

38th Annual WateReuse Symposium

PDH Request Form



Printed Name:	E-mail:
Signed Name:	Organization:

The WateReuse Association is pleased to offer professional development hours (PDHs) for technical sessions at the 38th Annual WateReuse Symposium. It is the attendee's responsibility to ensure that these sessions qualify with your state accreditation agency, as well as to submit the completed certificate to your state accreditation agency to request credit.

Instructions

1. Use this form to record which presentations you attend.
2. Tally up the total hours on right hand corner of each section and on the last page.
3. Enter your contact information on the form.
4. Submit the form to symposium@watereuse.org
5. A Certificate of Attendance will be emailed to you within 4 weeks.

Sunday, March 5, 2023

1:00 pm – 3:00pm

Track 1: Water Resources Planning, Governance, & Management Room: INTERNATIONAL 8-10	Track 2: WORKSHOP Room: IMPERIAL A	Track 3: WORKSHOP Room: M103 - 105	Track 4: WORKSHOP Room: M301 - 303
Advances in Interagency Collaboration (WRAP 2.16) <div style="text-align: right;">_____</div> <div style="text-align: right;"><i>(0.5 hour)</i></div>	WATER REUSE IN THE EASTERN US: DRIVERS, RESEARCH NEEDS, SUCCESSES & OPPORTUNITIES <div style="text-align: right;">_____</div> <div style="text-align: right;"><i>(2 hours)</i></div>	WATER REUSE 101 – INTRO TO WATER RECYCLING FROM THE EXPERTS <div style="text-align: center;">CONTINUES AFTER BREAK</div>	COMMUNICATIONS INTENSIVE: ACHIEVING RATEPAYER & STAKEHOLDER SUPPORT <div style="text-align: center;">CONTINUES AFTER BREAK</div>
Quantification of Carbon Emissions in Potable Reuse Treatment Configuration <div style="text-align: right;">_____</div> <div style="text-align: right;"><i>(0.5 hour)</i></div>			
How Reuse Went from Aspirational to Imperative in the Tualatin Basin (OR) <div style="text-align: right;">_____</div> <div style="text-align: right;"><i>(0.5 hour)</i></div>			

Total hours from 1:00 pm – 3:00pm: _____

Sunday, March 5, 2023

3:30pm – 5:00pm

Track 1: Industrial Reuse Approaches Room: INTERNATIONAL 8-10	Track 2: Evaluating Carbon Based Advanced Treatment Room: INTERNATIONAL 5-7	Track 3: WORKSHOP Room: M103 - 105 <p style="text-align: center;">WATER REUSE 101 – INTRO TO WATER RECYCLING FROM THE EXPERTS</p> <p style="text-align: center;">CONTINUED</p> <p style="text-align: right;">(1.5 hours)</p>	Track 4: WORKSHOP Room: M301 - 303 <p style="text-align: center;">COMMUNICATIONS INTENSIVE: ACHIEVING RATEPAYER & STAKEHOLDER SUPPORT</p> <p style="text-align: center;">CONTINUED</p> <p style="text-align: right;">(1.5 hours)</p>
Innovative Membrane Based Approach for High-Strength Industrial Water Reuse (IA) <p style="text-align: right;">(0.5 hour)</p>	Ozone Disinfection Credit Without a Residual! (UT, VA, FL, Israel) (WRF 5129) <p style="text-align: right;">(0.5 hour)</p>		
Advanced Treatment with ZLD to Meet Internal Reuse at an Industrial Facility (IA) <p style="text-align: right;">(0.5 hour)</p>	Optimizing CBAT: A Pilot Study Comparing Direct vs Conventional Filtration (VA) <p style="text-align: right;">(0.5 hour)</p>		
Breaking Even & Beyond: Water Reuse at EV Battery Facilities <p style="text-align: right;">(0.5 hour)</p>	What Carbon-Based Advanced Treatment Offers to Potable Reuse (OR) (WRF 4832 & WRF 5035) <p style="text-align: right;">(0.5 hour)</p>		

Total hours from 3:30pm – 5:00pm: _____

Monday, March 6, 2023

11:00am – 12:00pm

<p>Track 1: Advancing Reuse in Small or Underrepresented Communities</p> <p>Room: INTERNATIONAL 8-10</p> <p>Expanding Water Reuse to Small and Underserved Communities: Lessons Learned (CA, ID, KS)</p> <p style="text-align: right;">_____ (1 hour)</p>	<p>Track 2: Water Reuse Communications, Outreach, & Education</p> <p>Room: MARQUIS A</p> <p>Water & Health: A Physician Looks at Water Reuse (CA)</p> <p style="text-align: right;">_____ (1 hour)</p>	<p>Track 3: Environmental Mitigation, Climate Resiliency, & Adaptation</p> <p>Room: INTERNATIONAL 5-7</p> <p>World-Wide Water Reuse Implementation Critical to Meet SDGs (Germany, Singapore, United States)</p> <p style="text-align: right;">_____ (1 hour)</p>	<p>Track 4: Industrial Reuse Opportunities</p> <p>Room: M103- M105</p> <p>Risk-Based Guidance for Treated Oil & Gas Produced Water Reuse: Progress & Opportunities</p> <p style="text-align: right;">_____ (1 hour)</p>	<p>Track 5: Innovation & Emerging Research</p> <p>Room: M301-M303</p> <p>Standardizing Quantitative Assessment of Antimicrobial Resistance to Inform Risk (VA)</p> <p style="text-align: right;">_____ (1 hour)</p>	<p>Track 6: Policies & Programs Advancing Water Recycling</p> <p>Room: IMPERIAL A</p> <p>Water Reuse Policy Panel</p> <p style="text-align: right;">_____ (1 hour)</p>	<p>Track 7: Potable Reuse Innovations</p> <p>Room: IMPERIAL B</p> <p>The Next Phase of Reuse in San Diego: Planning for the Central Area Project (CA)</p> <p style="text-align: right;">_____ (1 hour)</p>
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Total hours from 11:00am – 12:00pm: _____

Track 1: Advancing Reuse in Your Community Room: INTERNATIONAL 8-10	Track 2: Engaging Your Audience Room: MARQUIS A	Track 3: Environmental Mitigation, Climate Resiliency, & Adaptation Room: INTERNATIONAL 5-7	Track 4: Industrial Reuse & Salinity Management Room: M103-M105	Track 5: Evaluating & Assessing Pathogen Removal Room: M301-M303	Track 6: State of Water Reuse Regulations Room: IMPERIAL A	Track 7: Potable Reuse Case Studies Room: IMPERIAL B
<p>Small Budget, Big Infrastructure: How We Are Building a Sustainable & Resilient Water System</p> <p style="text-align: right;">(0.5 hour)</p>	<p>Talk to the People: Communicating about Boise’s Recycled Water Program (ID)</p> <p style="text-align: right;">(0.5 hour)</p>	<p>Groundwater Recharge Utilizing Direct Injection of Stormwater & Urban Runoff (CA)</p> <p style="text-align: right;">(0.5 hour)</p>	<p>Setting & Realizing a Corporate Water Reuse Goal</p> <p style="text-align: right;">(0.5 hour)</p>	<p>Virus Log Removal During Secondary Wastewater Treatment Ahead of Potable Reuse (CA) (WRF 5041)</p> <p style="text-align: right;">(0.5 hour)</p>	<p>REUSExplorer: A Compilation of U.S. State Water Reuse Regulations (WRAP 3.1)</p> <p style="text-align: right;">(0.5 hour)</p>	<p>Validating Advanced Water Treatment for Managed Aquifer Recharge in Anne Arundel (MD)</p> <p style="text-align: right;">(0.5 hour)</p>
<p>Holistic Water Management in a Small Community: Plant City’s Potable Reuse Quest (FL)</p> <p style="text-align: right;">(0.5 hour)</p>	<p>The Art of Storytelling: Partnerships, Creativity & Messaging with BBC Story Works (CA)</p> <p style="text-align: right;">(0.5 hour)</p>	<p>Climate Resiliency Planning & Adaptive Design for Future Water Projects (CA)</p> <p style="text-align: right;">(0.5 hour)</p>	<p>To Dye or Not to Dye (Massachusetts Plumbing Water Recycling Policy)</p> <p style="text-align: right;">(0.5 hour)</p>	<p>Implications of Advanced Microbial Methods on Treatment Goals for Potable Reuse (WRF 4760)</p> <p style="text-align: right;">(0.5 hour)</p>	<p>Weaving a U.S. Water Reuse Policy Picture: Evaluating Patchwork State Water Reuse Policy Changes from 2012-2022 with Systemic Categorization & GIS Maps</p> <p style="text-align: right;">(0.5 hour)</p>	<p>Pathway to DPR: Transforming the City of Phoenix’s Cave Creek WRF to an AWPF (AZ)</p> <p style="text-align: right;">(0.5 hour)</p>

20 Years in the Making on Mary's Creek – A New WRF for the City of Fort Worth (TX) <hr/> <i>(0.5 hour)</i>	Australian Community Sentiment on Alternative Drinking Water Sources (Australia) <hr/> <i>(0.5 hour)</i>	Building Local Groundwater Resiliency: High-Capacity Injection at Existing AWTF (CA) <hr/> <i>(0.5 hour)</i>	Role of Salinity Management in DPR Implementation in Arizona (AZ) <hr/> <i>(0.5 hour)</i>	Evaluation of Virus Removal by Ultrafiltration Using Rapid In-Field Methods (FL) <hr/> <i>(0.5 hour)</i>	Mining Wastewater in Texas for Reuse and DPR <hr/> <i>(0.5 hour)</i>	Lessons-Learned from the Long Road to Direct Potable Reuse in Cloudcroft (NM) <hr/> <i>(0.5 hour)</i>
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Monday, March 6, 2023

1:45pm – 3:15pm

Total hours from 1:45pm – 3:15pm: _____

Monday, March 6, 2023

3:45pm – 5:15pm

Track 1: Developing Onsite Reuse Programs Room: INTERNATIONAL 8-10	Track 2: Agricultural Reuse & Irrigation Room: MARQUIS A	Track 3: Reuse & Resiliency from East to West Room: INTERNATIONAL 5-7	Track 4: Piloting the Right Solution Room: M103-M105	Track 5: Evaluating & Assessing Pathogen Removal Room: M301-M303	Track 6: State of Water Reuse Regulations Room: IMPERIAL A	Track 7: Water Resources Planning, Governance, & Management Room: IMPERIAL B
Developing Onsite Water Systems to Support Regional Water Resilience <hr/> <i>(0.5 hour)</i>	Water Reuse for Agriculture – Smart Control Concepts (Germany) <hr/> <i>(0.5 hour)</i>	Sustaining Water Supplies for Metro Atlanta Through Water Reuse (GA) <hr/> <i>(0.5 hour)</i>	Lessons Learned from a BOR Funded Desalination Research Project for CT Blowdown <hr/> <i>(0.5 hour)</i>	Using the Best Science to Develop Pathogen Log Reduction Requirements in DPR (WRF 4951 & WRF 4989) <hr/> <i>(0.5 hour)</i>	Advancing Potable Reuse in Arizona <hr/>	Leading the AWS Wave of Potable Reuse in Central Florida <hr/> <i>(0.5 hour)</i>
Implementing Onsite Reuse at the Local Scale <hr/>	Agricultural Reuse for Resilient & Socially Equitable Urban Food Production <hr/> <i>(0.5 hour)</i>	Protecting the Chesapeake Through Reuse: A Regional Collaboration <hr/>	Closed Circuit Reverse Osmosis: Piloting Towards a Future of High Recovery <hr/> <i>(0.5 hour)</i>	Killing Two Birds with One Stone: Disinfection Strategies (GA) <hr/> <i>(0.5 hour)</i>	<hr/> <i>(1 hour)</i>	Challenges & Opportunities in One Water Strategic Planning <hr/> <i>(0.5 hour)</i>

(1 hour)	Minimum Liquid Discharge Brackish Groundwater Desalination for Irrigation Water (CA)	(1 hour)	Expanded Development of Beneficial Reuse in Franklin Tennessee	(0.5 hour)	Membrane Bioreactor Filtrate, a Bin Zero Raw Water for Potable Reuse?	(0.5 hour)	State Legislation as a Driver for Increased Water Reuse	(0.5 hour)	Nutrient Removal Resilience: Water Reuse in the Water Rich Great Lakes States	(0.5 hour)
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Total hours from 3:45pm – 5:15pm: _____

Tuesday, March 7, 2023

9:00am – 10:00am

Track 1: Advancing Reuse in Small Or Under-represented Communities Room: IMPERIAL B	Track 2: Onsite Reuse & Decentralized Systems Room: MARQUIS A	Track 3: System Operations & Workforce Development Room: INTERNATIONAL 5-7	Track 4: Water Resources Planning, Governance, & Management Room: IMPERIAL A	Track 5: Communication, Outreach, & Education Room: M301-M303	Track 6: Innovation & Emerging Research Room: INTERNATIONAL 8-10	Track 7: Water Resources Planning, Governance, & Management Room: M103- M105
Private Sector’s Role in Partnering with Water Utilities to Advance Environmental Justice (GA, CA, WA, KY) <u>(1 hour)</u>	Small Businesses Innovate Technologies to Advance Onsite Water Reuse <u>(1 hour)</u>	Making Potable Reuse a Reality – Fit for Purpose Engineering and Piloting (CA, FL, VA) <u>(1 hour)</u>	Lessons Learned: Israel-U.S. Delegation <u>(1 hour)</u>	See, Touch, & Taste: Offering Consumers Direct Experience with Direct Potable Reuse <u>(1 hour)</u>	Unlocking the Nationwide Potential of Water Reuse (EPA Research Grant) (WRF) <u>(1 hour)</u>	Attributes of Successful Utility Research Programs (FL, GA, CA, NV) <u>(1 hour)</u>

Total hours from 9:00am – 10:00am: _____

Tuesday, March 7, 2023

10:30am – 12:00pm

Track 1: Programs Advancing Water Reuse Room: IMPERIAL B	Track 2: Stormwater Capture & Use Room: MARQUIS A	Track 3: Finding the Right Treatment Train Room: INTERNATIONAL 5-7	Track 4: Onsite Reuse & Decentralized Systems Room: IMPERIAL A	Track 5: Industrial Reuse Opportunities Room: M301-M303	Track 6: Assessing Water Resources Room: INTERNATIONAL 8-10	Track 7: Industry Innovations Room: M103- M105
<p>Stories of Water Reuse Projects Supported by EPA’s WIFIA</p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p>(1 hour)</p>	<p>Expanding Water Resiliency in Colorado Through Urban Stormwater Capture & Use</p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p>(0.5 hour)</p>	<p>Mapping the Impact of TOC Transformation on DBP Generation in UV/AOP in Reuse</p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p>(0.5 hour)</p>	<p>Updated Pathogen Log-Reduction Targets for Onsite Non-Potable Water Reuse (WRAP 3.4)</p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p>(0.5 hour)</p>	<p>Panel on State Produced Water Treatment & Reuse Approaches</p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p>(1 hour)</p>	<p>Life Cycle Assessment and Cost Analysis of Potable Reuse: IPR, Ozone BAC & RO (GA)</p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p>(0.5 hour)</p>	<p>One Water in Action: Innovation Technologies and Solutions to Promote a Water Circular Economy</p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p>(0.5 hour)</p>
	<p>Stormwater Capture & Use – A Planning Approach & Future Research (WRF 4841)</p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p>(0.5 hour)</p>	<p><i>VUV Biofiltration: Innovative Integrated Treatment for Potable Reuse</i></p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p>(0.5 hour)</p>	<p>Successful Implementation of Onsite & Distributed Water Reuse Systems (WRF 5040)</p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p>(0.5 hour)</p>		<p>Implementing Reuse in the Water DROP Initiative in Miami-Dade County (FL)</p> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p>(0.5 hour)</p>	<p><i>Intelligent Human Machine Interface to Support Broader Adoption of Potable Reuse</i></p>

Supporting Water Reuse through FEMA Hazard Mitigation Programs <u>(0.5 hour)</u>	Guidance for Treatment of Stormwater to Meet Pathogen Reduction Targets (WRF 5034) <u>(0.5 hour)</u>	Controlling Haloacetonitriles Formation in Potable Reuse <u>(0.5 hour)</u>	Novel Energy Efficient External Tubular MBR for Onsite Water Reuse <u>(0.5 hour)</u>	Electrocoagulation Treatment of Reverse Osmosis Concentrate from a Municipal Wastewater Reuse Facility <u>(0.5 hour)</u>	Bioassays for Water Quality Monitoring: Ready for Prime Time? <u>(0.5 hour)</u>	 <u>(1 hour)</u>
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Total hours from 10:30am – 12:00pm: _____

Tuesday, March 7, 2023

1:45pm – 3:15pm

Track 1: Importance of Public Messaging & Demonstration Facilities Room: IMPERIAL B	Track 2: System Operations & Workforce Development Room: MARQUIS A	Track 3: Finding the Right Treatment Train Room: INTERNATIONAL 5-7	Track 4: Implications of PFAS in Reuse Room: IMPERIAL A	Track 5: Rethinking Water Reuse's Role Room: M301-M303	Track 6: Water Reuse & Desalination Room: INTERNATIONAL 8-10	Track 7: Industry Innovations Room: M103-M105
Designing PWD's AWT Demonstration Facility to Gain Public Acceptance (CA) <i>(0.5 hour)</i>	Program Management for Utilities – Using Your Program to Drive Innovation (CA) (WRF 5049) <i>(0.5 hour)</i>	Impacts of WW Performance on Advanced Treatment: Membrane Edition (WRF 4833) <i>(0.5 hour)</i>	Tracking Down the Sources & Fate of PFAS in Land-Applied Reused Water (OR) <i>(0.5 hour)</i>	Piedmont Hospital Reuse System – Increasing Operational Resilience & Reducing Cost (GA) <i>(0.5 hour)</i>	The Role of Desalination to Offset Growing Water Scarcity (Panel developed in partnership with IDA)	Collaborative Delivery for Reuse: Comparing Design-Build, CMAR & Non-Traditional Project Delivery Methods to Maximize Outcomes <i>(1 hour)</i>
Microplastic Prevalence & the Importance of Consumer Messaging for Potable Reuse (WRF 5155) <i>(0.5 hour)</i>	Water Workforce for Resilient Communities: Engaging the Next Generation <i>(0.5 hour)</i>	Quantification of Pathogen Removal through Tertiary & Secondary MBRs (MWD) (CA) <i>(0.5 hour)</i>	Reuse, RO, & PFAS? Implications for Treatment & Destruction <i>(0.5 hour)</i>	Atmospheric Water Capture: An Emerging Way to Reuse Water from the Air <i>(0.5 hour)</i>		

Tuesday, March 7, 2023

3:45pm – 4:45pm

Track 1: Tackling New Frontiers Room: IMPERIAL B	Track 2: Data Processing & Monitoring Room: MARQUIS A	Track 3: Sustainability Goals & Reuse Room: INTERNATIONAL 5-7	Track 4: Enabling Reuse with MBRs Room: IMPERIAL A	Track 5: Moving to DPR Room: M301-M303	Track 6: Implications of PFAS in Reuse Room: INTERNATIONAL 8-10	Track 7: Making Onsite Reuse Possible Room: M103- M105
Microplastics – Tackling the Next Big (& Tiny) Unknown (CA) <hr style="width: 10%; margin-left: auto; margin-right: auto;"/> (0.5 hour)	Ensure Safety in Potable Reuse: Monitoring Needs & Opportunities (WRF 5079) <hr style="width: 10%; margin-left: auto; margin-right: auto;"/> (0.5 hour)	Private-Public Collaborations for Successful Water Replenishment <hr style="width: 10%; margin-left: auto; margin-right: auto;"/> (0.5 hour)	How Membrane Bioreactors Fit in the Future of Treatment & Enabling Reuse <hr style="width: 10%; margin-left: auto; margin-right: auto;"/> (0.5 hour)	Treatment to Address Chemical Peaks: Is There Flexibility in DPR Process Train? <hr style="width: 10%; margin-left: auto; margin-right: auto;"/> (0.5 hour)	Collaborative Development of Non-RO IPR at Marine Corps Base Camp Pendleton (CA) <hr style="width: 10%; margin-left: auto; margin-right: auto;"/> (0.5 hour)	International Plumbing & Residential Code Requirements for Onsite Water Reuse <hr style="width: 10%; margin-left: auto; margin-right: auto;"/> (0.5 hour)
Using a BAC Filter Model to Make Better Design Decisions <hr style="width: 10%; margin-left: auto; margin-right: auto;"/> (0.5 hour)	Real-Time Data Processing & Event Classification for Direct Potable Reuse (WRF 4954) <hr style="width: 10%; margin-left: auto; margin-right: auto;"/> (0.5 hour)	Advanced Water Treatment: Lowering the Carbon Footprint of Water Recycling <hr style="width: 10%; margin-left: auto; margin-right: auto;"/> (0.5 hour)	Re-thinking Membrane Bioreactor Design for Advanced Treatment <hr style="width: 10%; margin-left: auto; margin-right: auto;"/> (0.5 hour)	SFPUC’s Journey: From Non-Potable Opportunities to Planning Direct Potable Reuse <hr style="width: 10%; margin-left: auto; margin-right: auto;"/> (0.5 hour)	The Pretreatment Program Drives the Future of One Water (CA) <hr style="width: 10%; margin-left: auto; margin-right: auto;"/> (0.5 hour)	Google Bayview: Blackwater Reuse Facility Lessons Learned (CA) <hr style="width: 10%; margin-left: auto; margin-right: auto;"/> (0.5 hour)

Total hours from 3:45pm – 4:45pm: _____

Total Hours Completed for **PDHs**: _____

Name:

Email:

Thank you for attending the 38th Annual WateReuse Symposium!

(In case of any inquiries, please contact Lucí Gutiérrez at lgutierrez@watereuse.org)