



WHO IS CUWA?

Established in 1990, California Urban Water Agencies (CUWA) is a nonprofit corporation of 10 major urban water agencies collectively delivering drinking water to approximately two-thirds of California's population. Water delivered by CUWA's 10 member agencies is a lifeline supporting California's urban populations and the bulk of the state's \$2 trillion economy.

ENHANCING CONFIDENCE IN POTABLE REUSE WITH A NEW OPERATOR TRAINING AND CERTIFICATION FRAMEWORK



Water reuse provides a resource for beneficial use and is an important part of diverse portfolios to improve the reliability of future water supplies and meet future demands. – **CUWA Water Reuse Policy Principles**

A ROBUST OPERATOR TRAINING AND CERTIFICATION FRAMEWORK IS KEY TO INCREASING STATEWIDE POTABLE REUSE AND MEETING THE STATE WATER RESOURCES CONTROL BOARD'S GOAL OF REUSING 1.5 MILLION ACRE- FEET/YEAR BY 2020 AND 2.5 MILLION BY 2030. THIS WILL PROTECT PUBLIC HEALTH WHILE MAINTAINING THE HIGH-QUALITY REUSE SUPPLIES NEEDED TO ACHIEVE THESE GOALS REQUIRES EFFECTIVE TRAINING AND CERTIFICATION OF POTABLE REUSE OPERATORS.



As with other sources of water supply, water reuse must, first and foremost, continue to be fully protective of public health and the environment. – **CUWA Water Reuse Policy Principles**

FILLING GAPS IN ADVANCED WATER TREATMENT OPERATOR SKILL NEEDS

Potable reuse requires the highest level of treatment and protection to ensure a safe potable water supply, using sophisticated, multi-barrier advanced treatment processes to purify water for reuse. Existing California drinking water and wastewater treatment operator certification exams must be augmented to cover advanced water treatment (AWT) or potable reuse-specific regulations and concerns, including AWT processes and critical control points monitoring.

A NEW INDUSTRY-SUPPORTED APPROACH TO POTABLE REUSE CERTIFICATION

A new, collaborative program between industry and the State Water Board is needed as a critical element of the California Division of Drinking Water's approval and regulation of potable reuse projects to certify the critical knowledge necessary for operating potable reuse systems. The approach of a new supplemental certification program must balance two key necessities: cover the knowledge necessary for operating potable reuse systems—which by their nature straddle the wastewater and drinking water fields—and develop an economically viable program that will draw a large pool of certified operators to meet utility hiring needs.

Four potential program options were presented at a CUWA-facilitated workshop in October 2015. A wide range of utility and State regulatory agency representatives in attendance agreed that **a special AWT or potable reuse module to enhance existing drinking water and wastewater certification**




A potable reuse or AWT supplement to a wastewater/water treatment license will verify that a certified operator has a defined level of knowledge, skill, and experience in AWT and related drinking water, wastewater, and potable reuse rules and practices.


KEY ELEMENTS OF THE PROPOSED PROGRAM

After determining that a special potable reuse or AWT module is the best choice to enhance existing certification, industry stakeholders achieved consensus on a strategy to move this new program forward:

 **Focus** the certification program on AWT technologies used in purification of wastewater effluent for potable reuse and include risk management concepts

 **Give** one test for each level of certification regardless of the candidate's qualifying background, and develop training to address any gaps in background knowledge or experience for water or wastewater candidates

 **Offer** certification as an "add-on" available to both wastewater and water treatment operators with an acceptable level of training and experience

 **Provide** an adequate population of certified operators from which utilities can hire new potable reuse treatment plant operators, and broad enough to draw a sufficiently large and viable testing population

NEXT STEPS

This agreed-upon framework is a foundation for further development and implementation of a potable reuse training and certification program. Efforts are under way through the California-Nevada (CA-NV) Section of the American Water Works Association (AWWA) AWT Operator Certification Committee in collaboration with the State Water Board to explore the development of a new certification program and, as an outcome of the CUWA-facilitated workshop, the CA-NV Section of AWWA and CUWA California Water Environment Association (CWEA) are exploring a potential partnership on the development and implementation of the program. Active industry engagement will help expedite development of the new comprehensive certification exams and training manuals. Legislation and/or an update to existing operator certification regulations will likely be needed to address the new proposed certification requirements.

While potable reuse training and certification is critically important, it is only one part of a comprehensive program needed to protect public health and safety amidst more widespread adoption of potable reuse. For the greatest benefit, potable reuse training and certification is supported by a regulatory framework as well as customized, agency-specific training and an operations plan.



A new certification program will ensure that potable reuse is being operated by individuals with the proper background, education, and experience.

A COLLABORATIVE FRAMEWORK

Development of this certification program is a collaborative effort of CUWA and its partners:

- WaterReuse California
- CA-NV Section of AWWA
- California Water Environment Association
- California Association of Sanitation Agencies
- State Water Board, Division of Drinking Water

For more information, view the complete *Potable Reuse Operator Training and Certification Framework White Paper* at www.cuwa.org.