



**LOS ANGELES COUNTY  
SANITATION DISTRICTS**

*Converting Waste Into Resources*

# Purple Pipe to Pure Water: LACSD's Reuse Program

## WaterReuse LA Chapter Meeting

Suzanne Brown, Senior Engineer

December 3, 2024



OUR SERVICE AREA



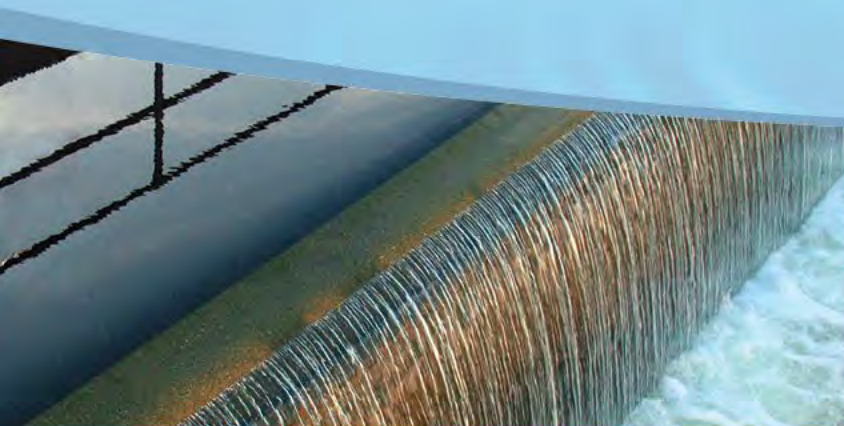


**LOS ANGELES COUNTY  
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# OUR MISSION

To protect public health and the environment through innovative and cost-effective wastewater and solid waste management and, in doing so, convert waste into resources such as recycled water, energy, and recycled materials.



WATER RECYCLING



GREEN ENERGY



MATERIALS RECYCLING



# Wastewater Facilities



*Collect and treat sewage from 5.6 million people*

## GOVERNANCE




24 special districts with one staff

## SERVICE AREA

78 cities & unincorporated county  
824 square miles

## INFRASTRUCTURE

1,400 miles of sewers  
11 wastewater treatment plants  
Ocean outfall system

-  Water Reclamation Plant
-  Wastewater Treatment Plant
-  Trunk Sewers
-  Sanitation Districts Service Area







# LACSD's Reuse Legacy

- > 1 trillion gallons recycled since 1962
- > 100 million gallons per day
- ~950 individual sites
- Partnerships with >30 cities and water agencies

*Groundwater Recharge*



*Industrial*



*Irrigation*







*California Country Club (Whittier)*



*Puente Hills Gas-to-Energy Facility (Whittier)*

# “Purple Pipe”: Non-potable Reuse



*The Old Road (Santa Clarita)*



*Apollo Park (Lancaster)*



*Antelope Valley Farms (Palmdale)*







SJC "East"  
WRP

SJC "West"  
WRP

# San Jose Creek Water Reclamation Plant(s)

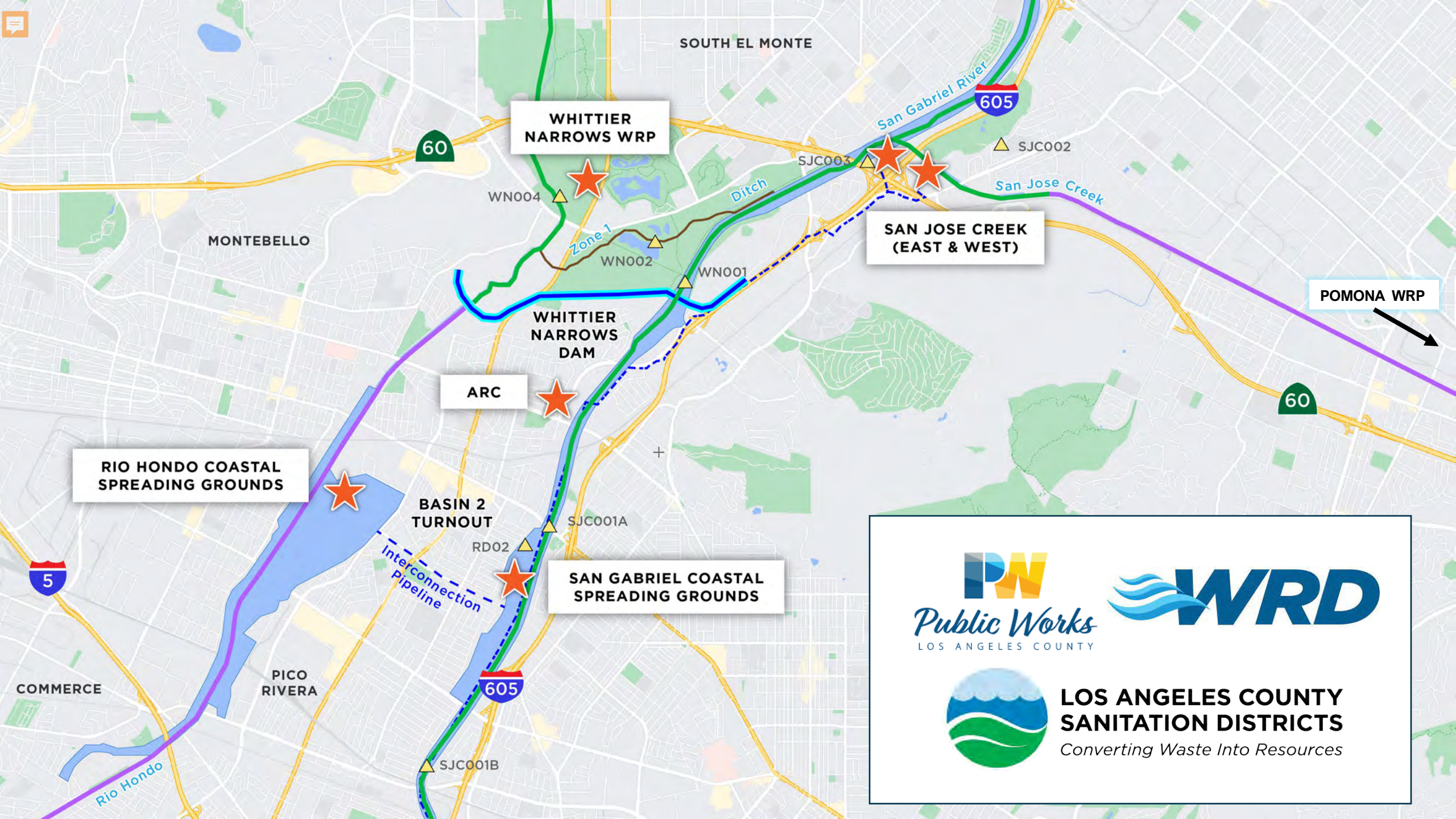
	SJC East	SJC West	Combined
Year Constructed	1971, expanded 1982	1993	n/a
Treatment Capacity	62.5 MGD	37.5 MGD	100 MGD
2023 Production	35.2 MGD	25.8 MGD	60 MGD
Quality	Disinfected Tertiary Recycled Water		

## Recycled water partners:

- City of Industry
- Rowland Water District
- Central Basin Municipal Water District
- Upper San Gabriel Valley Water District
- San Gabriel Valley Water Company
- California County Club
- Rose Hills Cemetery
- Puente Hills Landfill/Gas-to-Energy Facility
- WRD







**RIO HONDO COASTAL SPREADING GROUNDS**

**WHITTIER NARROWS WRP**

**SAN JOSE CREEK (EAST & WEST)**

**POMONA WRP**

**ARC**

**WHITTIER NARROWS DAM**

**SAN GABRIEL COASTAL SPREADING GROUNDS**

**BASIN 2 TURNOUT**



**LOS ANGELES COUNTY SANITATION DISTRICTS**  
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# Albert Robles Center (WRD)







# On the Horizon: Pure Water Projects

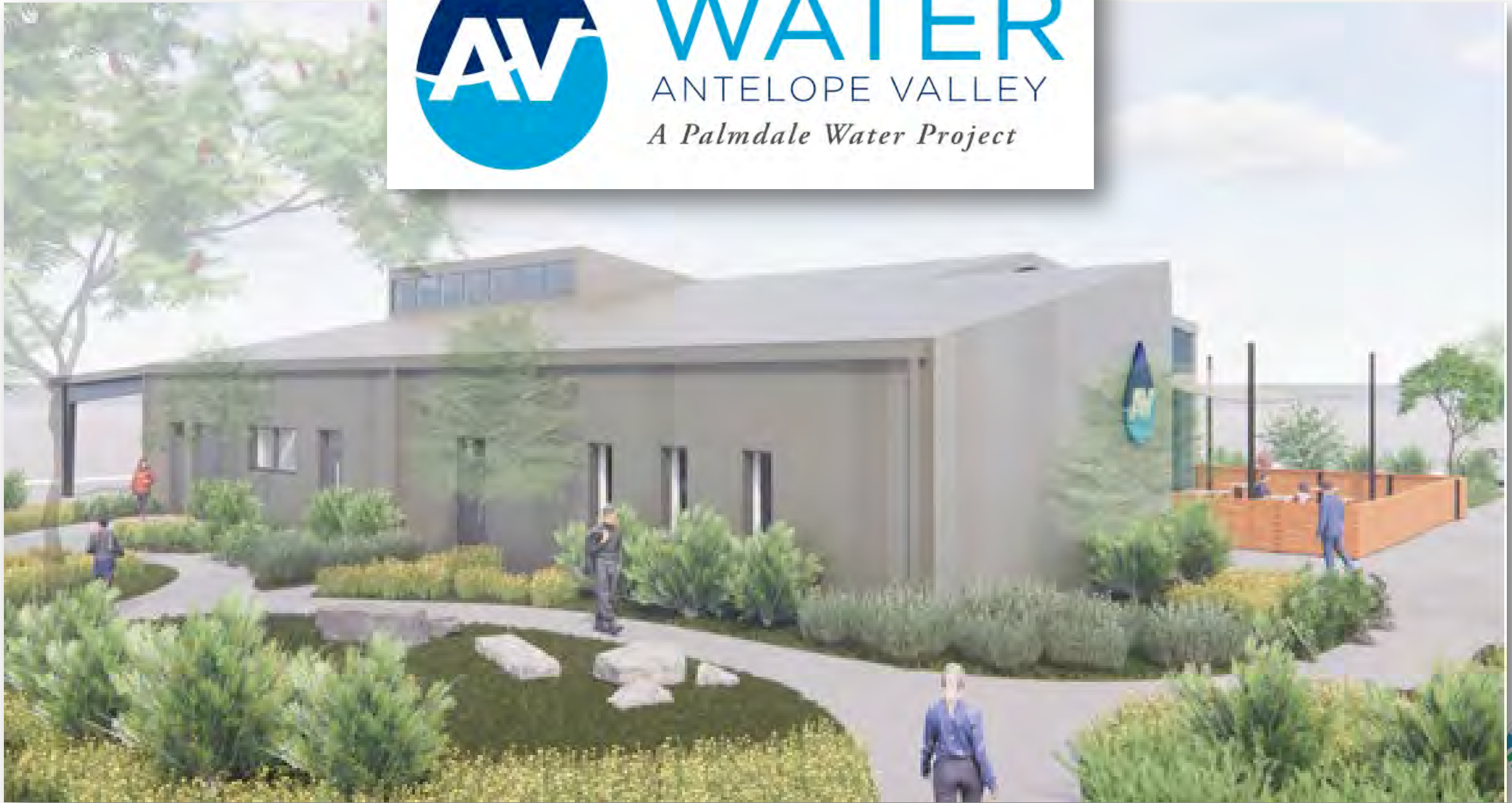






# PURE WATER

ANTELOPE VALLEY  
*A Palmdale Water Project*







A.K. Warren Water Resource Facility



Grace F. Napolitano Innovation Center

PUREWATER  
SOUTHERN CALIFORNIA







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# QUESTIONS?

**Suzanne Brown**  
Senior Engineer

[suzannebrown@lacsds.org](mailto:suzannebrown@lacsds.org)



OUR SERVICE AREA



- Approximate Pump Station Locations
- WTP (Water Treatment Plant)
- Warren Facility/Advanced Water Purification Facility
- ~ Backbone Pipeline
- ~ Existing SGVMWD Azusa Pipeline
- ~ DPR Pipeline
- ~ Existing Metropolitan Pipeline
- Spreading Facilities/Injection Wells





Salt and Nutrient  
Management Plan (SNMP)  
Recycled Water Regulatory Strategy to Comply with  
Non-Existent Objectives

**Upper Temescal Valley SNMP**



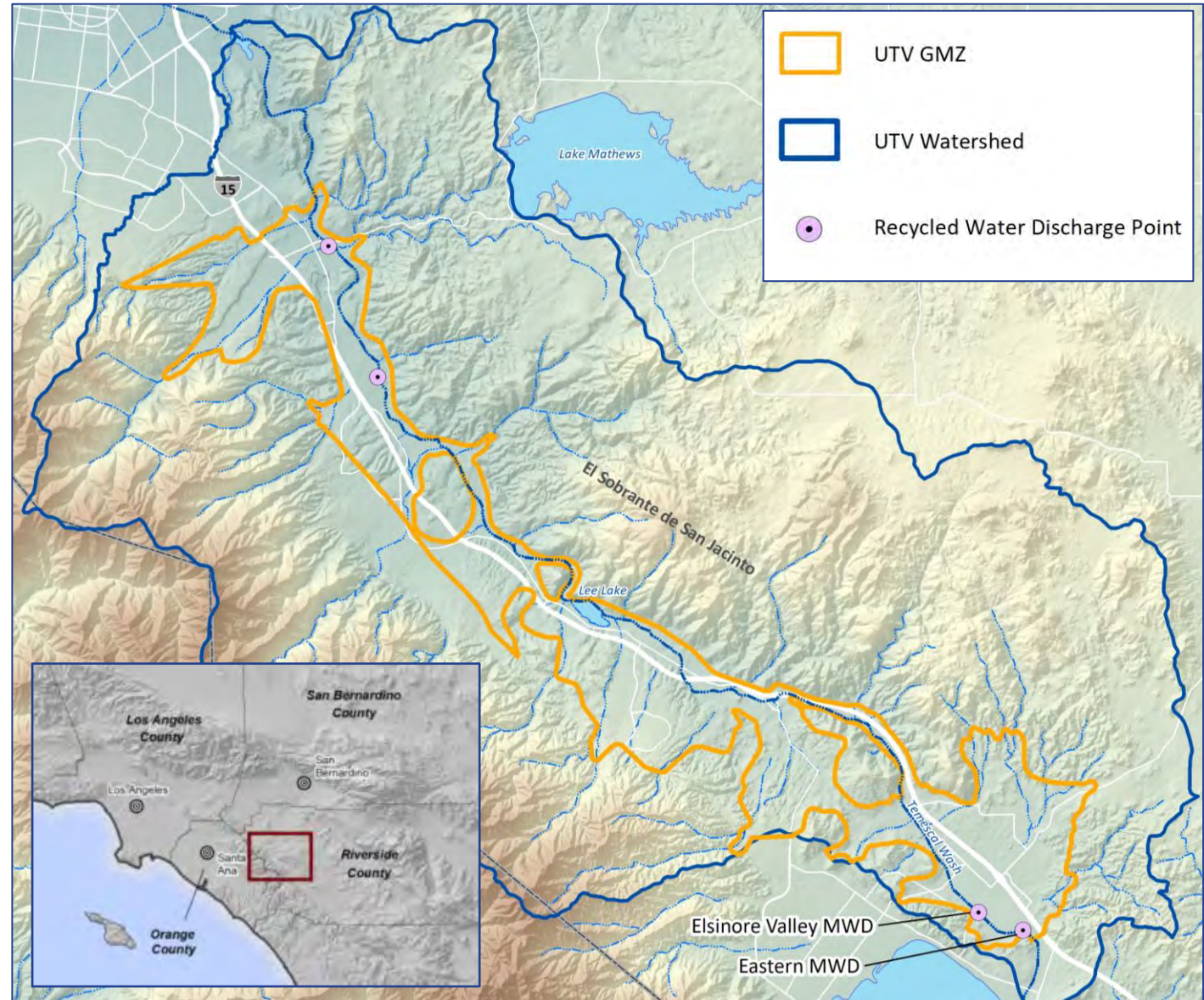
# Presentation Outline

- Background
- Development of the Upper Temescal Valley (UTV) SNMP
- Approval
- Implementation
- Key Takeaways



# Study Area

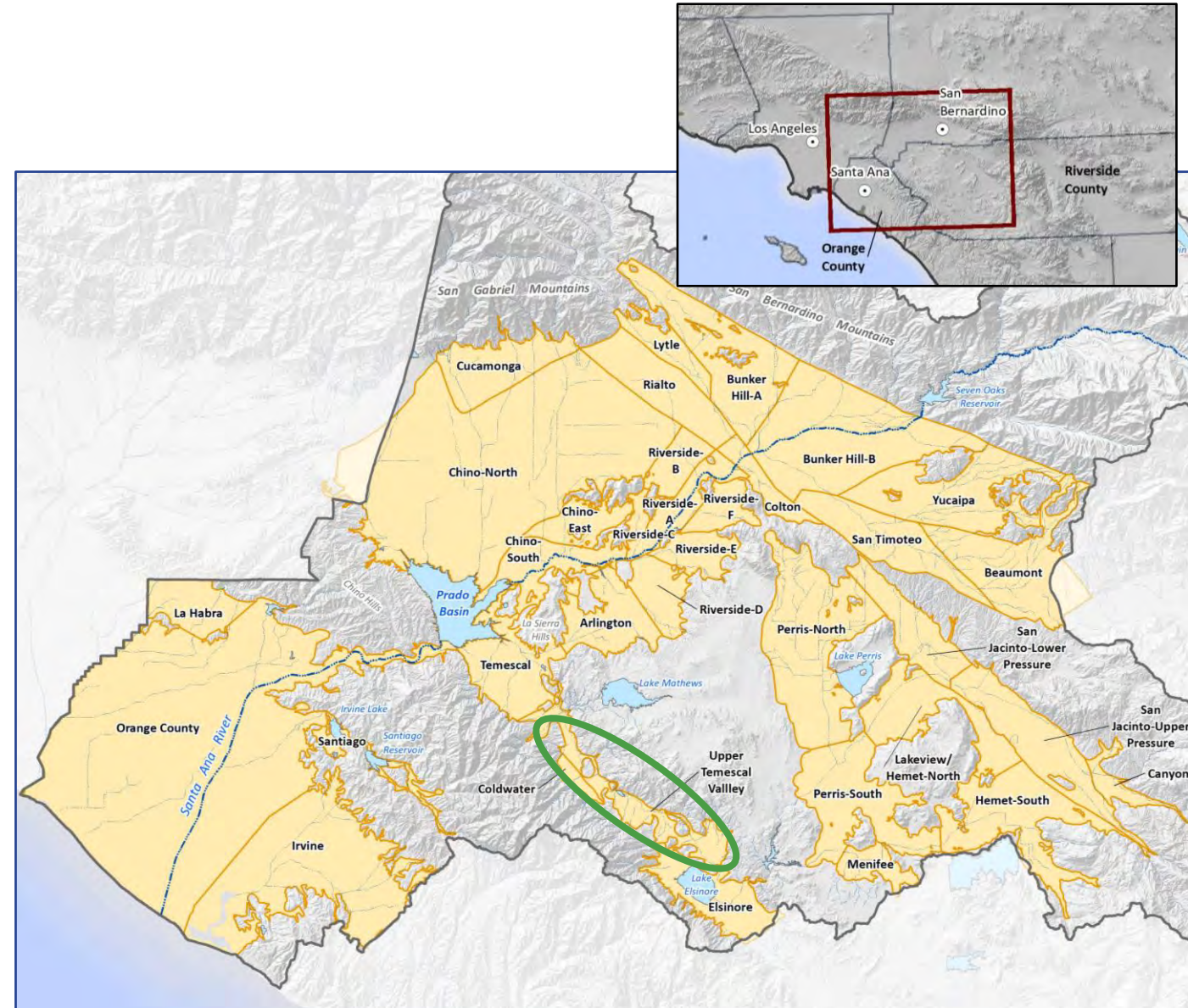
- UTV groundwater management zone (GMZ) is a 20-mile long, narrow and shallow alluvial basin
- UTV GMZ is drained by Temescal Wash
- Four permitted recycled water discharge points including Elsinore and Eastern's discharges





# Regulatory Setting

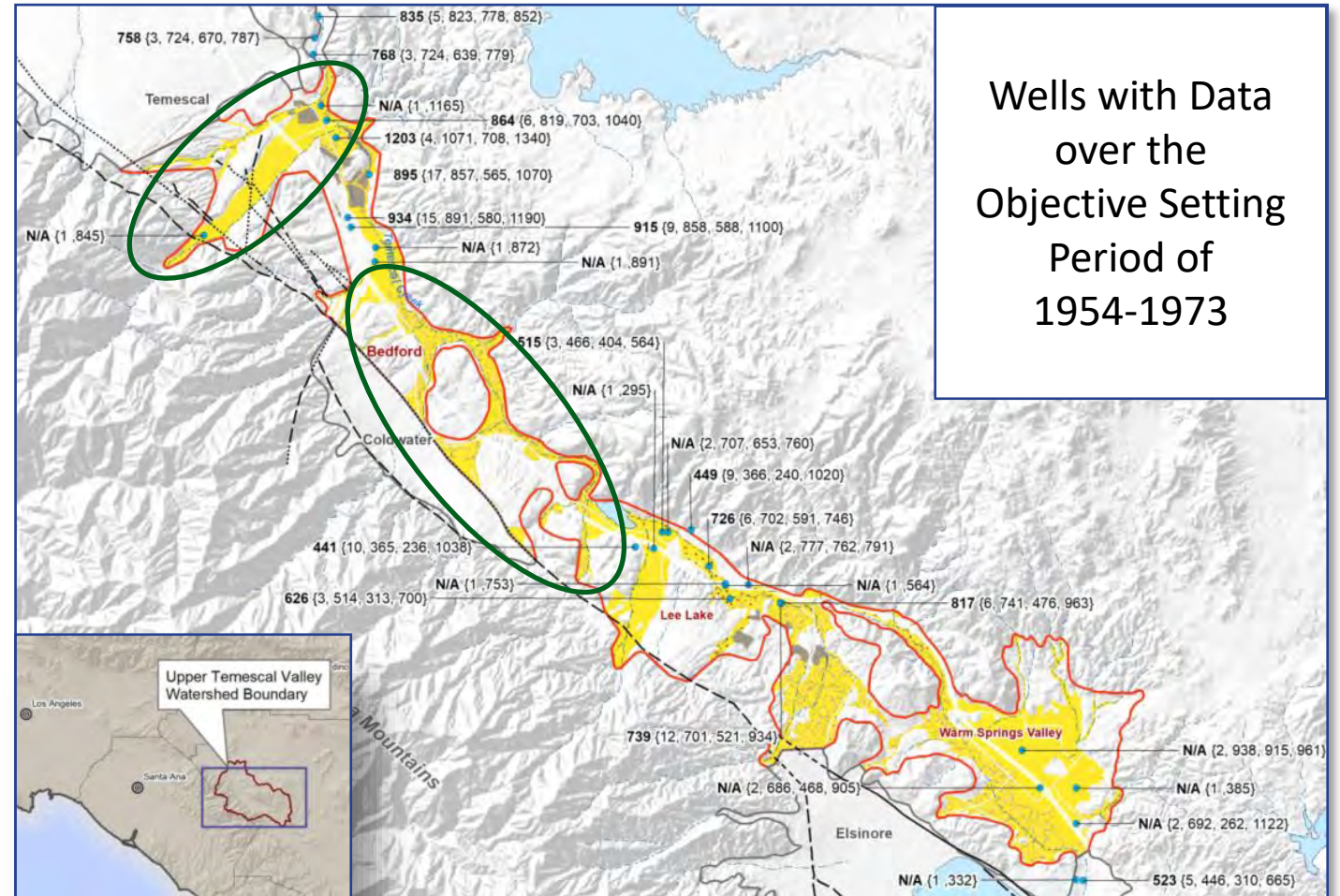
- Santa Ana Regional Water Quality Control Board (Regional Board) manages salinity by regulating recycled water activities
- **Objective:** Protect water quality consistent with antidegradation objectives defined in the Santa Ana Regional Water Quality Control Plan (Basin Plan)





# Regulatory Setting

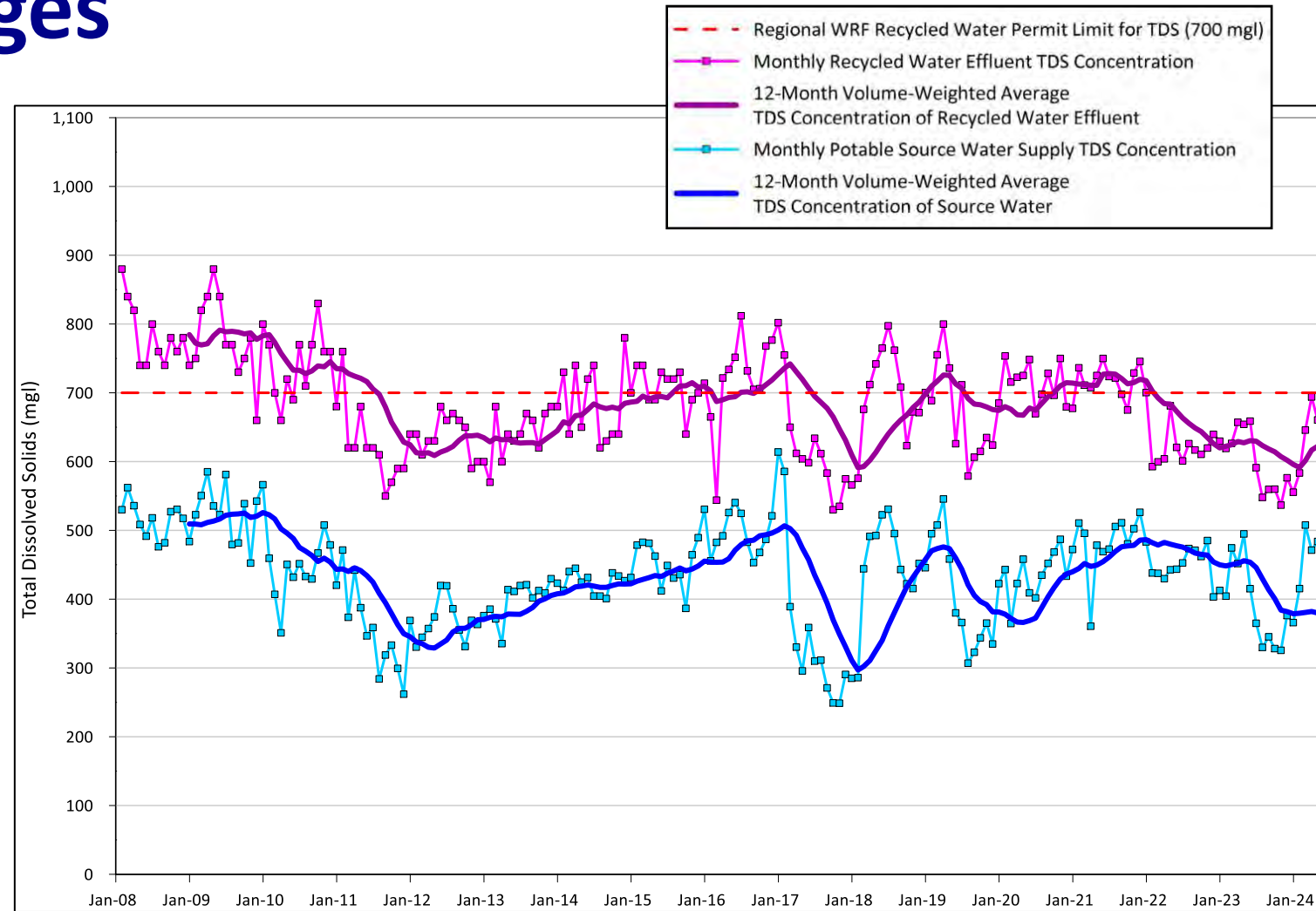
- Antidegradation objectives are based on historical data from 1954 to 1973
- Due to minimal historical data, the Regional Board did not establish water quality objectives for the UTV GMZ





# Regulatory Challenges

- TDS concentration in Elsinore and Eastern's recycled water discharges exceeded their permit limits
- The Regional Board required agencies to quantify the impact of their exceedances and propose salt offset program
- **How do you quantify impacts and develop salt offset plan with no objectives?**





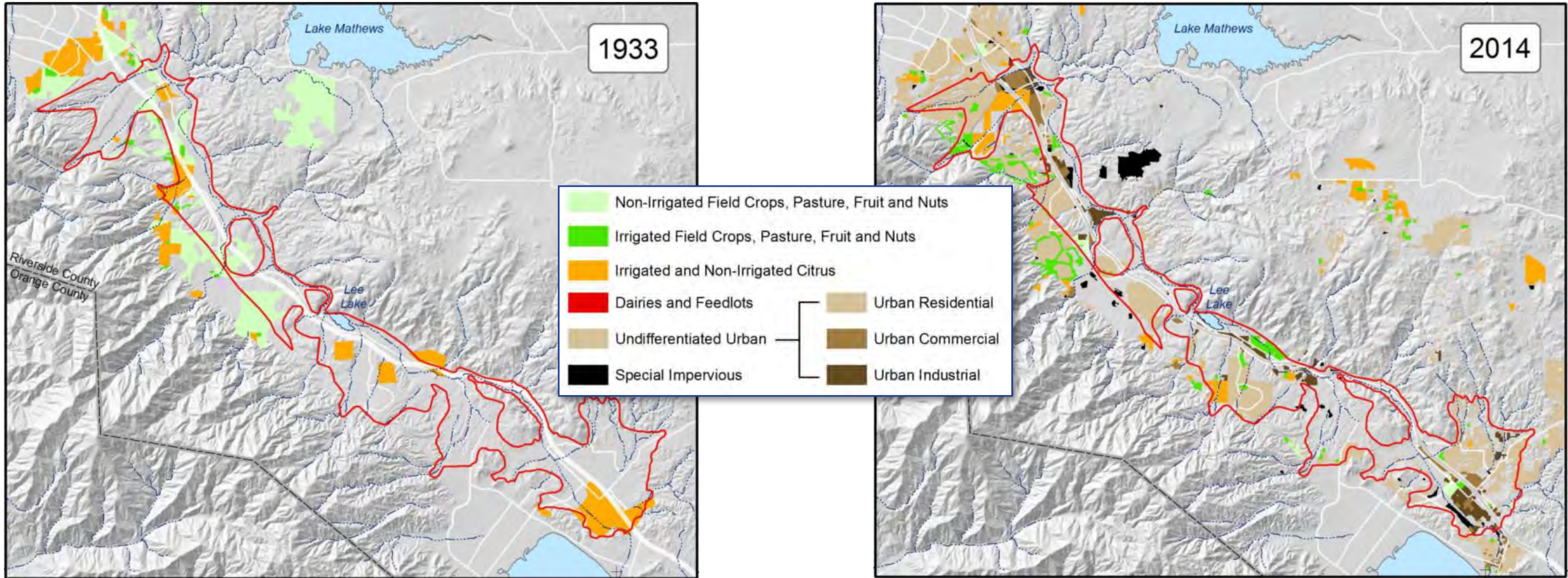
# Development of the UTV SNMP

To resolve their historic exceedances and ensure long-term protection of the beneficial uses and water quality in the UTV, the agencies collaborated and developed an alternative regulatory compliance strategy.





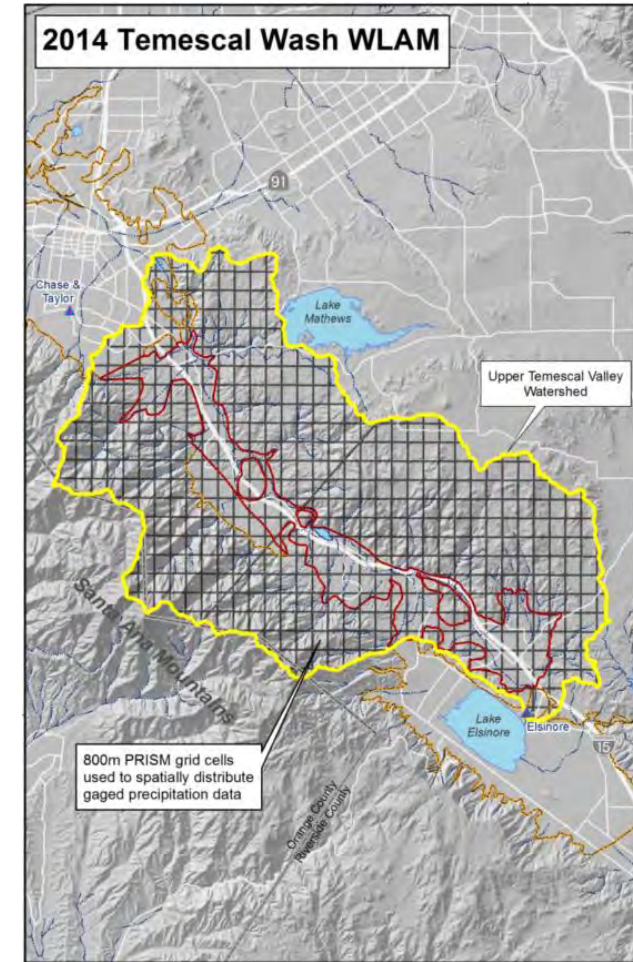
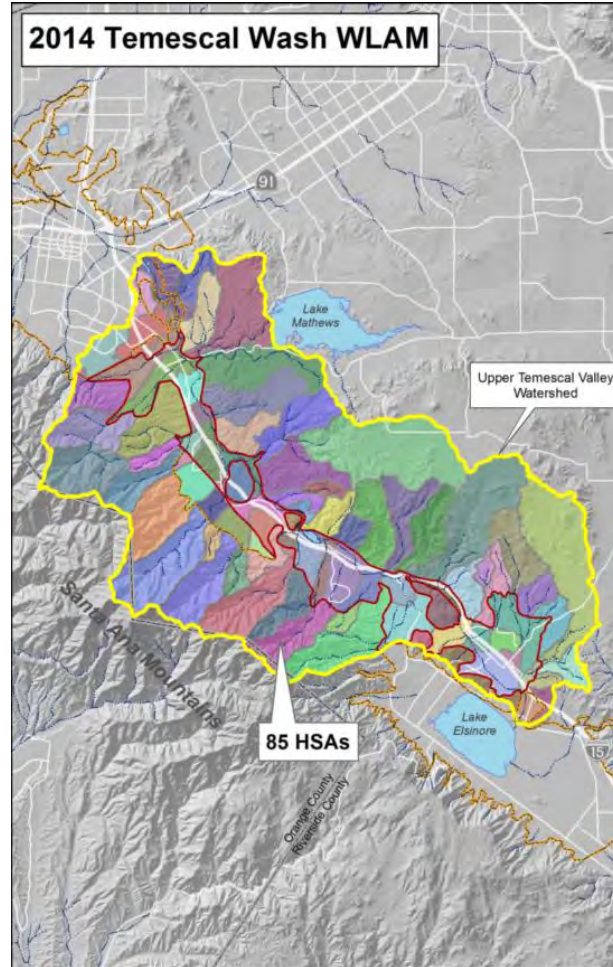
# Development of UTV SNMP



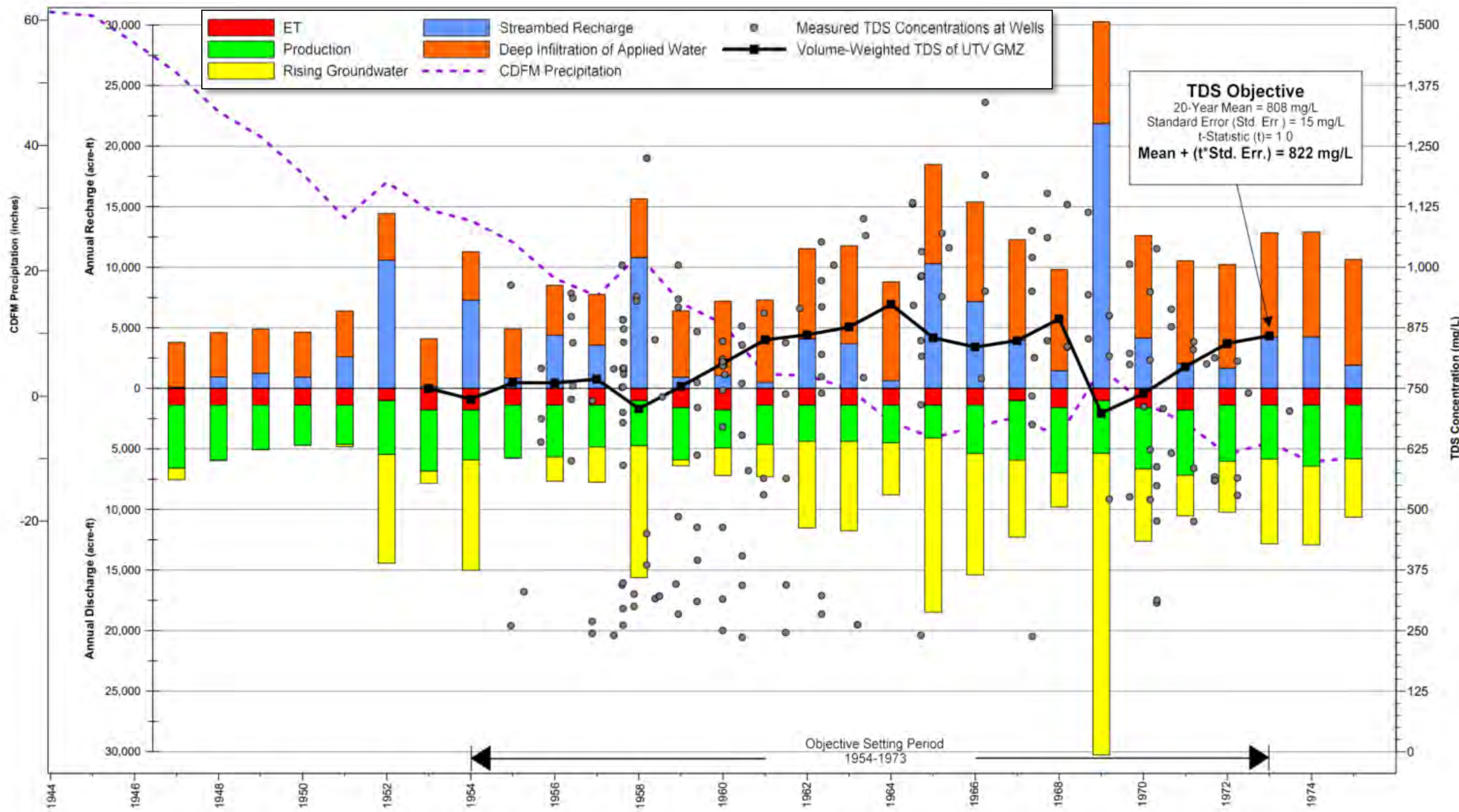


# Development of UTV SNMP

Refinement and recalibration a surface water model used to estimate stormwater runoff and streambed infiltration







ET  
 Production  
 Rising Groundwater  
 Streambed Recharge  
 Deep Infiltration of Applied Water  
 Measured TDS Concentrations at Wells  
 Volume-Weighted TDS of UTV GMZ  
 CDFM Precipitation

**TDS Objective**  
 20-Year Mean = 808 mg/L  
 Standard Error (Std. Err.) = 15 mg/L  
 t-Statistic (t) = 1.0  
 Mean + (t\*Std. Err.) = 822 mg/L

Objective Setting Period  
 1954-1973

CDFM Precipitation (inches)

Annual Recharge (acre-ft)

Annual Discharge (acre-ft)

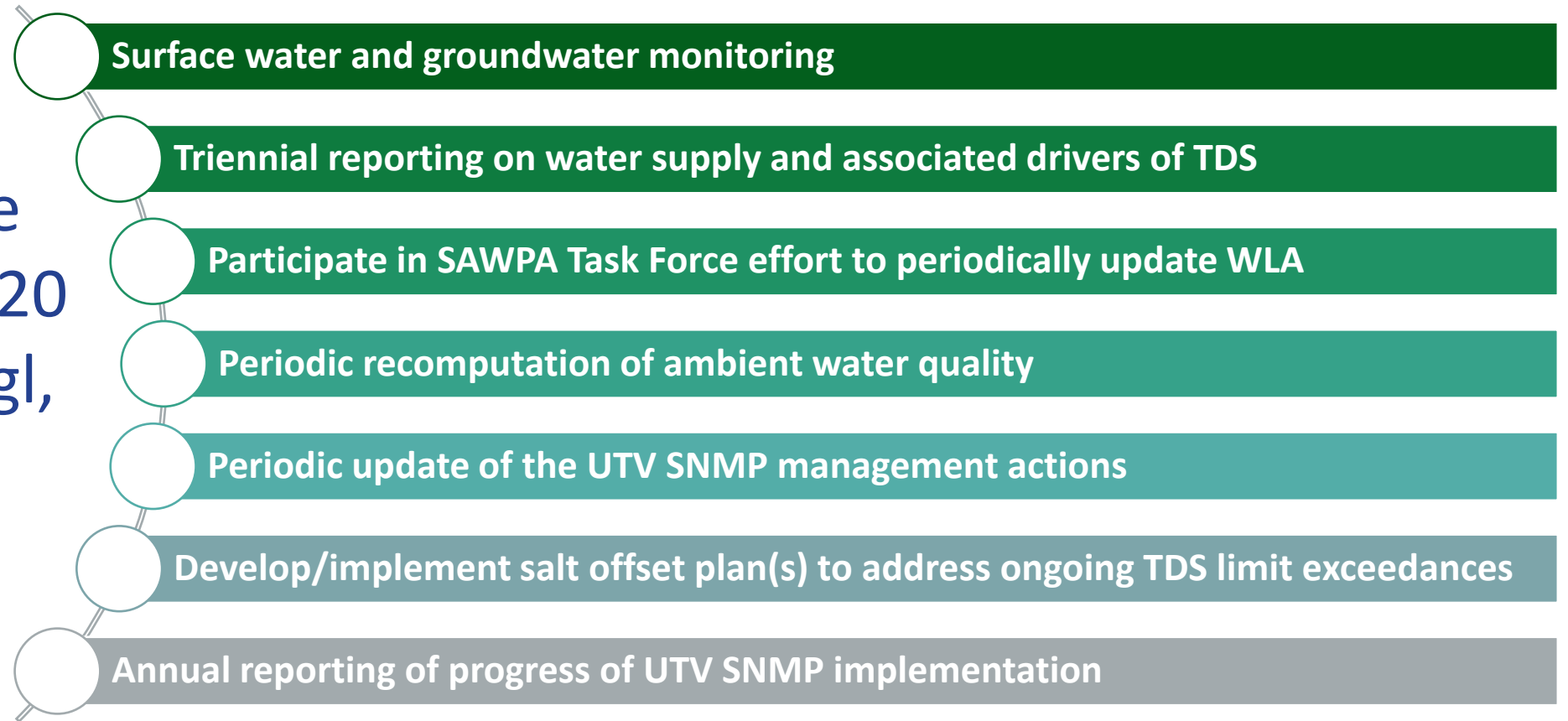
TDS Concentration (mg/L)

1944 1946 1948 1950 1952 1954 1956 1958 1960 1962 1964 1966 1968 1970 1972 1974



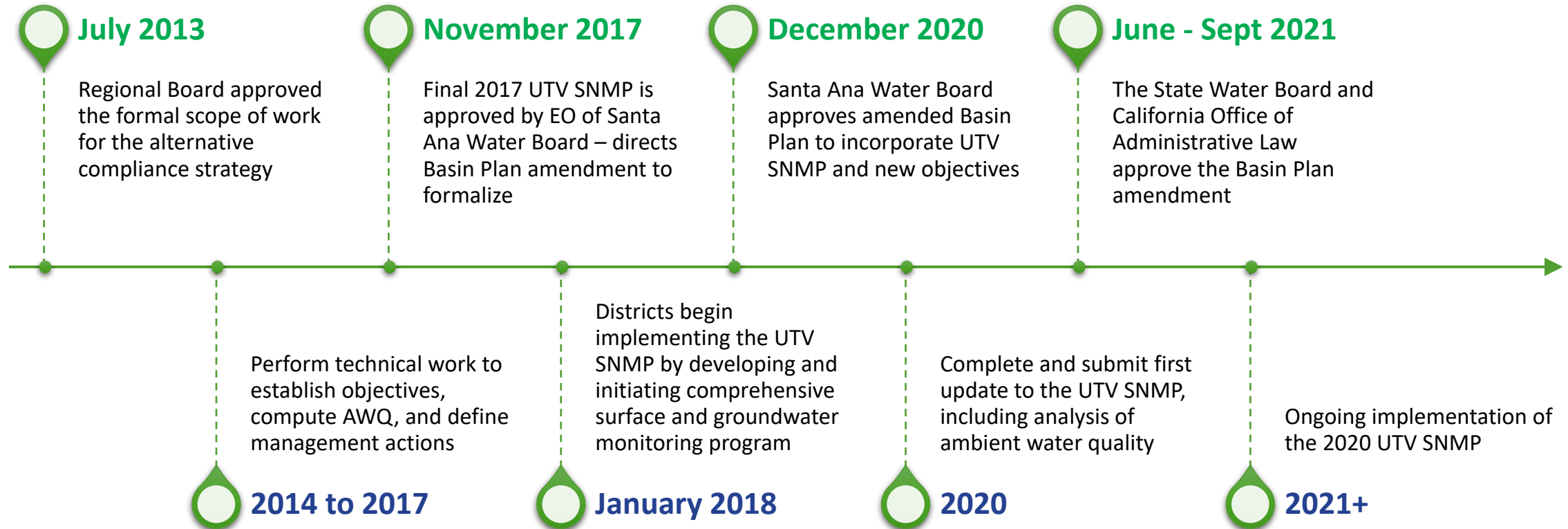
# Development of the UTV SNMP

TDS and nitrate objectives of 820 mg/l and 7.9 mg/l, respectively





# SNMP Development and Approval



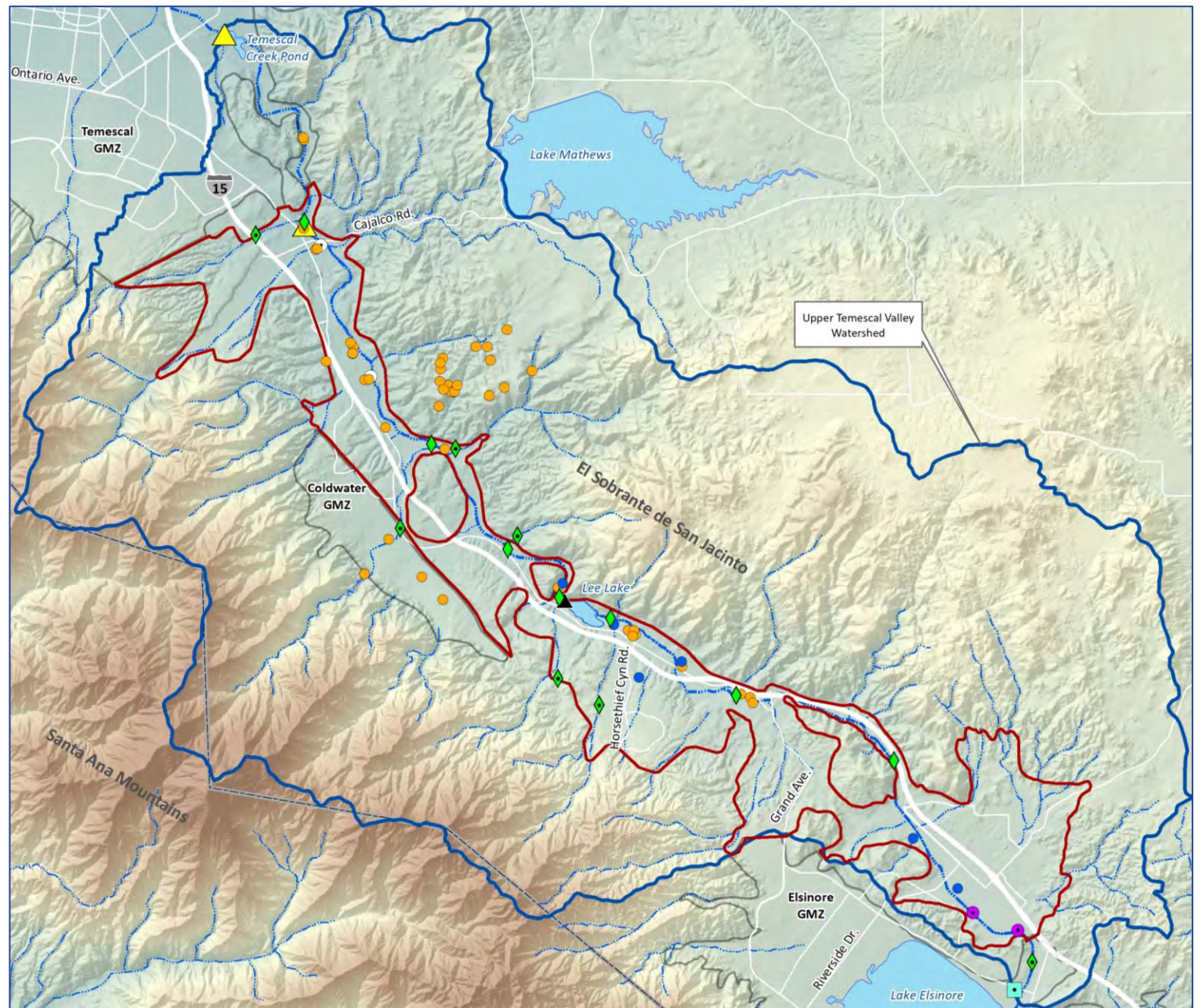


**Field Monitoring Locations**

- Groundwater Well
- ◆ Surface Water and Stormwater Site
- ◆ Dedicated Stormwater Site

**Cooperative Data Locations  
(Cooperator)**

- Groundwater Well (Multiple)
- ▲ Surface Water Discharge Gage (California Department of Water Resources)
- ▲ Surface Water Discharge Gage (United State Geological Survey)
- Precipitation Gage (County of Riverside Department of Flood Control)
- Active Recycled Water Discharge Point in 2023 (Multiple)
- Inactive Recycled Water Discharge Point in 2023 (Multiple)





# Key Takeaways

Developing compliance strategy for basin with limited historical data include:

- Alternative method that considers the known basin-specific hydrogeology and surface water-groundwater interactions
- Adaptive management plan
- Data collection to assess impacts and develop appropriate and cost-effective salt offset plan



# Thank You

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## Questions/Comments?

Sodavy Ou ([sou@westyost.com](mailto:sou@westyost.com))







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# WaterReuse Legislative Update, LA Chapter

**Phillip Vander Klay**

**Legislative Liaison, LACSD**

**December 03, 2024**



OUR SERVICE AREA



# Election Update

## New Representatives for LA County

- US Senator Adam Schiff
- 4 new representatives
- 4 new state senators
- 8 new assemblymembers

## Proposition 4 – AKA the Climate Bond





# Legislative Update

## Swearing in new members

- 70% of the legislature has served 4 years or fewer
- Lowered the bill limit to 35 per two-year session

## Special Session

- \$25 million in funding for Attorney General
- Taking more of a wait-and-see approach





# Legislative Outlook

Stable Budget Outlook – for now

Watch for Proposition 4 Bond Funding

WaterReuse Possible Legislative Proposals

- Updates to Title 22
- Recycled water impoundments
- Redefine unauthorized discharges of recycled water





# Possible Legislative Proposals

**Problem 1:** Outdoor eating areas cannot have any contact with recycled water.

**Problem 2:** Recycled water cannot be used in food handling or processing facilities even for toilet or urinal flushing.

**Problem 3:** A homeowners' association (HOA) that irrigates the outdoor landscaping of common space not part of an individual residences, although adjacent or near them, is a "dual sourced" property, but in many parts of the state are being treated as if they are "dual plumbed." The outdoor space near the residence is not owned by the homeowner.



# Chapter Trustee Updates

## WATEREUSE LA Chapter – December 3, 2024



Last Board of Trustees Meeting: November 8, 2024



### Strategic Planning Update

Katie Burkart, MatterLogic

Next Steps...

1. Survey Landscape
2. Q&A Sessions
3. Clarify direction and Growth
4. Develop 1<sup>st</sup> and 2<sup>nd</sup> drafts, Refine draft, Adopt and Implement



 WATEREUSE<sup>®</sup>  
STRATEGIC  
PLAN



# Chapter Trustee Updates

## WATEREUSE LA Chapter – December 3, 2024



**Last Board of Trustees Meeting:** November 8, 2024



### Proposed 2025 WRCA Special Projects

1. Water Loop Videos
  - Produce engaging video series to showcase the potential of waterreuse
2. Strategic Plan Implementation
  - Deliver the NEW strategic plan 1<sup>st</sup> quarter of 2025
3. Southern California Water Coalition Video
  - WRCA & SCWC to develop videos focused on improving perception of DPR
4. Reuse Implementation Set Aside
  - WRCA workshop 11/7/2025 focusing on implementation needs for DPR
5. Regulation Guidebook
  - WRCA to develop regulatory guidebook



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## WATEREUSE LA Chapter – December 3, 2024



Last Board of Trustees Meeting: November 8, 2024



### FY 2025 Proposed Budget

- FY 2024 (through 9/30/24) - \$1,414,216
- FY 2025 Proposed - \$1,276,519



### Contract with PC Events

- Meeting planner with experience in conference program development, Sponsorship, and Exhibit Hall management and event logistics.
- PC Events will provide services for WRCA's 2025 Annual Conference



### Contract with MatterLogic

- Strategic Plan Implementation



### Contract with WaterLoop

- WRCA Podcasts/videos





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### 2025 WaterReuse Symposium

- Tampa, FL – JW Marriot Tampa Water Street
- March 16<sup>th</sup> – 19<sup>th</sup> , 2025



### 2025 WaterReuse Annual Conference

- San Diego, CA – Town and Country Resort
- September 7<sup>th</sup> -9<sup>th</sup> , 2025



# LA Chapter Committee Updates

- Communications Committee  
*Oliver Slosser*  
[oslosser@lvmwd.com](mailto:oslosser@lvmwd.com)
- Rising Professionals Committee  
*Seto Cherchian*  
[SCherchian@mwdh2o.com](mailto:SCherchian@mwdh2o.com)
- Technical Topics Committee  
*Alex Franchi*  
[alex.franchi@aecom.com](mailto:alex.franchi@aecom.com)  
*Dinaz Kureishy*  
[dinaz.kureishy@santamonica.gov](mailto:dinaz.kureishy@santamonica.gov)
- Agricultural Committee  
*Seto Cherchian*  
[SCherchian@mwdh2o.com](mailto:SCherchian@mwdh2o.com)
- Recycled Water Users Manual  
*John Lockett*
- Ad Hoc Urban Irrigation Manual Update Committee  
*Monica Sanchez/LACSD*  
[monicasanchez@lacsds.org](mailto:monicasanchez@lacsds.org)  
*Erika Bensch/LACSD*  
*Jesus Gonzalez/LADWP*
- Meeting Summaries –  
Discontinued. *Materials will be available on LA Chapter website.*



# LA Chapter Board Elections 2025-2026

- Nominations from the Floor
- In accordance with our Chapter Bylaws, each dues-paying member organization will select one representative to cast a vote on their behalf.
- Please cast a hard copy ballot.
- Executive Committee Approved Slate:
  - President:** Jennifer Jacobus, Rincon Consultants
  - Vice President:** Everett Ferguson, WRD
  - Trustee:** Rafael Villegas, LADWP
  - Secretary/Treasurer:** Setrag Cherchian, Metropolitan



# Member Agency Roundtable