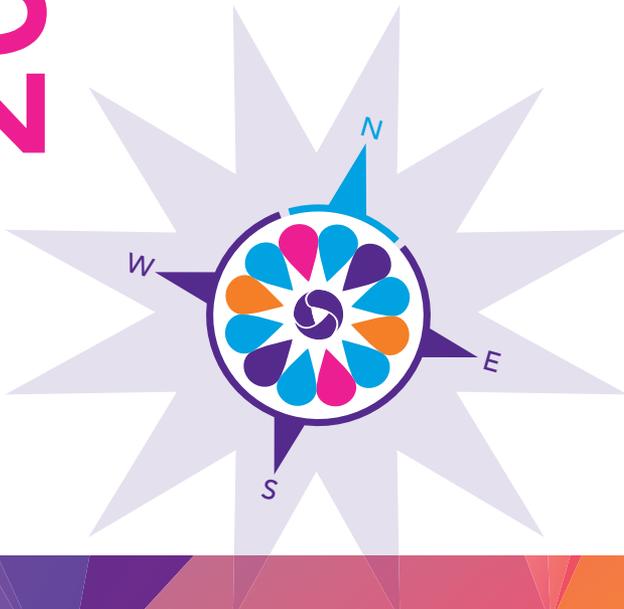


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2022 WaterReuse Awards for Excellence & President's Awards



SHAPING OUR PAST & CHARTING OUR FUTURE

WateReuse Association Awards for Excellence

The WateReuse Association's Awards for Excellence recognize individuals, projects, and partnerships that have made significant contributions in advancing water reuse as a key component of water resources management. Award recipients successfully create new sources of water, develop novel approaches to solve water management challenges, and/or advance policies that support greater adoption of water recycling. WateReuse Awards for Excellence winners demonstrate leadership and inspire others to use water recycling to create resilient and safe water supplies.

ADVOCACY ACHIEVEMENT

The Advocacy Achievement award recognizes individuals and organizations for significant achievements in advancing policy, legislation, or regulations that facilitate greater adoption, implementation, or acceptance of recycled water.

James Herberg, General Manager, Orange County Sanitation District, CA

James (Jim) D. Herberg began his career at Orange County Sanitation District (OC San) in 1995 and rose through the ranks to become General Manager of one of the largest wastewater agencies in the United States. Among his achievements is the successful management of OC San's \$2.7 billion capital improvement program including \$554 million in secondary treatment upgrades, which were completed in September 2012 on time and in budget.

Mr. Herberg's 35 years of experience in the water and wastewater industry has played a key role in the successful development and implementation of the Groundwater Replenishment System—the world's largest water purification system for indirect potable reuse. His guidance on this reuse project has enabled



the partnership between OC San and the Orange County Water District to continue growing. With Mr. Herberg at the helm, the project is nearing a milestone of producing enough water for 1 million residents.

Louis C. Herrin, III, P.E., Senior Engineer, Texas Commission on Environmental Quality, Water Quality Division, TX

Louis C. Herrin, III, has served the people of Texas with distinction since 1981. Mr. Herrin led the effort to develop the state's Chapter 210 non-potable reuse regulations in 1997. He was also instrumental in developing the state's Chapter 217 design criteria for wastewater systems. Currently, Mr. Herrin leads the team that implements and manages state water reuse programs, including Chapters 210 and 217. To date, the State of Texas has issued approximately 500 authorizations to reuse domestic reclaimed water under Chapter 210. Mr. Herrin's efforts have allowed for the safe utilization of recycled water statewide, conserving surface and groundwater supplies for present and future needs. Mr. Herrin has assisted many communities and participated in educating the public and municipalities about the benefits of water reuse.



National Blue Ribbon Commission for Onsite Non-potable Water Systems

The National Blue Ribbon Commission (NBRC) for Onsite Non-potable Water Systems has demonstrated key achievements in advancing policies to support the greater adoption of onsite water reuse. The NBRC brings together water and wastewater utilities and public health agencies from 14 U.S. states, the District of Columbia, the cities of Vancouver and Toronto, and representatives from the U.S. EPA and U.S. Army



Engineer Research and Development Center. Together they create tools and resources that support the implementation of this sustainable water strategy while ensuring public health protection.

Over the last several years, the NBRC has demonstrated leadership in onsite non-potable water reuse by advancing legislation and regulations and contributing significant research. By using the NBRC's resources and working collaboratively, many public health regulators and utilities that participate in the NBRC are now actively pursuing policies to facilitate the implementation of onsite water systems. For example, California, Colorado, Minnesota, Washington, Hawaii, and Austin, Texas are advancing policies supporting onsite reuse, while others including Alaska and Oregon are considering similar steps forward.

COMMUNITY WATER CHAMPION

The Community Water Champion award recognizes the accomplishments of utilities and local government entities that ensure a safe, reliable, locally controlled water supply through the development of water recycling treatment facilities, infrastructure and/or other water reuse projects.

City of Lakeland Se7en Wetlands, FL

The City of Lakeland has operated a constructed wetland for over 30 years, providing natural water quality treatment and habitat for wildlife including threatened species. In 2018, the city opened "Se7en Wetlands," a portion of the property available for environmental education and recreation. Eventually, the entire property will be accessible to the public, including a new Education Center.



Se7en Wetlands receives all of the city's treated wastewater and excess reclaimed water from Polk County. Approximately half of the water from the wetlands is reused by a large electric company, while half is sent to the Alafia River, which is part of the Tampa Bay watershed. The opening of Se7en Wetlands created the opportunity to increase public awareness of the city's water resources and reuse system that not only offsets groundwater pumping by over eight million gallons per day, but also creates over 1,640 acres of protected habitat and greenspace consisting of marshes, swamps, uplands, and lakes.

North Texas Municipal Water District, TX

The North Texas Municipal Water District (NTMWD) was created in 1951 and provides high-quality and dependable water, wastewater, and solid waste services to approximately 2 million people in North Texas. Since it began operation in 2009, the East Fork Wetlands have served as a cornerstone of NTMWD's water



reuse strategy. The East Fork Wetlands are a large-scale water recycling project, diverting approximately 90 million gallons per day (MGD) of effluent return flows from the East Fork Trinity River and cleaning the water using natural treatment processes in a 2,000-acre constructed wetland before pumping the water to Lavon Lake and the Wylie Water Treatment Plant.

As the latest addition to the NTMWD's water reuse portfolio, the Trinity River Main Stem Pump Station began operation in 2020 and provides a reliable water supply to supplement diversions at the East Fork Wetlands. Currently, water reuse represents over one-third of NTMWD's water supplies.

EXCELLENCE IN ACTION

The Excellence in Action award recognizes community leaders that demonstrate a commitment to water resiliency through the innovative use of recycled water for commercial operations, watershed restoration projects, irrigation, or other projects.

Irvine Ranch Water District and the University of California, Irvine, CA

Irvine Ranch Water District and the University of California, Irvine are celebrating more than 50 years of recycled water partnership with the completion of the university's Central Plant Recycled Water Conversion. The project uses cooling towers to chill air-conditioning water for 65 buildings across campus. It involved installation of 3,500 feet of new recycled water pipeline and other improvements to convert the system for recycled water use. The Central Plant saves an additional 80 million gallons of drinking water per year and allows the university to exceed its stretch goal of halving per capita drinkable water demand by 2025.



Scottsdale Water's Reclaimed Water Distribution System, AZ

Golf courses are one of the biggest economic drivers in Scottsdale, Arizona. For many years, Scottsdale's greens relied on the city's potable water supply or groundwater from wells. In 1990, 11 golf courses agreed to partner with Scottsdale Water and fund the construction of the Reclaimed Water Distribution System (RWDS) facility. Today, the facility provides recycled water to 26 golf courses and is fully funded by partnering organizations. These same partners continue to invest in infrastructure and expansion upgrades to the system. Since the facility opened, RWDS has provided up to 3.9-billion gallons of effluent every year—saving valuable drinking water during a period of prolonged drought and water supply shortages. In the 30 years of the RWDS facility's operations, the city has been able to reuse nearly 100 billion gallons of water.



OUTREACH AND EDUCATION

The Outreach and Education award recognizes significant success in advancing public acceptance of recycled water, including short-term campaigns, educational programs, and events.

Colorado Springs Utilities, Colorado School of Mines, and Carollo Engineers, CO

The PureWater Colorado (PWC) mobile direct potable reuse (DPR) demonstration is an innovative mobile platform that delivers DPR education and research at the local level. Forged by a unique utility/engineer/academic coalition and partially funded by a State of Colorado grant, the mobile DPR demonstration blazes new frontiers in potable reuse outreach and education.



As the world's first mobile DPR facility to employ a carbon-based advanced treatment process, PWC is an invaluable hands-on asset in demonstrating how reclaimed water can be purified to drinking water standards without creating a concentrated wastestream. The facility is designed with the flexibility to allow testing new technologies as they evolve, and to address utility-specific interests as the PWC facility is deployed to sites across Colorado.

Syphon Reservoir Improvement Project Public Outreach Campaign, CA

In drought-prone California, water reuse is critical to the well-being of communities. But lack of knowledge can undermine public support for construction projects needed to make the most of recycled water systems. Irvine Ranch Water District (IRWD)'s Syphon Reservoir Improvement Project public outreach campaign set out



to educate customers about plans to enlarge a recycled water reservoir by doubling the height of its dam. Complicating the public-messaging challenge, the dam is across the street from a school and residential neighborhood. To embrace the project, customers had to understand and appreciate the many benefits of recycled water, why additional recycled water storage is important to the community, and the steps being taken to ensure safety. IRWD's outreach campaign focused on transparency, especially where public risk was concerned. While the campaign pitched the many benefits of the project, it also included an inundation map showing the neighborhoods likely to be flooded in the hypothetical event of a dam failure. When the project was first announced, it was met by an unofficial petition of more than 300 opponents skeptical of the need for the project and concerned about the safety of the dam. IRWD's outreach campaign managed to engage and inform the community, including skeptics. In the end, the project received overwhelming support and no public opposition.

TRANSFORMATIONAL INNOVATION

The Transformational Innovation award recognizes technological advances, research breakthroughs, and innovative practices that advance the adoption, implementation, or public acceptance of recycled water.

Eastern Municipal Water District, CA

Eastern Municipal Water District (EMWD)'s Closed Circuit Reverse Osmosis Pilot Project used new technology to significantly reduce the amount of brine discharge in the Advanced Water Purification process for its Purified Water Replenishment program. The success of this project has important implications for recycled water advanced treatment practices.



New York City Department of Environmental Protection, NY

The New York City Department of Environmental Protection (DEP) has established a powerful business case for onsite water reuse by showing that it can help achieve potable water savings, reduce combined sewer overflows, save money for property owners, and create green jobs. As such, DEP is working to encourage water reuse by optimizing its return on investment for property owners. In addition to offering a Water Conservation and Reuse Grant program, the City recently updated their water rates to offer an additional 76% wastewater bill discount for systems that significantly reduce wastewater flows, in addition to the existing 25% water bill reduction for systems that reduce potable water through reuse. Eligibility criteria for these discounts were also updated to apply to district-scale systems.



Water reuse is an important part of DEP's One Water approach to managing water resources.

Yokogawa Electric Corporation, Las Virgenes Municipal Water District, Carollo Engineers, the National Water Research Institute, Metropolitan Water District, Bureau of Reclamation, and IOSight, CA

The Yokogawa Electric Corporation, working with an international team of experts, launched an ambitious artificial intelligence (AI) and machine learning (ML) project for the Las Virgenes - Triunfo Joint Powers Authority (JPA) potable reuse system to reduce energy and chemicals, support semi-autonomous operations, and ensure water quality.

Yokogawa, with the support of the JPA and research partners, has been evaluating AI/ML at the Tapia water reclamation plant (WRP) and the museum-quality pure water demonstration facility (Pure Water Demo). Project trials have succeeded at improving efficiency. Full-scale trials using AI/ML reduced energy use at the WRP by more than 10%, and demonstration-scale trials using AI/ML successfully predicted membrane fouling at the Pure Water Demo. The AI/ML system also demonstrated enhanced water quality confidence, including the evaluation of a potential real-time virus surrogate and the early detection of abnormal feed water quality.



UP AND COMER

The Up and Comer award recognizes a professional with less than 10 years experience in the recycled water industry for leadership in the industry and commitment to pursuing water recycling as a career path.

Shea Dunifon, Pinellas County Utilities, FL

Shea Dunifon, aka Reclaimed Shea or Lady Caca is best known for her creative and practical approaches to explaining water reuse and resource recovery through games, visual displays, and hands-on science experiments. Rocking purple hair and “Reclaimed Shea” t-shirts, Shea creates opportunities to educate local students on the role of water recycling in their everyday lives. She is an advocate for water careers, authoring the first “Careers in Water Reclamation” booklet for high school students with large pictures, bright colors, easy to read text, and salary information. Shea also wrote and co-directed a 50-second “Not all Heroes Wear Capes” video to showcase careers at the facility. Outside of work, Shea has been an active member of the WateReuse, WEF, and FWEA.



PRESIDENT'S AWARDS

The President's Awards recognize individuals who have significantly contributed to the advancement of water reuse through exceptional service and leadership. This award is given at the discretion of the WateReuse Association President.

Senator Dianne Feinstein (D-CA)

Senator Feinstein is honored for her tenacious support of Western water recycling, including her leadership in securing hundreds of millions of dollars for the Title XVI Water Reuse Grants Program. First elected to the Senate in 1992, Senator Dianne Feinstein has been an unwavering champion for policies and programs that support water reuse. As chair of the Senate Energy and Water Appropriations Subcommittee, Senator Feinstein has ensured that the Title XVI Water Reuse Grants Program consistently receives funding each year. The Senator also led a successful effort to secure an unprecedented \$550 million for the TXVI Program in the recently-enacted Infrastructure Investment and Jobs Act of 2021.



Senator Alex Padilla (D-CA)

Senator Padilla is recognized for establishing himself as a new congressional champion for water recycling, including his leadership in reauthorizing and funding the Pilot Program for Alternative Water Source Grants. Senator Alex Padilla is the first Latino to represent California in the U.S. Senate. He was appointed in January 2021 to complete the Senate term of Vice President Kamala Harris. Senator Padilla was elected to the Los Angeles City Council in 1999, the State Senate in 2006, and was elected as California's Secretary of State in 2014. Senator Padilla is a member of the Senate



Committee on Environment and Public Works, where he played a key role in reauthorizing the Pilot Program for Alternative Water Source Grants. He also championed the inclusion of funding for the Alternative Water Source Grants Pilot Program in the Build Back Better Act.

Senator Chris Van Hollen (D-MD)

Senator Van Hollen is honored for supporting water recycling as a resiliency and nutrient management tool in the non-arid U.S., and for his leadership in reauthorizing and funding the Pilot Program for Alternative Water Source Grants. Senator Van Hollen started his time in public service as a member of the Maryland State Legislature before being elected in 2002 to represent Maryland's 8th Congressional District. In the House of Representatives, he served as a member of the Democratic leadership and as Ranking Member of the House Budget Committee. During 2020 and 2021, Senator Van Hollen played a key role in reauthorizing the Pilot Program for Alternative Water Source Grants. He also championed the inclusion of funding for the Alternative Water Source Grants Pilot Program in the Build Back Better Act.



Senator Catherine Cortez Masto (D-NV)

Senator Cortez Masto is recognized for her work to establish a new grant program for large-scale water recycling projects in the West. Senator Cortez Masto served two terms as Attorney General of Nevada, and in November 2016, she became the first woman from Nevada and the first Latina ever elected to the United States Senate. As a member of the Senate Committee on Energy and Natural Resources, Senator Cortez Masto worked with Committee leadership to authorize and fund a new grant program for large-scale water recycling projects. The new program was enacted late last year in the Infrastructure Investment and Jobs Act of 2021.



David Ross, Former Assistant Administrator for Water, U.S. Environmental Protection Agency

Former Assistant Administrator David Ross inspired an enduring initiative by the U.S. EPA to support the adoption of water recycling across the country. Ross' far-reaching vision led to the National Water Reuse Action Plan, a collaboration between more than two dozen action leaders and 80 partners within the water sector, the federal government, state governments, and the NGO community to advance dozens of concrete water reuse actions. His leadership resulted in an unprecedented level of support for water recycling across the federal government, which continues to this day.



SERVICE AWARDS

The WateReuse Association would like to recognize the following individuals for their service on our Board of Directors. Their leadership and vision have helped drive the national adoption of water reuse policies and programs.



Brian Biesemeyer
Scottsdale Water,
AZ



Paul Cook
Irvine Ranch Water
District, CA



Paul Jones
Eastern Municipal
Water District, CA



Gilbert Trejo
El Paso Water,
TX

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