

Bunker Hill B Regional Recycled Water Salinity Management Feasibility Study

Basin Monitoring Program Task Force
March 24, 2025





Coalition Overview and Drivers



Bunker Hill B Regional Recycled Water Coalition

- ✓ Began meeting in May 2022 to collaborate on salinity management for recycled water recharge
- ✓ In March 2023, Coalition executed MOU and Cost Share Agreement for planning phase
- ✓ In February 2025, the Coalition issued the draft Feasibility Study for review by local stakeholders



SNRC Permit and Coalition Commitments



Sterling Natural Resource Center Waste Discharge Requirements

Agency: East Valley Water District

Consultant Support for Permitting: Rincon Consultants

Special Provision VIII (G): Mitigation to Prevent Cumulative Impacts to the Assimilative Capacity of Bunker Hill-B GMZ. Coalition shall:

- Feasibility Study scope by January 2024
- Feasibility Study by June 2025
- Salt Mitigation Implementation Plan by December 2025
- Initiate design of TDS strategy by December 2027
- Initiate construction of TDS strategy by December 2031

Bunker Hill Basin Regional Recycled Water Coalition

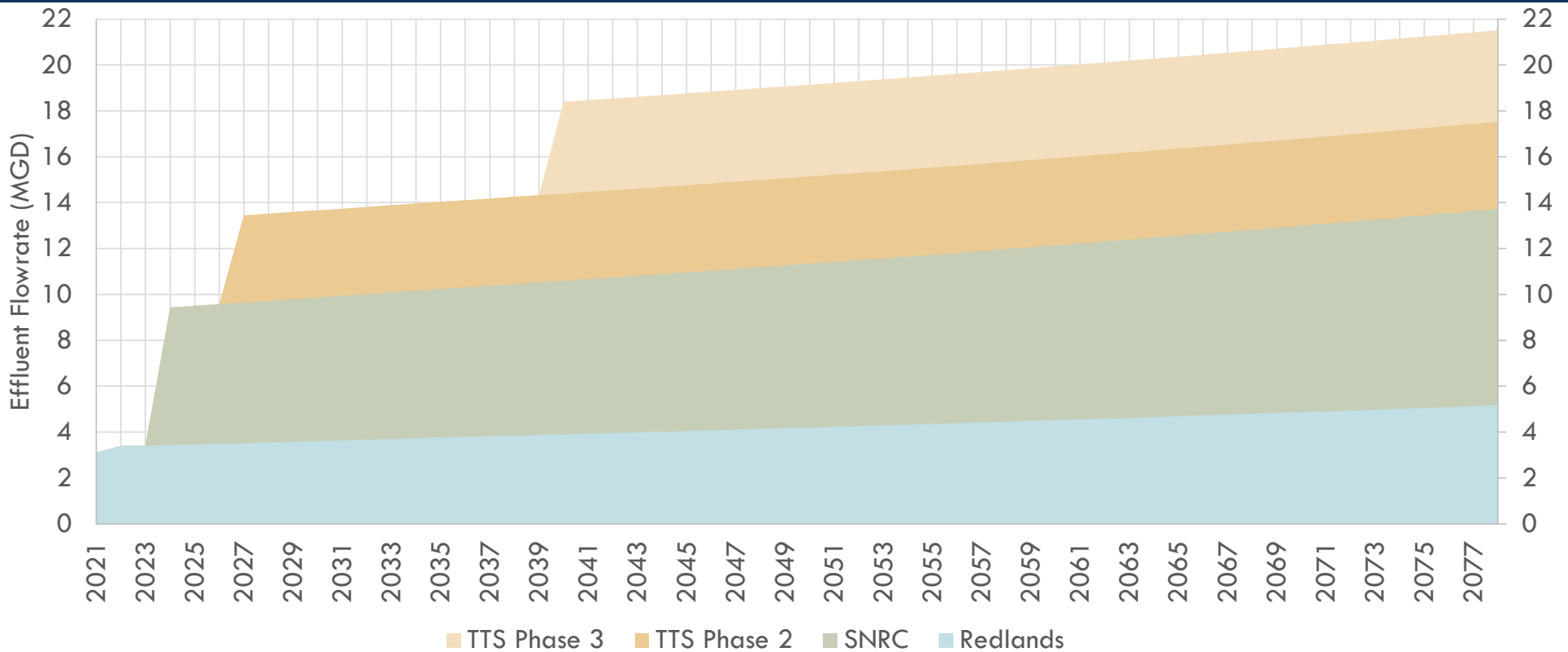
Agencies: San Bernardino Valley, East Valley Water District, City of Redlands, San Bernardino Municipal Water Department

Consultant Support for Program Management and Implementation Plan: Rincon Consultants

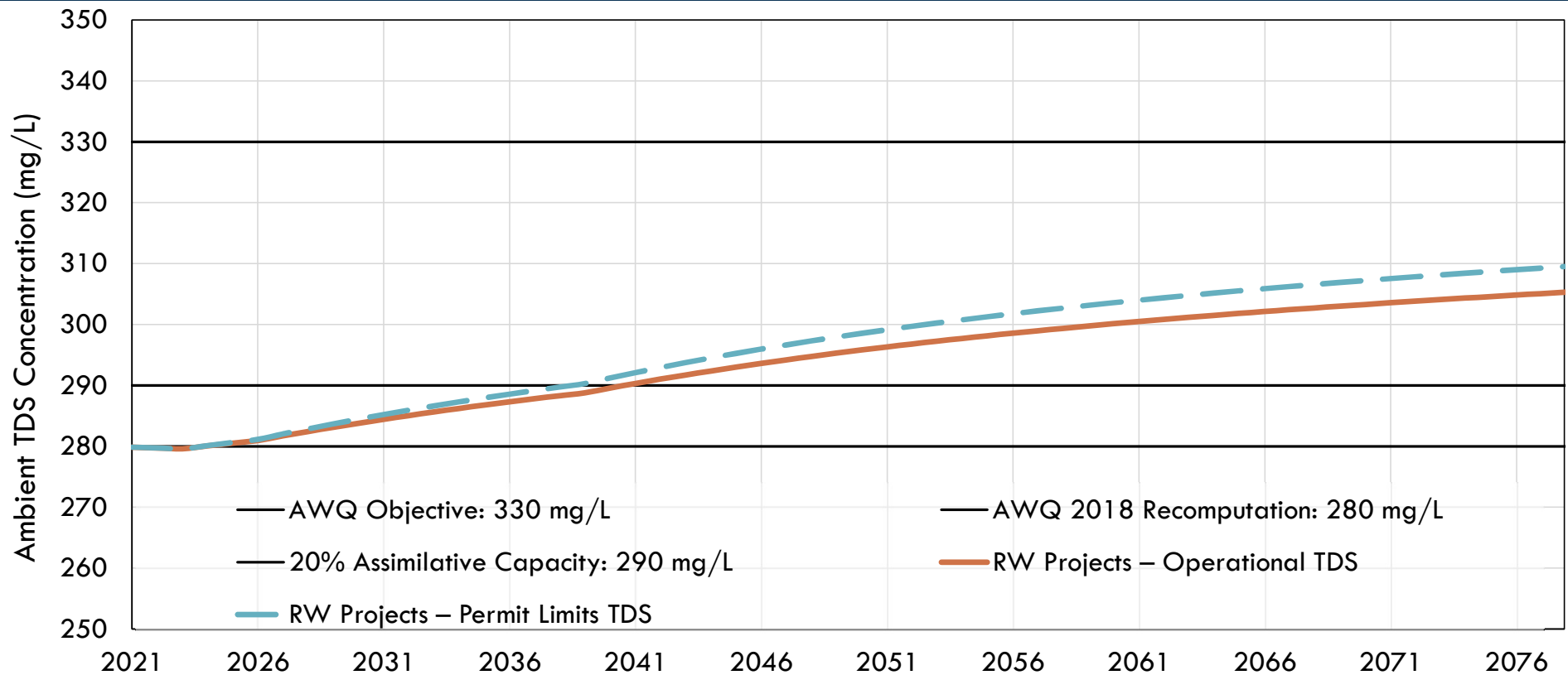
Consultant for Bunker Hill Basin Regional Recycled Water Salinity Management Feasibility Study: WSC, Trussell Technologies
Alternatives process is considering:

- 3 near-term regional desalter alternatives
- Subregional SNMP alternative (future desalter + near term commitments)


Total Projected Recycled Water Discharge to Bunker Hill B GMZ





Projected Ambient Total Dissolved Solids (TDS) Concentration in Bunker Hill B GMZ




Alternatives Considered in Feasibility Study


 Optimize potable water sources for TDS management

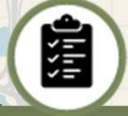
 Regional Desalter at or near SNRC to treat combined TTS and SNRC flows requires brine line lateral extension

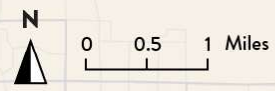
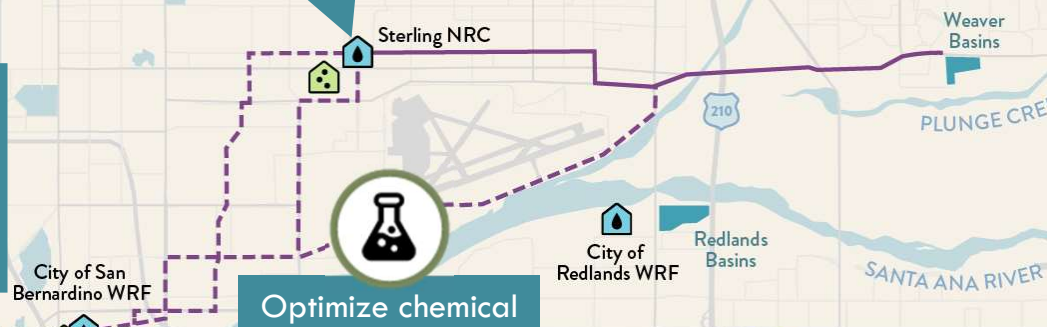
 Continued or expanded recharge of low TDS water upstream (evaluated as part of SNMP)





 Regional Desalter at TTS to treat TTS flows only and discharge brine to existing brine line connection.

 Optimize chemical use within existing treatment plants

 Reduce TDS discharges into the wastewater collection systems

 Pursue regulatory mechanism to use more assimilative capacity, including Subregional SNMP and/or increase TDS objective through a "Maximum Benefit" process



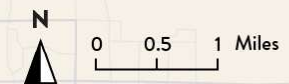
-  WRF
-  Potential Regional Desalter
-  Regional Recycled Water Pipeline
-  Alternative Recycled Water Pipeline
-  San Bernardino Groundwater Basin
-  Recharge Basins

Alternatives Evaluated in Feasibility Study

Regional Desalter at TTS to treat TTS flows only and discharge brine to existing brine line connection.

Regional Desalter at or near SNRC to treat combined TTS and SNRC flows requires brine line lateral extension

Pursue regulatory mechanism to use more assimilative capacity, including Subregional SNMP



- WRF
- Potential Regional Desalter
- Regional Recycled Water Pipeline
- Alternative Recycled Water Pipeline
- San Bernardino Groundwater Basin
- Recharge Basins

Preferred Desalter Alternative (Report Section 6.1)



Desalter Scenario 2

SNRC Recharge
Redlands Disposal
SBMWD TTS Phase 2 Recharge

Alternative 2B
Desalter at TTS

- TTS was identified as the preferred location for a Regional Desalter
- Lower capital and unit cost relative to Regional Desalter at SNRC
- Existing brine line connection at SBWRP, does not require brine lateral
- Fewer community impacts
- Larger footprint available for construction and future expansion (if needed)
- Class 5 total capital cost: \$31,720,000



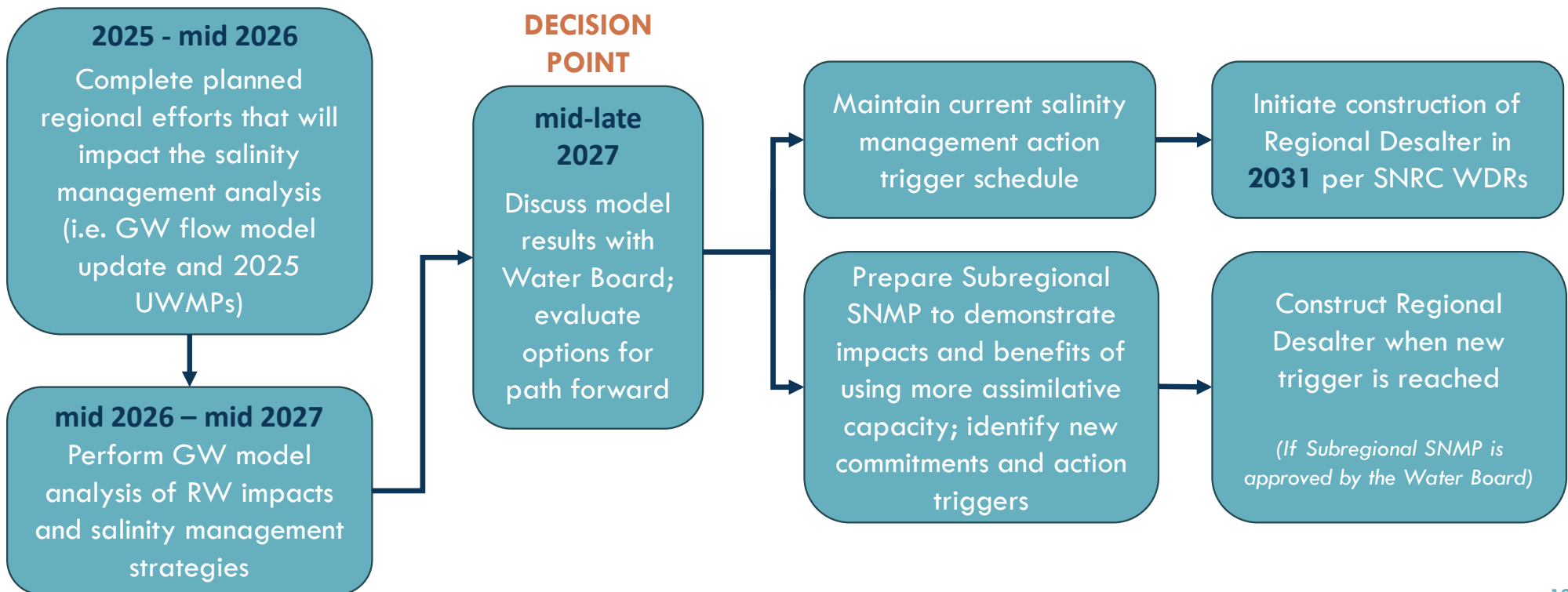
Proposed Path Forward



Background for Proposed Path Forward (Report Section 6.2)

- Cumulative Antidegradation Analysis spreadsheet tool was the basis for establishing the Coalition MOU and SNRC Permit commitments
- Since the Cumulative Antidegradation Analysis was developed, additional information has been or will soon be developed to inform salinity management strategies
- Recommend completing near-term activities on next slide to gather additional information, then updating the groundwater model analysis through the Upper Santa Ana SNMP Workgroup prior to implementing the selected salinity management strategies

Proposed Path Forward (Report Section 6.2)



Anticipated Requirements to Support Additional Assimilative Capacity Request (Subject to WB Approval)

1. Protect beneficial uses of the receiving groundwater body.
2. Maintain water quality consistent with maximum benefit to the people of the State.
3. Consider need to use recycled water, economics, need to develop housing.
4. *Implement projects to manage salinity (“commitments”), such as:
 1. Regional desalter
 2. Groundwater monitoring program expansion
 3. Low-TDS recharge program expansion

**Access to additional assimilative capacity is withdrawn/lost if not implemented to WB’s satisfaction*
5. Document analysis in a Subregional SNMP
6. Possible Basin Plan Amendment to reflect the decision to grant additional assimilative capacity, if approved by the Water Board

Feasibility Study Review

Link to Draft Feasibility Study:

<https://rinconconsultants.files.com/f/0ac5664ca6edfcd0>

Please send comments to

Rosalyn Prickett (rprickett@rinconconsultants.com)

by April 16, 2025.



Thank you!

