



CALIFORNIA URBAN WATER AGENCIES

Building a Framework for Potable Reuse Operator Certification in California



Who is CUWA?

Population Served **26 million** (in 2013)

Retail Agencies:

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

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)



Training of potable reuse operators is critical to maintain high-quality reuse supplies protective of public health.

Certification gives utilities, regulators and the public confidence that staff is qualified to operate potable reuse systems.

Existing exams do not cover advanced water treatment or potable reuse concerns

- More robust treatment train
- Unique O&M
- Enhanced risk



The image shows a form titled "EXAMINATION APPLICATION FOR WASTEWATER TREATMENT PLANT OPERATOR" from the California State Water Resources Control Board. The form includes sections for applicant information, examination grade and fees, and an office use section. A large watermark "FOR EXAMINATION ONLY" is overlaid on the form.

State Water Resources Control Board

EXAMINATION APPLICATION FOR WASTEWATER TREATMENT PLANT OPERATOR

USE THIS FORM ONLY FOR EXAMINATION APPLICATIONS

I. APPLICANT INFORMATION:

Name: Last _____ First: _____ Middle: _____
Mailing Address: _____
County: _____ Apt. # _____ City: _____
 Check box if your address has changed. State: _____ Zip: _____
Telephone: Cell: (____) _____
Telephone: Home: (____) _____
Last four digits of your Social Security Number: _____
Email Address: _____ Date of Birth: _____
 Check box to receive public notices from the Wastewater Operator Certification Program.
Are you presently a certified Wastewater Treatment Plant Operator in California?
If YES, Grade: _____ Certificate Number: _____ YES NO

Employer Name: _____
Employer Address: _____
Employer Telephone: (____) _____ City: _____ Zip: _____

II. EXAMINATION GRADE AND FEES:

(Check appropriate box)

GRADE I	GRADE II	GRADE III	GRADE IV	GRADE V
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
\$340	\$180	\$360	\$440	\$480

(With the exception of certain examination fees, fees are non-refundable. Please see instructions for more information.)

OFFICE USE ONLY:

Examination Date: _____
Total educational points: _____
Signature of Reviewer: _____
Approved/Denied for grade: _____
Reason for Denial: _____
Date: _____

Form 4115

CUWA developed a white paper as a collaborative effort with several partners



- **Step 1:** Literature review and survey to establish understanding of existing programs and knowledge gaps
- **Step 2:** Facilitated workshop to gain consensus on a framework for potable reuse operator training and certification
- **Step 3:** Finalize white paper

Current Certification Practices



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Wastewater Operator Certification Program

1 track

5 levels

- 5 Grade levels
(treatment & collection)

Drinking Water Operator Certification Program

2 tracks

5 levels

- Inside the fence
- Outside the fence

- 5 T-grade levels (water treatment)
- 5 D-grade levels (distribution)

Possible Paths Forward



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1 Separate Potable Reuse Operator Certification



2 Potable Reuse or AWT Operator Certification Supplement to a Wastewater License



3 Potable Reuse or AWT Operator Certification Supplement to a Water License



4 Potable Reuse or AWT Hybrid Supplement

Workshop Outcomes and Subsequent Framework



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Industry stakeholders agreed on a Hybrid Approach



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POTABLE REUSE
OR ADVANCED
WATER TREATMENT
SUPPLEMENT TO
EITHER LICENSE

Verifies that a certified water treatment or wastewater operator has a defined level of knowledge, skill and experience in advanced water treatment and related drinking water, wastewater, and potable reuse rules and practices.

Strategic Recommendations for an Industry-Supported Framework



Focus the certification program on advanced water treatment 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

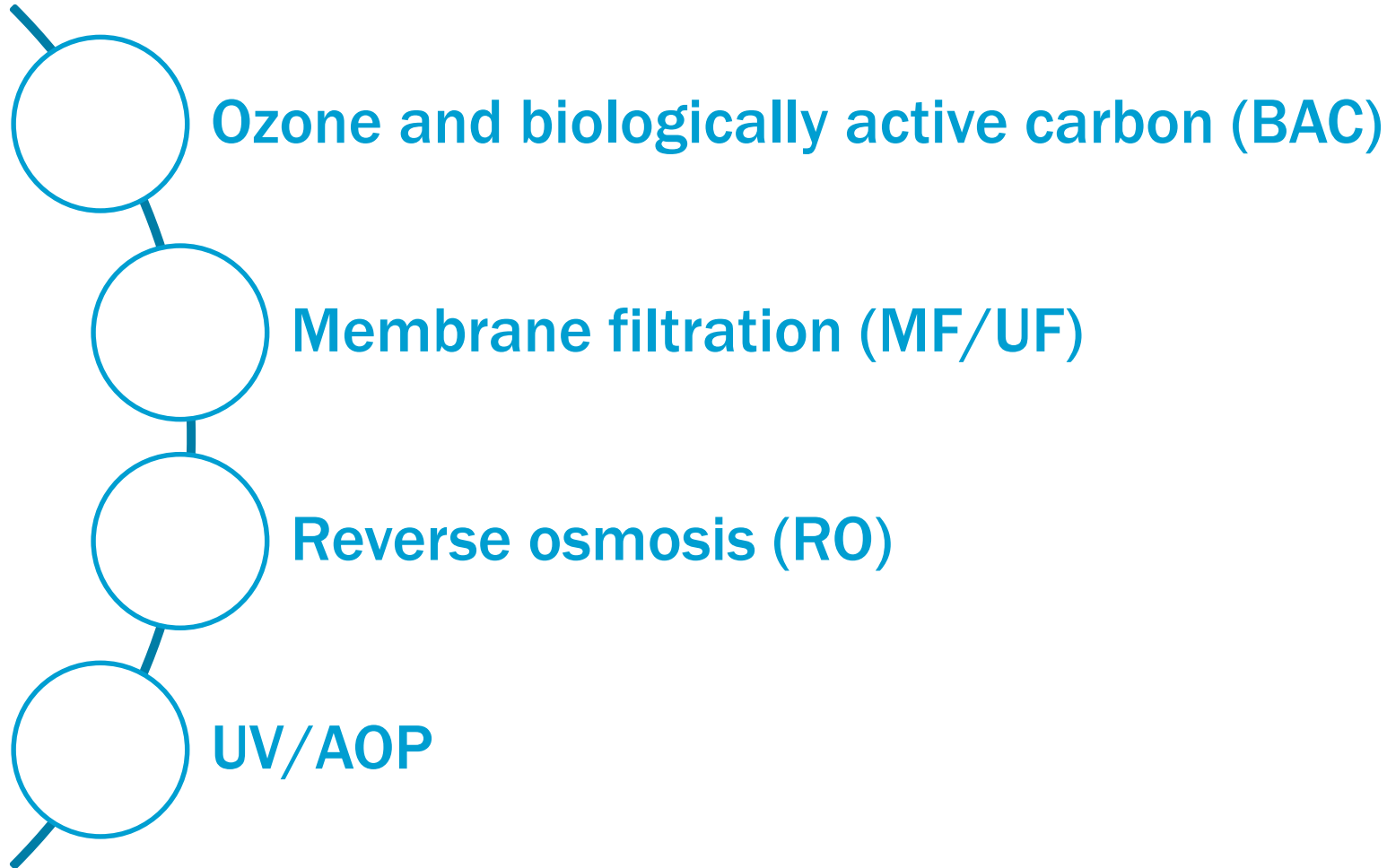


Offer certification as an "add on" available to both wastewater and water treatment operators with an acceptable level of training and experience



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

Focus on the Following Advanced Processes



Next Steps

- Program development and implementation
 - AWWA CA-NV and CWEA are collaborating on an effort that to develop an AWT certification program.
 - Workshops with subject matter experts (ongoing)
 - Job analysis (completed)
 - Decision to move forward with examination development (~October 2017)
 - If approved, exams available in 2019
- Curriculum development
 - Water Reuse Research Foundation (WRRF 15-05) – Developing Curriculum for Advanced Treatment in DPR Applications
 - Hazen and Carollo

Questions?

The white paper is available for download at the CUWA website (www.cuwa.org).



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