

Monday, September 14, 2020



8:00 am MT – Opening General Session: Live Speaker Availability

### Welcome and Introduction of Keynote Speaker

Gilbert Trejo, WaterReuse Association President, Chief Technical Officer, El Paso Water

### Keynote – Peter Kageyama, Author of *For the Love of Cities* and *The Emotional Infrastructure of Places*

Peter speaks about emotional engagement with PLACES – cities, towns, villages, schools and neighborhoods. Good things happen when more people become emotionally engaged with their places, when more people fall in love with those places. Peter talks about how to create the set of conditions where love is more likely to happen and how to encourage people to go from saying they love a place to actually doing something for that place.

[Sponsored by Tetra Tech](#)

### Plenary Panel – Reaching New Heights in Water Reuse

Participate in an illustration of the Symposium theme, “Reaching New Heights in Water Reuse,” in the context of the WaterReuse Association’s 30th anniversary. Our discussion explores how water reuse has evolved over the past three decades in terms of its use applications, and how it might develop in the future.

### Moderator:

Gilbert Trejo, WaterReuse Association President, Chief Technical Officer, El Paso Water

### Panelists:

- Gloria Gray, Director, West Basin Municipal Water District
- Felicia Marcus, Landreth Fellow, Stanford University Water in the West Program
- Yuvbir Singh, Chief Executive Officer, SUEZ Water Technologies & Solutions Suez
- Chris Phipps, Director, Anne Arundel County, Department of Public Works
- Pinar Balci, Assistant Commissioner, Bureau of Environmental Planning and Analysis, New York City Department of Environmental Protection
- Sunny Wang, Water Resources Manager, City of Santa Monica, Public Works Department – Water Resources

*\*\*Opening General Session will be available on demand Tuesday, September 15, 2020*



Sessions related to the implementation of the National Water Reuse Action Plan (WRAP)



Live sessions. Recordings will be posted in the virtual platform for on demand viewing.

## 10:30 am MT – Technical Sessions with Live Speaker Availability and Chat

Unless otherwise noted, the Technical Sessions are pre-recorded and available for viewing at your convenience. Join us live at 10:30 am MT to chat with the presenters in the following groups of sessions.

### Session Group: Water Reuse 101: A Bootcamp for Beginners

#### **Benefits of Non-Potable, Benefits of Potable, and Water Reuse Regulations** (70 minutes)

Melanie Holmer, Water Reuse Leader, Brown and Caldwell  
Shannon Spurlock, Founder & Principal, Ochotona Consulting  
Jill Vandegrift, Environmental Engineer, CDM Smith  
Don Vandertulip, Engineer, Texas Commission on Environmental Quality

#### **Key Elements of Reuse Programs and Public Outreach, Communications, and Engagement** (45 minutes)

Kati Bell, Managing Director of Water Strategy, Brown and Caldwell  
Mark Millan, Principal, Data Instincts

#### **Water Reuse Case Studies: Colorado, California, Texas, and Virginia** (75 minutes)

Sarah Young, Deputy Director – Planning and Engineering, Aurora Water  
Kelsey Lyons, Start-up, Commissioning, and Optimization (SCO), Denver Water  
Mike Markus, General Manager, Orange County Water District  
Daniel Nix, Utilities Operations Manager, City of Wichita Falls  
Thomas Dziura, Research Intern, Hampton Roads Sanitation District

#### **Upcoming Research and Symposium Preview** (5 minutes)

Allegra da Silva, Regional One Water Practice Leader and National PFAS Coordinator, Brown and Caldwell



#### **Water Reuse 101 Instructors Answer Questions Live** (60 minutes)

Moderator: Allegra da Silva, Regional One Water Practice Leader and National PFAS Coordinator, Brown and Caldwell

10:30-11:00 am MT

Melanie Holmer, Water Reuse Leader, Brown and Caldwell  
Shannon Spurlock, Founder & Principal, Ochotona Consulting  
Jill Vandegrift, Environmental Engineer, CDM Smith  
Don Vandertulip, Engineer, Texas Commission on Environmental Quality  
Kati Bell, Managing Director of Water Strategy, Brown and Caldwell  
Mark Millan, Principal, Data Instincts

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11:00-11:30 am MT

Sarah Young, Deputy Director – Planning and Engineering, Aurora Water  
Kelsey Lyons, Start-up, Commissioning, and Optimization (SCO), Denver Water  
Mike Markus, General Manager, Orange County Water District  
Daniel Nix, Utilities Operations Manager, City of Wichita Falls  
Thomas Dziura, Research Intern, Hampton Roads Sanitation District

**Session Group: Water Recycling Policy and Planning**

**CA State Water Board Grant with WRF: Research to Pave the Way for Regulations** (90 minutes)

Julie Minton, Research Unit Leader, The Water Research Foundation  
Adam Olivieri, Principal/Founder, EOA, Inc.  
Charles Wong, Department Head, Chemistry at the Southern California Coastal Water Research Project  
Shane Trussell, President, Trussell Technologies, Inc.  
Brian Pecson, Director Engineering Services, Trussell Technologies, Inc.  
Krista Wigginton, Associate Professor, University of Michigan  
Jean Debroux, Chief Technology Officer, Kennedy Jenks



**National Policy Developments Related to Water Reuse** (90 minutes)

*Moderator:* Jon Freedman, Senior Vice President, Global Government Affairs, Suez  
  
Mia O'Connell, President, O'Connell & Dempsey, LLC  
Pete Evich, Vice President, Van Scoyoc Associates  
Eric Sapirstein, Founder and President, ENS Resources, Inc.

**Navigating the Geopolitics of Beneficial Reuse — Regulations, Public Perceptions, and other Hidden Drivers** (60 minutes)

Christina Alito, One Water Institute Lead, HDR  
Ryan Messer, Project Manager and Reuse Practice Leader, HDR

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**Session Group: Water Recycling in the Rockies**

**Colorado's First Localized Recycled Water System: Learning Every Step of the Way** (30 minutes)

Kelsey Lyons, Water Treatment Technician, Denver Water  
Austa Parker, Lead Planner, Denver Water

**Implementation of Localized Reclaimed Water Treatment Systems in Colorado** (30 minutes)

Brandi Honeycutt, Environmental Protection Specialist, Colorado Department of Public Health and Environment  
Emily Wong, Principle Engineer, Colorado Department of Public Health and Environment

**Incorporating Urban Reuse in Colorado Education Standards** (30 minutes)

Liz Lemonds, Reclaimed Water Compliance, Colorado Department of Public Health and Environment

**Water Reuse Alternatives in Big Sky Montana** (30 minutes)

Scott Buecker, Senior Project Manager, AE2S  
Ron Edwards, General Manager, Big Sky County Water and Sewer District

**Water Reuse in Colorado Above 14,000 feet – Pikes Peak Summit Visitor Center** (30 minutes)

Simon Farrell, Project Manager, Associate, JVA, Inc.

**Weighing the Future of Non-Potable Reuse in Colorado** (30 minutes)

Patricia Whitby, Environmental Engineer, Brown and Caldwell  
Allegra da Silva, One Water Regional Leader, Brown and Caldwell  
Kevin Lusk, Principal Engineer, Colorado Springs Utilities

**Headwaters Policy: Advancing Reuse in Colorado** (90 minutes)

Laura Belanger, Senior Water Resources Engineer and Policy Advisor, Western Resource Advocates  
Rebecca Mitchell, Director, Colorado Water Conservation Board  
Barbara Biggs, Chair, Metro Roundtable, General Manager, Roxborough Water & Sanitation District  
Jim Pokrandt, Director of Community Affairs, Colorado River Water Conservation District

**A Pathway to Regulating Direct Potable Reuse in Colorado** (90 minutes)

Larry Schimmoller, Global Technology Leader for Water Reuse, Jacobs  
Mark Marlowe, Director of Castle Rock Water, Town of Castle Rock  
Tyson Ingels, Lead Drinking Water Engineer, Colorado Department of Public Health & Environment  
Austa Parker, Key Account Manager, Recycled Water & Efficiency Team, Denver Water  
Kevin Hardy, Executive Director, National Water Research Institute

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**12:00 pm MT – WaterReuse Annual Meeting: Live Speaker Availability**

**Welcome and Tribute to Bahman Sheikh**

Karen Pallansch, WaterReuse Association Secretary, Chief Executive Officer, Alexandria Renew Enterprises

**Annual Meeting Call to Order**

Gilbert Trejo, WaterReuse Association President, Chief Technical Officer, El Paso Water

**State of the Association**

Patricia Sinicropi, Executive Director, WaterReuse Association

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**2:00 pm MT – Technical Sessions with Live Speaker Availability and Chat**

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**Session Group: Communications and Public Outreach**

**Benefits of Ongoing Operation of a Potable Reuse Pilot in Altamonte Springs, FL** (30 minutes)

Jo Ann Jackson, One Water National Practice Leader, Black & Veatch  
Ed Torres, Public Works Director, City of Altamonte Springs, Florida

**Brewing Beer from Recycled Water in the Country of the Reinheitsgebot** (30 minutes)

Steffen Rütting, AOP Process Engineer, Xylem Services GmbH

**Extending the Life of Your Demonstration Facility Through a Virtual Tour Video** (30 minutes)

Sara Katz, Founder/CEO, Katz & Associates, Inc.  
Megan Drummy, Account Supervisor, Katz & Associates, Inc.

**First Full Scale DPR Permit in Arizona for Demonstration and Education** (30 minutes)

Suzanne Grendahl, Water Quality Director, Scottsdale Water  
David Walby, Water Reclamation Services Director, Scottsdale Water

**Knowledge vs. Assumptions: Research for Connecting with Potable Reuse Customers** (30 minutes)

Mark Millan, Principal, Data Instincts  
Patricia Tennyson, Executive Vice President, Katz & Associates

**Making Water in the Sunshine! Next Steps for the FL Potable Reuse Commission** (30 minutes)

Christine Owen, Director of Water and Reuse Innovations, Hazen and Sawyer  
Lynn Spivey, Director, Plant City Utilities

**One Water Brewing Showcase: Shaping Public Perception About Direct Potable Reuse** (30 minutes)

Nicole Sherbert, Public Information Officer, Scottsdale Water

**Public Outreach Lessons Learned in Implementing Potable Reuse Projects** (30 minutes)

Mark Millan, Principal, Data Instincts  
Melody LaBella, Resource Recovery Program Manager, Central Contra Costa Sanitary District

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**Road Ready: Strategies for a Mobile Non-RO Direct Potable Reuse Demonstration** (30 minutes)

Kirk Olds, Manager, Water/Wastewater Engineering, Colorado Springs Utilities  
John Rehring, Vice President, Carollo Engineers, Inc.  
Tzahi Cath, Professor, Colorado School of Mines  
Donene Dillow, Environmental Specialist, Colorado Springs Utilities

**Workshop: Water Reuse Education and Outreach** (90 minutes)

Morgan Close, VP of Project and Programs, Project WET Foundation

**Session Group: Stormwater Capture and Reuse**

**Advancing Water Recycling through Land Use Policy in Fairfax County, VA** (30 minutes)

Matthew Hansen, Civil Engineer, Fairfax County, VA, Dept. of Land Development Services

**Characterization and Treatment of Stormwater and Urban Runoff for Potable Reuse** (30 minutes)

Brent Alspach, Director of Applied Research, Arcadis

**Characterization of Microbial Quality of Roof Runoff to Inform Treatment Standards** (30 minutes)

Jumana Alja'fari, PhD Candidate, Colorado State University  
Nichole Brinkman, Biologist, U.S. Environmental Protection Agency  
Michael Sukop, Research Scientist, U.S. Environmental Protection Agency

**3:30 pm MT – Technical Sessions with Live Speaker Availability and Chat**

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**Session Group: Broad Considerations for Reaching New Heights in Reuse**

**A Forward Look at What Innovative Solutions Will Drive New Heights in Reuse** (30 minutes)

Cristina Ahmadpour, President, Isle Utilities

**Opening the Floodgate: Legal Barriers to Sustainability Through Water Reuse** (30 minutes)

Matthew Dobbins, Partner, Vinson & Elkins LLP



**Reaching New Heights - Finding New Flows in an Urban Water Cycle** (30 minutes)

Denise Chow, Environmental Engineering Associate, City of Los Angeles, LA Sanitation  
Ali Poosti, Division Manager, City of Los Angeles, LA Sanitation  
Lenise Marrero, Assistant Division Manager, City of Los Angeles, LA Sanitation  
Azya Jackson, Environmental Engineer, City of Los Angeles, LA Sanitation



**Implementation of the National Water Reuse Action Plan Live** (90 minutes)

Gilbert Trejo, WaterReuse Association President, Chief Technical Officer, El Paso Water  
Greg Fogel, Policy Director, WaterReuse Association  
Sharon Nappier, National Program Leader for Water Reuse, U.S. EPA  
Paula Kehoe, Director of Water Resources, San Francisco Public Utilities Commission  
Allie Davis, Foreign Affairs Officer, U.S. Department of State  
Dave Smith, Assistant Director, U.S. EPA Region 9  
Julie Minton, Research Unit Leader, The Water Research Foundation  
Jake Adler, Environmental Analyst, Association of Clean Water Administrators

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**Water Systems and Water Reuse: Buildings, Community and Utility Synergies** (90 minutes)

Emma Hughes, Project Manager, LEED, U.S. Green Building Council  
Aliza Furneaux, Policy and Program Manager, WaterReuse Association  
Taylor Chang, Water Resources Analyst, San Francisco Public Utilities Commission  
Rucker Alex, Principal, OneWater, Brown and Caldwell

**Your Water Reuse: Potable or Non-Potable? Part 1** (60 minutes)

Val Frenkel, Vice President, Greeley and Hansen, LLC  
Patricia Sinicropi, Executive Director, WaterReuse Association  
Richard Grubb, Business Network Leader, Chevron  
Rob Beste, Assistant General Manager, Water Replenishment District of Southern California  
John Campbell, Environmental Biotechnologist, Hilmar Cheese Company  
Patrick Shields, General Manager, West Basin Municipal Water District

**Session Group: Aquifer and Groundwater Recharge**

**Destin Water Users ASR System - Pioneering Solution for Reclaimed Water Storage** (30 minutes)

Robert Maliva, Principal Hydrogeologist, WSP Global Inc.

**City of Santa Monica's Advanced Water Treatment Facility** (30 minutes)

Jacob Peterson, Project Manager, PACE  
Selim Eren, Supervising Civil Engineer, City of Santa Monica  
Guy Voss, Business Line Manager, Water, Kiewit

**Managed Aquifer Recharge and Water Supply Resilience in Albuquerque, New Mexico** (30 minutes)

Amy Ewing, Hydrogeologist, Daniel B. Stephens & Associates, Inc.



5:00 pm MT – Live Session

**The Great Debate: Reverse Osmosis Based Vs Carbon Based Treatment for Potable Reuse**

Potable reuse, has taken hold in several different parts of the United States. Broadly, the treatment trains can be divided into two camps:

- Reverse Osmosis (RO) based treatment that uses RO as both a desalination step and removal barrier for contaminants – typically on a treatment backbone of membrane filtration/reverse osmosis/UV Advanced Oxidation.
- A carbon-based system that uses carbon adsorption technologies with ozone-BAC/GAC/UV Advanced oxidation

This “debate” will focus on operations. Following a live debate, through polling, our audience will be invited to select the winner.

**Debate Moderators:**

- Troy Walker, Hazen and Sawyer
- Jason Curl, Hazen and Sawyer

**Debate Panel Members:**

- Germano Salazar-Benites, Hampton Roads Sanitation District, VA
- Mehul Patel, Orange County Water District, CA
- Ryan Popko, JEA, FL
- Kevin Linder, Aurora Water

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*\*\*A recording of this session will be available on demand Tuesday, September 15, 2020*



**Tuesday, September 15, 2020**

**8:00 am MT – Morning Plenary and WaterReuse Awards for Excellence**

**Welcome**

Craig Lichty, WaterReuse Association Vice President, Client Director and Associate Vice President, Black & Veatch

**State of Water Reuse Research**

Peter Grevatt, Chief Executive Officer, The Water Research Foundation

**WaterReuse Association President's Awards**

Gilbert Trejo, WaterReuse Association President, Chief Technical Officer, El Paso Water

Pam Kenel, WaterReuse Awards Chair, Water Resources Director, Loudoun Water

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**9:00 am MT – Technical Sessions with Live Speaker Availability and Chat**

Unless otherwise noted, the Technical Sessions are pre-recorded and available for viewing at your convenience. Join us live at 9:00 am MT to chat with the presenters in the following groups of sessions.

**Session Group: Workforce Development Trends for Water Recycling Systems**

**Using Algorithms and Web Scans to Gain Insights on Water Sector Workforce Needs (30 minutes)**

Melissa Meeker, Chief Executive Officer, The Water Tower at Gwinnett Department of Water Resources

**Workforce Skills of the Future (30 minutes)**

Walter Graf, Program Director, Assistant Management and Intelligent Water Systems, The Water Research Foundation

 **New Skills and New Opportunities—the Water Reuse Workforce of the Future Part 1 (90 minutes)**

Jim Horne, Sustainable Utilities Program Manager, U.S. Environmental Protection Agency, Office of Wastewater Management

Diane Taniguchi-Dennis, General Manager, Clean Water Services

Tressa Nicholas, Technical Support Coordinator WW Program, Idaho Department of Environmental Quality

Charles Bott, Director, Hampton Roads Sanitation District

Christina Montoya, Communications and Marketing Manager, El Paso Water Utilities

Kevin Flis, Business Development Manager, Xylem Inc.


**Session Group: Decentralized Water Recycling Systems**


**Breaking Down Implementation Barriers for Onsite Non-Potable Water Systems** (30 minutes)  
Brie Post, Senior Engineer, Trussell Technologies, Inc.

**Challenges in the Startup and Optimization of an Industrial Reuse MBR-RO System** (30 minutes)  
Katherine Scott, Wastewater Process Engineer, H2O Innovation Inc.

**Emerging Trends & Drivers for Decentralized Non-Potable Water Reuse Systems** (30 minutes)  
Zach F. Gallagher, PE, LEED AP, Executive Vice President, Natural Systems Utilities

**The WaterHub: Sustainable Water Management Through Decentralized Reuse** (30 minutes)  
Bob Salvatelli, Director of Business Development, Sustainable Water

 **Onsite Non-potable Reuse: Planning and Incentivizing Reuse Across the US** (90 minutes)  
Jay Garland, Research Scientist, U.S. Environmental Protection Agency  
Taylor Chang, Water Resources Analyst, San Francisco Public Utilities Commission  
Robert Stefani, Conservation Program Specialist, Austin Water Utility  
Alan Cohn, Managing Director of Integrated Water Management, , New York City Department of Environmental Protection

 **Onsite Non-potable Reuse: Developing and Advancing Risk-Based Treatment Guidance** (90 minutes)  
Jay Garland, Research Scientist, U.S. Environmental Protection Agency  
Paula Kehoe, Director of Water Resources, San Francisco Public Utilities Commission  
Brian Good, Chief Administrative Officer, Denver Water  
Michael Jahne, Environmental Engineer, U.S. Environmental Protection Agency  
Sybil Sharvelle, Professor in Civil and Environmental Engineering Department, Colorado State University

**Session Group: Water Reuse Around the Globe**

**Economic Viability of Ultrafiltration for Drinking Water Production in Brazil** (30 minutes)  
Fabio Pereira de Carvalho, Technical Service & Development Specialist, DuPont Water Solutions

**How Big Data Can Protect Your Wastewater Quality** (30 minutes)  
Ari Goldfarb, CEO, Kando

**Think Globally, Act Locally – Evaluating Potable Water Recycling in the UK** (30 minutes)  
Melanie Holmer, Water Reuse Leader, Brown and Caldwell  
Varsha Wylie, Principal Process Engineer, Southern Water Services  
Katherine Bell, Director of Water Strategy, Brown and Caldwell  
Ian Mayor-Smith, Senior Lecturer, University of Brighton

**Water Reuse as an Integral Part of Palestine's Water Management** (30 minutes)

A. Rasem Hasan, Director of Water and Environmental Studies Institute, An-Najah National University  
Muna M. Masri, Student, An-Najah National University  
Ryujiro Tsuchihashi, Senior Technologist, Jacobs

 **Israel's Unique Experience with Water Reuse: Policy, Regulation, and Financing** (90 minutes)

*Moderator:* Jon Freedman, Senior Vice President, Global Government Affairs, Suez

Danny Greenwald-Shapira, Senior Deputy Director General - Regulation, Israel Water Authority  
Sharon Nappier, National Program Leader for Water Reuse, U.S. EPA  
Alon Zask, Senior Deputy Director General for Natural Resources, Israel Ministry of Environmental Protection



**10:30 am MT – Workforce Development Trends for Water Recycling Systems**



**New Skills and New Opportunities—the Water Reuse Workforce of the Future Part 2** (Live – 90 minutes)

Building a sustainable and effective reuse program for a community requires the skills and talents of a diverse ecosystem of players. This ecosystem in turn is driven by the workforce that makes it all happen. Different skills are needed, and these skills must be developed, nurtured, and brought together to make ensure that reuse programs come together, are sustained, and make a difference in communities. Please join a panel of thought leaders across the reuse ecosystem for this important discussion hosted by EPA's Office of Wastewater Management and the WaterReuse Association.

**Moderators:**

Jim Horne, Sustainable Utilities Program Manager, U.S. Environmental Protection Agency, Office of Wastewater Management  
Diane Taniguchi-Dennis, General Manager, Clean Water Services

In the first part of this workshop, we will hear from the following panelists:

Tressa Nicholas, Technical Support Coordinator WW Program, Idaho Department of Environmental Quality  
Charles Bott, Director, Hampton Roads Sanitation District  
Christina Montoya, Communications and Marketing Manager, El Paso Water Utilities  
Kevin Flis, Business Development Manager, Xylem Inc.

After the presentations, workshop participants will engage in small group discussions to identify challenges and reuse workforce needs to understand the roles and related skills/capabilities that need to be in place to ensure a robust and effective (fit for purpose) water reuse program for a community.

*\*\*A recording of this workshop will be available on demand Wednesday, September 16, 2020*



## 12:00 pm MT – Operating Water Recycling Systems

Join our panel of operators and managers as they explore the state of the water recycling operations workforce at both on-site and centralized systems. Discussion items will include useful tools for operating systems, daily challenges in operation, aspects of their reuse work they take pride in, and steps that management has taken to build a diverse, skilled, and talented workforce pipeline.

**Welcome:** Diane Taniguchi-Dennis, WaterReuse Association Treasurer, Chief Executive Officer, Clean Water Services

**Moderator:** Andrew Salveson, Water Reuse Practice Director, Carollo Engineers

### Panelists

- Darrell Andrews, Chief Stationary Engineer, San Francisco Public Utilities Commission
- Steve Jackson, Treatment Specialist, Colorado Springs Utilities
- Rebecca Shelton, PE, Assistant Director, Department of Water Resources, Gwinnett County
- Joseph Vesey, Senior Vice President & Chief Marketing Officer, Xylem
- Cindy Wallis-Lage, President, Black & Veatch's Water Business

[Sponsored by Carollo Engineers](#)

*\*\*A recording of this session will be available on demand Wednesday, September 16, 2020*

## 2:00 pm MT – Technical Sessions with Live Speaker Availability and Chat

Unless otherwise noted, the Technical Sessions are pre-recorded and available for viewing at your convenience. Join us live at 2:00 pm MT to chat with the presenters in the following groups of sessions.

### Session Group: Research Developments in Water Recycling

#### **Domo Arigato Mr. Roboto: With the Help of Japan, AI Enters Potable Reuse** (30 minutes)

Andrew Salveson, Water Reuse Practice Director, Carollo Engineers, Inc.

#### **Full Advanced Treatment in Inland Areas – Can We Do That?** (30 minutes)

Ufuk Erdal, Senior Vice President and National Water Reuse Director, Arcadis

#### **Improving Reuse for a Much Healthier Potomac: Results from EPA STAR R835825** (30 minutes)

Erik Rosenfeldt, Director of Water Process Technologies, Hazen and Sawyer

#### **Real-Time Sewer Monitoring for Enhanced Source Control in Potable Reuse** (30 minutes)

Eva Steinle-Darling, Principal Technologist, Carollo Engineers, Inc.

Scott Mansell, Senior Water Resources Engineer, Clean Water Services

**Research to Advance Potable Reuse in the Southern Great Plains** (30 minutes)

Michael Watts, Water Reuse Practice Leader, Garver  
David Foster, Pilot Program Manager, Xylem Inc.

**UV/Cl<sub>2</sub> for IPR at Water Replenishment District of Southern California: Performance and Process Control** (30 minutes)

Mihaela Stefan, Sr. Research Scientist, Trojan Technologies

**Session Group: Water Reuse for Industry**

**Biological Treatment of High Salinity Produced Water for Beneficial Reuse** (30 minutes)

Brett Van Houghton, PhD Candidate, Colorado School of Mines

**Challenges in the Startup and Optimization of an Industrial Reuse MBR-RO System** (30 minutes)

Katherine Scott, Wastewater Process Engineer, H2O Innovation, Inc

**Direct Membrane Treatment for Beverage Plant Water Reuse** (30 minutes)

Zhen Li, Sr. Research and Development Engineer, PepsiCo, Inc  
Jimmy Yu, Senior Manager, PepsiCo, Inc  
Eric Willman, Senior Director, PepsiCo, Inc

**Minimal Liquid Discharge and Circular Economy Brings Affordability to ZLD** (30 minutes)

Tina Arrowood, Principal Research Scientist, DuPont Water Solutions

**Produced Water: A Guide to Reliable Data Sources** (30 minutes)

Amy Emmert, Senior Policy Advisor, API

**Review of Industrial Contaminants at Risk of Adversely Impacting Potable Reuse** (30 minutes)

Kyle Thompson, Post Doctoral Researcher, Southern Nevada Water Authority



**3:30 pm MT – Technical Sessions with Live Speaker Availability and Chat**

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**Session Group: Research Developments in Water Reuse**

**Organic Carbon Removal and DBP Control by Coagulation, Biofiltration and GAC (30 minutes)**

Scott Summers, Professor, EVEN Program, University of Colorado at Boulder  
Yiqun Yao, Graduate Student, University of Colorado at Boulder  
Eric Peterson, Graduate Student, University of Colorado at Boulder  
Sherri Cook, Professor, University of Colorado at Boulder

**Meeting DBP Regulations and Limiting Health Risks with Ozone-Biofiltration-GAC (30 minutes)**

Eric Peterson, PhD Candidate, University of Colorado Boulder

**Reliance on Reverse Osmosis for Removal of PFAS and other CECs (30 Minutes)**

Greg Wetterau, Vice President, CDM Smith Inc.

**The Latest Water Research Foundation Findings on COVID-19 (90 minutes)**

Christobel Ferguson, Chief Innovation Officer, The Water Research Foundation  
Brian Pecson, Director Engineering Services, Trussell Technologies, Inc.  
Claire Waggoner, Sustainable Water Plans and Policies Section Chief, California State Water Resources Control Board

**Framing a Water Reuse Research Strategy (90 minutes)**

Julie Minton, Research Unit Leader, The Water Research Foundation  
Claire Waggoner, Sustainable Water Plans and Policies Section Chief, California State Water Resources Control Board  
Pinar Balci, Assistant Commissioner, Bureau of Environmental Planning and Analysis, New York City Department of Environmental Protection  
Greta Zornes, Water Reuse Expert, CDM Smith  
Chris Impellitteri, Associate National Program Director, U.S. EPA  
Jeff Mosher, Principal Technologist for Water Reuse, Carollo Engineers

**Session Group: Financing Strategies for Water Reuse**

**Adopting Water Reuse – Discovery and Execution of Opportunities (30 minutes)**

Patrick Regan, Vice President, Evoqua Water Technologies  
Walt Kozlowski, Strategic Marketing Director, Evoqua Water Technologies

**Thinking Strategically About the Business of Water Reuse (30 minutes)**

Erin Bonney Casey, Research Director, Bluefield Research



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**Title XVI and WIIN: Opportunities for Federal Funding** (30 minutes)

Amanda Erath, Program Analyst - Title XVI Program Coordinator, Bureau of Reclamation



**Using WIFIA to Finance Water Reuse Projects** (30 minutes)

Arielle Gerstein, Program Manager, U.S. Environmental Protection Agency



**Bureau of Reclamation Water Treatment Research Updates and Funding Opportunities** (30 minutes)

Yuliana Porras Mendoza, Water Treatment Research Coordinator, Bureau of Reclamation



**5:00 pm MT – Live Networking Event**

**Virtual Game Night for Attendees**

Bring your favorite beverage and hors d'oeuvres and join us for some virtual fun and get to know your colleagues who are surfing the Symposium with you!

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## Wednesday, September 16, 2020



### 8:00 am MT – Morning Plenary with Live Speaker Availability

#### Welcome

Gilbert Trejo, WaterReuse Association President, Chief Technical Officer, El Paso Water

#### State Regulator Report Out

Representatives from various states will join us to share highlights from their own summit exploring how state regulations can move toward greater consistency between states.

#### Envisioning the Future: Water Reuse Charrette

*Charrette Objective:* Envisioning a future with water reuse: interactive audience experience exploring how communities, businesses, institutions, farmers and others can begin imagining and constructing a future in which water recycling is a central feature.

*Moderator:* David Ross, Assistant Administrator for Water, US EPA

#### Scenarios

- Water Scarce Community
- Water Abundant Community
- Industrial Customer

#### Panelists

- Paul Bowen, Water/Wastewater Manager Supply Chain, CCNA, Coca-Cola
- Katherine Jashinski, Engineer, Austin Water
- David Lipsky, Senior Policy Advisor, New York City Department of Environmental Protection

#### Breakout Room Discussions

- *Vision:* What is our vision for water reuse in our community? What elements need to be in place to support our vision?
- *Action Agenda:* What actions are most important to take (national, state, local) for this vision to emerge?
- *Responsibility:* Who needs to lead these actions?

#### Morning Wrap Up and Afternoon Overview

Craig Lichty, WaterReuse Association Vice President, Client Director and Associate Vice President, Black & Veatch

*\*\*A recording of this session will be available on demand Thursday, September 17, 2020*

**2:00 pm MT – Technical Sessions with Live Speaker Availability and Chat**

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**Session Group: Direct Potable Reuse (DPR)**

**California Direct Potable Reuse Coalition: Implementation Guide for Utilities** (30 minutes)

Jeff Mosher, Vice President, Carollo Engineers, Inc.  
Andrew Salveson, Water Reuse Technical Practice Director, Carollo Engineers

**Low-Income Florida Community Reaches for Potable Reuse** (30 minutes)

Janet Fordunski, Project Manager, Woodard & Curran Inc.  
Justin deMello, Project Manager 2, Woodard & Curran Inc.

**Pursuing DPR in the Absence of Regulations: San Diego's Phase 2 Project** (30 minutes)

Douglas Owen, Program Manager, Stantec Inc  
Jeffery Pasek, Project Officer, City of San Diego Public Utilities Department  
Shane Trussell, President, Trussell Technologies, Inc.  
Margaret Llagas, Senior Civil Engineer, City of San Diego Public Utilities Department

**Smart City Wastewater Management Solution** (30 minutes)

Gilbert Trejo, Chief Technical Officer, El Paso Water  
Gadi Sharon, Head of Operations, Kando Environmental Services  
Iris Bigler, Kando Environmental Services

**Tackling the Non-Technical Challenges of DPR** (30 minutes)

Hossein Ashktorab, Recycled and Purified Water Unit Manager, Valley Water

**Session Group: Water Reuse for Agriculture**

**Drainage Water Recycling to Improve Crop Production and Water Quality** (30 minutes)

Christopher Hay, Sr. Manager-Production Systems Innovation, Iowa Soybean Association

**UVLEDs for Biofouling Control During Drip Irrigation with Reclaimed Wastewater** (30 minutes)

Tara Randall, Graduate Research Assistant, University of Colorado Boulder

**Transdisciplinary Approaches to Advancing Agricultural Water Reuse** (90 minutes)

Amy Sapkota, Professor, University of Maryland School of Public Health  
Chuck Gerba, Professor, University of Arizona  
Rachel Rosenberg Goldstein, Assistant Research Professor, University of Maryland College Park  
Kent Messer, Professor, University of Delaware

REACHING NEW HEIGHTS IN WATER REUSE

2020  
SYMPOSIUM

**Session Group: Membrane Bioreactors Technology Trends**

**MBRs for Reuse - A Comprehensive Look at Implementation Options** (30 minutes)

Zeynep Erdal, Vice President, Black & Veatch

**Optimization of Nitrogen Removal of Tertiary MBR for Potable Reuse** (30 minutes)

Shane Trussell, President, Trussell Technologies

Zakir Hirani, Principal, Stantec Inc.

Sun Liang, Water Purification Unit Manager, Metropolitan Water District of Southern California

Michael Liu, Supervising Engineer, Los Angeles County Sanitation Districts

**Piloting an MABR for Onsite Reuse of Blackwater to Achieve Larger Reuse Goals** (30 minutes)

Katherine Jashinski, Systems Planning Engineer, Austin Water Utility

**Validating Membrane Bioreactors to Remove Pathogens for Water Reuse** (30 minutes)

Amos Branch, Technologist, Carollo Engineers, Inc

**3:30 pm MT – Technical Sessions with Live Speaker Availability and Chat**

Unless otherwise noted, the Technical Sessions are pre-recorded and available for viewing at your convenience. Join us live at 3:30 pm MT to chat with the presenters in the following groups of sessions.

**Session Group: Ozone Treatment Considerations**

**Design and Operational Considerations for Ozone in Water Reuse** (30 minutes)

Denise Funk, National Ozone Leader, Brown and Caldwell

Hannah Ford, 1Water Senior Engineer, Brown and Caldwell

**Wastewater Ozone/BAF Treatment Performance from Facilities Around the Globe** (30 minutes)

Ayu Sari, Environmental Scientist/Engineer, Stantec, Inc.

**Session Group: Managing Regional Water Reuse and Desalination Programs**

**Enabling Success for Pure Water Soquel: Five P's That Hold the Keys** (30 minutes)

Melanie Mow Schumacher, Program Director - Pure Water Soquel, Soquel Creek Water District

Anup Shah, Program Manager - Pure Water Soquel, Brown and Caldwell

Lidia Gutierrez, President, Gutierrez Consultants

**Overcoming Barriers to Implementing a Regional Recycled Water Program** (30 minutes)

Bruce Chalmers, Program Manager, Metropolitan Water District of Southern California



**Programmatic Delivery Considerations for HRSD's SWIFT Program** (30 minutes)

Lauren Zuravnsky, SWIFT Chief of Design & Construction, Hampton Roads Sanitation District  
Bohdan Bodniewicz, SWIFT Program Manager, AECOM

**Salinity Management in an Inland Large-Scale Reuse Project** (30 minutes)

Jack Greene, Water Engineer, Jacobs  
Erik Jorgensen, Environmental Engineer & Water Program Specialist, South Metro WISE Authority

**Silverbell Landfill, Superfund Site Groundwater Treatment for Non-Potable Reuse** (30 minutes)

Deran Pursoo, Senior Engineer, Geosyntec Consultants, Inc.