to upgrade brine treatment facilities. Incentives for sustainable brine management practices and revised fee structures to encourage reduction in brine discharge volumes may also be explored.
- Regulatory Policies. Updating permitting processes to include more requirements for brine management can help control Brine Line flows. Enhancing interagency collaboration and establishing a regional task force to coordinate efforts and share best practices can improve compliance and enforcement. Policies are intended to support innovative salinity control measures and advanced desalination or demineralization technologies.

The next steps and schedule for completion of the Master Plan is as follows:

Complete Draft Master Plan	August 2024
o Develop list of improvement projects and costs	
o Develop CIP	
Member Agency and Stakeholder Review Period	August – September 2024
Member Agency Stakeholder Workshop	September 2024
Incorporate comments / Final Draft	October 2024
Final Report to PA 24 Committee	November 2024

This item is to receive and file; no action was taken on agenda item no. 6.B.

7. INFORMATIONAL REPORTS

Recommendation: Receive and file the following oral/written reports/updates.

A. BRINE LINE FINANCIAL REPORT – MAY 2024

B. GENERAL MANAGER REPORT

There were no General Manager comments.

C. COMMITTEE MEMBERS COMMENTS

There were no Committee Member comments.

D. CHAIR’S COMMENTS/REPORT

There were no comments/reports from the Chair.

8. COMMITTEE MEMBER REQUESTS FOR FUTURE AGENDA ITEMS

There were no requests for future Agenda items.

9. CLOSED SESSION

There was no Closed Session.

10. ADJOURNMENT

There being no further business for review, Committee Chair T. Milford Harrison adjourned the Regular meeting at 11:36 a.m.

Approved at a Regular Meeting of the Project Agreement 24 Committee on September 3, 2024.

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T. Milford Harrison

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T. Milford Harrison, Chair

Attest:

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Sara Villa

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Sara Villa, Clerk of the Board