

# Meeting Agenda

October 13, 2026

11:00 a.m. – 1:00 p.m.



## Location: Los Angeles County Sanitation Districts (LACSD)

San Jose Creek Water Reclamation Plant

1955 Workman Mill Rd, Whittier, CA 90601

**For virtual participation, please connect to the Zoom meeting at 11:30 a.m.**

<https://zoom.us/j/7606690554?pwd=zn147RteBJUSo0LIPgkbnbwo76mM9H.1&omn=91481519847>

Meeting ID: 760 669 0554

Passcode: 076112

*The mission of Los Angeles Chapter of the WaterReuse Association is to enhance the resiliency and sustainability of Los Angeles County by increasing the safe, beneficial use of recycled water. Its objectives shall be to promote water reclamation and recycling as a sustainable supplemental source of water for the state; to work for the adoption of legislation and regulations that allow the safe use of recycled water; to facilitate the development of technology aimed at improving water recycling; to promote legislation that would increase funding for water recycling projects; to provide mutual assistance and support between and among Chapter members involved with water recycling projects; and to increase public awareness and understanding of related water problems and solutions.*

Lunch..... 11:00 a.m.

Welcome, Introductions and Instructions..... 11:30 a.m.

1. Host Presentation: Plans for Surviving Super El Niño: Protecting Wastewater and Recycled Water Reliability (*Vincenzo Ciancia, LACSD*)
2. Sponsor Presentation: WRD's Recharge Success: Developing a Biogeochemical Roadmap to IPR (*Gary Gin, Woodard and Curran*)
3. Technical Presentation: The Road to Oz: An Australian Perspective on Enhanced Source Control (*Andy Salveson and Mary Kate Forkan, Carollo*)
4. Water Recycling Legislative/Regulatory Updates (*Phillip Vander Klay, LACSD*)
5. California State Section Update (*Rafael Villegas*)
6. Chapter Updates (*Seto Cherchian*)
7. Membership Roundtable (*Jennifer Jacobus*)
8. Next Meetings
  - December 8, 2026 – Las Virgenes Municipal Water District
9. Adjournment ..... 1:00 p.m.
10. Tour: LACSD's San Jose Creek Water Reclamation Plant..... 1:05 p.m.

### Los Angeles Chapter Officers for 2025/2026

|                                     |              |
|-------------------------------------|--------------|
| Jennifer Jacobus, President         | 213-448-2586 |
| Everett Ferguson, Vice President    | 562-275-4241 |
| Seto Cherchian, Secretary/Treasurer | 213-217-6297 |
| Rafael Villegas, Chapter Trustee    | 213-367-1289 |
| Jared Lee, Past President           | 626-379-8443 |

|                                                                                    |
|------------------------------------------------------------------------------------|
| <a href="mailto:jjacobus@rinconconsultants.com">jjacobus@rinconconsultants.com</a> |
| <a href="mailto:eferguson@wrld.org">eferguson@wrld.org</a>                         |
| <a href="mailto:scherchian@mwldh2o.com">scherchian@mwldh2o.com</a>                 |
| <a href="mailto:rafael.villegas@ladwp.com">rafael.villegas@ladwp.com</a>           |
| <a href="mailto:jared.lee@SCE.com">jared.lee@SCE.com</a>                           |



**LOS ANGELES COUNTY  
SANITATION DISTRICTS**  
*Converting Waste Into Resources*

# Plans for Surviving Super El Niño

Protecting Wastewater and  
Recycled Water Reliability

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**Presented by:**

**Vincenzo Ciania**

**Project Engineer | Reuse & Compliance | LACSD**

WaterReuse LA Chapter

October 13, 2026



Conceptual illustration



SYSTEM SCALE

# Los Angeles County Sanitation District's service area



**5.5M** people served

**1,400** miles of sewers

**11** wastewater treatment plants

24 sanitation districts serving 78 cities and unincorporated communities across 824 square miles



# Presentation Roadmap

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01

## WHY WET WEATHER MATTERS

How stormwater can affect wastewater collection, treatment, and recycled-water reliability.

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02

## BEFORE THE STORM

How LACSD reduces inflow, monitors risk, maximizes operating headroom, and prepares people and equipment.

---

03

## DURING AND AFTER THE STORM

How teams operate, coordinate emergency response, recover, and improve the next plan.

---

04

## WHAT THIS MEANS FOR WATER REUSE

How communication, temporary supply changes, and investment decisions affect regional partners.

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**Reliable recycled water depends on a resilient wastewater system.**



# Presentation Roadmap

|    |                                                       |                                                                                                         |
|----|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 01 | <b>WHY WET WEATHER MATTERS</b><br><b>YOU ARE HERE</b> | How stormwater can affect wastewater collection, treatment, and recycled-water reliability.             |
| 02 | BEFORE THE STORM                                      | How LACSD reduces inflow, monitors risk, creates operating headroom, and prepares people and equipment. |
| 03 | DURING AND AFTER THE STORM                            | How teams operate, coordinate emergency response, recover, and improve the next plan.                   |
| 04 | WHAT THIS MEANS FOR WATER REUSE                       | How communication, temporary supply changes, and investment decisions affect regional partners.         |

**Reliable recycled water depends on a resilient wastewater system.**



# How wet weather can affect recycled-water reliability



## Intense rainfall can overwhelm storm-drain capacity

High rainfall rates can exceed storm drain design capacity, causing street flooding and ponding.

## Floodwater can enter the sanitary sewer system

Once streets flood, water can enter through submerged access points, defective connections, and other unintended inflow paths in the system is designed for wastewater only.

## Treatment loading rises

Plants must maintain stable treatment and disinfection while hydraulic and solids loads increase.

## Reuse flexibility can decline

Less operating margin can affect recycled water production, storage, or delivery.

**One objective is to preserve operating capacity from collection through recycled water delivery.**



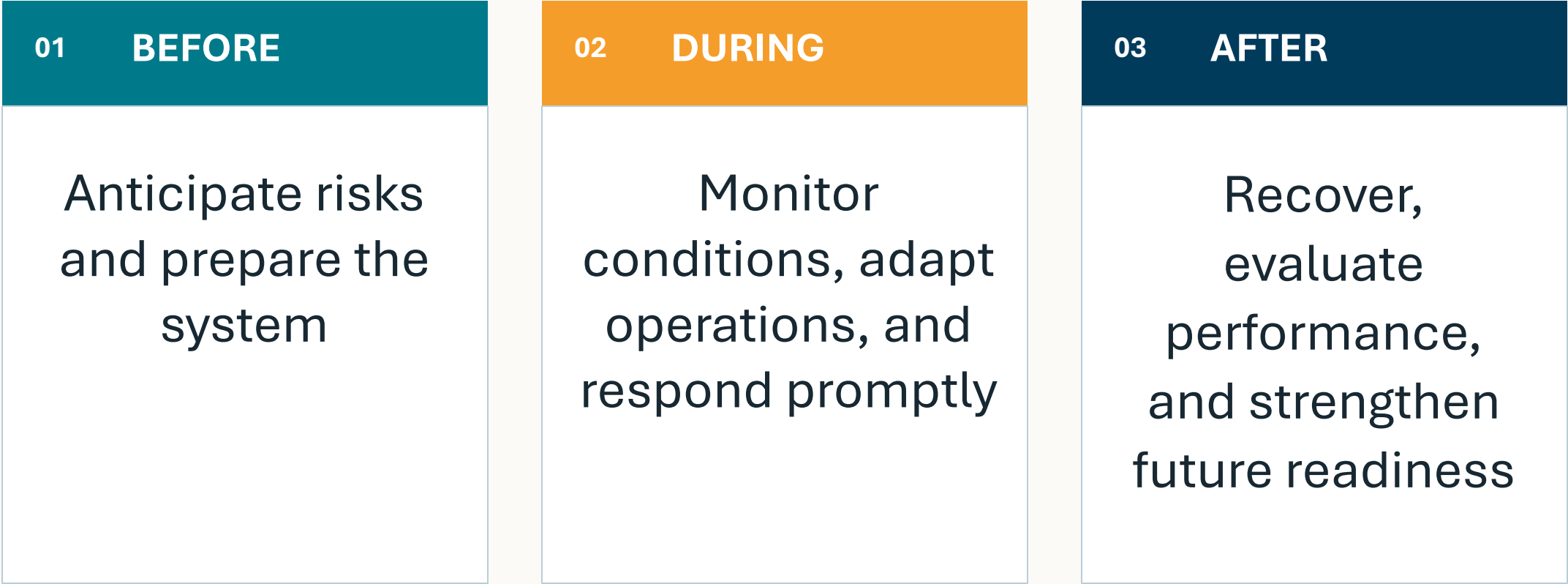
# A major storm is approaching Los Angeles. Which scenario would make you say, 'This is going to be a long day'?

- A. Uncontrolled inflow and rapidly rising flows
- B. Limited treatment or storage headroom
- C. A critical pump or generator that will not start
- D. Treatment-process instability
- E. A staffing or communications gap





# A readiness cycle guides the District-wide response



Collection, treatment, field operations, and regional partners work within the same cycle.



# Presentation Roadmap

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|    |                                                |                                                                                                         |
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| 03 | DURING AND AFTER THE STORM                     | How teams operate, coordinate emergency response, recover, and improve the next plan.                   |
| 04 | WHAT THIS MEANS FOR WATER REUSE                | How communication, temporary supply changes, and investment decisions affect regional partners.         |

**Reliable recycled water depends on a resilient wastewater system.**



BEFORE THE STORM

# Collection-system preparation

01

## Reduce stormwater entry

Seal flood-prone manholes and correct improper drains, downspouts, and other inflow sources.

02

## Preserve conveyance capacity

Clean known constraints, inspect vulnerable assets, and confirm pumps and flow-control equipment.

03

## Prepare the field response

Identify priority locations, confirm access, and stage the people and equipment needed for storm conditions.

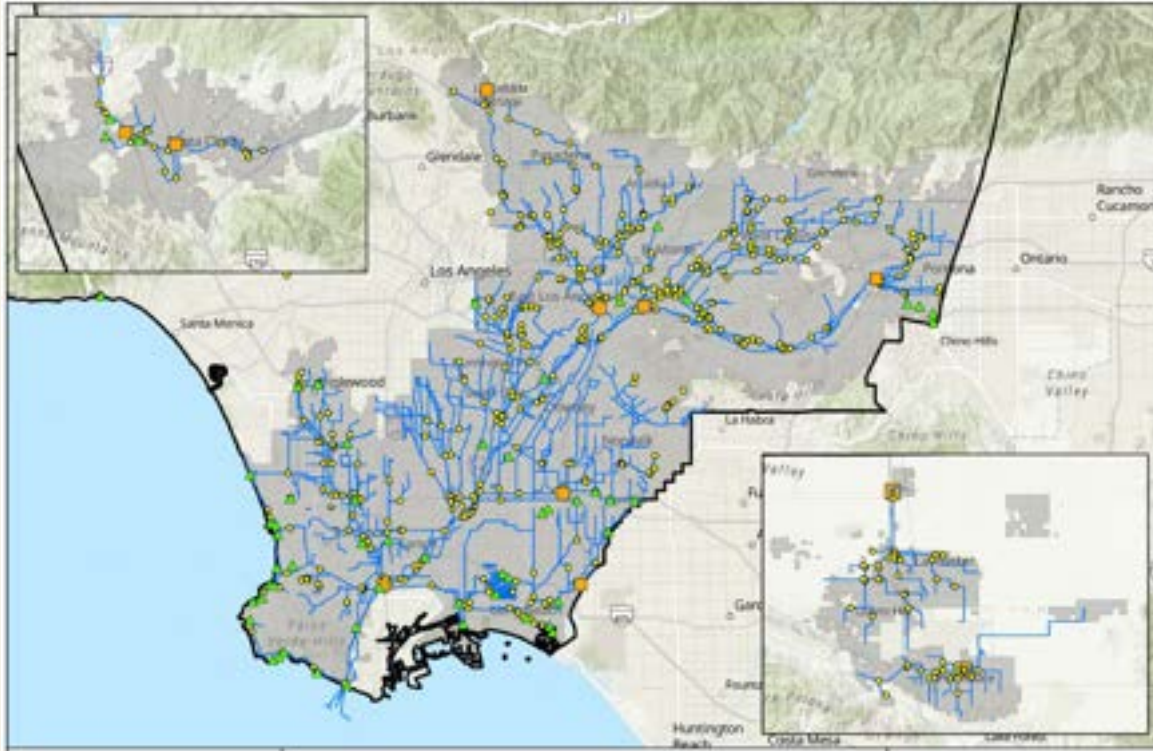


Collection-system preparation preserves treatment capacity downstream.



BEFORE THE STORM

# Monitoring supports earlier, more targeted action



**>1,000** flow-meter locations informed the systemwide hydraulic model

01

## Flow history

Focus attention on repeat constraints and vulnerable locations.

02

## Data analysis

Identify wet-weather patterns and screen for likely inflow sources.

03

## Hydraulic modeling

Evaluate operational changes, maintenance, rehabilitation, and capacity options.

**Year-round monitoring replaced seasonal monitoring.**



BEFORE THE STORM

# Wet-weather readiness extends beyond District facilities

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## TRIBUTARY COLLECTION SYSTEMS

More than 70 systems share flood-prone locations, sealing priorities, field observations, and response information.



## PROPERTY AND INDUSTRY

Inspectors trace improper storm drains and downspouts, document the source, and coordinate correction at the property.



## OTHER FACILITIES

Teams inspect slopes and drainage, preserve basin capacity, manage runoff, and remove temporary construction risks.



# Water reclamation plant preparation

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|             |                                                                        |                                                                                                        |
|-------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <div></div> | <b>Maximize hydraulic headroom</b>                                     | Backwash filters, empty flow equalization basins, manage reservoir levels, and keep storage available. |
| <div></div> | <b>Remove single points of failure</b>                                 | Complete preventive maintenance, confirm pumps and emergency power, and stage emergency equipment.     |
| <div></div> | <b>Staff the storm</b>                                                 | Ensure adequate and continuous staff coverage.<br>Staff receive site-specific training.                |
| <div></div> | <b>Protect public health, the environment, and critical facilities</b> | Maintain treatment flexibility while protecting public health, the environment, and facilities.        |



# The storm begins tomorrow. Rank these actions from highest to lowest priority.

- A. Create treatment and storage headroom
- B. Confirm pumps, generators, and backup power
- C. Validate alarms and communications
- D. Stage staff and emergency equipment
- E. Coordinate with upstream agencies





# Presentation Roadmap

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YOU ARE HERE

Reliable recycled water depends on a resilient wastewater system.



# Storm operations and emergency response

## RESPONSE PRIORITY

**Protect people  
and maintain  
control of the  
process**

Controlled plans define roles, communications, priorities, and escalation paths.

01

### MONITOR

Compare forecasts with live flows, levels, alarms, equipment status, process conditions, and field observations.

02

### ACT + COORDINATE

Adjust operations, deploy resources, and keep District teams aligned as conditions change.

03

### STABILIZE + PROTECT

Use treatment and storage flexibility, protect facilities, and keep essential equipment operating.

04

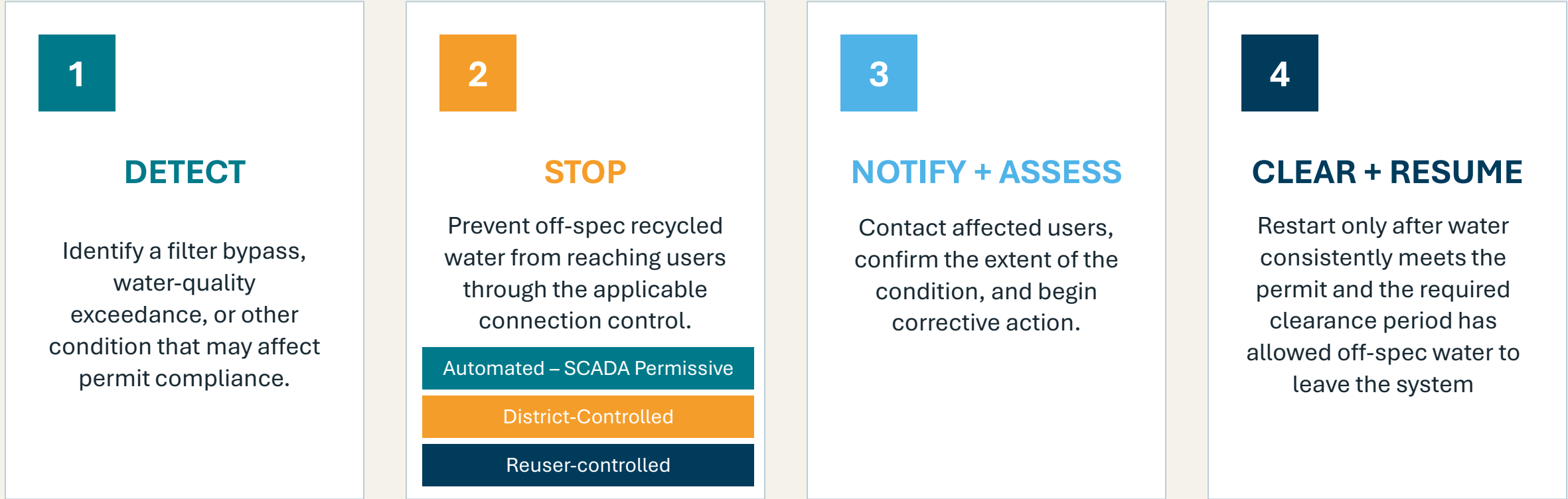
### RESPOND + ESCALATE

Respond promptly to spills and follow approved pathways for major equipment or process failures.

The response changes as the forecast and live system conditions change.



# Control recycled water delivery when compliance is threatened



**Control objective: prevent off-spec recycled water from reaching users.**



AFTER THE STORM

# Post-storm recovery closes the readiness cycle



01

## Inspect

Check priority sewers, manholes, slopes, drainage paths, access points, and erosion.

02

## Restore readiness

Return pumps, generators, communications, emergency equipment, storage, and access to ready status.

03

## Review performance

Compare forecasts with flow data, plant trends, alarms, field reports, and operating decisions.

04

## Improve the next plan

Update maps, thresholds, procedures, training, maintenance priorities, and capital plans.

**Each storm provides evidence for the next readiness plan.**



# Presentation Roadmap

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YOU ARE HERE

Reliable recycled water depends on a resilient wastewater system.



# Purveyors are part of the wet-weather plan

Heavy rainfall can affect not only treatment operations, but also the amount of recycled water available for delivery.

THE PRIORITY

**Protect public health, the environment, and critical facilities.**

Temporary supply reductions may be necessary to protect those priorities.

1

**It can happen**

Production or delivery may be reduced or temporarily unavailable.

2

**It is temporary**

Service returns once the plant is stable and compliance is restored

3

**Be ready to respond**

Purveyors adjust operations, notify users, and activate continuity plans when needed.

Most storms will not affect recycled-water service, but a major storm could. Partners who plan ahead feel the least impact.



# A supply reduction does not affect every user equally

Wet weather naturally lowers some demands; other uses may continue regardless of the rain.

IRRIGATION USES

Demand usually drops during storms

- Rain temporarily reduces irrigation demand.
- A short interruption has little effect.

Primary focus: safe site operation

CONTINUOUS / OPERATIONAL USES

Demand may continue through the storm

Cooling

Process water

Fire suppression

Toilet flushing

Injection

Concrete mixing

Primary focus: continuity and planning

Prioritize users by consequence.



# What partners can do: before, during, and after

01

BEFORE

Identify users that cannot pause

Confirm an approved backup source

Verify contacts and authority to act

02

DURING

Share District updates with users

Stop irrigation during rain or on saturated soils

Prevent pond overflow and runoff

Switch critical users to backup supply if delivery is interrupted

03

AFTER

Restart only after District notice

Return the site to normal operation

Update contacts and the plan

Recycled-water reliability is a shared responsibility.



# Complete the sentence: Every wet-weather plan would be stronger with more ...

Capacity

Staffing

Data

Storage

Coordination

Funding

Coffee

Redundancy



# Reliable recycled water depends on layers working together

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- 01 Keep stormwater out of the sanitary system before it consumes capacity.
- 02 Use forecasts, monitoring, and models to maximize headroom before the storm.
- 03 Protect public health, the environment, and critical facilities during the storm.
- 04 Partners: know your critical users, keep a backup supply ready, and stay connected.

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## Questions and discussion



# **WRD's Recharge Successes:**

## **Developing a Biogeochemical Roadmap to Indirect Potable Reuse (IPR)**

### **Presenter:**

Gary M. Gin, RG, Vice President, Senior Technical Leader- Groundwater Infrastructure

October 13, 2026

**If you have always done it that way...**

**It is probably wrong**

Charles Kettering  
(American Engineer)



**Woodard & Curran**

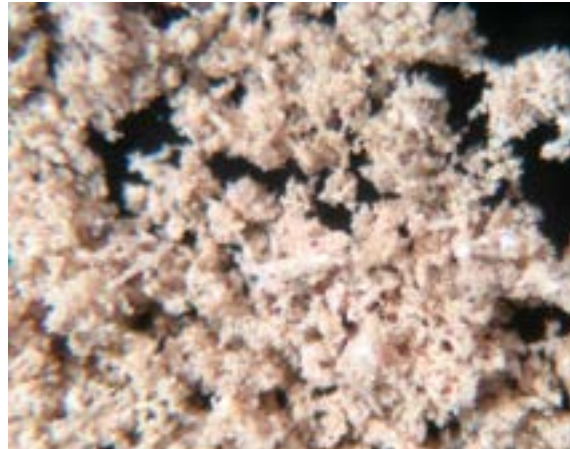
# Acknowledgements



**Brian Partington, PG, CHG**  
Managing Hydrogeologist  
WRD



**Michael Schnieders, PG**  
Hydrogeologist  
Water Systems Engineering



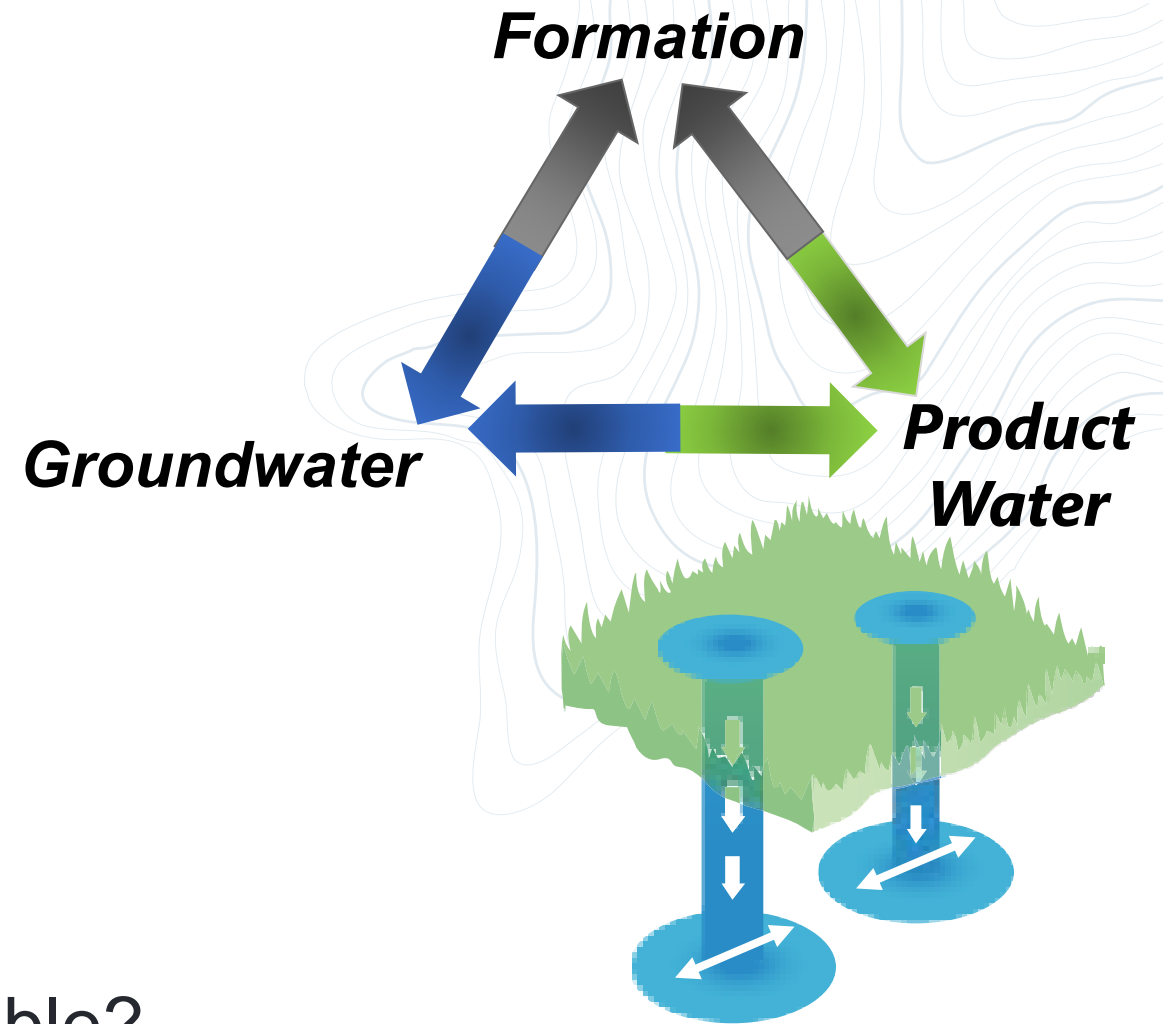
# ➤ Agenda

- Overview
- Project Context
- Biogeochemical Roadmap to IPR
- Next Steps
- Operational Results



## Overview

- Injection Well LVL-IW-01 Program
  - Purpose
  - Importance
- Define Compatibility?
- It's a Biogeochemistry Assessment
- What Does the Roadmap to Indirect Potable Reuse (IPR) Look Like?
- What Value Does WRD's Existing Recharge Successes Bring to the Table?
- Next Steps/Operational Results



# Regional Project Context



## LOCAL WATER DEMANDS



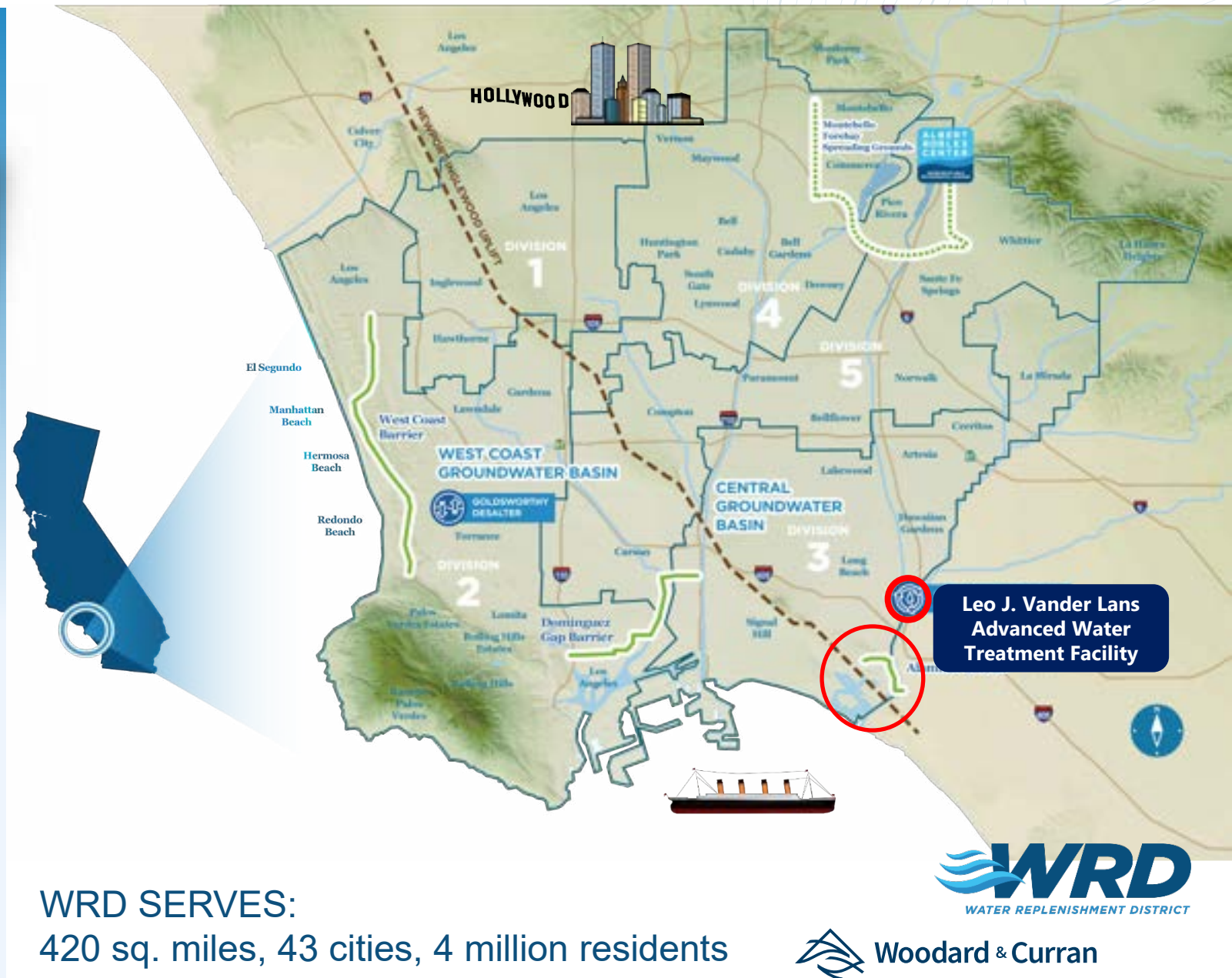
~ 50% Supplied from Groundwater Wells



~ 50% Supplied by Imported Water



WRD Replenishes the Groundwater Basins that Supply ~ 50% of Demand





# Leo J. Vander Lans Advanced Water Treatment Facility - LVLAWTF

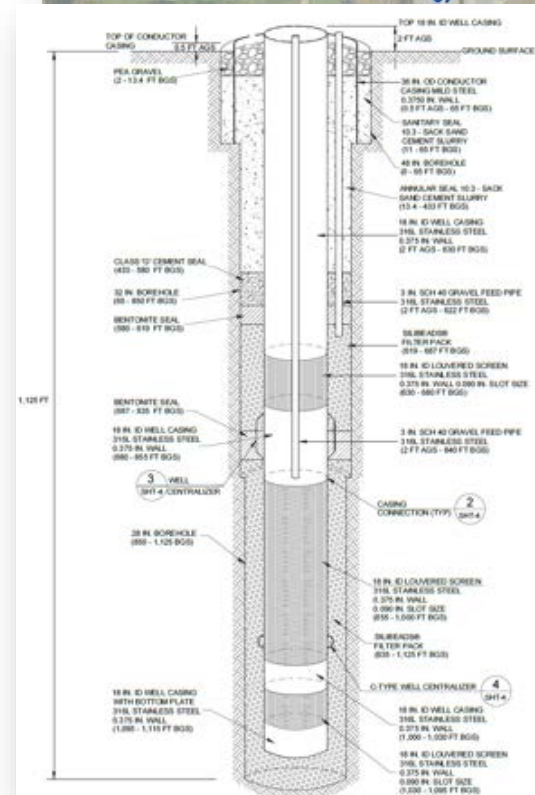
- Built in 2003, Expanded in 2014
- LVL Total Production Capacity = 8 MGD
- MF/RO/UVAOP: Advanced Water Treatment Plant
- Operated by Perc Water (partnership)
- Current Source Water: Long Beach Water Reclamation Plant
- Injection at Alamitos Seawater Intrusion Barrier (ABP) (4-7 MGD)



# Leo J. Vander Lans

## Injection Well 01 – LVL-IW-01

- LVL AWTF: Injection Well ~**2 MGD Capacity** (Goal)
- High-Capacity Injection Well to Provide Additional Supply for Improved *Local Groundwater Resiliency*
- Two Monitor Wells were Installed for Regulatory Monitoring Requirements
- Injection Well will be Fed from the Existing LVL AWTF Product Water Pump Station (PWPS)





# LVL-IW-01 Data Collection

| AGE               | FORMATION                                                         | AQUIFER                                                | AQUIFER SYSTEMS                                      | MODEL LAYER |
|-------------------|-------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------|-------------|
| HOLOCENE          | ACTIVE DUNE SAND                                                  | SEMIPERCHED                                            | RECENT AQUIFER SYSTEM                                | 1           |
|                   |                                                                   | GASPAR BALLONA                                         |                                                      |             |
| UPPER PLEISTOCENE | OLDER DUNE SAND                                                   | EXPOSITION ARTESIA<br><br>GARDENA GAGE (200 FOOT SAND) | Upper Aquifer Systems<br><br>LAKEWOOD AQUIFER SYSTEM | 2           |
|                   | LAKEWOOD FORMATION<br>(California Dept. of Water Resources, 1961) |                                                        |                                                      |             |
|                   | (UNNAMED UPPER PLEISTOCENE, Poland and others 1956, 1959)         |                                                        |                                                      |             |
| LOWER PLEISTOCENE | SAN PEDRO FORMATION                                               | HOLLYDALE                                              | UPPER SAN PEDRO AQUIFER SYSTEM                       | 3           |
|                   |                                                                   | JEFFERSON                                              | Lower Aquifer Systems                                |             |
|                   |                                                                   | LYNWOOD (400 FOOT GRAVEL)                              |                                                      |             |
|                   |                                                                   | SILVERADO                                              |                                                      |             |
|                   |                                                                   | SUNNYSIDE LOWER SAN PEDRO                              | LOWER SAN PEDRO AQUIFER SYSTEM                       | 4           |
| UPPER PLEISTOCENE | PICO FORMATION                                                    |                                                        | Pico unit                                            |             |

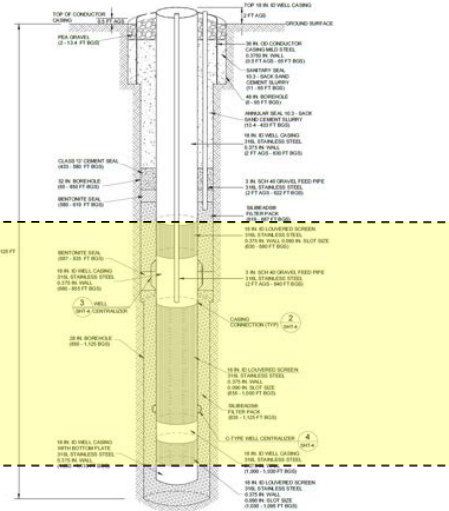
EXPLANATION

Modified from California Department of Water Resources, 1961; Poland, 1959

Lower Aquifer Systems

Aquifer systems grouping for geochemical analysis

## LVL-IW-01



Jefferson-Lynwood & Silverado

LVL-IW-01

LVLAWTF

Formation Sediment Collection

LVL-IW-01 Zonal Water Quality

LVLAWTF Seasonal Water Quality

LVL-IW-01 Composite Water Quality



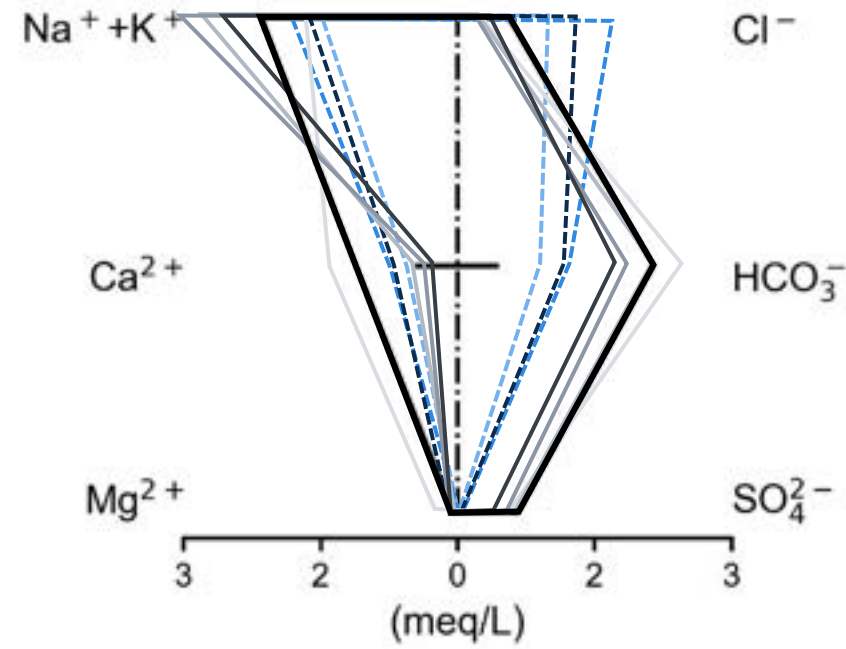
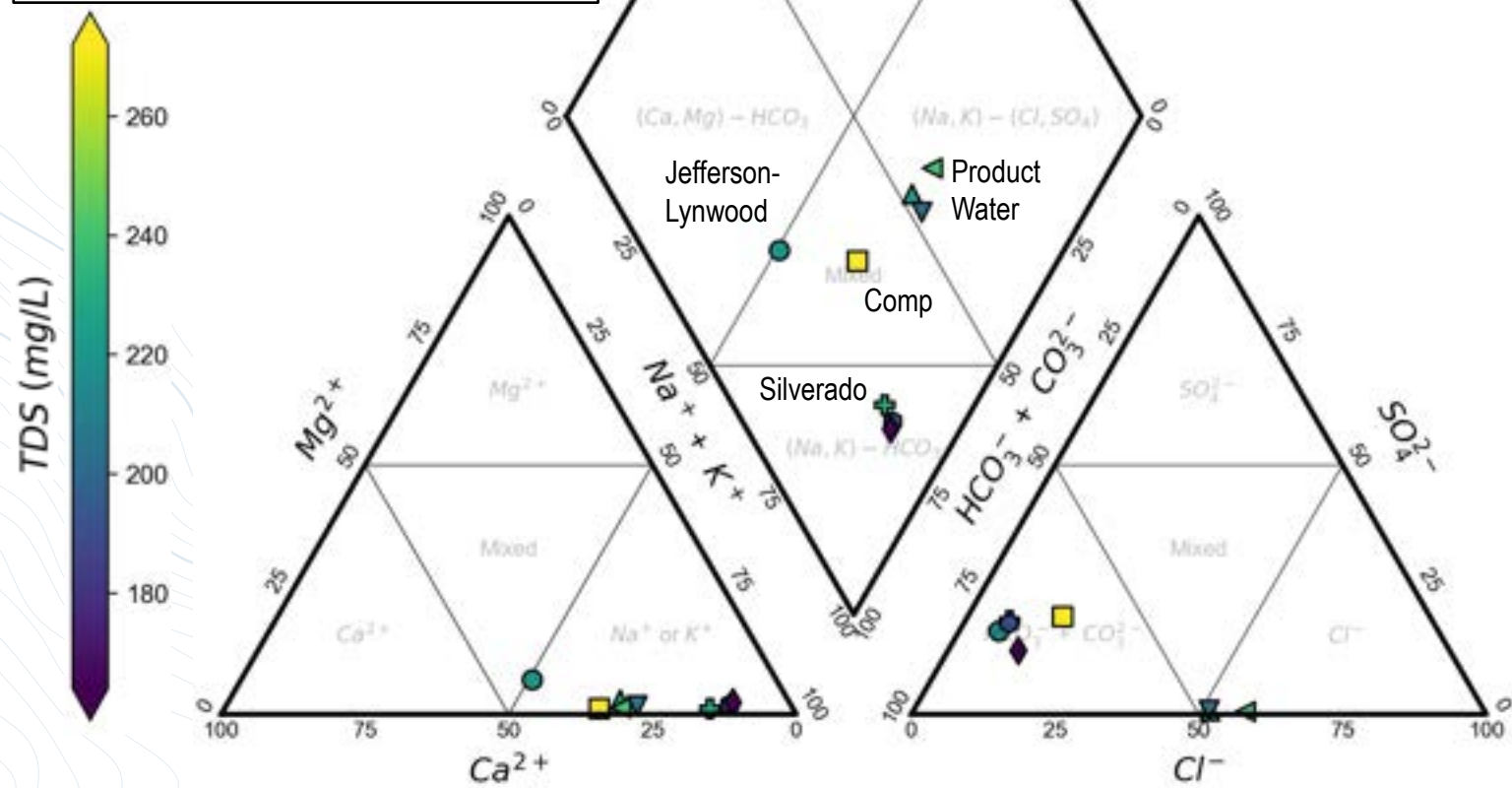
Woodard & Curran

Modified from USGS WRIR 034065



# Water Chemistry

- Pilot Borehole 629-671 ft bls
- Pilot Borehole 883-923 ft bls
- Pilot Borehole 965-1,005 ft bls
- Pilot Borehole 1,038-1,080 ft bls
- Groundwater Composite Sample WSE
- ▲ Source Water- May 2022
- ▲ Source Water - Oct 2022
- ▼ Source Water - Mar 2023



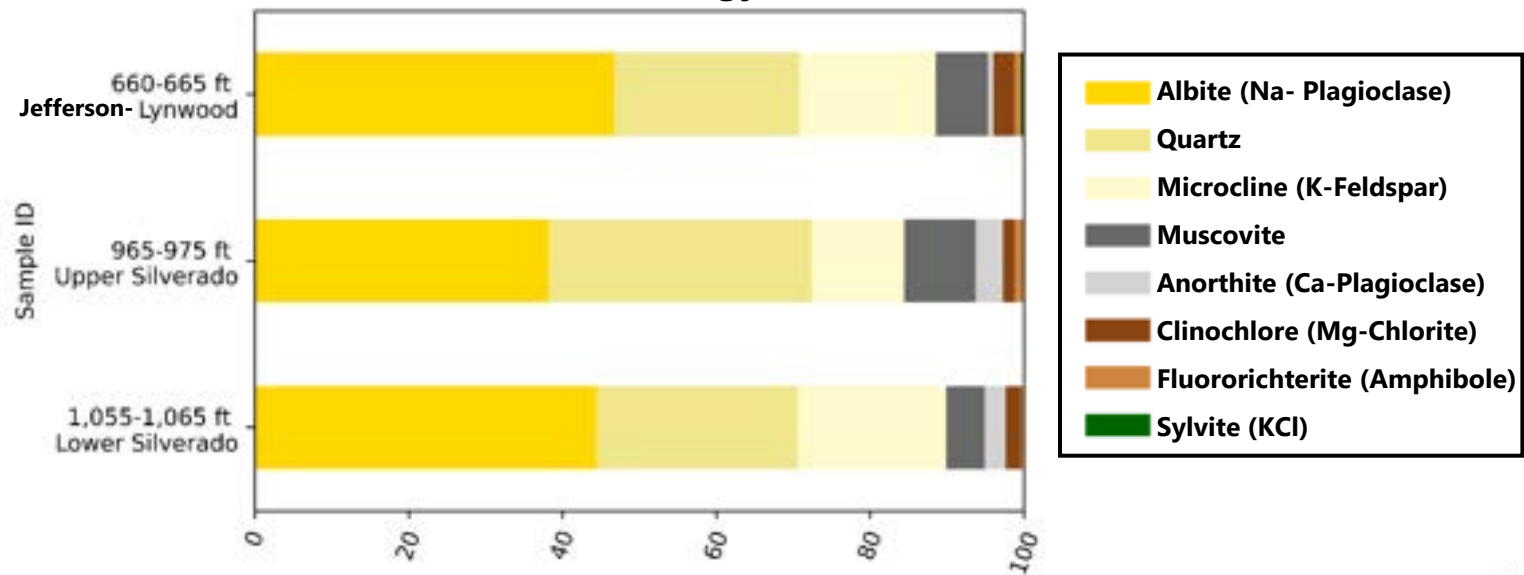
- LVL-IW-01 Composite Groundwater
- LVL-IW-01 Zonal Samples
- LVLAWTF Product Water



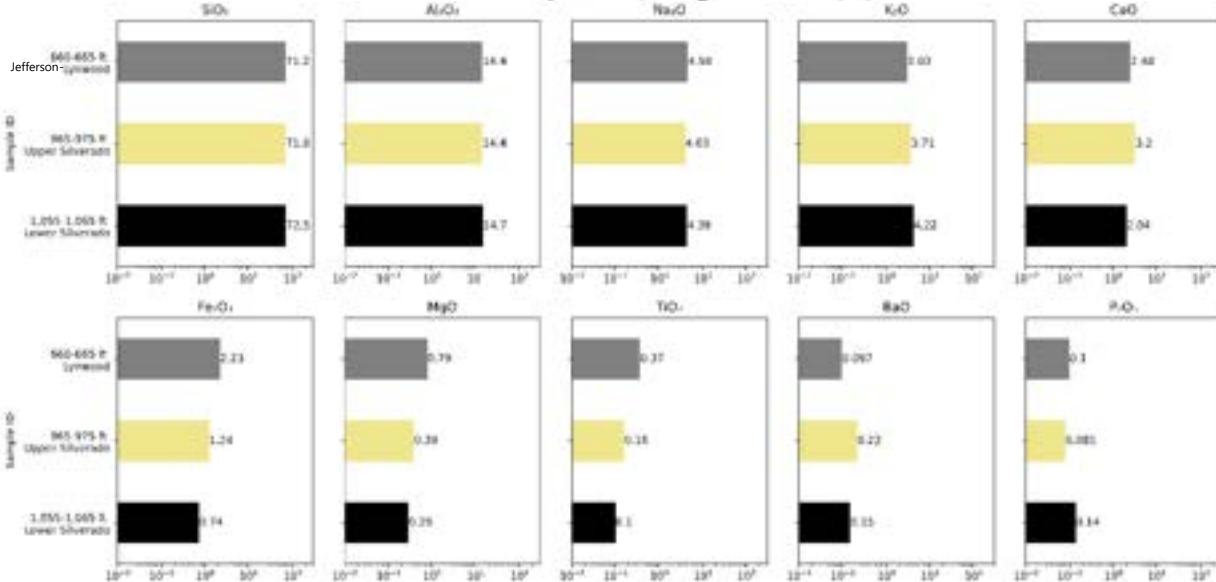


# Formation Chemistry

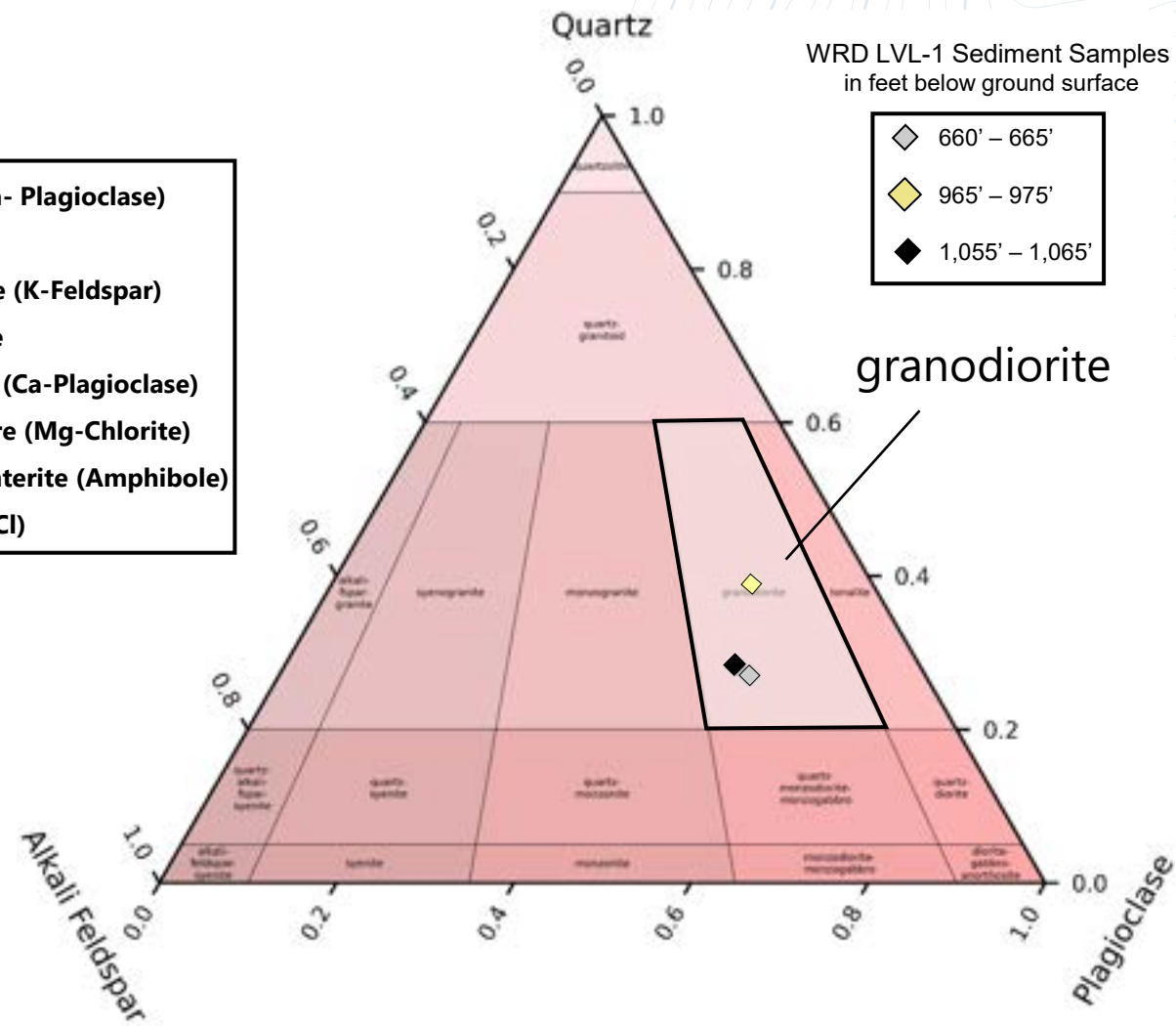
## XRD - Mineralogy



Normalized Composition, Weight Percent (%)



## XRF - Elemental Composition



WRD LVL-1 Sediment Samples  
in feet below ground surface



Diagram illustrating the conceptual model for the Lower San Pedro Aquifer System, showing the relationship between different geological units and the location of the LVL-IW-01 Chemistry study area.

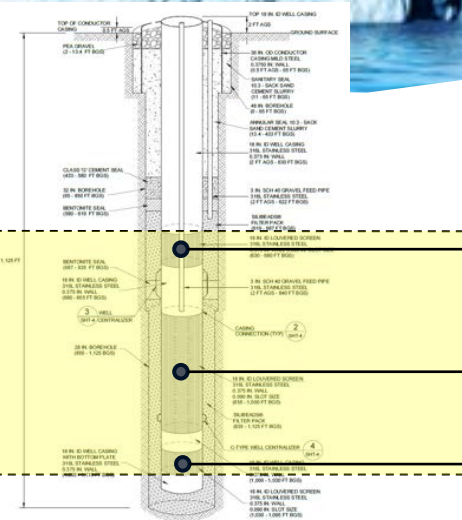
The diagram is divided into three main horizontal sections, each representing a different geological unit or system:

- UPPER SAN PEDRO AQUIFER SYSTEM:** This section is at the top and contains two blue circles representing data sources:
  - XRD & XRF**
  - WRIR-034065 Reactions**
- LOWER SAN PEDRO AQUIFER SYSTEM:** This section is in the middle and contains a grey circle representing the study area:
  - LVL-IW-01 Chemistry**
- SUNNYSIDE LOWER SAN PEDRO AQUIFER SYSTEM:** This section is at the bottom and is indicated by a large blue arrow pointing downwards from the LVL-IW-01 Chemistry circle.

The diagram also includes labels for various geological units and systems, such as **HOLLYDALE**, **UPPER SAN PEDRO AQUIFER SYSTEM**, **LOWER SAN PEDRO AQUIFER SYSTEM**, and **SUNNYSIDE LOWER SAN PEDRO AQUIFER SYSTEM**.

PHREEQC

## How do we reduce uncertainty?



**1,055' – 1,065'**

## XRD & XRF Analysis Intervals



# BIO! BIO! BIO! Geochemistry!



|  | WRD<br>LVLAWTF<br>OCT 2022 | WRD<br>LVLAWTF<br>MAR 2023 | LVL-IW-01<br>Groundwater<br>Composite<br>Sample |
|--|----------------------------|----------------------------|-------------------------------------------------|
|  | 8.68                       | 8.16                       | 8.16                                            |
|  | ND                         | ND                         | ND                                              |
|  | 68                         | 52                         | 124                                             |
|  | ND                         | ND                         | ND                                              |
|  | ND                         | ND                         | ND                                              |
|  | 68                         | 52                         | 124                                             |
|  | 240                        | 204                        | 272                                             |
|  | 333                        | 283                        | 378                                             |
|  | 201.3                      | 208.8                      | 235.3                                           |
|  | + 0.06                     | -0.71                      | -0.17                                           |
|  | 44                         | 32                         | 64                                              |



|                               |        |
|-------------------------------|--------|
| Iron (as Fe)                  | 0.02   |
| Iron (resuspended)            | 0.02   |
| Copper (as Cu)                | ND     |
| Manganese (as Mn)             | ND     |
| Sulfate (as SO <sub>4</sub> ) | ND     |
| Silica (as SiO <sub>2</sub> ) | 4.0    |
| Tannin/Lignin                 | ND     |
| Total Organic Carbon (C)      | ND     |
| Plate Count (colonies/ml)     | 0      |
| Anaerobic Growth (%)          | <10    |
| Sulfate Reducing Bacteria     | Negati |
| Fe/Mn Oxidizing Bacteria      | Negati |
| ATP (cells per ml) Initial    | 35,00  |
| ATP (cells per ml) 24 Hour    | 40,00  |
| Bacterial Identification      | NA     |
| Bacterial Identification      | NA     |

Notes:  
All units are in mg/L unless otherwise specified.  
\*as CaCO<sub>3</sub>  
ND = Not detected  
NA = Not applicable  
AWTF - Advanced Water Treatment Facility (Product Water)

BIO

Product Water

GW



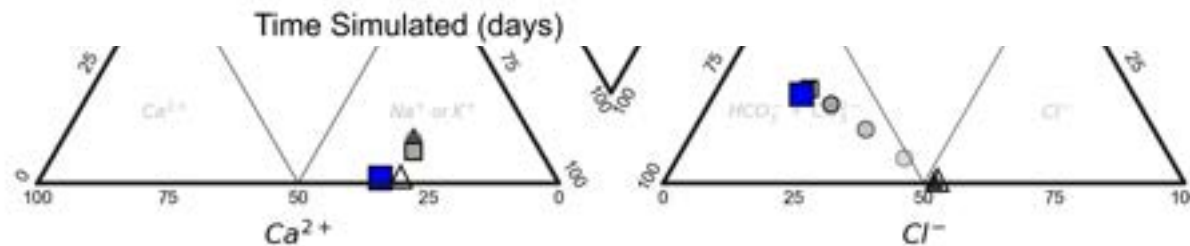
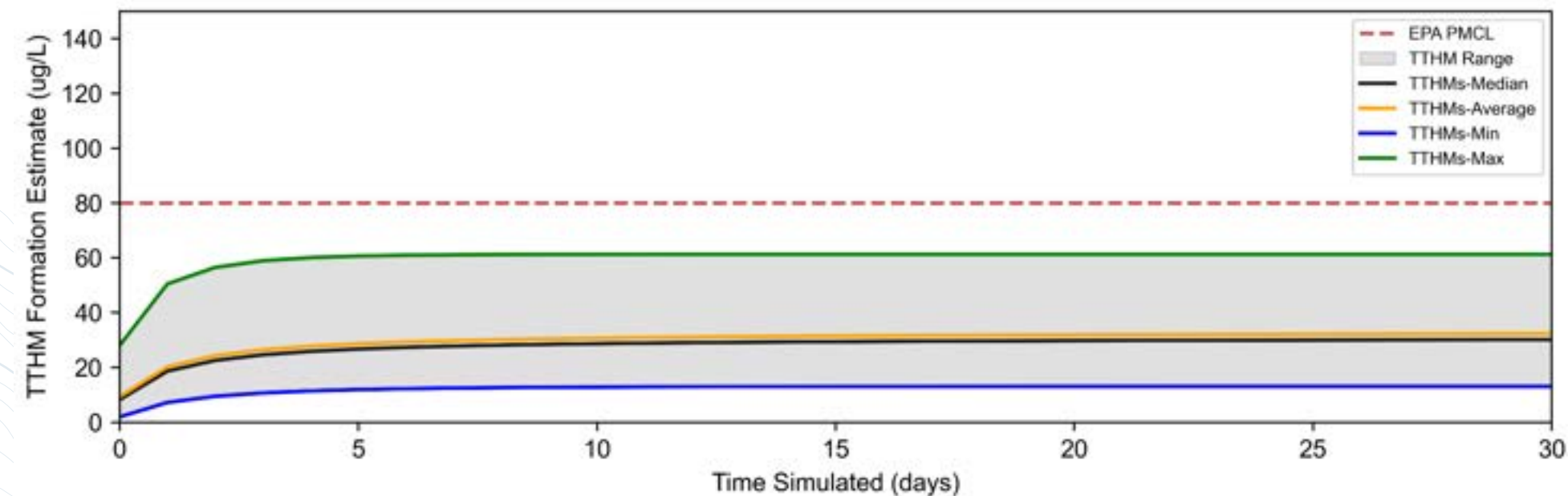
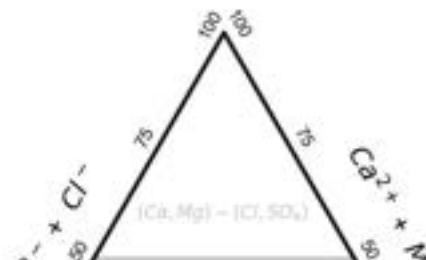
**WRD**  
WATER REPLENISHMENT DISTRICT

 Woodard & Curran

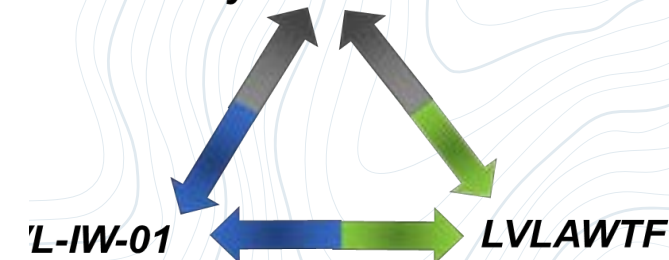


# ➤ BIO Geochemical Compatibility

- △ 100% LVLAWTF Product Water Measured
- ▲ 100% LVLAWTF Product Water Modeled
- 20% GW : 80% LVLAWTF Product Water Modeled
- 50% GW : 50% LVLAWTF Product Water Modeled



Jefferson-Lynwood & Silverado



# What Does History Have to Say?

| AGE               | FORMATION                                                         | AQUIFER                      | AQUIFER SYSTEMS                                      | MODEL LAYER |
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|                   |                                                                   | LYNWOOD (400 FOOT GRAVEL)    |                                                      |             |
|                   |                                                                   | SILVERADO                    |                                                      |             |
|                   |                                                                   | SUNNYSIDE LOWER SAN PEDRO    | LOWER SAN PEDRO AQUIFER SYSTEM                       | 4           |
| UPPER PLEISTOCENE | PICO FORMATION                                                    |                              | Pico unit                                            |             |

EXPLANATION

Lower Aquifer Systems { Aquifer systems grouping for geochemical analysis

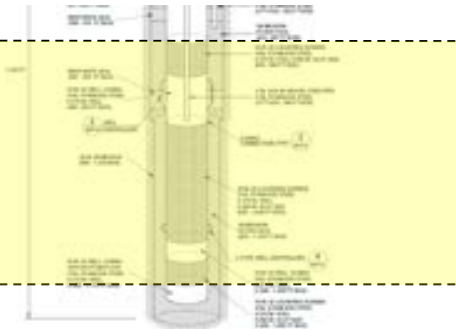
Modified from California Department of Water Resources, 1961; Poland, 1959

Modified from USGS WRIR 034065

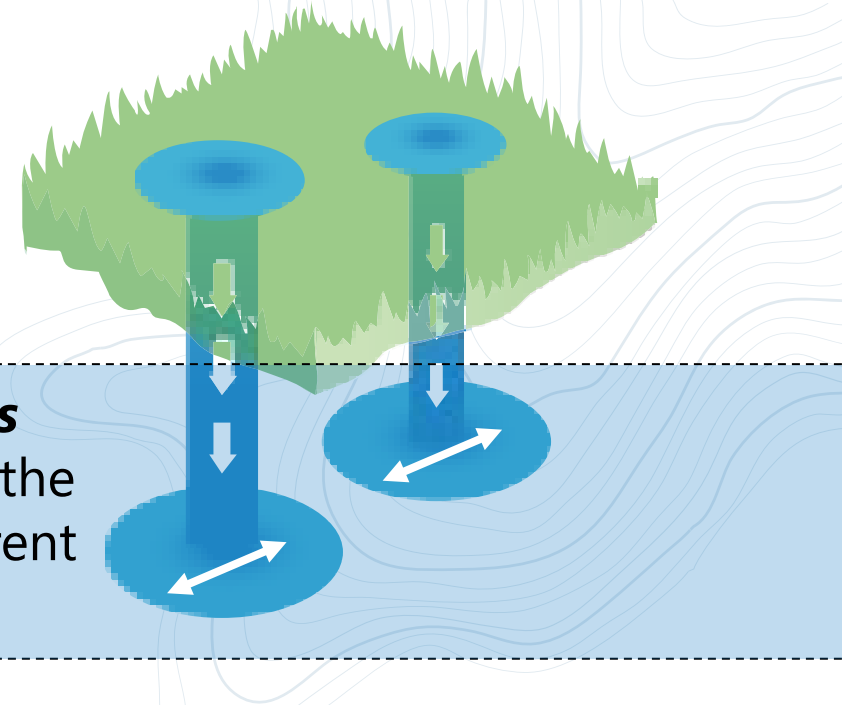
## Alamitos Barrier Injection Wells

WRD: Successfully Recharging in the Overlying, Less-Mature, same Parent Material since 2005!

### LVL-IW-01



Analogs (20+ years):  
Good Reference Point  
or "Gut-Check" on  
Desktop Studies!



## > BIO Geochemical Compatibility

- Biogeochemical Compatible:
  - LVLAWTF Product Water,
  - Composite Groundwater of the Jefferson-Lynwood & Silverado Aquifers, and
  - Aquifer Sediment Samples.
- Adverse Reactions that would Impact Water Quality Regulatory Compliance or Injection Operations Beyond Regular Maintenance and Rehabilitation are not Anticipated.
- Pilot Testing is Needed to Confirm and or Refine these Findings.

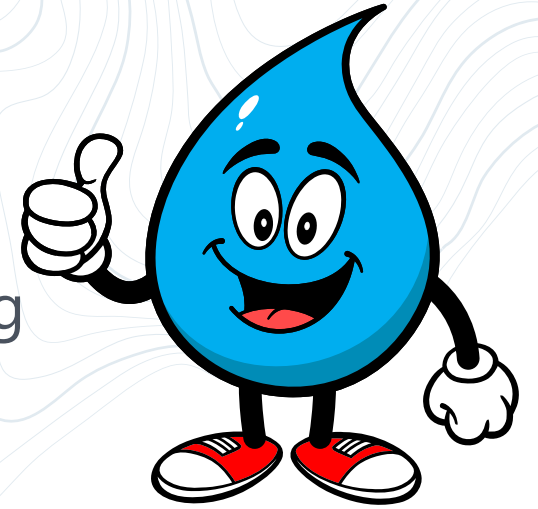
Jefferson-Lynwood & Silverado

LVL-IW-01

LVLAWTF

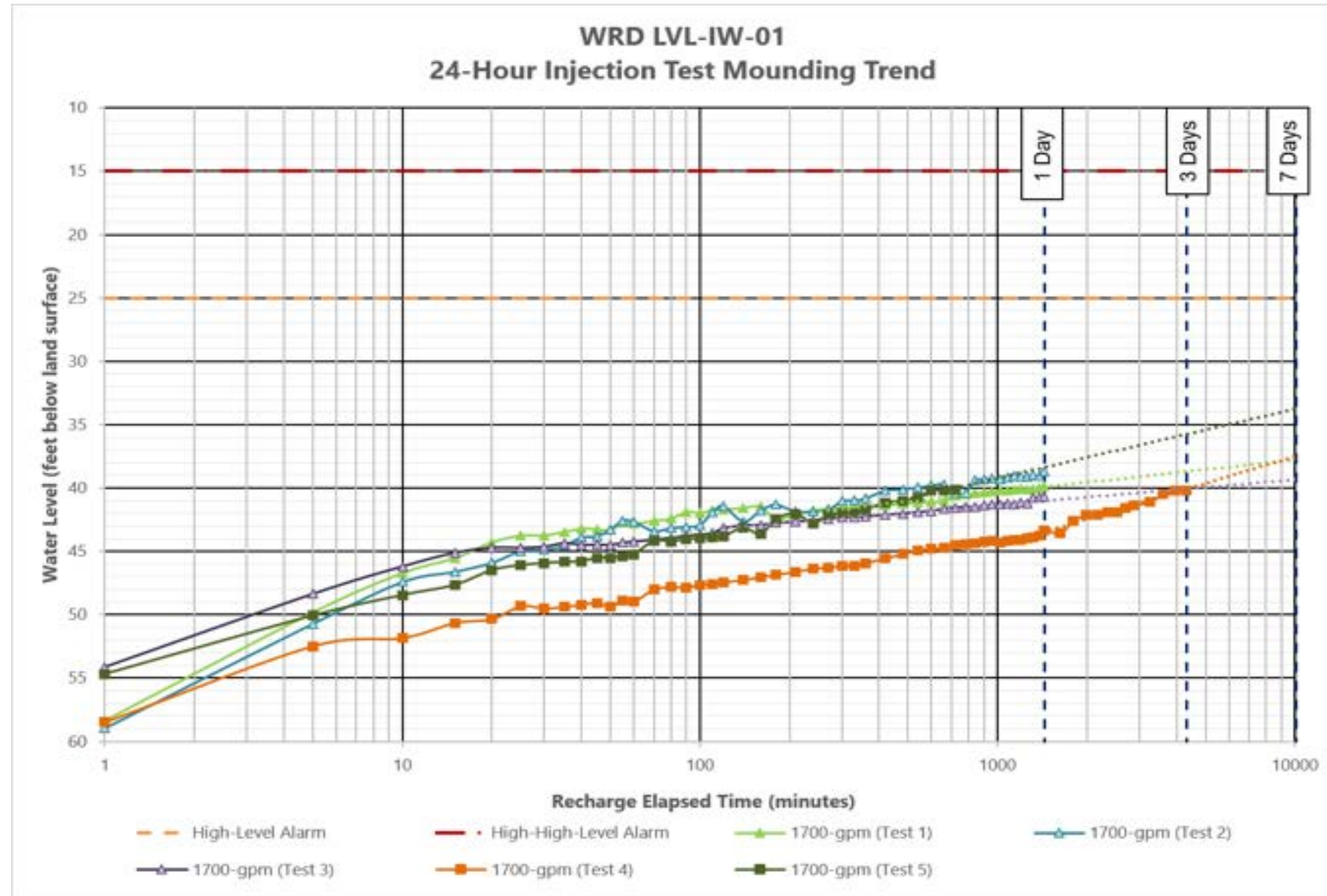
## ➤ Next Steps

- Proceed with Injection Pilot Testing
- Create and Execute:
  - Injection Well Specific Development Plan
  - Pilot Test Protocols with Adequate Water Quality Sampling
  - Injection Well Specific Operations & Maintenance Plan



# ➤ WRD-Injection Well Cycle Testing Initial Results

- Injection at 1,700 gpm (2.44 MGD)
- Maintaining Consistent Performance (2.5 months)
- Lack of Evidence of Chemical and/or Biological Clogging





**Gary M. Gin, RG**

Vice President, Senior Technical  
Leader- Groundwater Infrastructure  
**Woodard & Curran**



**Everett Ferguson, PG, CHG**

Senior Hydrogeologist  
**WRD**

# THANK YOU



[Gary.Gin@woodardcurran.com](mailto:Gary.Gin@woodardcurran.com)



[eferguson@ wrd.org](mailto:eferguson@ wrd.org)

# The Road to Oz

## **An Australian Perspective on Enhanced Source Control**

Andy Salveson, PE

Mary Kate Forkan

October 2026





# Background

# Australia and Purified Recycled Water (PRW)

- **Australia** is in the early phase of evaluating and developing **PRW projects**
  - » **One Operational Facility:** Water Corporation of Western Australia (Perth, Australia)
  - » **Treatment Train:** UF, RO, and UVAOP



# Australia and the United States

- **Australia** has watched the development of **WRF 4960** closely
  - » U.S. based Framework for Enhanced Source Control of Industrial (Trade Waste) contaminants in Potable Reuse

**Jacobs** 

- » Trade waste management in Australia adheres to different principles and approaches than the U.S.
- » Australia has similar goals for water quality and risk minimization for PWR



Sydney  
**WATER**



# Key Questions

**What is Australia doing now?**

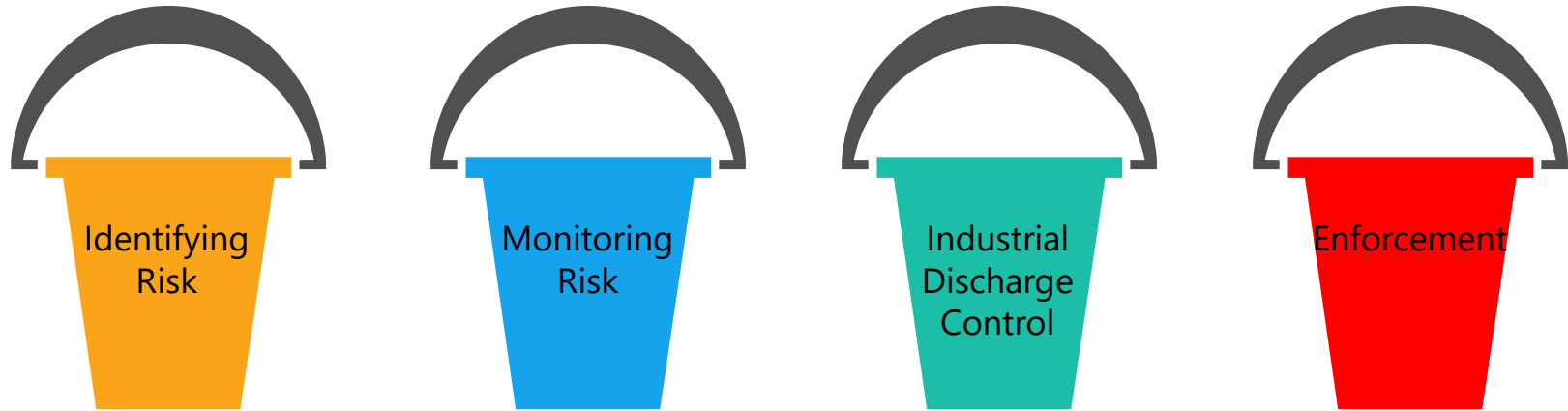
**What is Australia's yellow brick road?**

**How can this apply to California?**

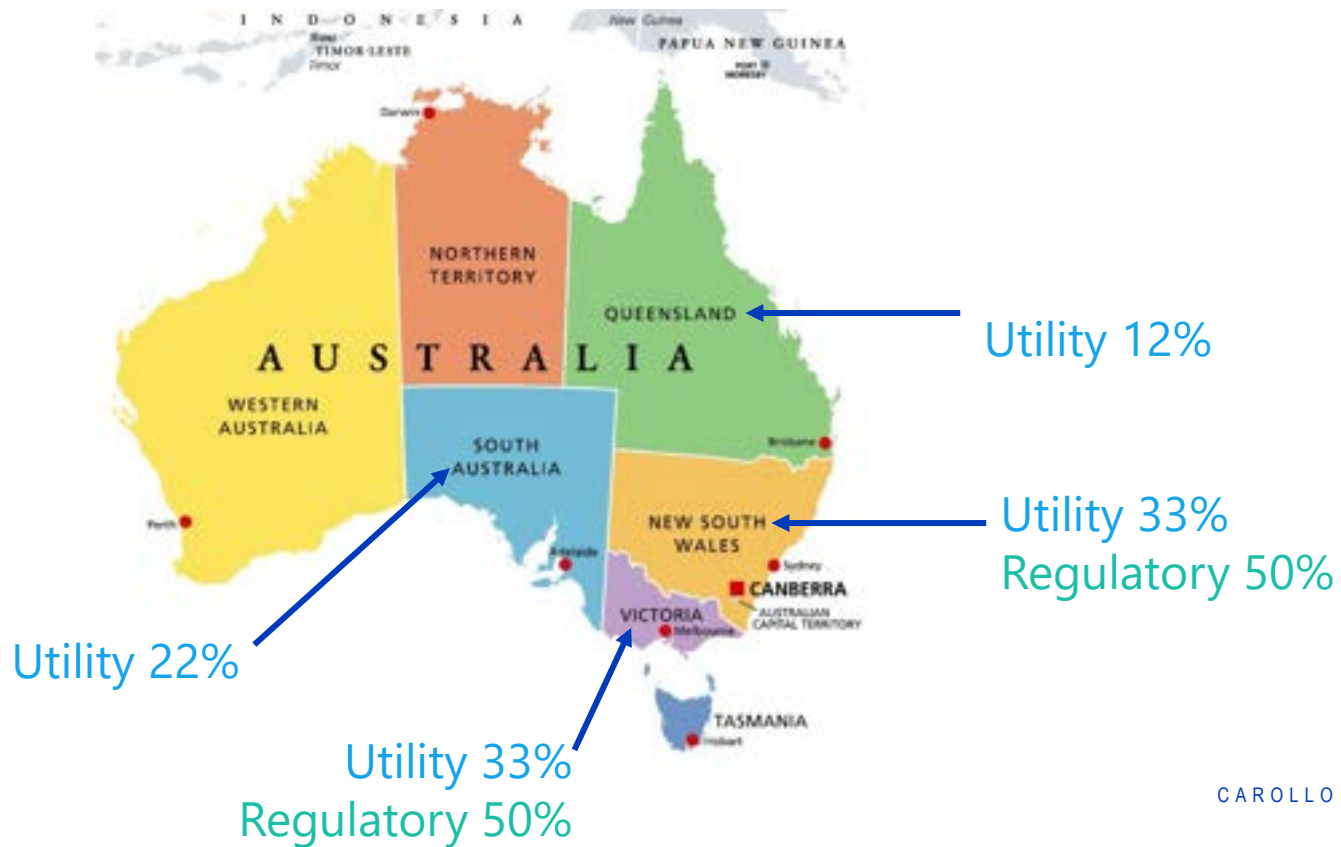


# What is Australia Doing Now?

# Water RA 3056 Started with a Survey of Australian Stakeholders



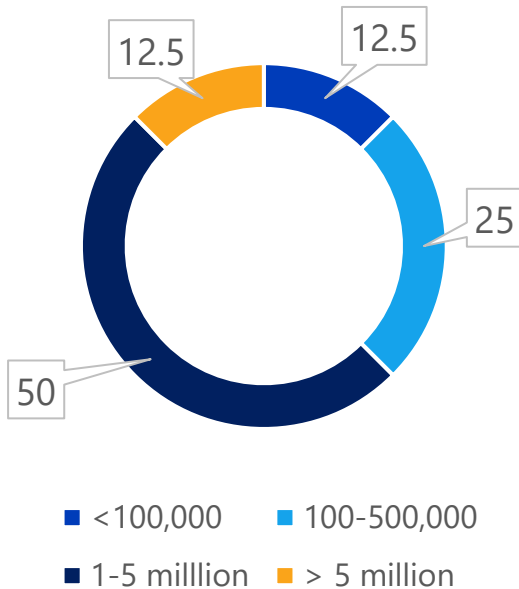
# Map and Distribution of Survey Respondents



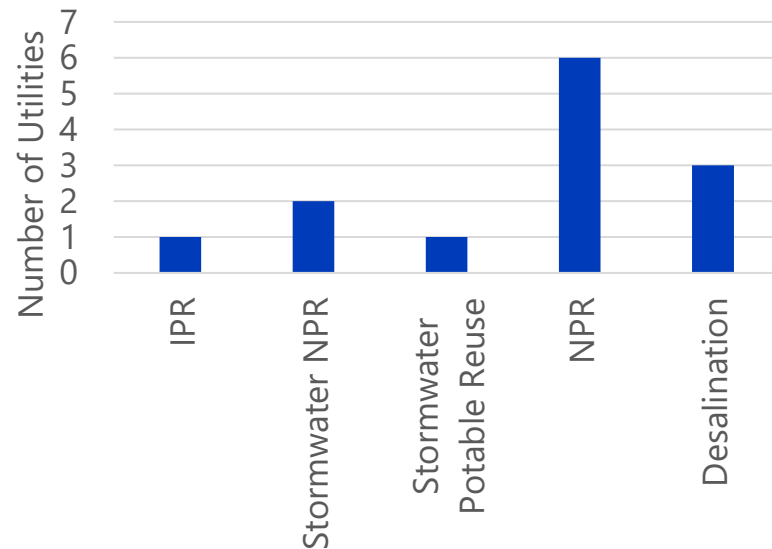


# Survey Results

## Service Area Population



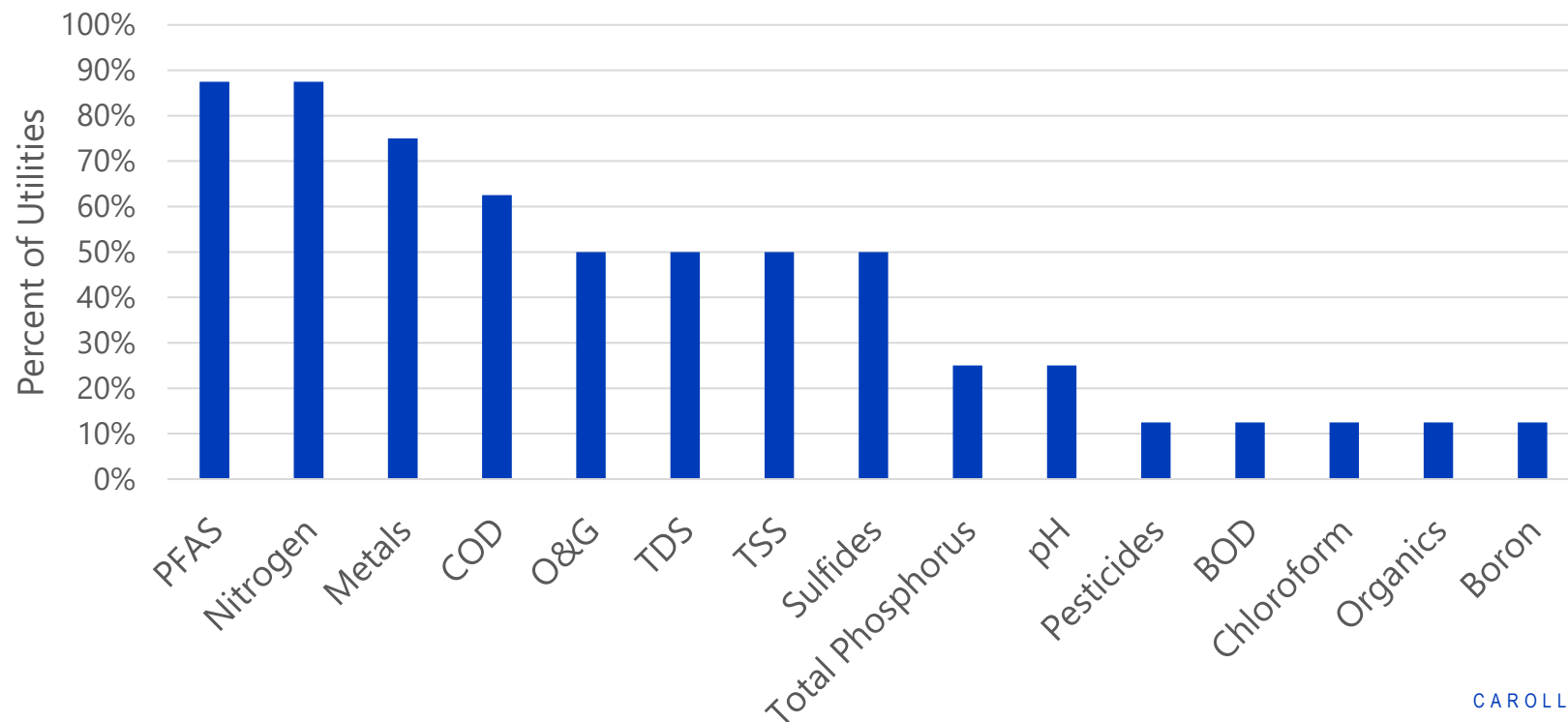
## Recycled Water Initiatives



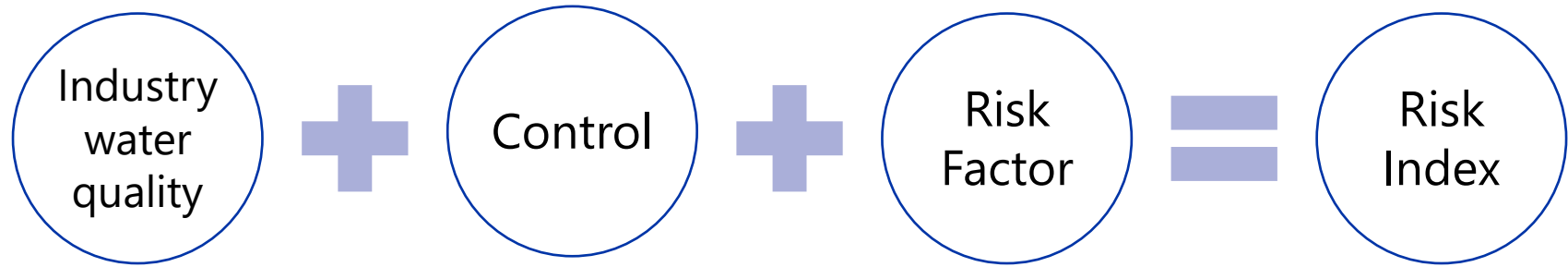
- 25% of utilities are responsible for their own source control program
- 50% of the utilities engage in some form of PRW



# Existing Trade Waste Programs Typically Focus on Biological Impacts

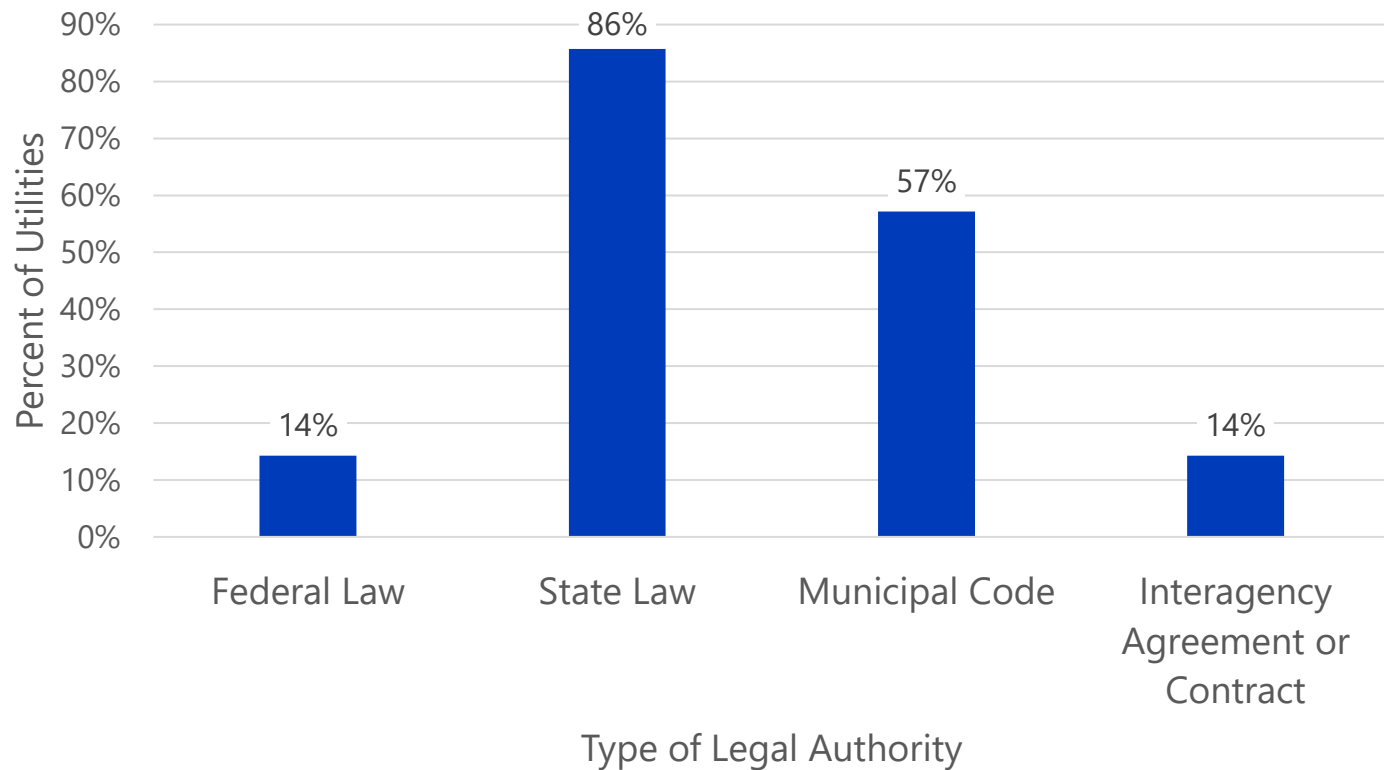


# Many Utilities Evaluate Trade Waste Risk via Risk Ranking

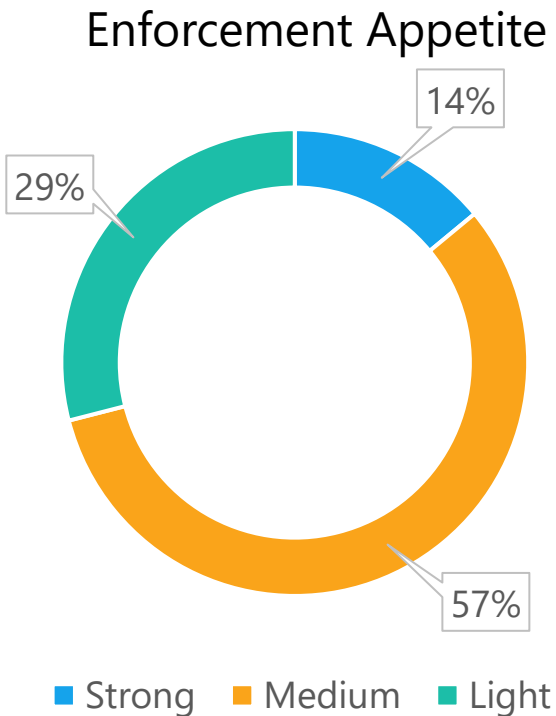




# Legal Authority Primarily Comes from State Law



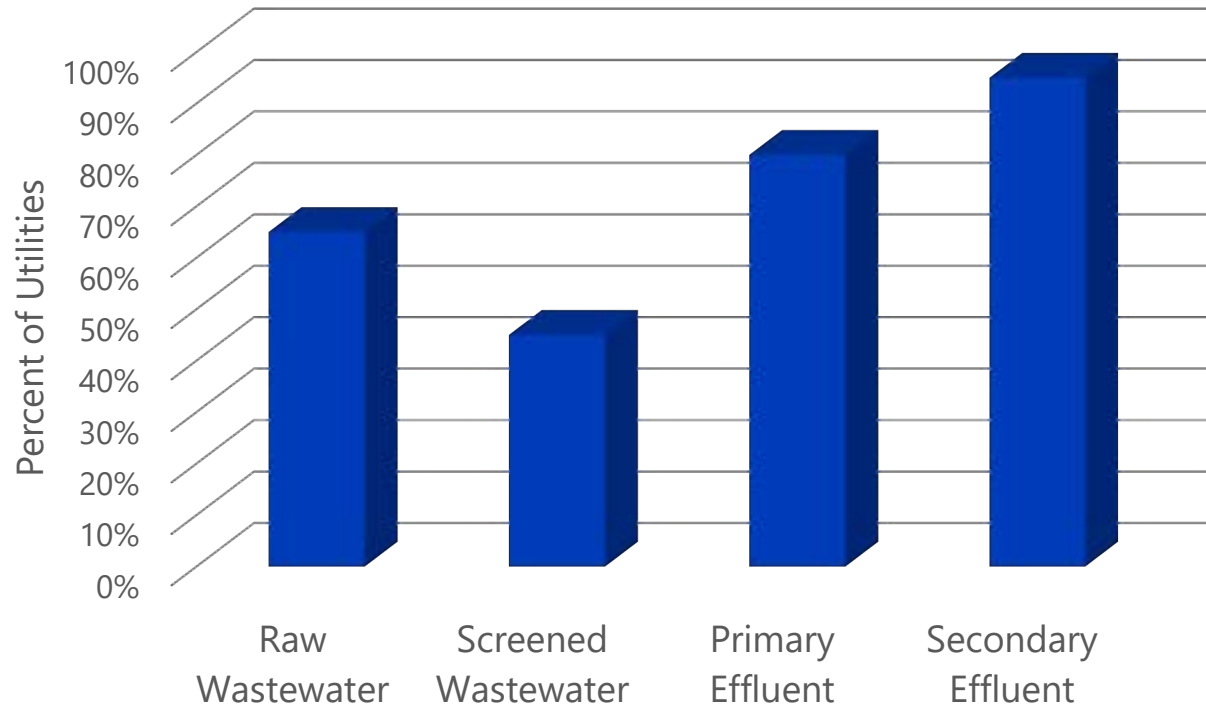
# Trade Waste Enforcement Approaches are Variable



## • Rationale

- » Desire to balance risk with impact to customer
- » Preference for a softer approach
- » Legal authority of utility is uncertain
- » Too many trade waste customers to manage
- » Politics

# All Utilities Utilize Continuous Online Monitoring within the WWTP





## Key Takeaway from Surveys

- Strength of Australia is **Risk Assessing** and **Monitoring**

Australia



- Strength of the US is **enforcement** backed by **Federal Law**

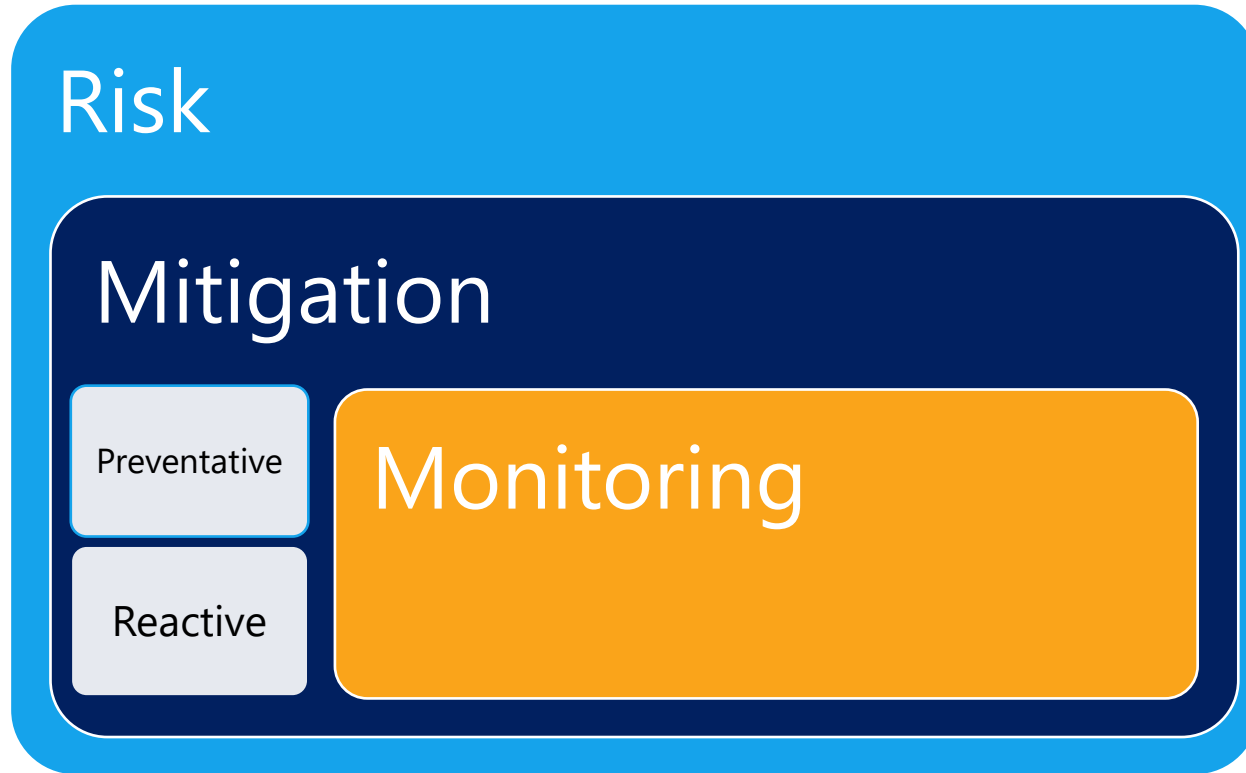
US





# The Yellow Brick Road

# Enhanced Source Control Components



# Enhanced Source Control Pathways

## Abbreviated Domestic

Domestic source  
feed

## Assertive Industrial

Industrial source  
feed

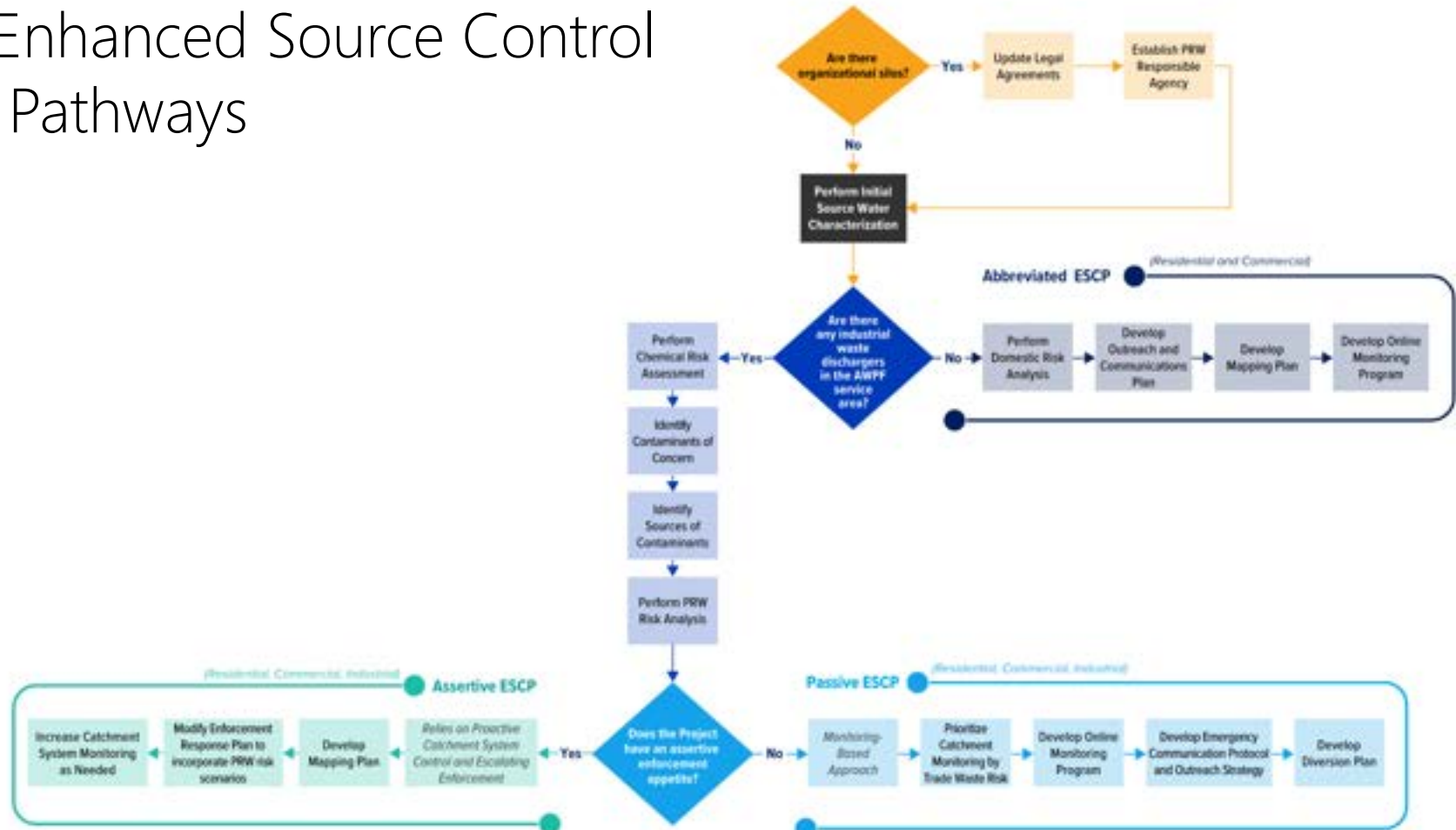
Assertive  
enforcement  
appetite

## Passive Industrial

Industrial source  
feed

Passive enforcement  
appetite

# Enhanced Source Control Pathways





# What Can We Learn?

# Sydney Water's Existing Source Control Program



## Control Measures

- Local limits
- Trade waste surveys
- Discharger risk assessment
- Industrial discharger permits
- Inspections
- Legal authority



## Enforcement Measures

- Incident management framework
- Escalating enforcement measures



## Outreach

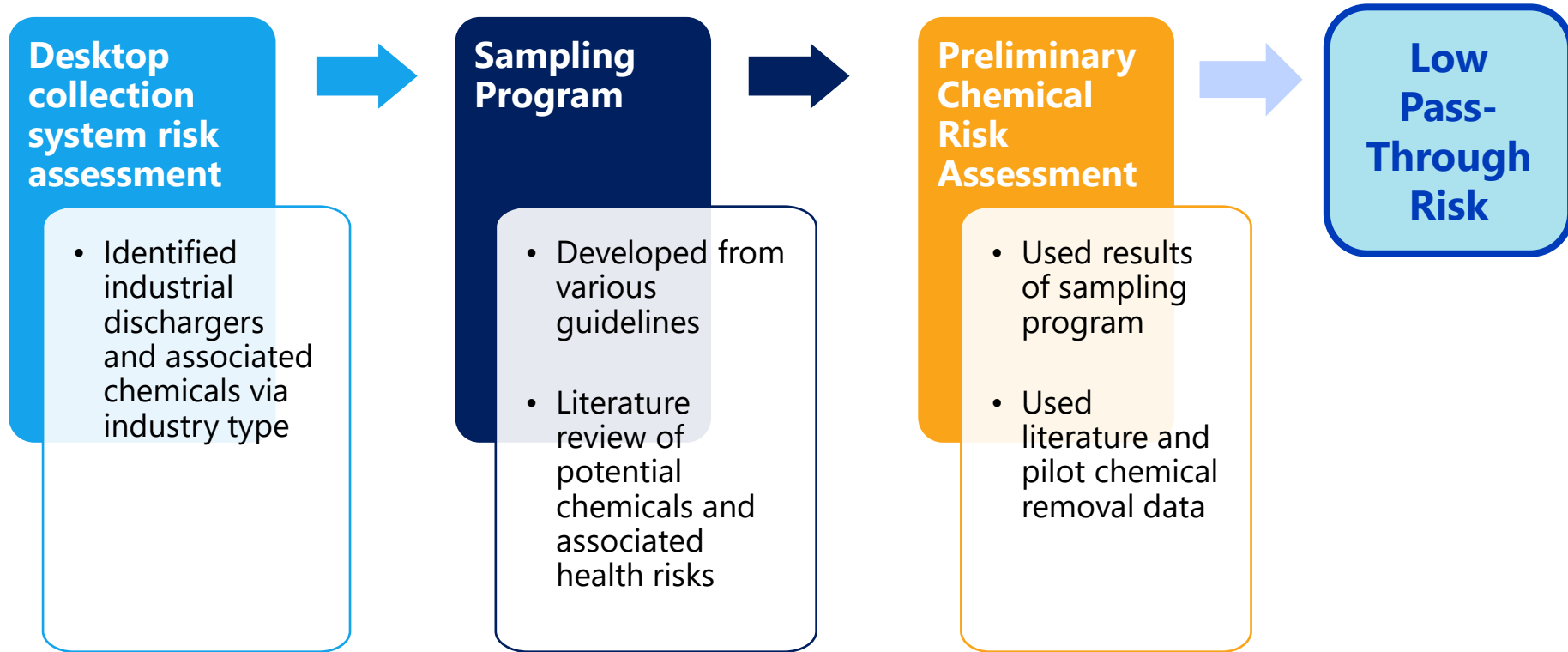
- Residential
- Industrial



## Online Monitoring

- WWTP

# Sydney Water's Chemical Risk Assessment

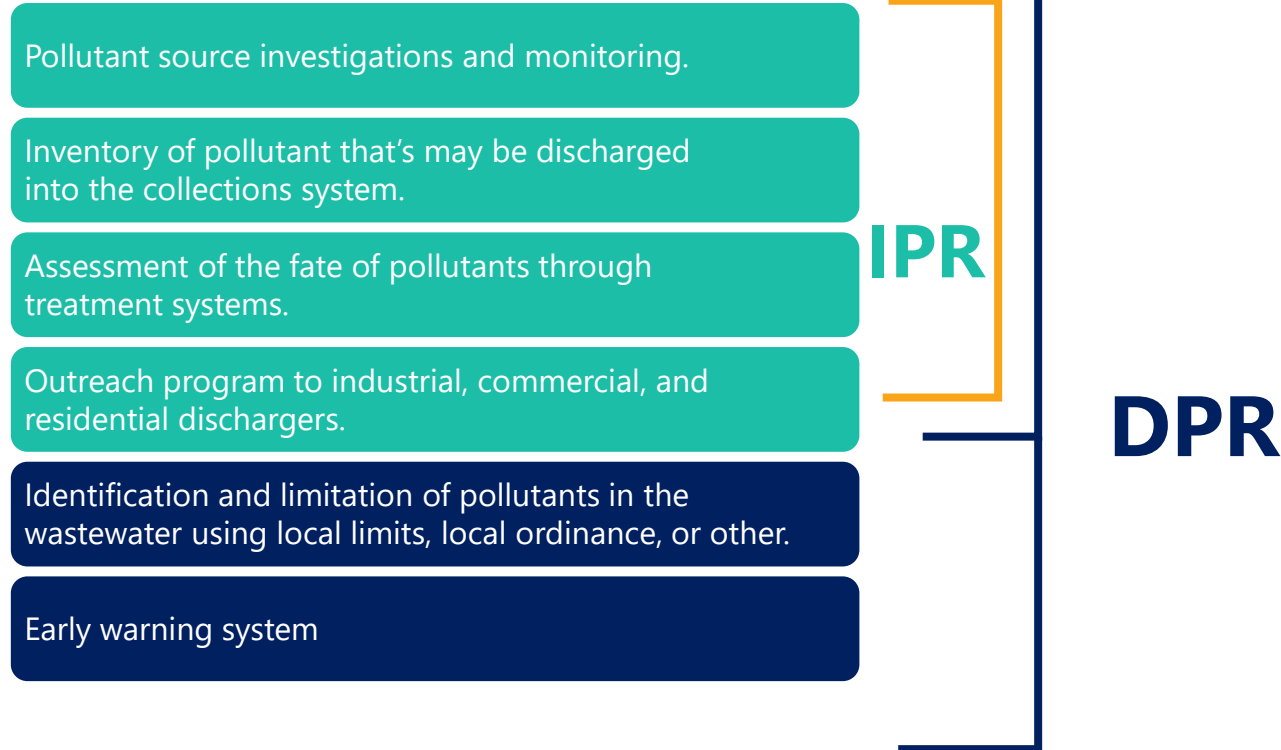


## So, What Risk is Left?



- At what capacity does a chemical's load impact the WWTP and in turn the AWWPF?
- How can the WWTP be optimized to enhance resiliency and maintain consistent water quality?

# What does this look like for California?



# Enhanced Source Control Pathways

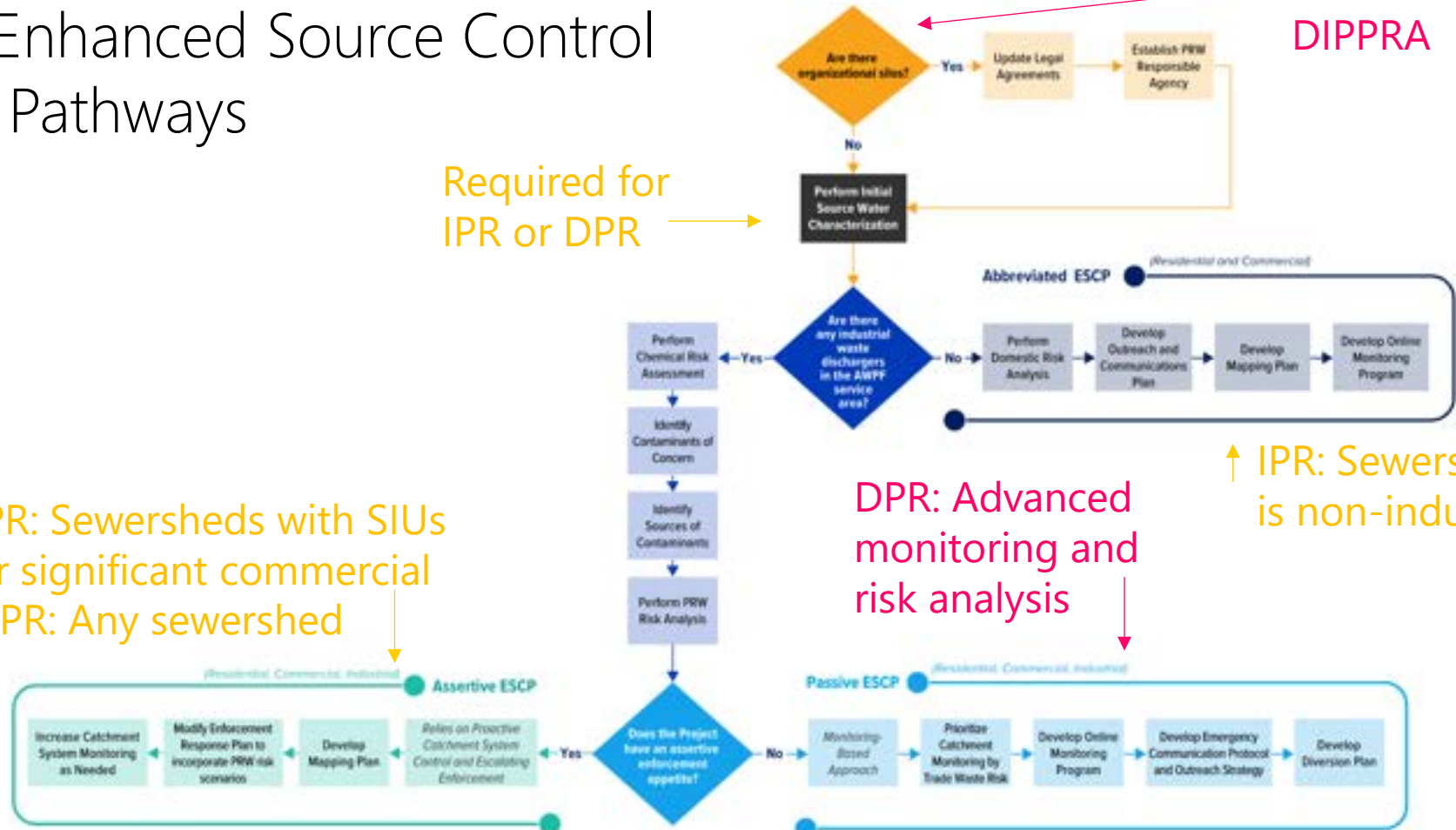
Required for  
IPR or DPR

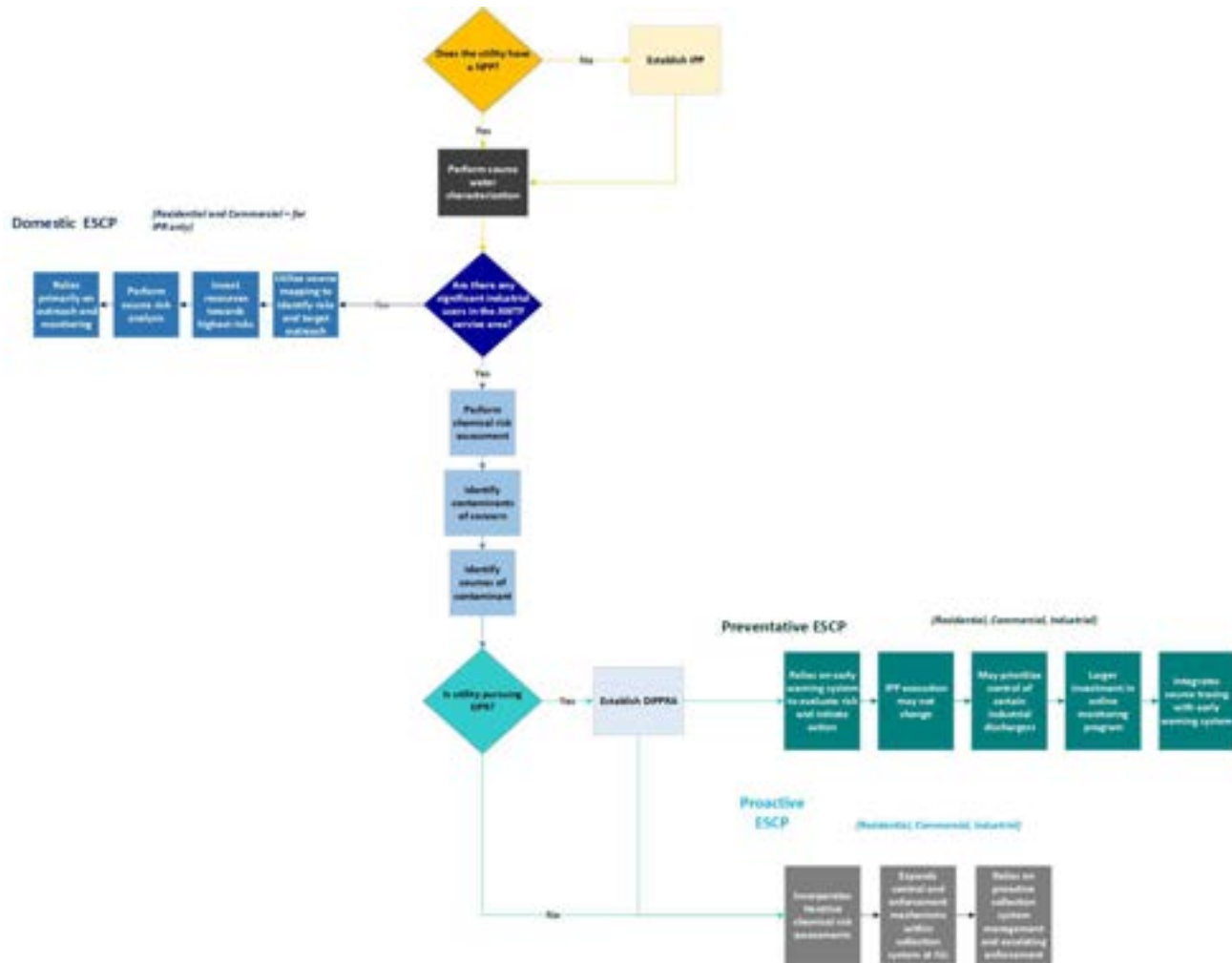
DPR:  
DIPPRA

IPR: Sewersheds with SIUs  
or significant commercial  
DPR: Any sewershed

DPR: Advanced  
monitoring and  
risk analysis

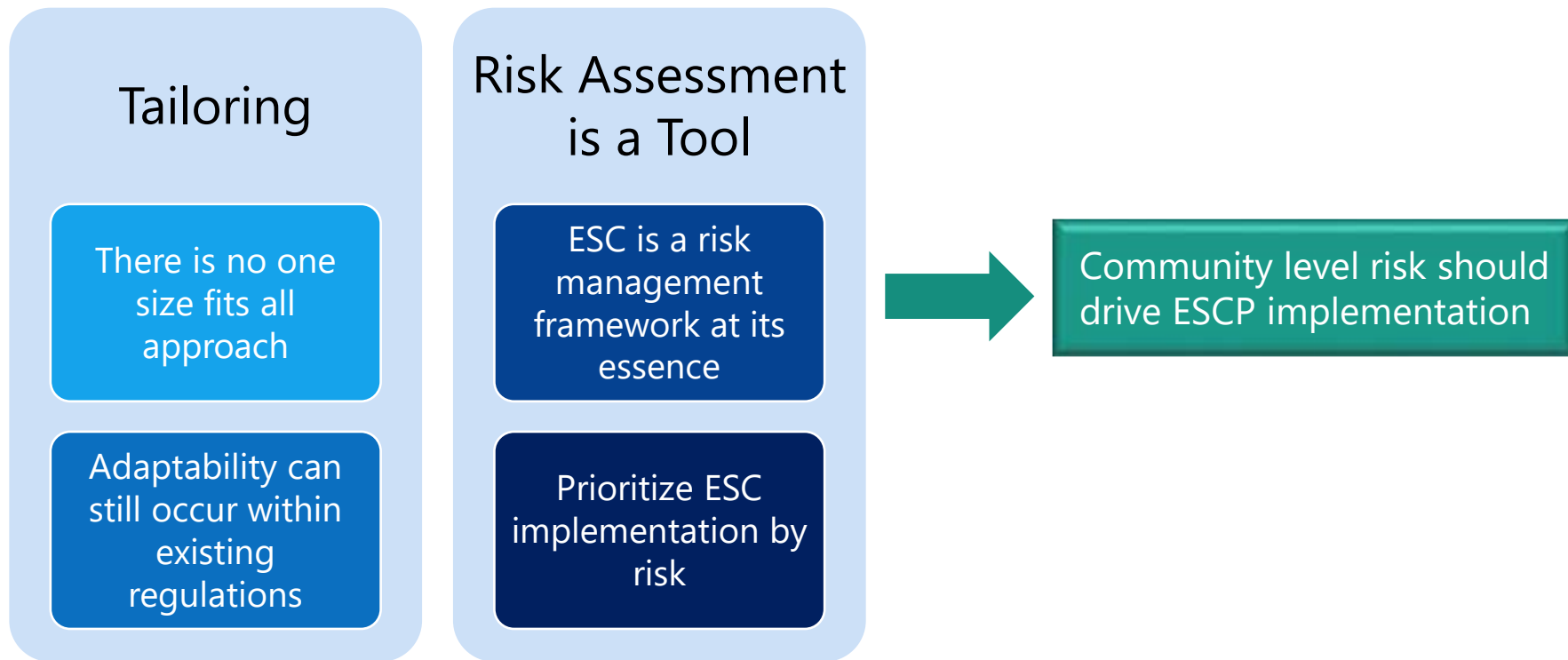
↑ IPR: Sewershed  
is non-industrial







# Tailoring and Takeaways





Questions



**LOS ANGELES COUNTY  
SANITATION DISTRICTS**

*Converting Waste Into Resources*

# WaterReuse Legislative Update, LA Chapter

**Phillip Vander Klay**

**Legislative Liaison, LACSD**

**October 13, 2026**



OUR SERVICE AREA

# Federal Update





Lame Duck

# Federal Update



**FY 2027 Budget?**



**Permitting Reform?**



**Grant Regulations**



**Water Resource Development Act?**



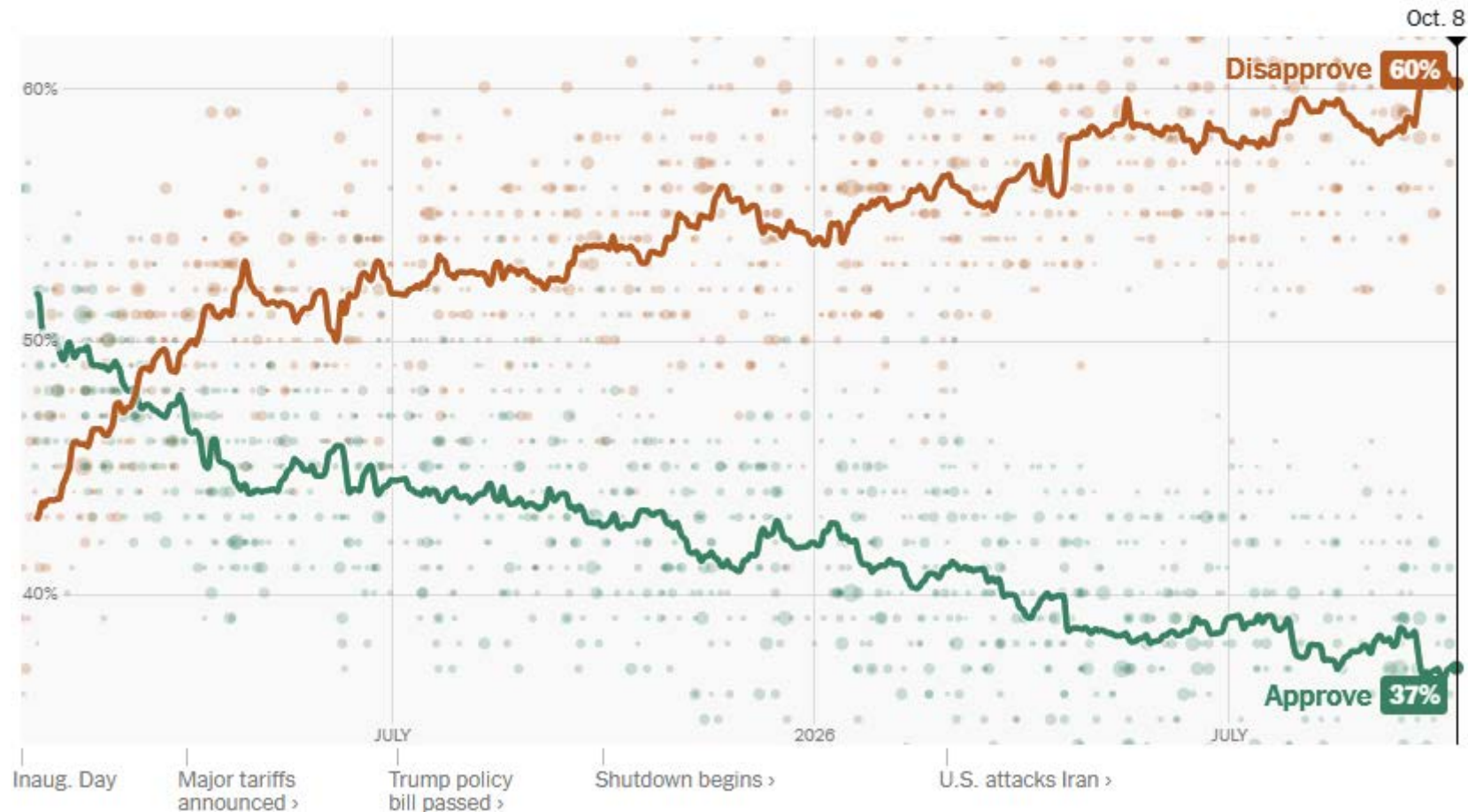
**Colorado River?**



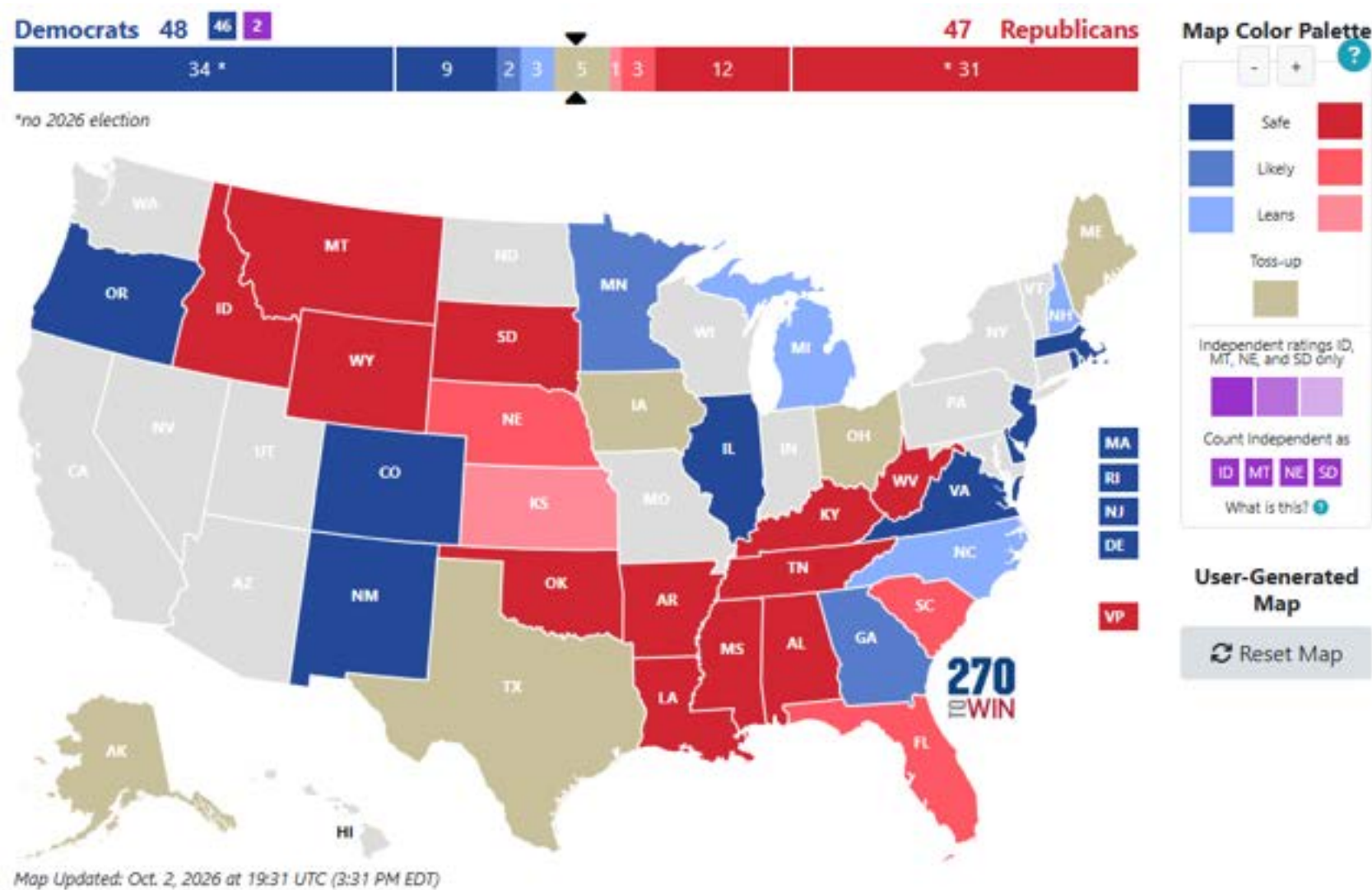
# The Midterms

## Presidential approval rating

This is a daily average of polls conducted by dozens of different organizations since Inauguration Day. [See the latest polls.](#)



# US Senate Up for Grabs





# California Update

- AB 2777 (ESTM) SRF variable loan rates
- \$75 million in Recycled Water funds from Prop 4
- AI – Water, energy, people, & products



# Ballot Measures

Prop 1: Housing  
Bond

Prop 2: Rainy  
Day Fund

Prop 3: Extend  
High-Income  
Tax

Prop 37:  
Homebuyers  
Loan

Prop 38: Research  
Bond

Prop 40:  
Billionaires Tax

Prop 42: Local  
Tax Restrictions

Prop 43: Votes  
for Special Taxes

Prop 45: CEQA &  
Permit  
Streamlining





**LOS ANGELES COUNTY  
SANITATION DISTRICTS**

*Converting Waste Into Resources*

# Questions?

**Phillip Vander Klay**

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

(562) 783-1965





Chapter Trustee Updates  
WateReuse LA Chapter – October 13, 2026



New Board Members

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- Jan Lee**  
Dublin San Ramon Services District
- Melanie Holmer**  
Jacobs
- Sanjay Reddy**  
Carollo
- Sara Katz**  
Bodewell Group
- EJ Caldwell**  
West Basin Municipal Water District

Board Leadership

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- President**  
Shivaji Deshmukh, Metropolitan Water District of Southern California
- Incoming President and WRA Board Representative**  
Kyle Swanson, Padre Dam Municipal Water District
- Treasurer**  
Melanie Holmer, Jacobs
- Member at Large**  
Sara Katz, Bodewell Group
- Past President**  
Roger Bailey, Central San



Financial Update: Fiscal Year to Date Through June

Board Vote: Approved



- Net revenue is **\$311,266 better than budget**, with expenditures at 25% of budget
- New state section membership revenue: **\$24,855**, 66% above the \$15,000 budget
- Interest income and capital gains: **\$22,836**, 165% of budget
- Conference revenue and expenses will be recognized following the event



California Supplemental Fee

Board Vote: Approved

7%

Supplemental fee supporting  
WRCA staffing

- **Extends the existing fee, not a new charge**
- Raised from 5% to 7% in FY2025 and held since
- Pays for staffing, including one new position in FY2027
- Projected FY2027 revenue of about \$86,691
- Larger members contribute proportionally more



Conference Highlights

- 870+ registrations, higher than expected**
- Sponsorship revenue: **\$255,250**, 110.98% of plan
  - Exhibitor revenue: **\$64,050**, 177.92% of plan
  - Registration revenue: **\$415,565**, 104.68% of plan
  - Revenue is \$71,865 above budget, leaving projected net revenue **\$35,677 ahead of budget**





Conference Logistics: PC Events Contract

Board Vote: Approved

Continuing our partnership with PC Events for conference planning and logistics support

**3 years**  
2027, 2028 and 2029 Annual Conferences

**About 800**  
attendees expected in Palm Desert in 2027

**30 to 40**  
exhibit booths expected in 2027

Scope of Services

- Program and speaker management
- Meeting rooms, food and beverage, and hotel room blocks
- Audio visual and signage
- Registration and marketing coordination with WRA
- Onsite management and post-conference support



## WRCA Charters

---

7

WRCA chapters, each selecting a  
Chapter Trustee

1

Board work group recommended by  
the Executive Committee

- One Chapter Trustee per chapter, one representative per member organization
- **A state level effort is making all chapter charters consistent,** coordinated with the Managing Director
- Board work group to review chapter selections
- Supports the Strategic Plan goal of high caliber leadership



# Managing Director Dashboard

**1 Regulatory Adjustments**

- Supported SB 1157 implementation
- Finalizing short term regulatory support contract

**2 Project Funding**

- Supported CWSRF and AB 35
- Supported advocacy on AB 2777

**3 Implementation Support**

- Launched restructured Potable Reuse Committee
- Convened utilities, regulators, and partners

**6 Create Champions**

- Expanded outreach beyond the reuse community
- Secured San Francisco Mayor's participation

**8 Annual Conference**

- Stronger programming for attendees
- Record sponsor and exhibitor participation
- First operator contact hours with CA-NV AWWA

**10 Leadership Pipeline**

- Supported the Nominating Committee process
- Strengthened board recruitment and succession

**11 Organizational Strength**

- Covered Managing Director and regulatory roles
- Navigated the database transition

**12 Communication Capabilities**

- Addressed marketing contact and data gaps
- Reinforced reliable data and communications

**13 Sector Partnership**

- Expanded committee and statewide engagement
- Strengthened WRCA's role as statewide convener



## Membership & Events Dashboard

**1** Regulatory Adjustments

- Supported SB 1157 implementation
- Finalizing short term regulatory support contract

**2** Project Funding

- Supported CWSRF and AB 35
- Supported advocacy on AB 2777

**3** Implementation Support

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Chapter Trustee Updates  
WateReuse LA Chapter – October 13, 2026



What’s ahead 

Friday  
**Nov 6**  
2026

**Q4 Board of Trustees Meeting**  
Virtual  
FY2027 budget and staffing proposal presented

SAVE THE DATE

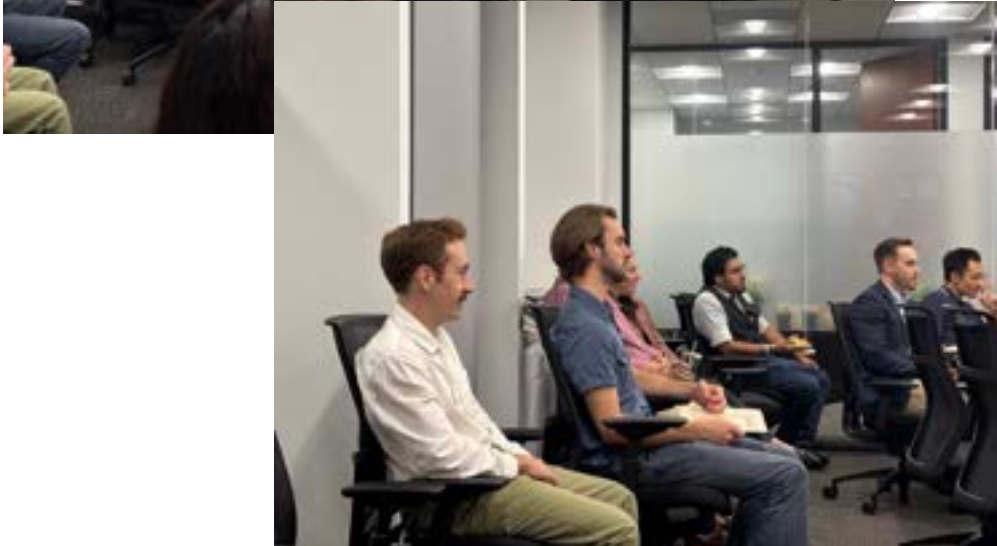
**October 27 to 29**  
**2027**

WateReuse California Annual Conference  
**Palm Desert, California**

# LA Chapter Updates

- Communications Chair: *Oliver Slosser* [oslosser@lvmwd.com](mailto:oslosser@lvmwd.com)
- Ad Hoc Urban Irrigation Manual Update Co-Chairs: *Monica Sanchez and Erika Bensch*  
[monicasanchez@lacsdsd.org](mailto:monicasanchez@lacsdsd.org)
- *Rising Professionals Committee*  
Chair: *Wen Cong*  
[wenc@trusselltech.com](mailto:wenc@trusselltech.com)
- Technical Topics Chair: *Farzaneh Shabani* [fshabani@carollo.com](mailto:fshabani@carollo.com)

# Rising Professionals Committee – Career Conversation Panel on Sep 3, 2026



- Thank you to Hazen and Sawyer for your generous sponsorship.
- **Upcoming RP event:** social happy hour in early December
- Reach out if you have suggestions for future events!
  - Wen Cong ([wenc@trusselltech.com](mailto:wenc@trusselltech.com))
  - Nick Lowe ([NDLowe@hazenandsawyer.com](mailto:NDLowe@hazenandsawyer.com))