

Meeting Agenda
October 13, 2020
11:30 a.m. – 1:00 p.m.



Location: **Zoom registration link**

<https://us02web.zoom.us/join/9tZAvfu-rrDkiH93ieQvZRH7XnfhxV3KN73Xs>

The mission of Los Angeles Chapter of the WaterReuse Association is to increase the amount and safe beneficial uses of recycled water in and around Los Angeles County. 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.

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

1. Host presentation: Increasing Reuse in LACSD's Joint Outfall System (*Suzanne Brown/LACSD*)
2. Technical Topic: Adapting to Change: Informing Water Use Efficiency and Declining Flows (*Jocelyn Lu/Brown and Caldwell*)
3. Water Recycling Legislative/Regulatory Updates (*Raymond Jay*)
4. Regulatory Agency Update
 - a. Los Angeles Regional Water Quality Control Board (*Steven Webb*)
 - b. LA County Department of Public Health (*Robert Bueras*)
 - c. SWRCB Division of Drinking Water (*Faraz Asad*)
5. California State Section Update (*Evelyn Cortez-Davis*)
6. Chapter Updates (*Judi Miller*)
 - a. Officer elections
 - b. Bylaws amendments
 - c. Approval of August, 2020 Member Meeting Summary
 - d. Member montage (*Sam Landsman*)
7. Membership Roundtable (*Jared Lee*)
8. Next Meetings
 - December 8, 2020 – Virtual
 - February 9, 2021– Virtual?
9. Adjournment 1:00 p.m.

Los Angeles Chapter Officers for 2019/2021

Fred Gerring, President	626-319-1107
Jared Lee, Vice President	626-379-8443
Judi Miller, Secretary/Treasurer	213-228-8236
Evelyn Cortez-Davis, Chapter Trustee	213-367-1014
Raymond Jay, Past-President	213-217-5777

fgerring@hazenandsawyer.com
JLee@burbankca.gov
judi.miller@jacobs.com
evelyn.cortez-davis@ladwp.com
rjay@mwdh2o.com



**LOS ANGELES COUNTY
SANITATION DISTRICTS**

Converting Waste Into Resources

Increasing Reuse in the Joint Outfall System

WateReuse LA Chapter Meeting

Suzanne Brown

Los Angeles County Sanitation Districts

October 13, 2020





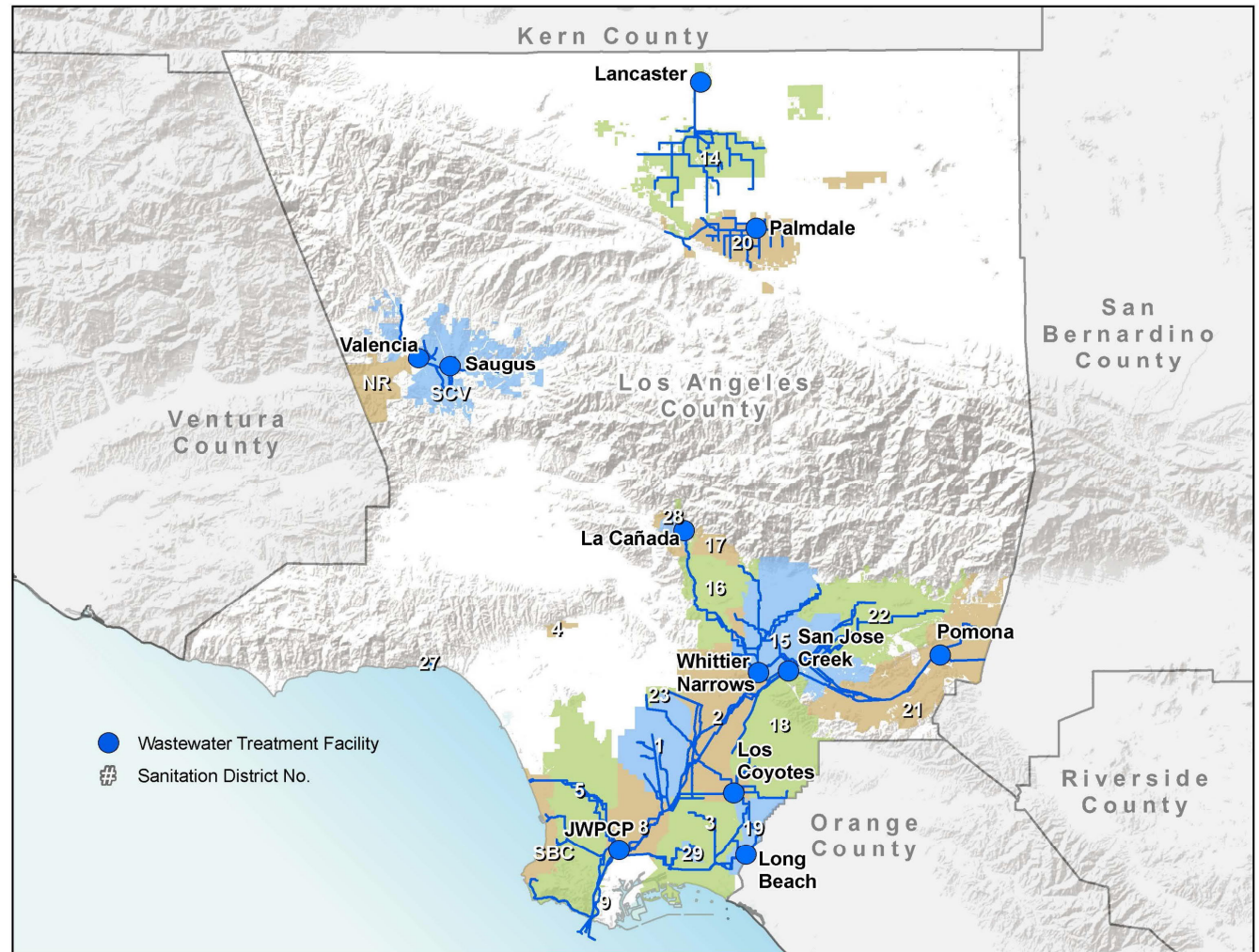
Outline

1. LACSD and Joint Outfall System (JOS) overview
2. Current reuse in the JOS
3. Increasing reuse in the JOS
 - Increasing production
 - Increasing use

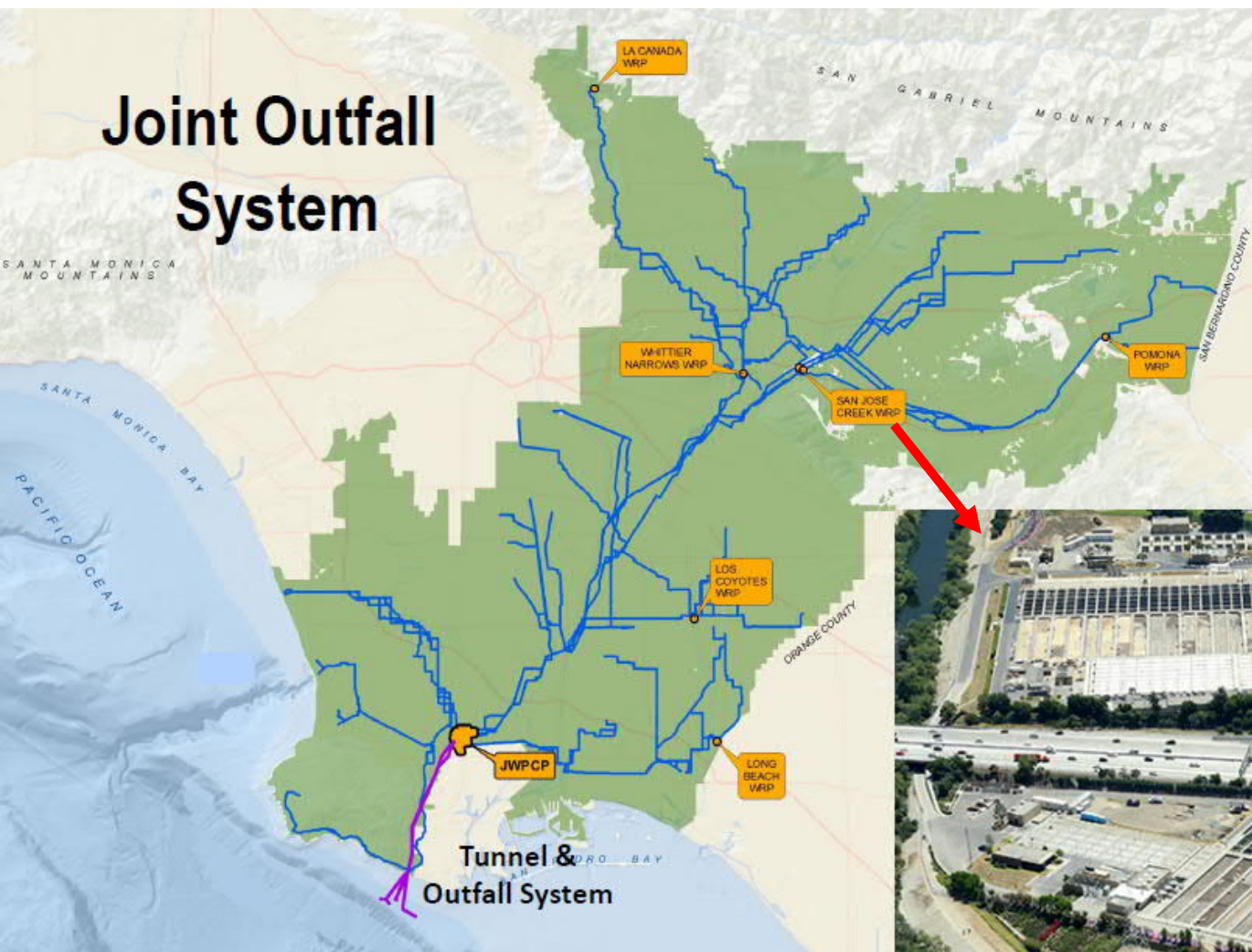


Sanitation Districts Overview

- Wastewater and solid waste
- 78 cities
- 5.6 million people
- 850 square miles



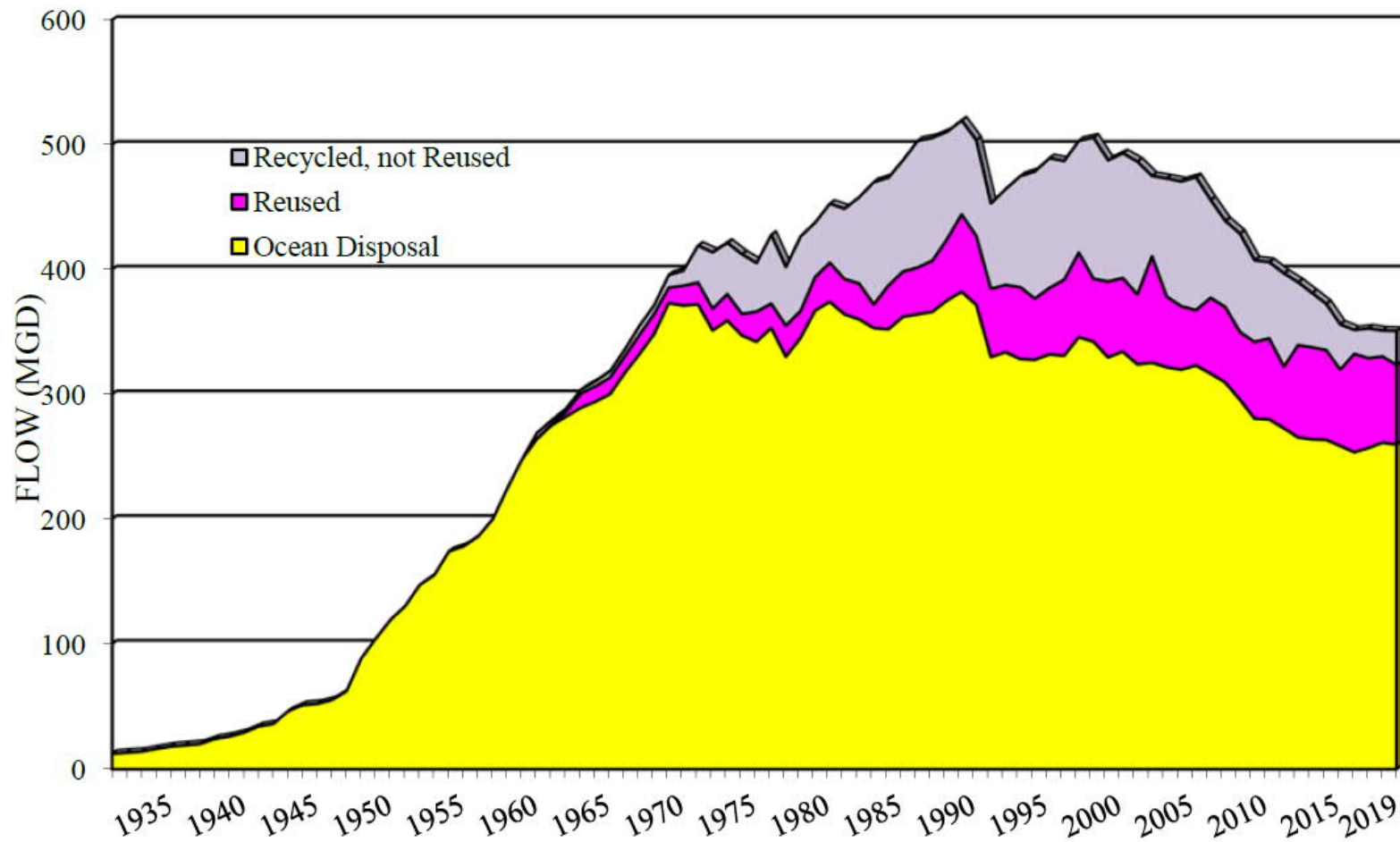
Joint Outfall System



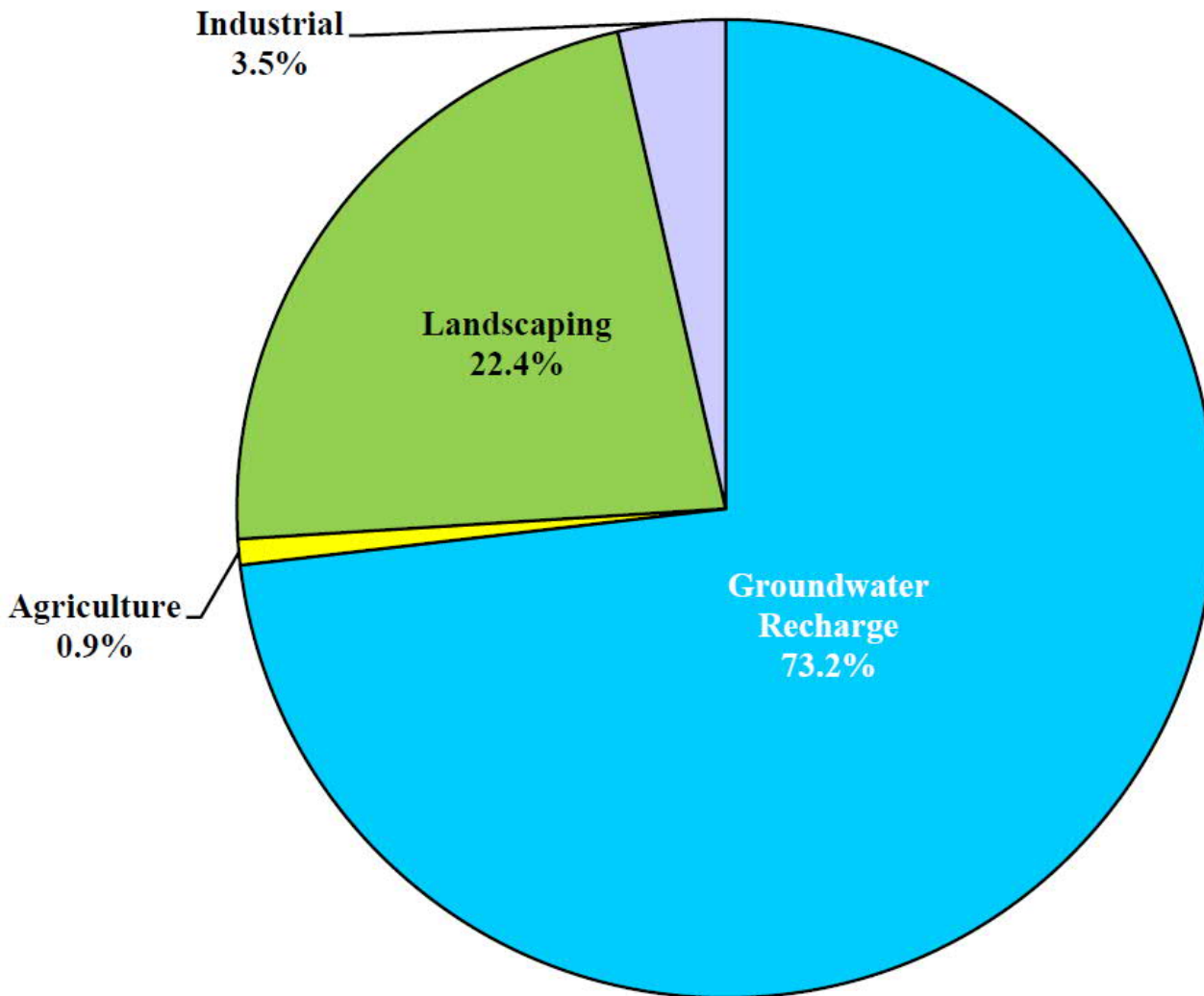
- Interconnected system
- 8 treatment facilities
- 5 million people



JOS Reuse, 1930-2019



Reuse in the JOS



Partnerships with
local/regional
water purveyors

71,000 AF
used in 2019

826 sites



Groundwater Recharge: Alamitos Barrier



<https://www.usgs.gov/media/images/los-angeles-area-groundwater-management-activities>



Leo Vander Lans
Advanced Water
Treatment Facility
(WRD)

Long Beach Water
Reclamation Plant





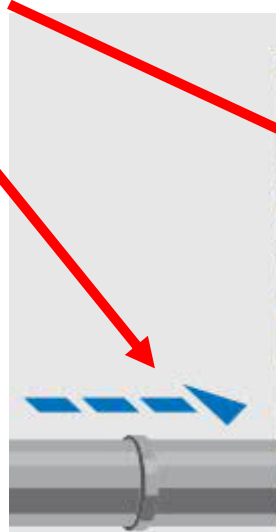
Groundwater Recharge: Montebello Forebay

- Started in 1962
- Recharge in spreading grounds and unlined San Gabriel River system
- Uses tertiary recycled water from San Jose Creek, Whittier Narrows, and Pomona WRPs
- WRD's ARC Advanced Water Treatment Facility



Increasing Reuse

Increase
production



*Sewer
System*



Water Reclamation Plant

Increase
use

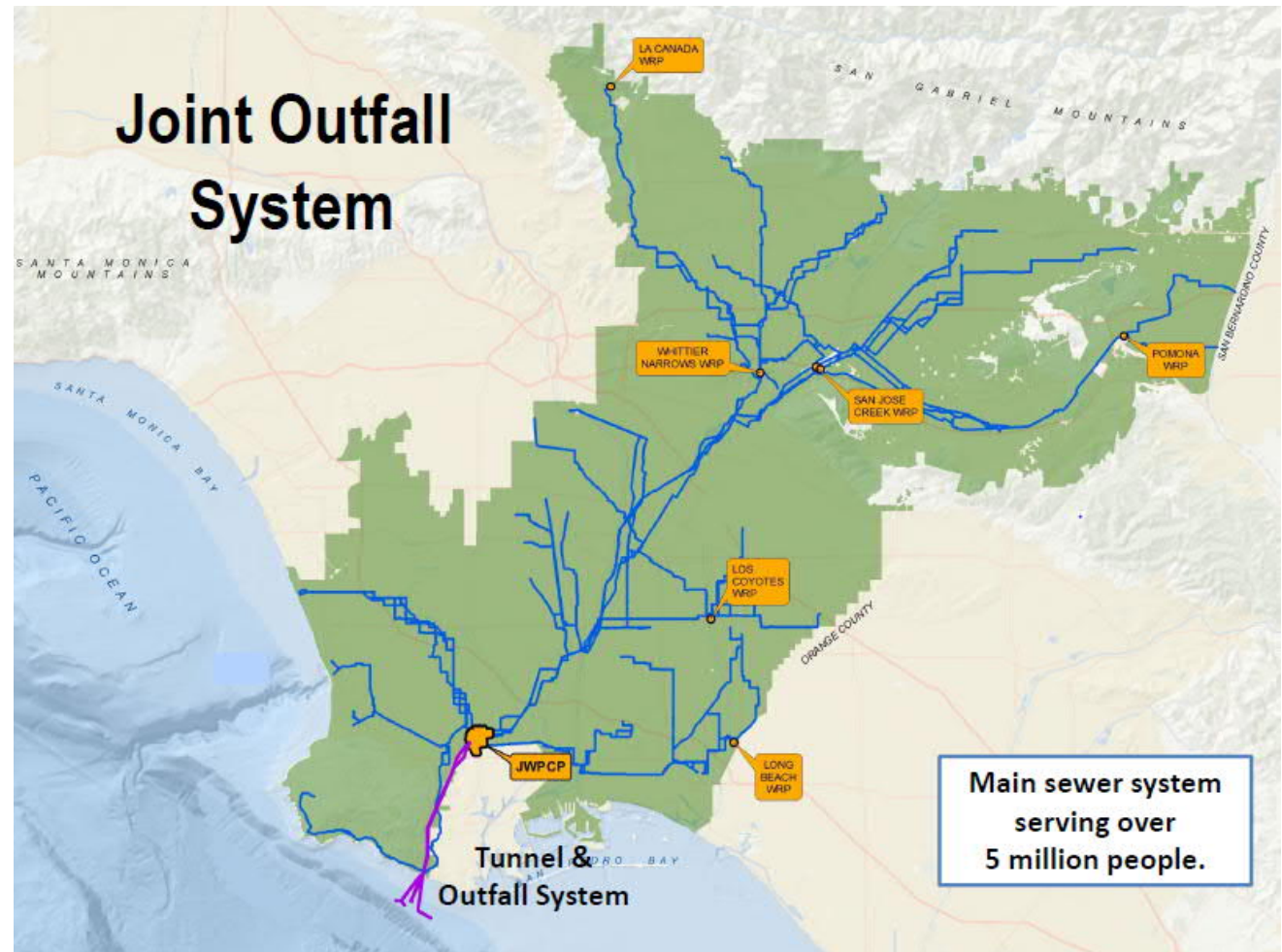


*Recycled
Water*

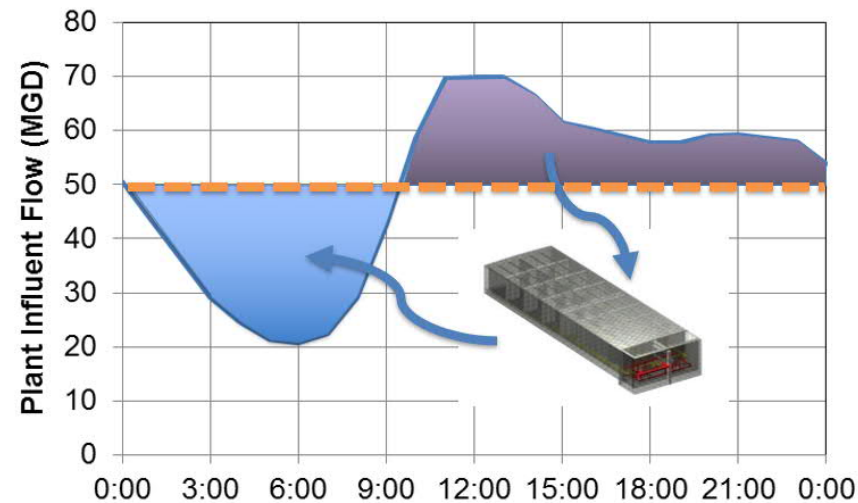
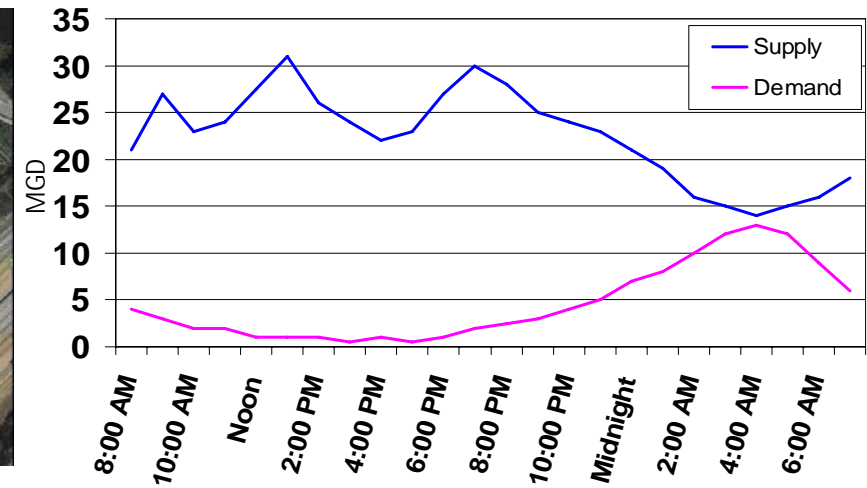
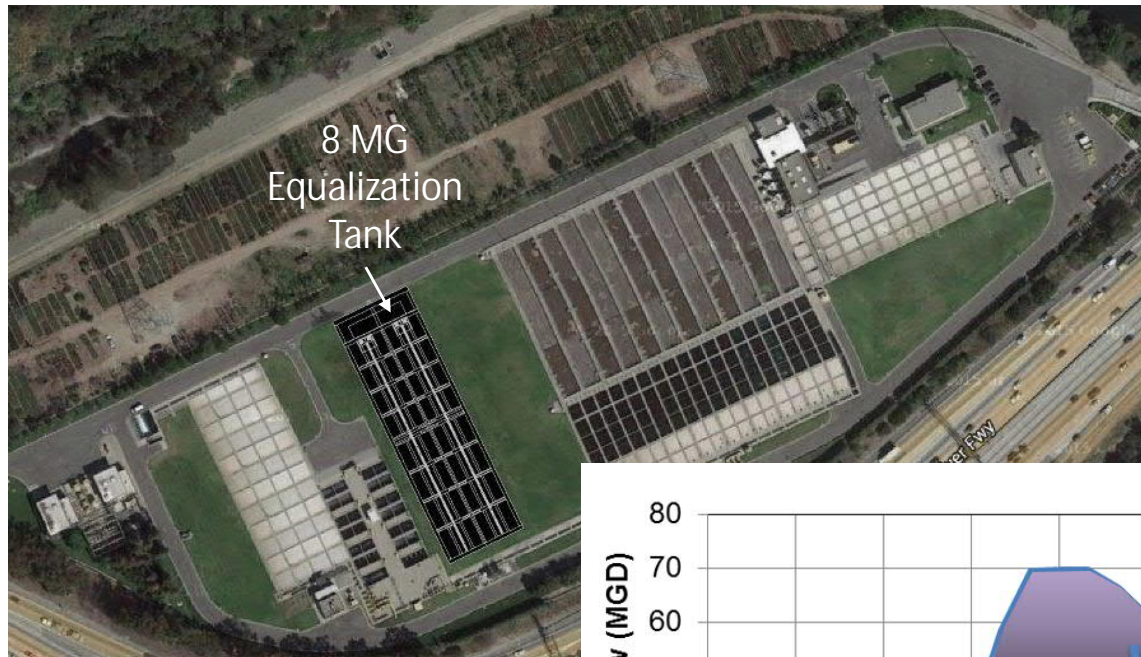


Increasing Production

- Sewer system
 - Divert sewer flow from JWPCP to upstream WRPs



Increasing Production: San Jose Creek Flow Equalization

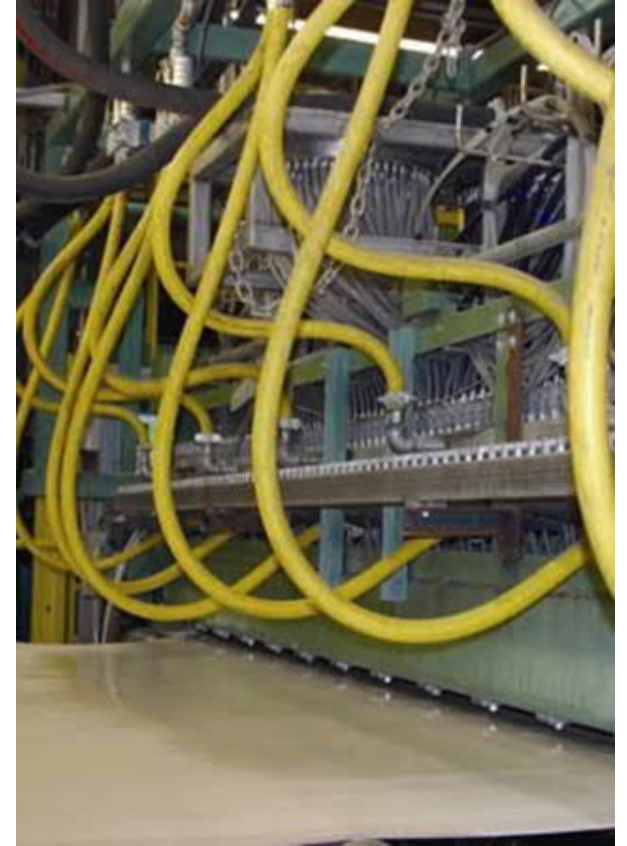


Increasing Use: Facilitating New Projects



Future projects

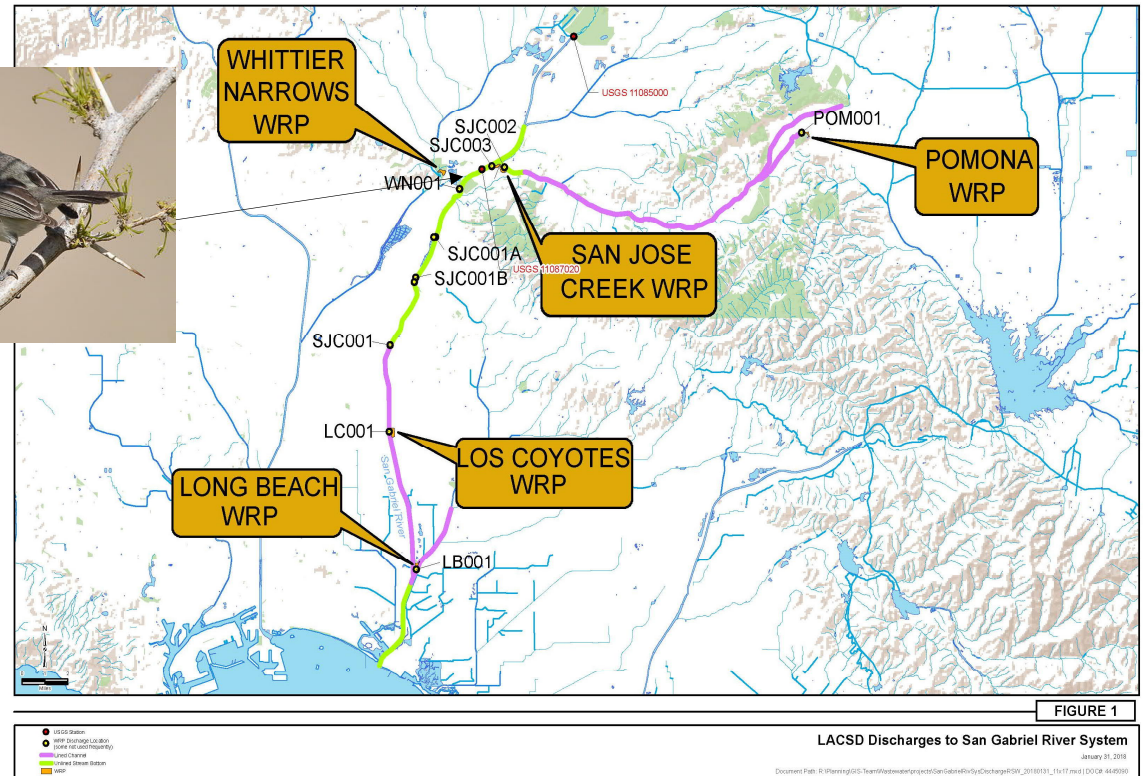
- ~20,000 AFY from upstream WRPs
- Planned by partner agencies
- In various stages of development



Increasing Use: Facilitating New Projects



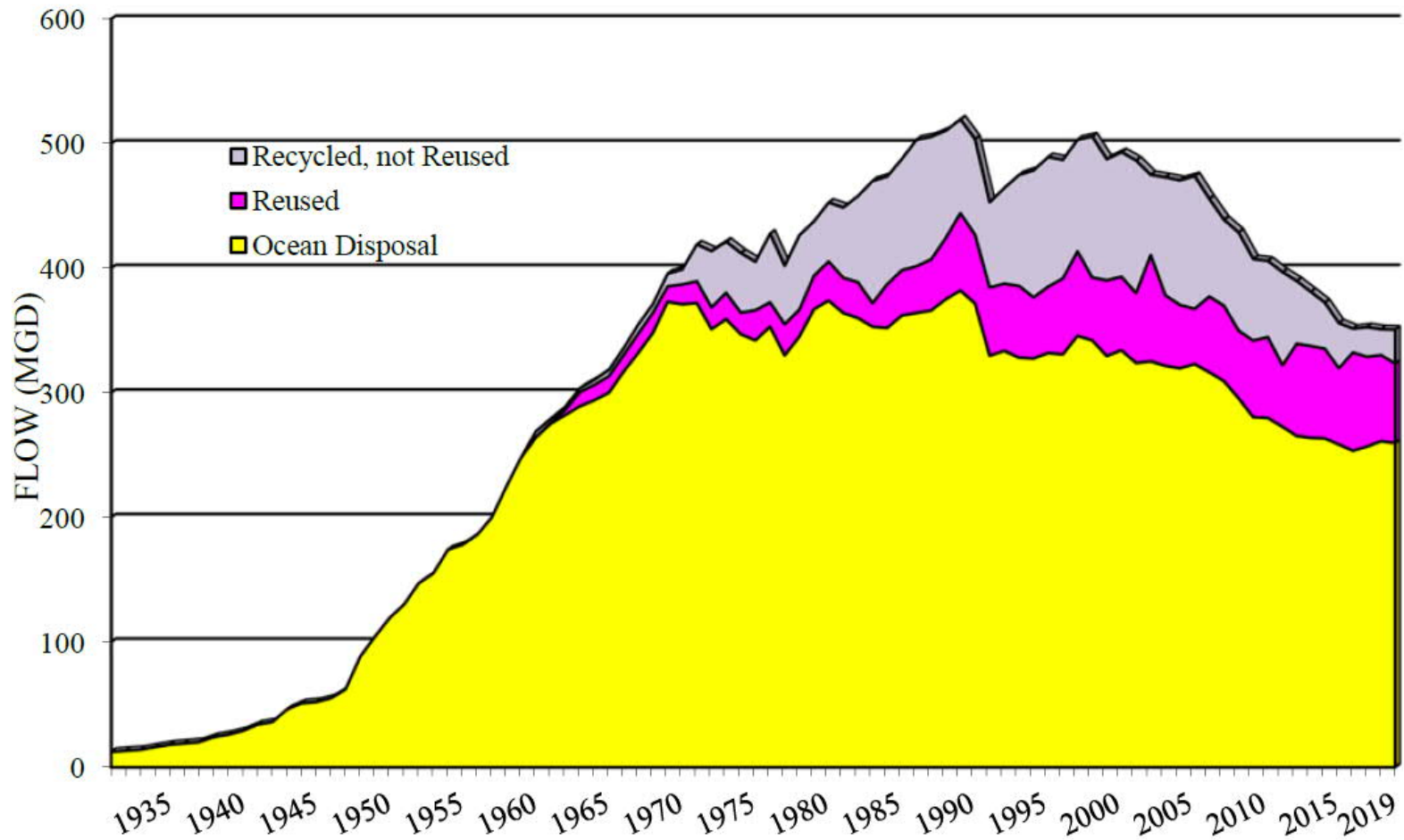
Watershed scale approach with adaptive management



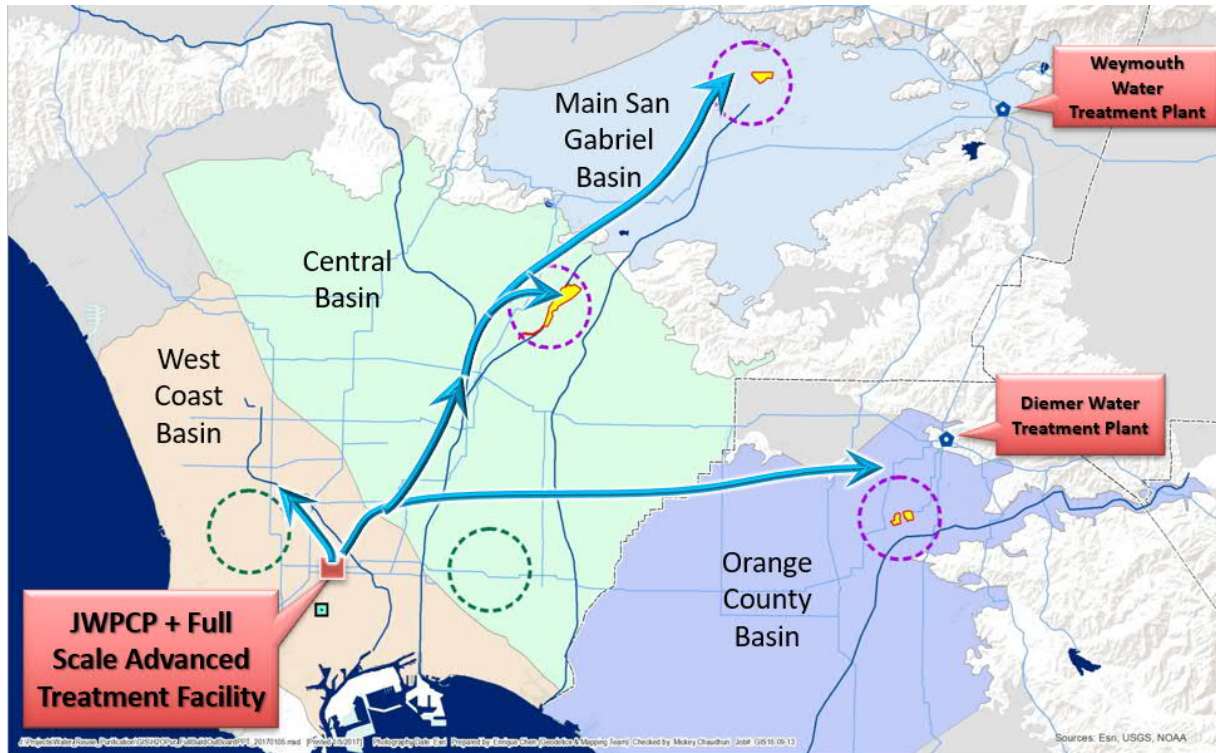
Water Code Section 1211

Wastewater treatment plant owner must petition for State Board approval "prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater"

Reducing Ocean Discharge



Regional Recycled Water Program



- Partnership Metropolitan Water District of Southern California
- 150 MGD full scale
- 0.5 MGD pilot Advanced Purification Center





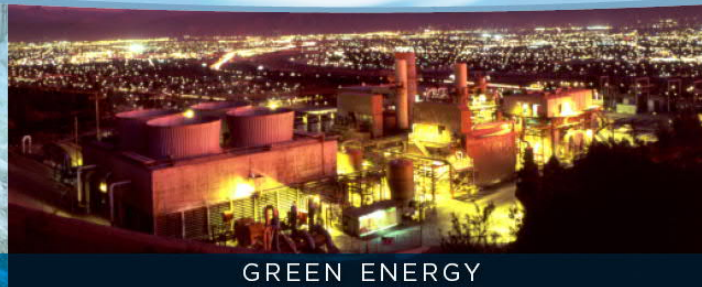
**LOS ANGELES COUNTY
SANITATION DISTRICTS**
Converting Waste Into Resources

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



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

THANK YOU

Suzanne Brown, Civil Engineer
suzannebrown@lacsds.org
(562) 908-4288 ext. 2843





Adapting to Change: Informing Water Use Efficiency and Adjusting to Declining Flows

October 13, 2020



CUWA is a leading voice of CA urban water

Population Served **26 million**

Retail Agencies:

- Alameda County Water District (ACWD)
- East Bay Municipal Utility District (EBMUD)
- Los Angeles Department of Water and Power (LADWP)
- City of Fresno

Retail/Wholesale Agencies:

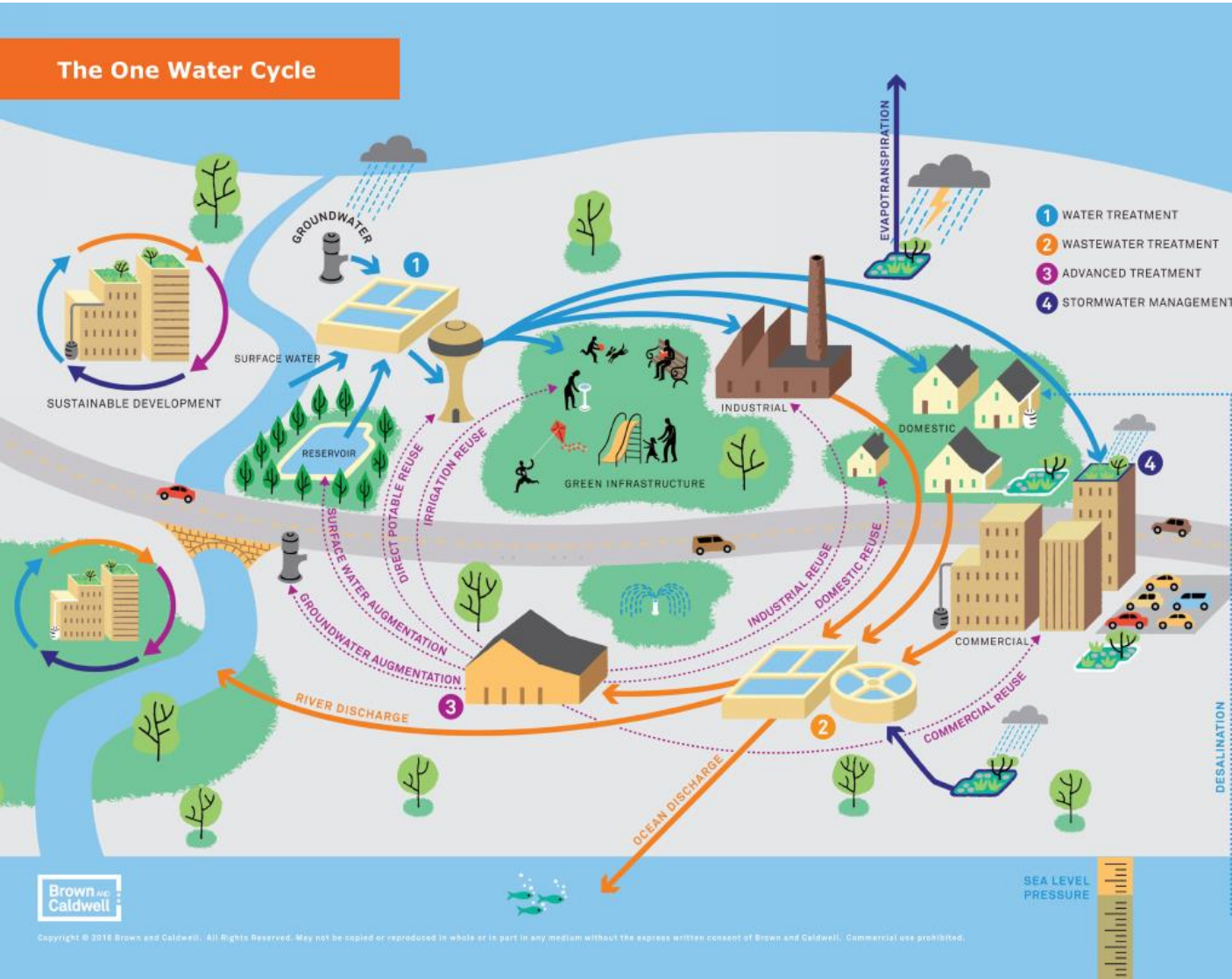
- Contra Costa Water District (CCWD)
- City of San Diego (San Diego)
- San Francisco Public Utilities Commission (SFPUC)

Wholesale Agencies:

- Metropolitan Water District of Southern California (MWDSC)
- Santa Clara Valley Water District (SCVWD)
- San Diego County Water Authority (SDCWA)
- Zone 7 Water Agency (Zone 7)



CUWA supports a holistic approach to addressing California's water supply challenges



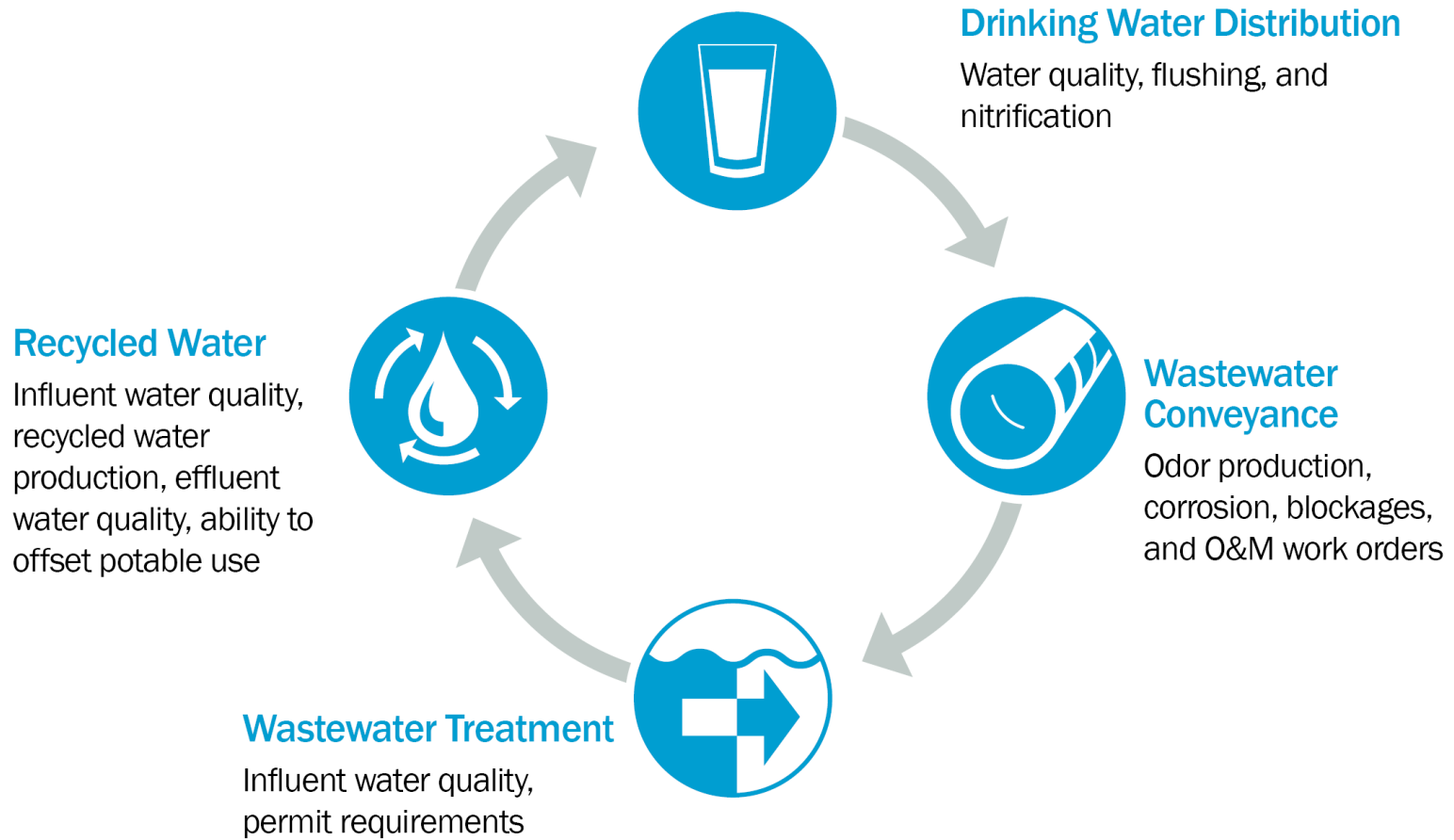
Understanding how WUE strategies affect the interconnected water supply system is critical to optimizing future water management.

Our objective is to leverage utility experiences to inform water use efficiency (WUE) policy

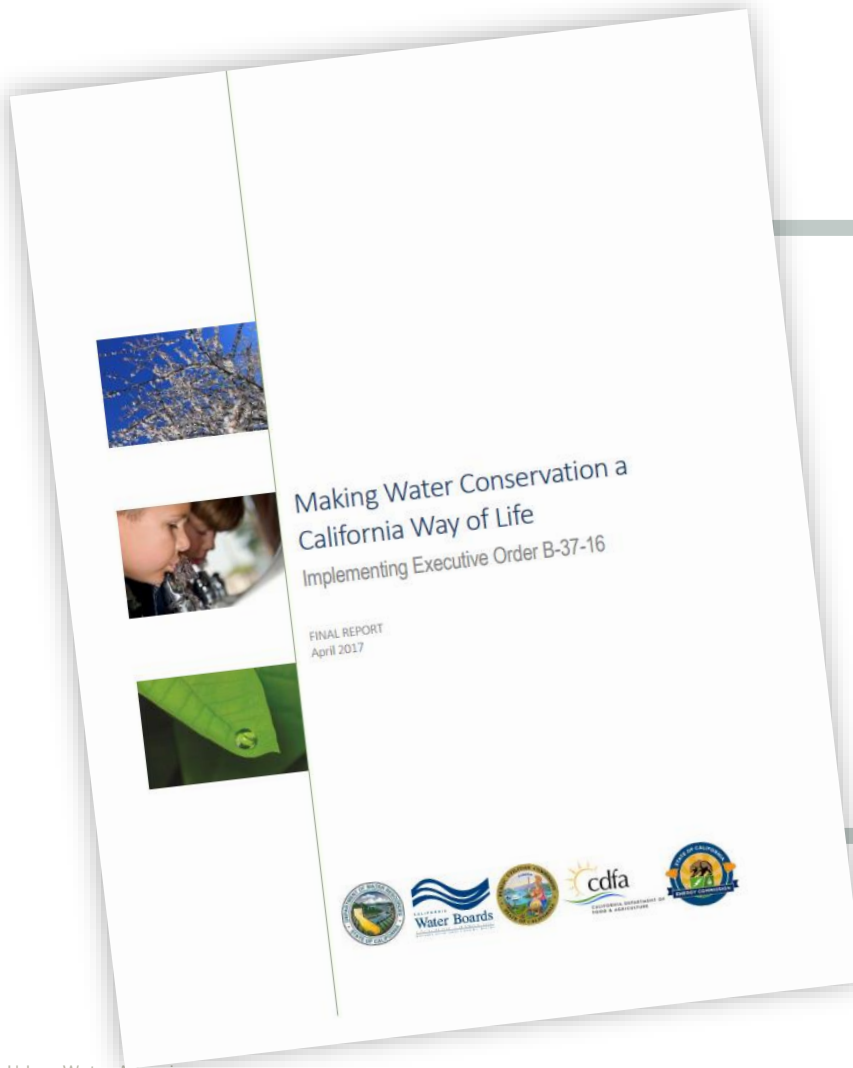
- Californians successfully responded to the call to reduce water use during the 2015-16 drought.
- Significant reduction in water demands revealed some impacts from declining flows.
- Observations **offer a preview** into the potential impact of establishing permanent indoor water use targets at or below the thresholds achieved during the emergency conservation mandate.



Research shows declining flows have impacts on the interconnected urban water cycle



Our focus is on indoor water use since it has the greatest impact on the urban water cycle



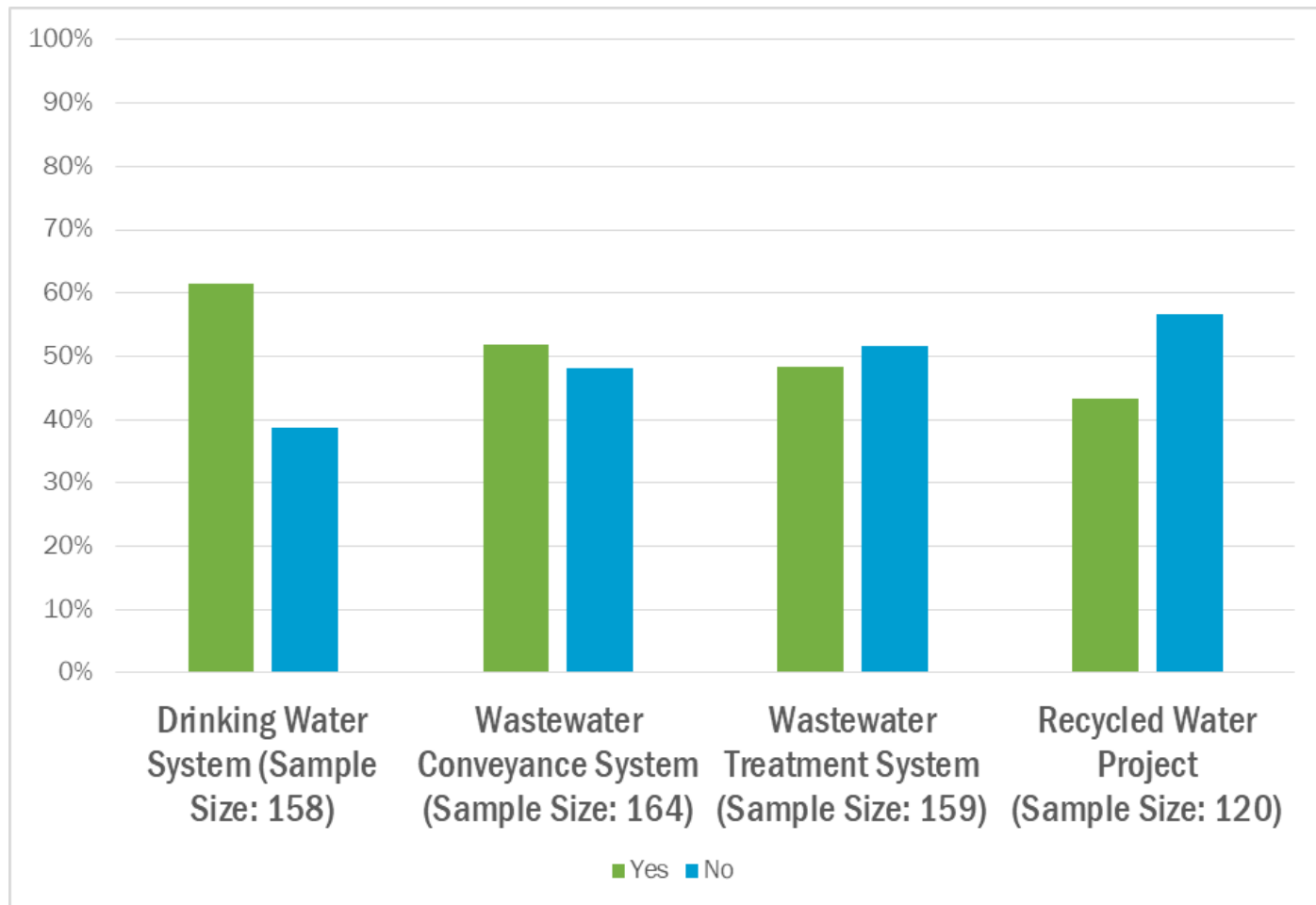
Supplier water use target is an aggregate of **indoor** water use, **outdoor** water use, and **water loss**.

This project focuses on **indoor** water use because it has the greatest impact on the urban water cycle.

In 2017, CUWA published a white paper that examined the impacts of declining flows

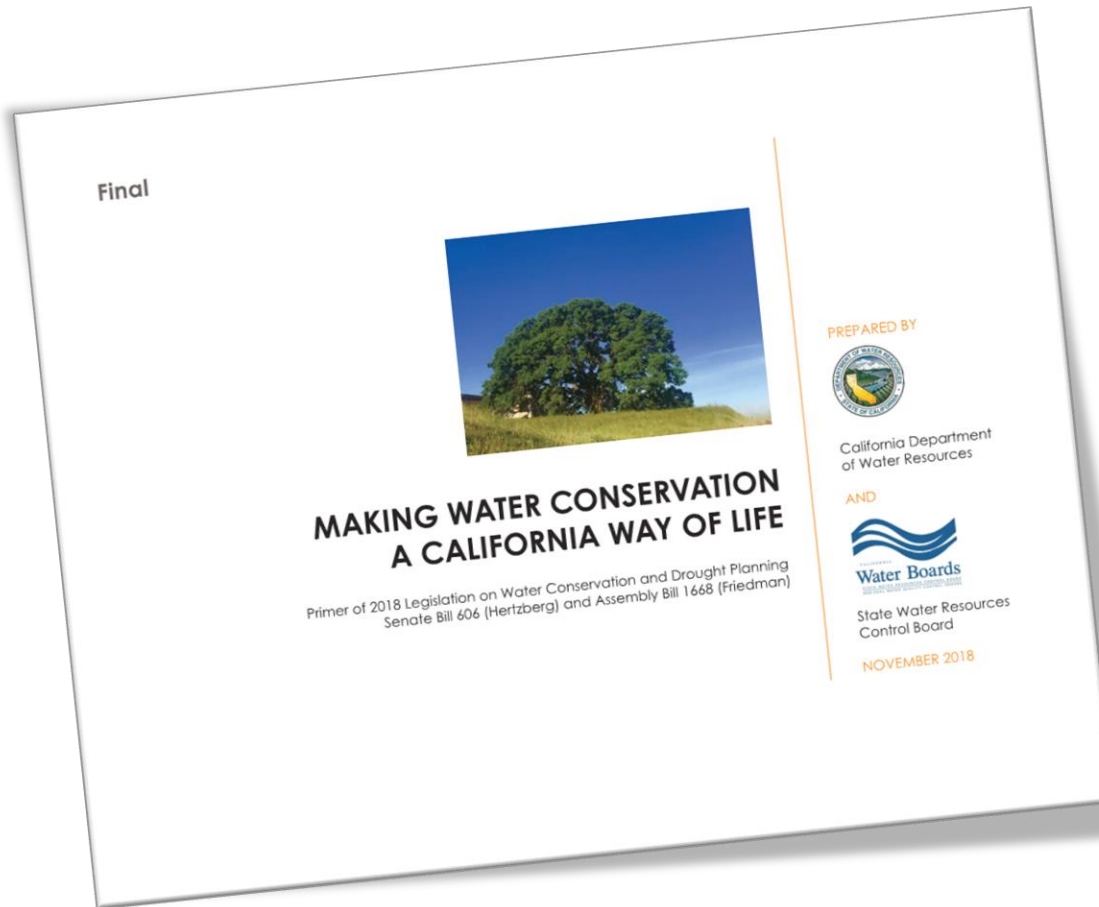


Half of survey respondents experienced impacts from declining flows in the 2015-16 drought

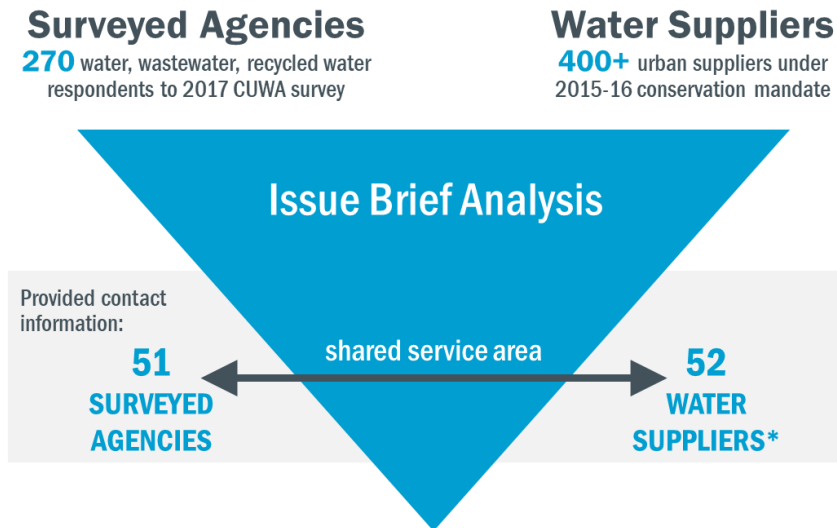


In 2018, the State enacted legislation that set a provisional standards for indoor water use

The legislation requires studies to analyze how the changing standard will impact water and wastewater management.



CUWA revisited the responses in the 2017 survey to examine the relationship between water use and impacts



- The results from that analysis are in the 2019 issue brief.
- From the 2017 responses, there were 51 identified water, wastewater, and recycled water agencies that reported impacts.
- Agencies were paired with their partner water supplier, i.e. those that shared a similar service area.
- While these 51 agencies are a relatively small sample of CA utilities, they represent a range of R-GPCD values and can lend insight on the impacts of declining flows across the spectrum.

Quantifying indoor residential water use from reported R-GPCD values

- Reported R-GPCD represents the total residential water use and does not differentiate between indoor and outdoor use.
- Most residential customers don't have separate meters to distinguish between the two, so actual indoor water use is difficult to quantify.
- To estimate how total R-GPCD may relate to the indoor residential water use standard, see Table 1.

Table 1. Cursory Reference Point Relating R-GPCD and Indoor Water Efficiency Standard			
Future Indoor Residential Water Use Standard	Percent Indoor Use (Compared to Total Residential Use)	Resultant Total R-GPCD (Indoor + Outdoor Use)	Reference for Percentage Assumption
50 R-GPCD ^a	50%	100 R-GPCD	PPIC and DWR (for California urban water use) ^b
	70%	71 R-GPCD	EPA (for nationwide residential use) ^c

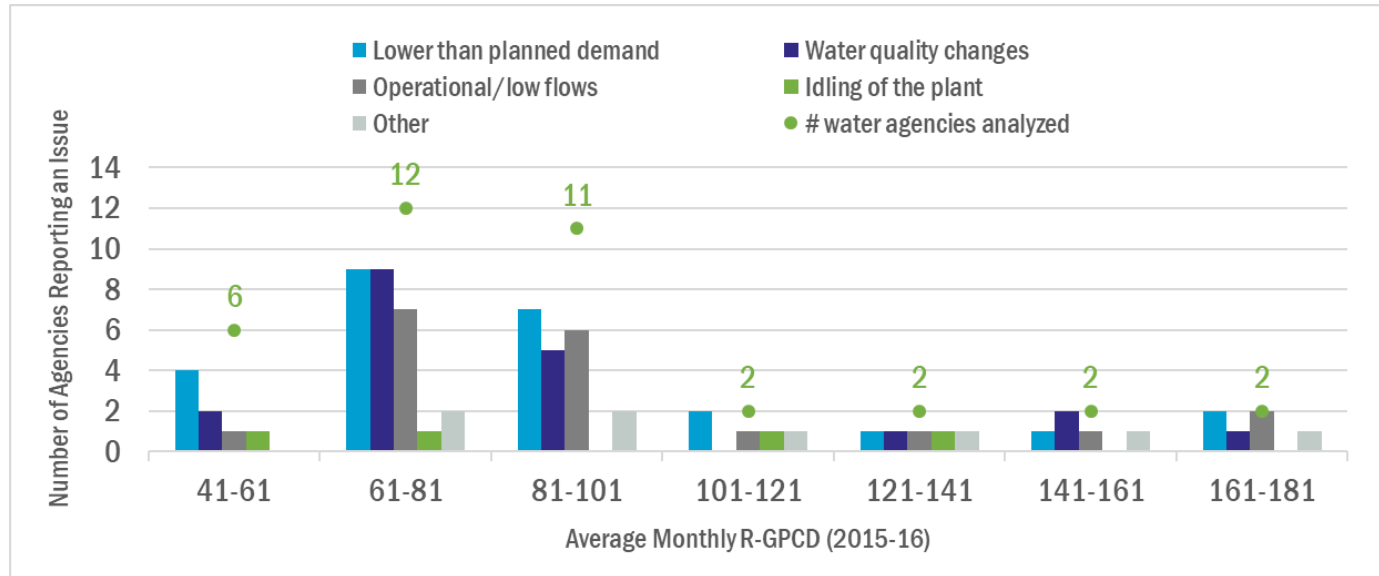
a. Potential future standard in 2030, based on [AB 1668](#). The current provisional standard is 55 R-GPCD.

b. Public Policy Institute of California, 2016. [Water for Cities](#).

c. Environmental Protection Agency, 2008. [Indoor Water Use in the United States](#).

Reduced flows led to challenges throughout the interconnected water system.

Lower than expected water demand led to impacts on water distribution systems



- Water quality changes and operational challenges were the most commonly reported issues.
- Few agencies reported the need to idle water treatment facilities, demonstrating operational flexibility.
- Other reported impacts reflect the financial implications of reduced flows.

SDCWA has increased flushing of their aqueducts to adapt to declining flows

San Diego County Water Authority



Background:

- 24-member retail agencies
- 3.3 million people
- 150 square miles

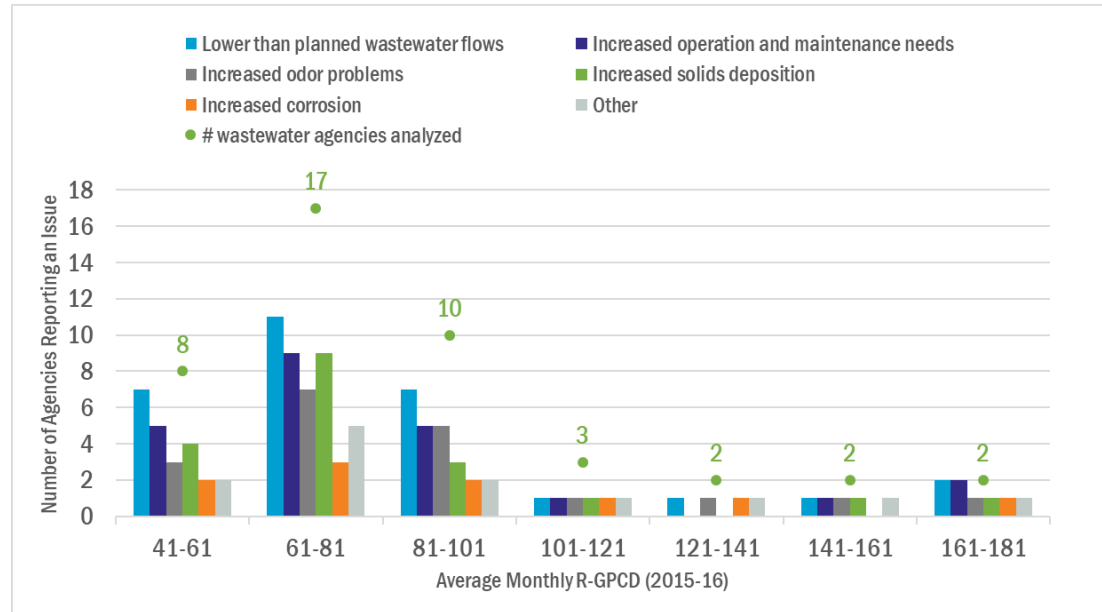
Impacts Experienced:

- Reduced conveyance system chlorine residuals
- Conveyance system nitrification

Adaptation Strategies & Financial Impacts:

- Increased flushing: costs of flushing increased from \$200,000/year to over \$2 million/year.
- Investment in online monitoring equipment: \$250,000 in new equipment.

Lower than expected wastewater flows led to impacts on wastewater conveyance systems



- Agencies across a range of reduced flows reported increased operation and maintenance needs on conveyance infrastructure.
- Increased corrosion was less commonly reported.

Victor Valley invested in epoxy coating for their manholes to mitigate accelerated corrosion

Victor Valley Water Reclamation Authority (Wastewater Conveyance)



Background:

- 4 member agencies
- 42 miles of public sewers
- 10.7 mgd of wastewater

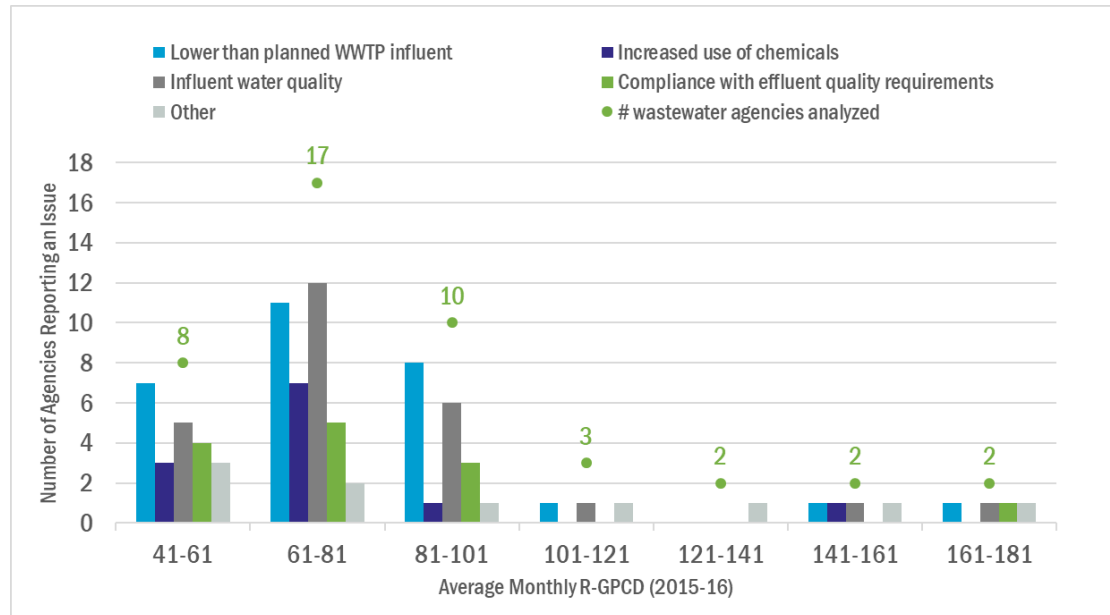
Impacts Experienced

- Increased odors and odor complaints
- Accelerated rate of corrosion and degradation of infrastructure

Adaptation Strategies & Financial Impacts:

- Operational improvements and increased rehabilitation and maintenance of manholes
 - Invested in \$300,000 per year of epoxy coating over the past 5 years

Lower than expected wastewater flows led to impacts on wastewater treatment systems



- Many reported conveyance issues have downstream impacts on wastewater treatment.
- Agencies adjusted their treatment plant operations to address changing wastewater influent quality.

Victor Valley adjusted treatment operations to address increased ammonia concentrations

Victor Valley Water Reclamation Authority (Wastewater Treatment)



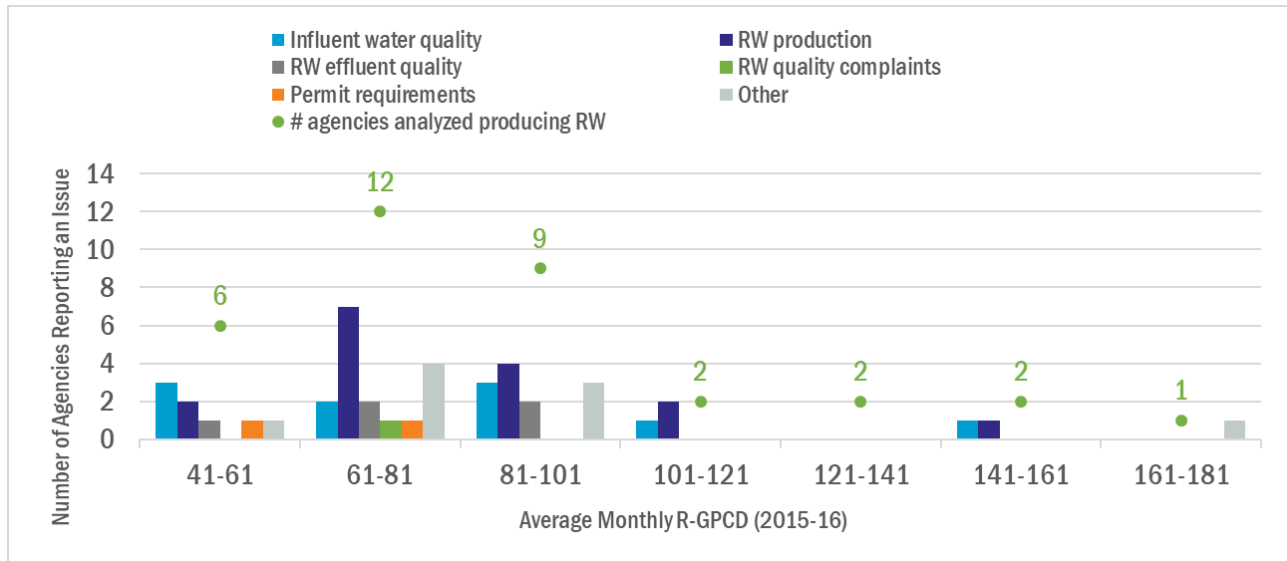
Impacts Experienced:

- Increased ammonia concentrations in wastewater influent
- Declining wastewater influent reduces recycled water volumes

Adaptation Strategies & Financial Impacts:

- Changed operations of the aeration basins to achieve the appropriate nitrification and denitrification
- Less recycled water available for reuse increases reliance on potable resources (groundwater)

Impacts on recycled water systems include changes in production and water quality



- 70% of respondents reported a decrease in recycled water production.
- Changes in influent water quality were prevalent under reduced flow conditions.

OCSD & OCWD have invested \$60M to segregate high-salinity influent flows

Orange County Sanitation District & Orange County Water District



Background:

- 2.6 million people
- 2 wastewater treatment plants
- 100 mgd of highly purified water

Impacts Experienced:

- Reduced flows at the WWTPs
- Increasing salinity from discharge effluent from upstream utilities

Adaptation Strategies & Financial Impacts:

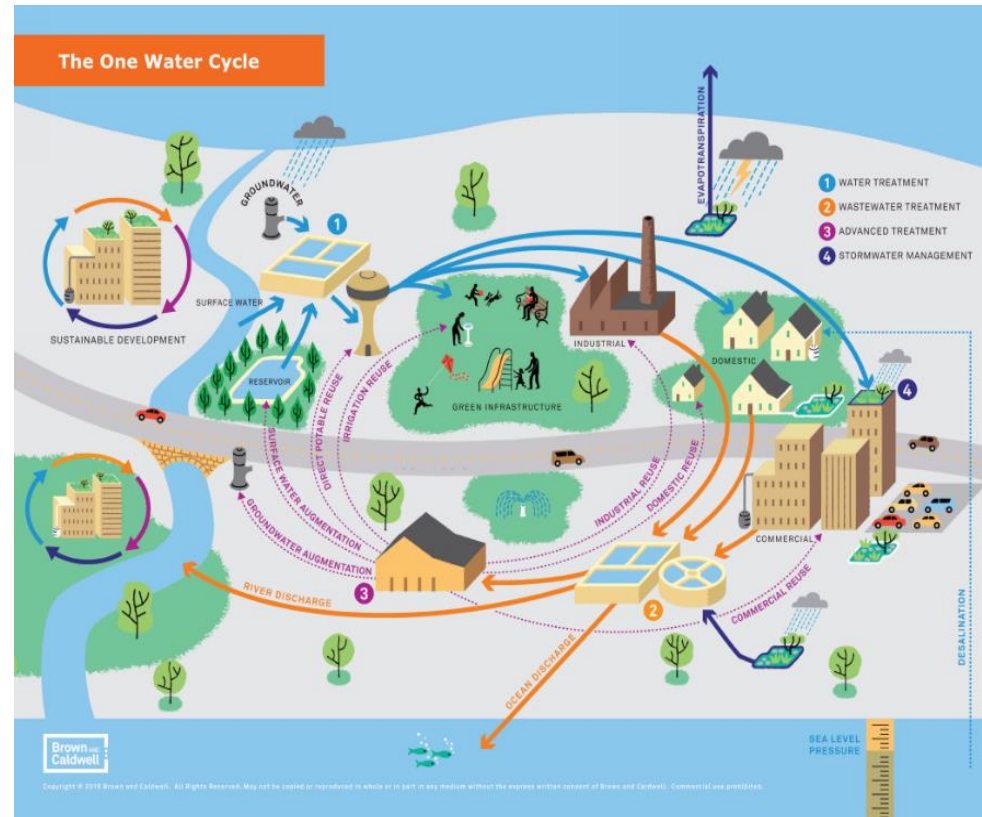
- Supplementing GWRS feed water flows with Plant 2 effluent
- Investing \$60 million to segregate high-salinity flows

Key Takeaways and Recommendations



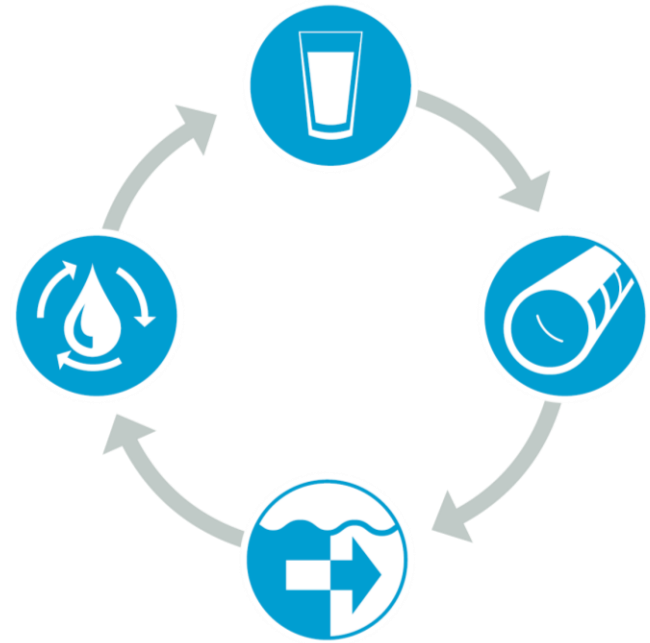
A wide range of water and wastewater systems experienced impacts from reduced flows

- Utilities in the 2017 survey represent a wide range of R-GPCD values
- Reported issues carry direct and indirect operational, financial, and physical consequences.
- Many challenges are caused by a combination of system-specific characteristics.
- **This makes it difficult to define a specific R-GPCD threshold that triggers impacts.**



Systems with large, unexpected flow reductions may experience significant operational challenges

- Water demands supporting the basis of designs have changed.
- Large reductions in flow may lead to systems operational well below design capacity, affecting system performance and operations.
- These effects will persist unless there is population growth or agencies adapt.
- **Systems designed with greater flexibility may have more of an ability to adapt.**



Given time and resources, utilities can and will adapt to declining flows

- Agencies need time, investment, and coordinated planning across the service area to adjust.
- They are sometimes adjusting to competing goals, including conservation standards, end user needs, fire flow requirements, and public health requirements.
- **This emphasizes the importance of a holistic, integrated, One Water planning and management approach.**



Working together to inform water use efficiency requirements

Actions for the State

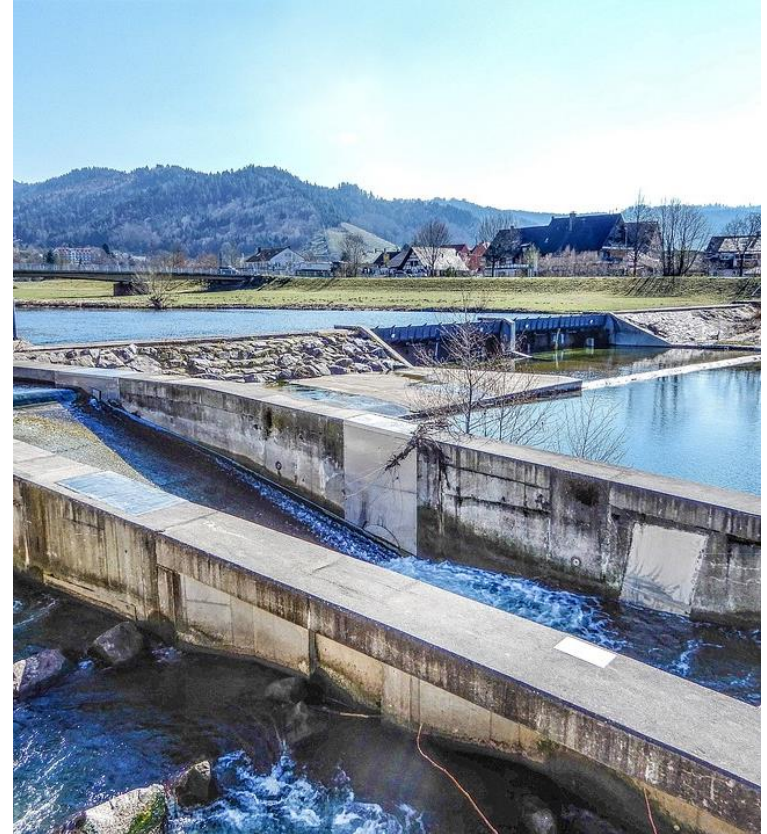
- ✓ Account for system-specific characteristics when evaluating appropriate indoor water use standards.
- ✓ Ensure that state policies for water use efficiency and reuse are complementary.



Working together to inform water use efficiency requirements

Actions for utilities

- ✓ Strengthen planning, coordination, and collaboration between water and wastewater agencies.
- ✓ Assess vulnerabilities and potential impacts throughout the system.



Questions?

The 2017 White Paper and 2019 Issue Brief are available for download at the CUWA website (www.cuwa.org).

**Brown AND
Caldwell**



CALIFORNIA URBAN WATER AGENCIES

WateReuse California Los Angeles Chapter Meeting



October 13, 2020

Legislation & Regulation Update

Raymond Jay
Metropolitan Water District of Southern California
(213) 217-5777 or rjay@mwdh2o.com

2020-21 California Legislative Dates

- Jan. 1 Statutes take effect
- Aug. 14 Last day policy committees to report bills
- Aug. 21 Last day fiscal committees to report bills
- Aug. 31 Last day for any bill to be passed
- Sept. 30 Last day for Governor to sign or veto bills
- Oct. 1 Bills enacted take effect Jan. 1, 2021
- Nov. 3 General Election
- Nov. 30 Legislature adjourns
- Dec. 7 2021-22 Legislature reconvenes
- See: <http://assembly.ca.gov/legislativedeadlines>

California Legislation & Overview

- Legislature focused on COVID-19, economic recovery, wild fires, & homelessness
 - Delayed other issues including recycled water
 - Climate resiliency bonds delayed for 2020
 - Only ¼ of typical 2000 bills sent to Governor
-
- California Budget impacted from COVID-19:
 - Estimated \$54B deficit
 - Economic stimulus bill high priority for 2021

Recycled Water Related Measures

- AB 2560 (Quirk): Notification and Response Level Procedures
 - WRCA Support
 - Status: Approved by Governor
- AB 3030 (Kalra): 30% conservation of all lands, oceans and waters by 2030
 - WRCA Oppose
 - Status: Held in Senate Appropriations Committee
- SB 996 (Portantino): CECs - Science Advisory Panel
 - WRCA Support as Amended
 - Status: Held by Author
- SB 1052 (Hertzberg): Stormwater Capture/Reuse
 - WRCA Support
 - Status: Held in Senate Governance and Finance Committee

2020 Bond Measures

- Governor's Climate Bond
 - \$4.7 Billion
 - \$1 billion for interregional projects and recycled water
 - Status: Withdrawn in May
- AB 3256 (Garcia) Climate Resilience Bond
 - Proposed \$9.7
 - \$300 million recycled water)
 - Status: Held by Author
- SB 45 (Allen) Climate Resilience Bond
 - \$5.5 Billion
 - \$100 million for recycled water
 - Status: Held by Author

WaterReuse Federal Priorities

- Established by the National Legislative and Regulatory Policy Committee
- Water Reuse Infrastructure Financing
 - Title XVI
 - Water Infrastructure Finance and Innovation Act (WIFIA)
 - Clean Water State Revolving Fund
 - Drinking Water State Revolving Fund
- National Priorities Water Research Program
- WaterSense
- Permitting of Potable Reuse
- Investment Tax Credit for Industrial Reuse
- Policy Principles:
- Recognize the role of onsite decentralized water recycling systems and emerging role that stormwater capture
- Address the presence of PFAS contaminants that exist at concentrations that create a risk to public welfare and the environment.

Federal Update

- House & Senate negotiating COVID -19 relief bill
- FY 2020 Appropriations
 - CWSRF = \$1.638B
 - DWSRF = \$1.126B
 - Title XVI = \$63M
 - WINN = \$20M
 - WIFIA = \$60M
 - Aquifer Storage = \$10M
 - Innovative Water = \$1M
 - Stormwater reuse = \$25M
 - Research Program = \$6M
 - Desalination = \$20M
- FY 2021 DRAFT Appropriations levels reduced
- FY 2021 WIFIA \$ reduced
- National Water Reuse Action Plan
 - EPA & stakeholders working on multiple implementation tasks

Questions?

If you have any questions, please contact:

Raymond Jay, Past President



c/o Metropolitan Water District of Southern California
700 N Alameda Street
Los Angeles, CA 90054
(213) 217-5777
rjay@mwd.h2o.com



Regulatory Agency Updates

- Los Angeles Regional Water Quality Control Board
 - Steven Webb
- Los Angeles County Department of Public Health
 - Robert Bueras
- State Water Board Division of Drinking Water
 - Faraz Asad

Chapter Trustee Updates

WaterReuse LA Chapter – October 13, 2020

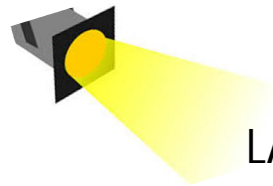


Last WaterReuse CA Board of Trustees Meeting: August 7, 2020

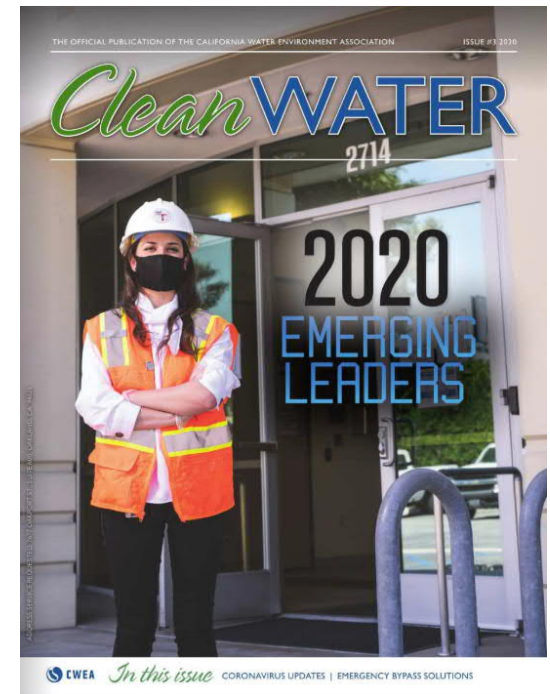
Next Trustee Meeting: November 6, 2020

CWEA Clean Water Magazine: November 2020 Issue

- November 2020 publication to be a DPR Edition Magazine
- Jennifer West will be serving as “Guest Editor”
- WRCA LA Chapter member on cover of June 2020 edition!



LA Chapter Member Spotlight
Flor Burrola (LA Sanitation)



Chapter Trustee Updates

WaterReuse LA Chapter – October 13, 2020

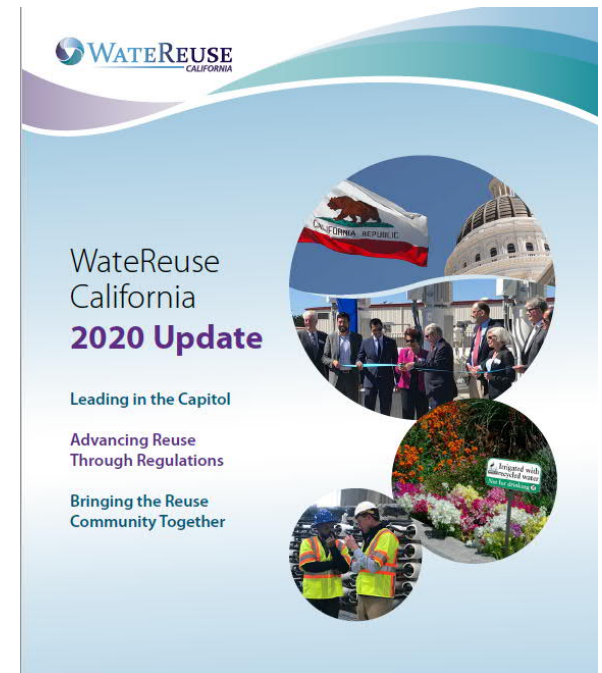


WRCA 2020 Update

- Will be sent to members with renewal information for 2021

Final CA Water Resilience Portfolio Key Actions

- Support local and regional agencies to recycle or reuse at least 2.5 million acre-feet per year in the next decade.
- Increase financial capacity to support reuse through the CWSRF and other state and local funding mechanisms.

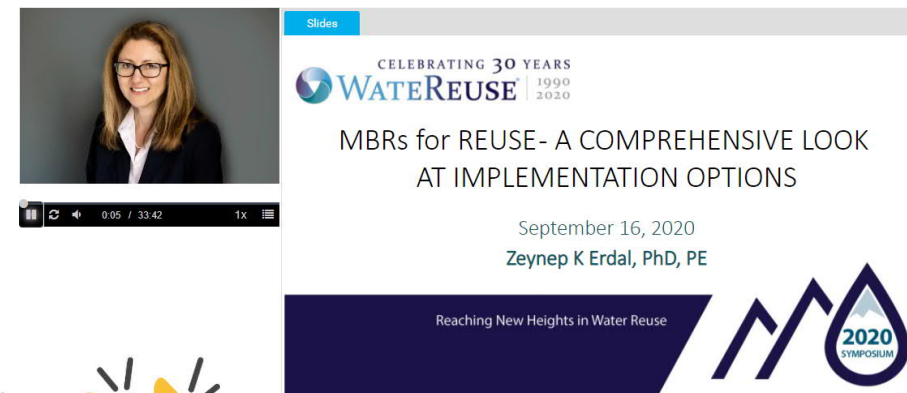
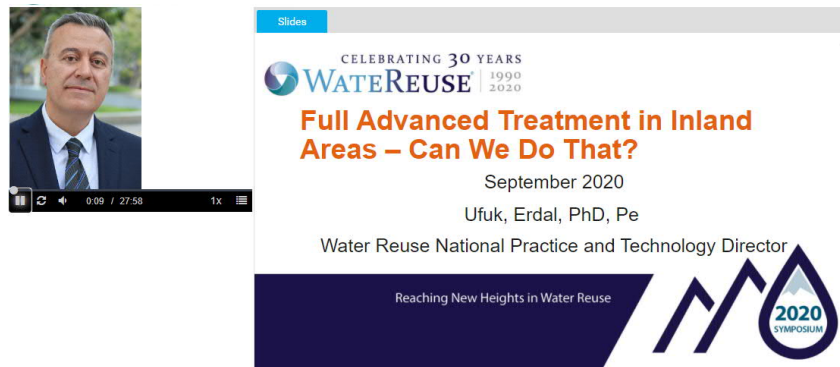
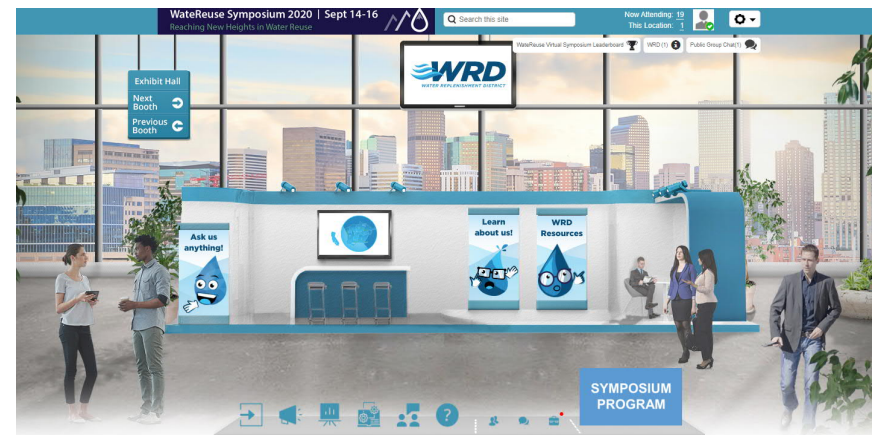
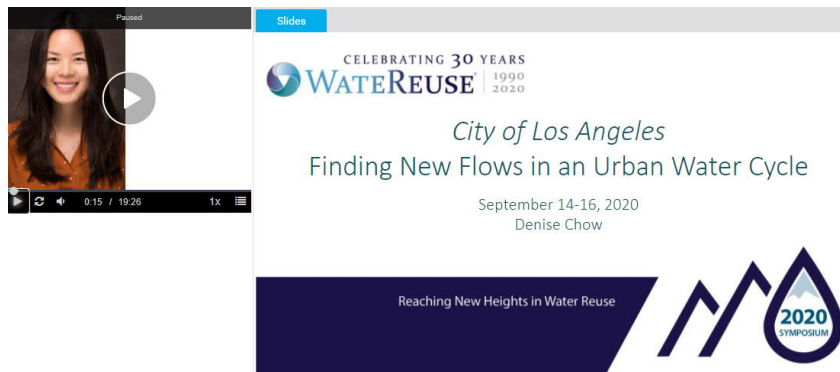


Chapter Trustee Updates

WaterReuse LA Chapter – October 13, 2020



LA Chapter Presence at 2020 Symposium



Great job!



Chapter Trustee Updates

WaterReuse LA Chapter – October 13, 2020



Weekly "WaterReuse Review"

- Submit noteworthy member news for inclusion in the weekly "WaterReuse Review" issued on Mondays (<https://watereuse.org/news/watereuse-review/>).
- Send your news to evelyn.cortez-davis@ladwp.com by noon every Thursday for consideration!



Chapter Trustee Updates

WaterReuse LA Chapter – October 13, 2020



2021 WaterReuse CA Conference is coming to LOS ANGELES!

SAVE THE DATES: September 12-15, 2021

**Volunteer Opportunities
COMING YOUR WAY!**



Chapter Updates (Judi Miller)

- Elections
- Bylaws Amendments
- February Meeting Summary

- Member Montage
 - Sam Landsman

LA CHAPTER BYLAWS AMENDMENTS

- Categories of Membership – aligned with national WaterReuse Association
- Regular Meetings – added scheduling flexibility to align with current practice
- Executive Committee – aligned role with current practice
- Election – eliminated requirement to hold AT year-end member meeting to enable electronic voting BY year end
- Annual Report – converted to “Annual Reporting” as these reports to the Chapter and to the Section have taken various forms over the years
- Bylaws Amendments – added language for additional clarity and to reflect electronic voting option

Membership Roundtable (Jared Lee)

Next Meetings

- Tuesday, December 8, 2020 – Virtual
- Tuesday, February 8,, 2021 - TBD

