



Technical Sessions

Breakout Room 1

Interagency Projects	
One Water, Two Approaches, Three Sources: Integrating Stormwater into Portfolios	
Rachel Morgan and Sachi Itagaki, Kennedy/Jenks Consultants	
Laying the Framework for 100% Reuse in Los Angeles	
Rafael Villegas, Los Angeles Department of Water and Power	
WIN 4 ALL: Securing Regional Resiliency Through Sustainable Groundwater	
Diane Gatza, The Water Replenishment District Lyndsey Bloxom, The Water Replenishment District	
Alternative Framework to the TOC Standard for GWR Surface Spreading Projects	
Bryan Trussell, Trussell Technologies, Inc Roshanak Aflaki, Rhodes Trussell, Brian Pecson, Teresa Venezia and Fernanda Bacaro Los Angeles Sanitation and Trussell Technologies	
Treatment Technologies	
Using Pipeline Contacting for High Dose Ozone Applications – Pure Water Monterey	
Srikanth Pathapati, Mazzei Injector Company LLC	
Advancements in Ozone/BAF for Achieving Potable Reuse Goals	
Vijay Sundaram, Stantec Kevin Flis, Lydia Peri, David Foster and Krishna Pagilla Xylem and TMWA	
Reuse Case Studies	
Save the Outfall, Save the Avocados: Design Build for Advanced Treatment	
Scott Lacy, Brown and Caldwell Angela Morrow, City of Escondido	

Pure Water Oceanside – The Path to Delivering Water by 2021 Adam Hoch, Hoch Consulting
Integrated Resource Recovery Supports Agriculture and Economy in Paso Robles Kaitlin Zusy, Black & Veatch Matt Thompson, City of Paso Robles
For Whom the Bell Tolls: Determining When to Replace Aging Reuse Infrastructure Nathan Boyle, Hazen and Sawyer Susanna Li, West Basin Municipal Water District
Leveraging Nutrient Control Strategies to Promote Recycled Water Production Azalea Mitch, City of San Mateo John Kenny and Brian Pecson, Trussell Technologies, Inc.

Breakout Room 2

How to Do “On-Site” Reuse
A Design Professional's Guide to Onsite Water Use and Reuse Kyle Pickett, The William J. Worthen Foundation & Urban Fabrick
A Sewer Agency’s Experience Permitting Facebook’s On-Site Treatment Plant Roanne Ross, West Yost Associates Phil Scott, West Bay Sanitary District
Integration of a Decentralized Solution in an Urban Renewal Project Chris Hertle, GHD, Inc. Mark Trickey, Andrew Chapman GHD Pty Ltd.
The Rainbow: Public Art with Purified Recycled Water Hesse McGraw, el dorado, inc. Brynne Weeks, Sanjay Reddy and Andrew Salveson, Carollo Engineers
PFAS
PFAS Occurrence and Recent Advances in Treatment Jennifer Hooper, CDM Smith Charles Schaefer and Dora Chiang, CDM Smith

PFAS Removal by Thin Film Nanocomposite Reverse Osmosis Membranes Kenneth Chao, LG Chem Hoon Hyung, Roy Daly and Nate Weeks LG Chem
PFAS in Water Reclamation Plants: Treatment and Environmental Fate Alex Franchi, AECOM Yu Jung Chang and Chris Curran AECOM
Regulatory, Policy and Compliance
Developing Criteria for Direct Potable Reuse Brian Bernados, Division of Drinking Water, State Water Board
California Direct Potable Reuse Coalition: Implementation Guide for Utilities Jeff Mosher, Carollo Engineers Andrew Salveson and Kevin Hardy Carollo Engineers and National Water Research Institute
No New Drop Squandered: Santa Clarita's Approach to Increasing Water Recycling Erica Wolski, Woodard & Curran Steve Cole, Santa Clarita Valley Water Agency
Navigating a Recycled Water Project through the Water Code Section 1211 Process Leah Walker, City of Petaluma Department of Public Works & Utilities

Breakout Room 3

Membrane Integrity Testing
Validating Virus and Protozoa Removal and Surrogates for Flat-Sheet MBR Siamak Modarresi, Kubota Membrane USA Nicola Fontaine, Carollo Engineers Larry Morris, Kubota Membrane USA
Rapid Detection of Waterborne Viruses Through Flow Cytometry Hannah Safford, University of California Davis Heather-Bischel, University of California, Davis

A Simple Measure of MBR Integrity – Further Validation of the Solids LRV Method Stephen Katz, SUEZ Water Technologies & Solutions Pierre Cote, Cote Membrane Separation Ltd., Daniella Mosqueda-Jimenez/Kathleen Peach SUEZ Water Technologies and Solutions
A Roadmap Toward LRV Credits for Membrane Bioreactor in Reuse Applications Chris Morrow, Dupont Water Solutions
Climate- Energy Resiliency
Utilizing Multiple Alternative Water Resources in Reuse Projects Sunny Wang, City of Santa Monica Selim Eren and Chris Aguillon, City of Santa Monica
The Energy Implications of Advanced Water Recycling in Southern California Nicholas Chow, UCLA Luskin Center for Innovation
Disinfection Byproducts
Disinfection Byproduct Formation at Potable Reuse and Water Reclamation Plants Larry Schimmoller, Jacobs
Toxicity Bioassays for Assessing Disinfection Byproducts in Potable Water Reuse Erica Marti, University of Nevada, Las Vegas Matias Attene-Ramos, George Washington University
Lessons Learned from the First Full Scale UV-Cl Advanced Oxidation Process Bryan Trussell, Trussell Technologies Fernando Gonzalez, Lance Thibodeaux, Roshanak Aflaki, Slavica Hammond, Keel Robinson, Jen Scheideler

Breakout Room 4

Brine Management
Trace Metals Removal from RO Concentrate via Low-Energy Capacitive Coagulation Galen O'Toole, Valley Water Cameron Lippert, PowerTech Water, LLC

FO/RO for Centralized and Decentralized Potable Reuse Aleksandra Szczuka, Stanford University
Brine Recovery and Minimization Technology Overview Daniel Sampson, HDR
A 4-Year Journey to Minimize Brine with Closed Circuit RO and 95% Recovery Eileen Idica, Trussell Technologies, Inc. Seval Sen, Padre Dam Municipal Water District
Data Collection and Optimization
Demonstrating Real-Time Collection System Monitoring for Enhanced Source Control Eva Steinle-Darling, Carollo Gina Dorrington, Jeremy Grant, Nancy Nye, Scott Mansell, Penny Carlo, Nicola Fontaine, Prathana Pradhan, Andrew Salveson Ventura Water, El Paso Water, Clean Water Services, Carollo Engineers
Improving RO Treatment Operations with Direct Online Membrane Fouling Detection Anditya Rahardianto, Noria Water Technologies Bilal Khan, Sivan Cohen, Yoram Cohen, Noria Water Technologies Han Gu, Megan Plumlee, Orange County Water District
How Big Data Can Protect Wastewater Quality Zohar Scheinin, Kando Anne-li Steutel-Maron, Kando
Potable Reuse
Recycled Water Research for a Changing California Laura McLellan, California State Water Resources Control Board
PureWater SF: The Season Finale Manisha Kothari, San Francisco Public Utilities Commission Brynne Weeks and Andrew Salveson, Carollo Engineers
Treated Water Augmentation – The Right Fit for California’s Silicon Valley? Hossein Ashktorab, Valley Water Nina Hawk and Zach Helsley, Valley Water

A Survey of Microplastics Occurrence in Global Drinking Water Systems
Eurofins Eaton Analytical
Recycled Water, Onsite Reuse, and the Road to Sustainability
Eric Rosenblum, Water Resource Consultant

Breakout Room 5

Matching Supply With Demand
Supplemental Supply Alternatives for the San Ramon Valley Recycled Water Program
Florence Wedington, EBMUD Reena Thomas, EBMUD
Adapting to Change: Informing Water Use Efficiency and Declining Flows
Rucker Alex, Brown and Caldwell Jocelyn Lu, Brown and Caldwell
Strategic Water Reuse Partnership in the Heart of Silicon Valley
Nina Hawk, Valley Water Phil Bobel, City of Palo Alto Gregg Hosfeldt, City of Mountain View
Collaboration between Agencies for Sustainable Cost and Supply of Recycled Water
Kimberly Duong, Los Angeles Department of Water and Power Everett Ferguson, Water Replenishment District of Southern California
Public Outreach Simplified
Potty Talk - How Effective Language Can Advance Your Reuse Project
Steve Thomas, TBC Communications & Media
Dejargon Your Outreach, Build a Storyline that Earns Support
Tiffany Meyer, Water Systems Consulting, Inc. Holly Tichenor, Water Systems Consulting, Inc.
New and Exciting! Communicating about Innovation in a Potable Reuse Program
Rupam Soni, Metropolitan Water District of Southern California Carolyn Schaffer, Metropolitan Water District of Southern California

From Surveys to Demonstration Facilities
<p>Unlocking the Power of Public Survey Research to Propel Your Project</p> <p>Rebecca Cole, NV5 Sarah Davis, City of Oceanside</p>
<p>Moving with the Little Engine that Could</p> <p>Melanie Schumacher, Soquel Creek Water District Mark Millan, Data Instincts</p>
<p>Using Demonstration Facilities For Effective and Lasting Community Engagement</p> <p>Megan Drummy, Katz & Associates</p>