

NATIONAL WATER REUSE ACTION PLAN



WRAP QUARTERLY UPDATE October–December 2023

A Message from Julia Anastasio, Executive Director and General Counsel of the Association of Clean Water Administrators

As the national voice of state, interstate and territorial officials responsible for the daily implementation of programs that protect surface waters across the nation, ACWA is proud of its continued participation in and support of the WRAP. Escalating stresses on our nation's clean water supplies necessitate a nationwide effort among state, federal and Tribal partners, along with stakeholders from a variety of sectors to find innovative and effective approaches to water reuse.



In support of WRAP [Action 2.2](#), ACWA—along with ASDWA, ECOS, ASTHO and the GWPC—has partnered with the EPA to lead four state water reuse workshops since 2019. These workshops provide forums and opportunities for state regulators to share information on managing water reuse in their states and to engage with EPA officials to identify state needs and federal tools and resources.

Most recently, ACWA co-led the 2023 State Summit on Water Reuse in Atlanta, Georgia. Approximately 50 state and EPA officials attended the full-day workshop to discuss technical and policy aspects related to water reuse authorities under state law as well as the Safe Drinking Water and Clean Water Acts. These discussions included topics like risk communication, emerging contaminants management, workforce attrition among regulated and regulating agencies, environmental justice and aquifer storage. ACWA is currently working with the EPA and its state association partners in planning the 2024 State Summit on Water Reuse, scheduled for March 11, 2024, in Denver, Colorado. State regulators can email [Ward Scott](#) if they are interested in learning more about attending the summit.

States play a unique and vital role in the continued advancement of water reuse and implementation of the WRAP. Through ongoing meaningful state–federal collaboration, the WRAP can advance effective water reuse practices on a national scale while also addressing each state's unique water management challenges. ACWA values its ongoing partnership with the EPA's Water Reuse Program and is excited to continue supporting the WRAP and state water reuse efforts.

Abbreviations are defined at the end of this document. See the [Online Platform](#) for more information about each action.

New WRAP Actions

WRAP actions seek to advance water reuse planning and implementation across the country. Actions are organized by strategic theme to help focus efforts and inspire future action. We are pleased to announce that the following new actions are now underway. To get involved or provide input, please email the action leaders using contact information from the [Online Platform](#).

IN CASE YOU MISSED IT

WRAP email updates highlight relevant water reuse activities and events. Monthly updates from this past quarter are available online:

- [October update](#)
- [November update](#)



Policy
Coordination

Study the Public Benefit of a Potential Federal Investment Tax Credit to Support Private Investment in Water Reuse ([Action 6.6](#), led by the EPA and Denver Water)

There is growing interest among the private sector in implementing water reuse as a tool to ensure sufficient water supplies in different industrial and business operations. Due to this growing interest, Congress has directed the EPA, in coordination with the Water Reuse Interagency Working Group, to undertake a study on the public benefit of a potential federal investment tax credit to support private investment in water reuse and recycling systems. The EPA's Environmental Financial Advisory Board has agreed to conduct this study and plans to engage different public and private sector stakeholder groups.



Outreach and
Communication

Produce a Compendium of Best Practices for Community Engagement Related to Water Reuse ([Action 8.9](#), led by WRF)

Positive, thoughtful and early engagement of different stakeholders (e.g., regulators, utilities, consultants) and impacted communities is often critical for the success of water reuse projects. However, the type of engagement needed and target audience vary across different reuse applications. Action leaders will compile existing work on public engagement and outreach into a compendium of best practices and create an interactive web tool to support future water reuse projects.



International
Collaboration

Facilitate a Global Dialogue on Water Reuse ([Action 11.5](#), led by WateReuse and the International Desalination and Reuse Association)

Action leaders will host a two-part Global Water Reuse Dialogue to bring together water utilities, practitioners, consultants and others to expand the conversation on water reuse. Through these dialogues, action leaders will take an in-depth look at the drivers, challenges and opportunities for water reuse around the world and publish findings in a white paper.

We welcome federal, state, tribal, local and water sector partners to propose actions to advance water reuse. Ideas for new actions may be sent to waterreuse@epa.gov. For information about how to propose, lead, or collaborate on a WRAP action, visit [this webpage](#).

Completed WRAP Actions

Two WRAP actions were completed this quarter, demonstrating productivity and progress under the strategic themes of Outreach and Communications and International Collaboration. [Completed WRAP action summaries](#) are developed with action leaders and highlight impacts, lessons learned and potential future activities.



Outreach and
Communication

[Establish a Water Reuse Champion Award Program for Private Sector Companies](#)

([Action 8.4](#), led by the U.S. Chamber of Commerce, University of Pennsylvania Water Center, Veolia and WateReuse)

An increasing number of businesses are recycling water or sourcing recycled water for use in their operations. The annual Water Reuse Champion Awards Program recognizes top Fortune 1000 companies that incorporate best-in-class water recycling programs, showcasing how water recycling is helping companies achieve their stewardship values and water management goals. The 2023 Industrial Water Reuse Champions Award was [granted](#) to APA

Corporation, PepsiCo and Intel Corporation—companies representing the energy, food and beverage and technology industries. The 2023 Global Industrial Water Reuse Champions Award was [presented](#) to the Carlsberg Group and Kimberly-Clark Corporation. The 2024 Industrial Water Reuse Champions Awards are open to domestic and international companies; one round of winners will be selected. Additional award winners will be announced on an annual basis at public forums.



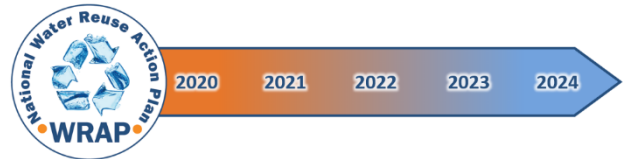
Develop and Highlight Case Studies Relevant to the WICER Framework

([Action 11.3](#), led by the **World Bank** and the **EPA**)

Communities interested in exploring alternative water sources when expanding their water portfolio can learn from other communities' already successful experiences in implementing innovative water reuse solutions. Building on the World Bank's [WICER framework](#), the action team developed detailed case studies that highlight each project's unique reuse solutions; ability to navigate the local policy, institutional and regulatory environment; financial or contractual agreements; and lessons learned. To date, six action team members have published [nine case studies](#), which are organized to describe how water reuse benefits communities (e.g., increasing water supply, recharging aquifers and preventing flooding). The World Bank and EPA anticipate publishing additional case studies on a rolling basis.

This Quarter's WRAP Action Outputs and Activities

Visit the [Water Reuse Information Library](#) for a robust set of WRAP outputs and other water reuse resources.



Infrastructure and Research Funding Announcements

- **[The EPA Awards Nearly \\$3.2 Million to Small Businesses to Research Complex Environmental Issues](#)**

Recipients of the 2023 SBIR funding include companies developing a [nature-based treatment for blackwater reuse](#), a system to remotely sense fugitive methane emissions in abandoned wells, field-deployable devices to rapidly screen drinking water for PFAS and more.

The EPA's SBIR program also published a [webpage](#) to highlight small businesses that are developing new ways to treat and reuse water. The awardees are developing technologies that range from household to commercial scale and aim to lower the cost of reuse through both high- and low-technology methods. The innovative approaches these small businesses developed are providing new methods for treating reclaimed water to save energy and reduce demands on fresh water. ([Action 7.5: Coordinate and Promote Water Reuse Technology in Federal SBIR Programs](#))

The WRAP has:

- 69 Action Commitments**
- 157 Action Leader & Partner Organizations**
- 170+ Developed Resources**

- **[The EPA Releases New State Revolving Fund Dashboard to Track Funding, Including for Reuse](#)**. The EPA released a new interactive tool allowing the public to more easily engage with data from the Drinking Water State Revolving Fund and Clean Water State Revolving Fund. With the creation of this platform, the public can see how Drinking Water State Revolving Fund and Clean Water State Revolving Fund investments are being allocated, including how much funding is flowing to each state for water reuse projects. ([Action 6.2A: Communicate Eligibility of Water Reuse in State Revolving Fund Programs](#))
- **[Biden-Harris Administration Announces WIFIA Loans to Expand Water Reuse](#)**. Assistant Administrator for Water Radhika Fox joined city of Monterey Mayor Tyller Williamson and other local officials to announce a WIFIA loan to [Monterey One Water](#). This \$76 million loan will expand existing water reuse capacity from 5 million gallons per day to 7.6 million gallons per day while ensuring residents and

businesses in the surrounding areas have a climate-resilient water supply. The EPA's WIFIA loan will save Monterey One Water approximately \$15 million while construction and operation are estimated to create 650 jobs.

The EPA also [announced](#) a \$70 million WIFIA loan to the San Bernardino Valley Municipal District to support an innovative regional partnership to help secure a drought-resilient water supply. The projects will expand the existing groundwater basins to capture and recharge local stormwater and construct a recycled water pipeline to convey treated water for groundwater replenishment. These projects are anticipated to capture up to 80,000 acre-feet of stormwater runoff and recharge up to 23,000 acre-feet of recycled water for future use from the local groundwater aquifer. ([Action 6.2B: Support and Communicate WIFIA Funding](#))



Rafael Stein and Heather Dryer at the San Bernardino Valley WIFIA award. Photo courtesy of Heather Dryer.

- [FEMA Announces Hazard Mitigation Assistance Grant Funding](#). FEMA announced the availability of \$800 million for the [Flood Mitigation Assistance \(FMA\)](#) grant program and \$1 billion for the [Building Resilient Infrastructure and Communities \(BRIC\)](#) grant program. These programs provide states, local communities, Tribes and territories with funding to address high-level future risks to natural disasters to foster greater community resilience and reduce disaster suffering. The application period closes February 29, 2024. Water reuse projects are eligible for funding under the drought mitigation category. ([Action 2.14: Integrate Water Reuse into FEMA Hazard Mitigation Programs](#))
- [Biden-Harris Administration Announces Over \\$51 Million from the President's Investing in America Agenda to Advance Nature-Based Solutions](#). This funding from the Bipartisan Infrastructure Law for the Bureau of Reclamation's WaterSMART program will support the study, design and construction of 18 projects in eight western states that aim to restore and protect rivers and watersheds. For example, the Albuquerque-Bernalillo County Water Utility Authority, which treats about 55 million gallons of water per day, will reconnect approximately 11 acres of floodplain habitat along 1,900 linear feet of the Rio Grande, adding 2.2 acres of expanded floodplain habitat. Additionally, the Southern Nevada Water Authority will create wetlands to control erosion resulting from over 200 million gallons of highly treated effluent, urban runoff and groundwater channeled to Lake Mead daily.

Convenings, Research and Resources

- [WRF Publishes Guidebook: Addressing Impediments and Incentives for Agricultural Reuse](#). Agricultural water reuse offers various benefits, such as enhancing irrigation, nutrient management, water diversification and water quality permit compliance. However, there are barriers that hinder the scaling of agricultural reuse and realization of its benefits. This guidebook supports water managers, regulators and the agricultural sector in identifying and overcoming barriers to agricultural water reuse across diverse geographic and agricultural contexts. ([Action 1.6: Address Barriers to Water Reuse in Agriculture Through Improved Communication and Partnerships](#))
- [WRF Publishes Report: Indicator Viruses for Advanced Physical Treatment Process Performance Confirmation](#). This project identified and evaluated potential viral indicators for assessing the performance of physical treatment processes during advanced water treatment for potable reuse. The report considered differences in wastewater characteristics, treatment technologies, plant capacities, geographic locations and seasonal effects to evaluate virus removal efficiency during soil aquifer treatment, media filtration, activated carbon adsorption and by integrated membrane systems consisting of ultrafiltration and reverse osmosis. ([Action 3.6: Viral Pathogen and Surrogate Approaches for Assessing Treatment Performance](#))

- [WaterReuse California Conference](#). The 2023 conference hosted in Indian Wells, California, was attended by over 700 people who were eager to learn from technical sessions and panels related to the most pressing reuse issues in the state. Members of the EPA’s water reuse team presented on WRAP efforts, including recently published water reuse [case studies](#). A member of the EPA’s WIFIA program participated in a panel on navigating through the WIFIA program. ([Action 6.2B: Support and Communicate WIFIA Funding](#) and [Action 11.3: Develop and Highlight Case Studies Relevant to International Contexts](#))
- **Mid-Atlantic Joint Water Reuse Seminar**. A water reuse seminar was held outside of Annapolis, Maryland, as a joint effort between the Chesapeake Water Environment Association and the Chesapeake Section of the American Water Works Association. The EPA’s Water Reuse Program presented results from a recent convening on advancing water reuse and innovative wastewater management practices through the NPDES permitting program. Other presentations focused on different water reuse strategies being pursued by mid-Atlantic utilities. ([Action 2.19: Advance Strategies for Permitting Innovative Wastewater Management Practices and Water Reuse](#))

Abbreviations Used in This Document			
ACWA	Association of Clean Water Administrators	NPDES	National Pollutant Discharge Elimination System
ASDWA	Association of State Drinking Water Administrators	SBIR	Small Business Innovation Research
ASTHO	Association of State and Territorial Health Officials	WaterReuse	WaterReuse Association
ECOS	Environmental Council of the States	WICER	Water in Circular Economy and Resilience
EPA	U.S. Environmental Protection Agency	WIFIA	Water Infrastructure Finance and Innovation Act
FEMA	Federal Emergency Management Agency	WRF	Water Research Foundation
GWPC	Ground Water Protection Council		