

# Current and Future Trends in Water Reuse

2024 Annual Salinity Summit  
Multi-State Salinity Coalition

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ENGAGE.  
EDUCATE.  
ADVOCATE.



A dynamic splash of clear blue water, captured in mid-air, forming a large, irregular shape that frames the central text. The water droplets are sharp and detailed, with some appearing as small spheres and others as elongated streaks.

# Water Reuse in the US

# U.S. Water Reuse Drivers



## Surface Water Scarcity

- By 2071, 45% of freshwater basins may be unable to meet demand.<sup>†</sup>
- Western US at highest risk

## Surface Water Quality

- Impaired waterways requiring more treatment
- CECs
- Water reuse systems can treat a wide variety of source water



## Groundwater Depletion

- USGS: 17,000 sq mi, 45 States experience subsidence<sup>‡</sup>
- Saltwater intrusion: threatens municipal wells and agriculture



## Regulatory & Policy

- Direct Potable Reuse rules: CO, CA, FL, AZ, beyond
- Discharge limits (FL SB 64)
- Corporate ESG goals



<sup>†</sup> Earth's Future, 2019. *Adaptation to Future Water Shortages in the United States Caused by Population Growth and Climate Change*

<sup>‡</sup> USGS Water Science School webpage, 2018. *Land Subsidence*

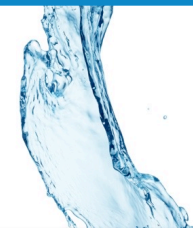
# Water Reuse Potential in the United States



- Predicted 2031 US water market:
  - Municipal: \$3.89 B
  - Industrial: \$771 M<sup>†</sup>
- EPA: < 7% of municipal wastewater is recycled<sup>‡</sup>
- EPA: Over 325 BGD processed by cities, farms & industry, or falls as stormwater.<sup>‡</sup>

## US Water Reuse Funding

- State Drinking Water and Clean Water Revolving Funds
- Water Infrastructure Finance and Innovation Act (WIFIA)
- BOR: Title XVI, Desal Grants
- EPA Alternative Water Source Grants Pilot Program



# Water Reuse Trends

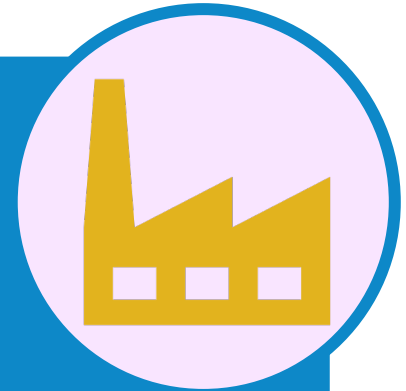


## Potable Reuse

- Direct Potable Reuse regulations (CO, CA, AZ)
- Large Indirect Potable Reuse projects coming online

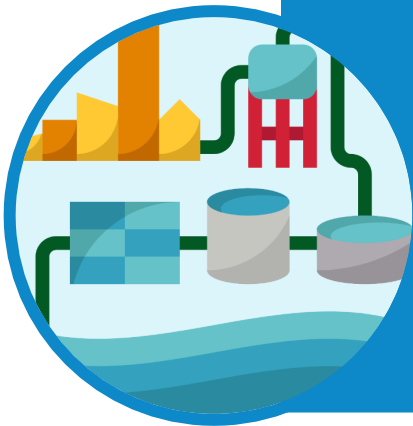
## Industrial Reuse

- Companies seek water security, cost savings, ESG compliance
- New Industrial Water Reuse Champion Award



## New Treatment Trains

- Different trains serve different needs & communities
- Ozone-BAC
- UV-AOP
- Granular Activated Carbon



## Onsite Reuse

- Serve a wider range of communities efficiently
- Reduce strain on legacy wastewater systems





WaterReuse Association:  
Engage, Educate, Advocate

# WaterReuse Association: Utilities, Businesses, Institutions

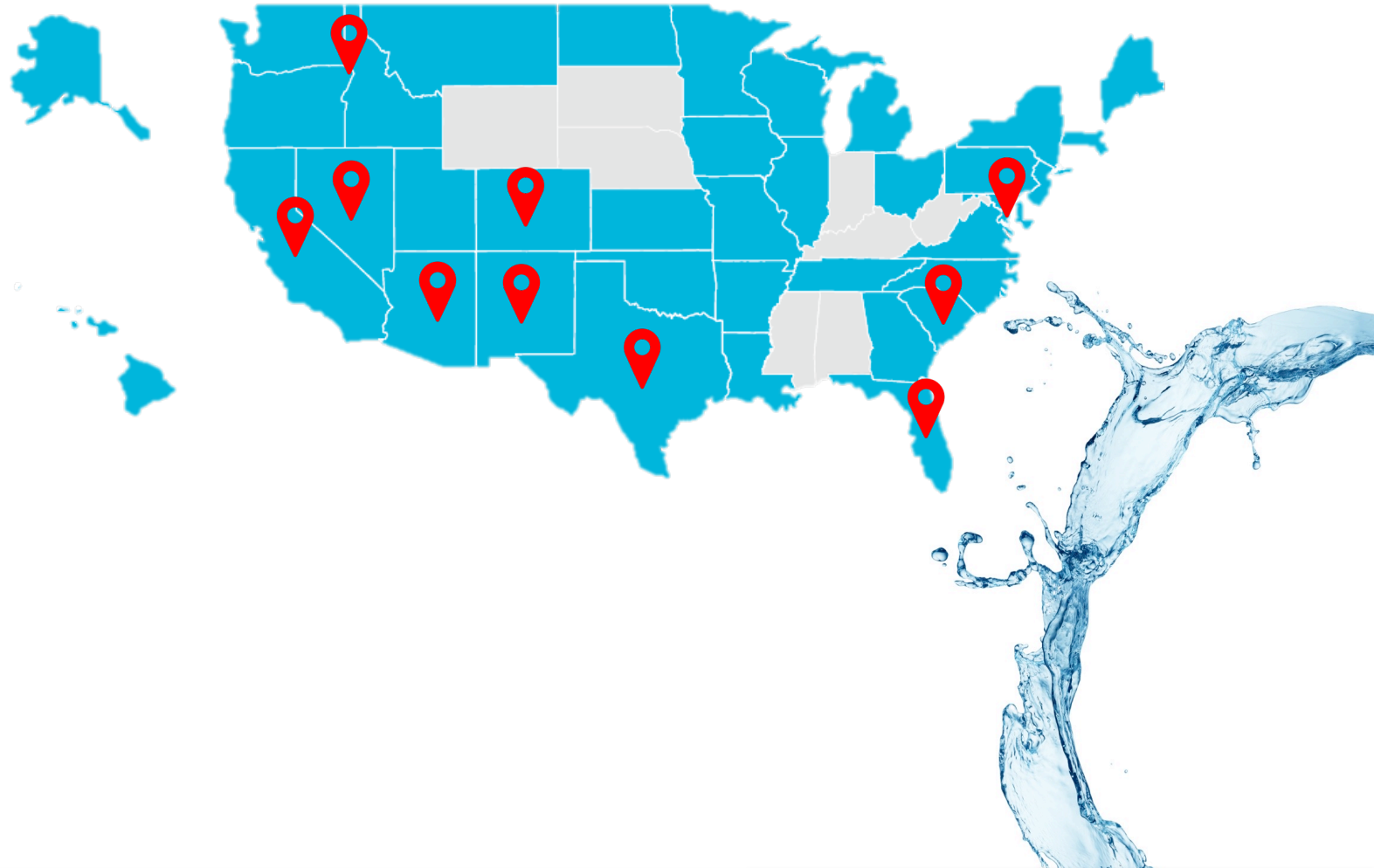
- WaterReuse is a trade association focused solely on advancing laws, policy and funding to increase water reuse.
- We **engage** the water reuse community, **educate** members and the public, and **advocate** for policies and funding to advance water reuse.

## Our Mission

To empower communities and businesses to embrace water recycling as the cornerstone to safe, resilient, and sustainable water resources.

# WaterReuse Membership: Utilities, Businesses, Institutions

- **493** Members
- **20** new members so far in 2024
- **38** States
- **10** state and regional sections
- **Ohio** section launching March 2024





# Direct Potable Reuse Regulations

- Colorado regulation adopted November 2022
- California regulation adopted December 2023
- Arizona Roadmap targets end of 2024
- Florida regulations also in development



## Drinking toilet water may be the future for drought-stricken California

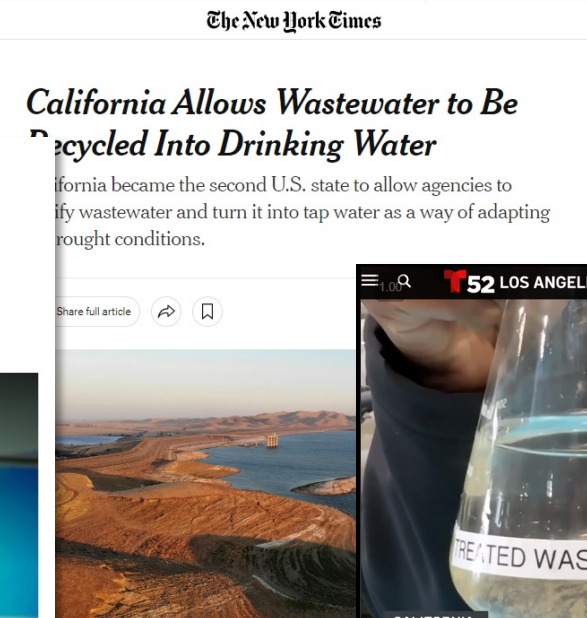
By Victoria Bisset  
December 20, 2023 at 11:42 a.m. EST



Laleisha Bryant, a spokesperson for the Santa Clara Valley Water District, holds beakers of water before and after it is purified at the Silicon Valley Advanced Purification Center in San Jose on Dec. 13. (Jerry Choa/AP)

## Treated wastewater often held to higher standard than drinking water: Expert

- California has already been using recycled wastewater for decades
- Efforts to treat wastewater for home use have been met with skepticism
- 'Public health has always been the top priority of this'



## Californians Drink Toilet Water? | Warner-Paramount's New Reality Series



# DPR: El Paso, Texas

- El Paso Water's Advanced Water Purification Facility
- Largest U.S. Direct Potable Reuse project in development (10 MGD)
- Construction Beginning in 2024
- Sept 2022: \$20M grant from Infrastructure Investment & Jobs Act



# Industrial Water Reuse



- Increased interest from industrial & commercial sectors
- Congressional Briefing: January 2024
- Global Industrial Water Reuse Champions Award
  - Kimberly-Clark and Carlsberg recognized: October 2023
- Industrial & Commercial Water Reuse Conference Indian Wells, CA Nov. 19-21, 2024



# WaterReuse Federal Advocacy



- *Infrastructure Investment and Jobs Act*
  - **\$1 Billion** for water reuse
    - Including SNWA Planning & Feasibility study via USBR
  - Authorized: *Alt Water Source Grants*
- Federal Regulatory Issues: PFAS
- Annual State Regulator Summit
- Water Week Fly-In: April 9, 2024



# WaterReuse: Education & Outreach

- Policy Briefs: *Climate Change and Affordability*
- *Profiles in Reuse*
- Market Analysis
- Webcasts
- Educational Videos
- And much more!



# WATERREUSE<sup>®</sup> 2024 SYMPOSIUM

MARCH 11-14, 2024 | HILTON DENVER CITY CENTER

## REMOVING BARRIERS, ELEVATING OPPORTUNITIES

*Join us in Denver!*



### Keynote

**Peter McBride**  
Sony Artisan of Imagery and a  
National Geographic Adventurer of  
the Year





**WATER REUSE<sup>®</sup>**  
**Industrial Reuse Conference**  
November 19- 21, 2024 | Indian Wells, CA

# The Road to Water Positivity

The engines of industry, from Fortune 500 companies to local businesses, are traveling down the Road to Water Positivity. The 2024 Industrial Reuse Conference is your ticket to ride.

Business leaders from a variety of sectors — including advanced manufacturing, food & beverage, power generation, and more — will share how they are embracing water reuse to achieve water positivity. Utility leaders and regulators will join the conversation to discuss opportunities for partnership and strategies for removing economic and institutional barriers.

Join us near sunny Palm Springs to be part of the conversation!

**Learn More >**  
[watereuse.org/positivity](https://watereuse.org/positivity)



# Thank You

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