

# 2018 International Symposium on Potable Reuse

Monday, January 22, 2018

Time	Track 1 Planning and Implementation	Track 2 Treatment and Monitoring
8:30 - 10:00 AM	<b>Opening Plenary Session</b>	
10:00 - 10:30 AM	<b>Networking Break</b>	
10:30 AM - 12:00 PM	<b>Source Control</b> Moderator: Bruce Husselbee, HRSD	<b>Focus on Microbiology</b>
10:30 AM	360 Source Control - Using Principles From Water And Wastewater To Develop An Enhanced Source Control Program For Potable Reuse <i>Penny Carlo, Carollo Engineers, Inc.</i>	Infectivity of Human Norovirus Through Water Reuse Disinfection Processes <i>Nicole Rockey, University of Michigan</i>
10:50 AM	Sustainable Water Initiative For Tomorrow: HRSD'S Vision For Managed Aquifer Recharge In Eastern Virginia <i>Germano Benites, Hampton Roads Sanit Dist.</i>	The Limitations of Common Molecular Techniques for Water Reuse Microbiology <i>Rose Kantor, University of California at Berkeley</i>
11:10 AM	TBD	Do We Need a New Paradigm for Assessing Virus Removal for Potable Reuse Treatment? <i>Charles Gerba, University of Arizona</i>
11:30 AM	Facilitated Discussion with Audience and Speakers	Facilitated Discussion with Audience and Speakers
12:00 - 1:30 PM	<b>Networking Lunch (provided)</b>	
1:30 - 3:00 PM	<b>Water Quality Characterization</b>	<b>Monitoring Methods and Technologies</b>
1:30 PM	Microbial Quality and Risk: Assessment of Alternative Sources of Drinking Water Impacted by Waste Water <i>Emily Bailey, University of North Carolina</i>	Use of Rapid, Novel NDMA Analysis Method to Discern Diurnal and Seasonal Trends In NDMA and NDMA Precursors at an Advanced WTF <i>Shannon Roback, Orange County Water District</i>
1:50 PM	Pathogen Reduction and Variability In Wastewater Treatment to Establish Log Removal Credits for Direct Potable Reuse <i>Carla Cherchi, MWH Americas, Inc.</i>	Use of Next Generation Sequencing to Track Removal of Microorganisms in an Advanced Water Treatment Facility <i>Menu Leddy, Orange County Water District (OCWD)</i>
2:10 PM	Studying an Unplanned Indirect Potable Reuse Scheme to Design a Planned One in a Similar Hydro-Ecological Context <i>Emmanuel SOYEUX, Veolia Recherche &amp; Innovation</i>	Occurrence and Attenuation of Sensory Compounds in Recycled Water: Comparison to Drinking Water <i>Ai Jia, Metropolitan Water District of Southern California</i>
2:30 PM	Facilitated Discussion with Audience and Speakers	Facilitated Discussion with Audience and Speakers
3:00 - 3:30 PM	<b>Networking Break</b>	
3:30 - 5:00 PM	<b>Public Engagement</b>	<b>Water Quality Analytics and Metrics</b> Moderator: Megan Plumlee, OCWD
3:30 PM	<b>Panel Discussion</b>  <i>Caroline Scruggs, University of New Mexico</i> <i>Mark Millan, Data Instincts, Public Outreach Consultants</i> TBD	Markers for Adequate Reduction of Viruses Throughout Direct Potable Reuse Schemes <i>Bradley Schmitz, National University of Singapore</i>
3:50 PM		Non-Targeted Analysis to Characterize Trace Organics in Reverse Osmosis and UV/AOP Product Waters of a Potable Reuse Facility <i>Eunha Hoh, San Diego State University</i>
4:10 PM		Advanced Analytics and Water Quality for Direct Potable Reuse for a Demonstration Facility in San Francisco <i>Andrew Salveson, Carollo Engineers</i>
4:30 PM		Facilitated Discussion with Audience and Speakers
5:00 - 6:30 PM	<b>Networking Reception / Poster Session</b>	

# 2018 International Symposium on Potable Reuse

Tuesday, January 23, 2018

Time	Track 1 Planning/Implementation	Track 2 Treatment/Monitoring
8:30 - 9:30 AM	<b>Day 2 Plenary Session - Potable Reuse: Past, Present, and Future</b>  PAST: Chanute 1956: America's First Foray in Potable Reuse <i>John Gaston, California Department of Public Health (Retired)</i>  PRESENT: Successes and Challenges of Today's Potable Reuse Facilities <i>Mike Markus, Orange County Water District</i>  FUTURE: Re-Imagining Wastewater Treatment for Direct Potable Reuse <i>Desmond Lawler, University of Texas</i>	
9:30 - 10:00 AM	<b>Networking Break</b>	
10:00 - 11:30 AM	<b>Novel Potable Reuse Strategies</b>	<b>Progression of Advanced Oxidation</b>
10:00 AM	Direct Potable Reuse as an Effluent Management Strategy <i>Dennis Lozano, Murfee Engineering, Inc.</i>	The UV-Chlorine AOP In Potable Reuse: When Does It Make Sense? <i>Adam Festger, Trojan Technologies</i>
10:20 AM	Source Water Quality Requirements for Conventional Treatment of Stormwater, Graywater, and Treated Wastewater for Potable Reuse <i>Christopher Hill, Arcadis</i>	Impact of The UV Photolysis Oo Chloramines on 1,4-Dioxane Removal: New Insights into Potable Water Reuse <i>Haizhou Liu, University of California, Riverside-Chem &amp; Env Eng</i>
10:40 AM	Findings and Practical Implications of an On-Site DPR Pilot Study in Ohio: 2013-2016 and Beyond <i>Philip Schmidt</i>	Understanding the Impact of Monochloramine Photochemistry on UV/H2O2 Process Performance in Water Reuse Applications <i>Mihaela Stefan, Trojan Technologies</i>
11:00 AM	Facilitated Discussion with Audience and Speakers	Facilitated Discussion with Audience and Speakers
11:30 AM - 1:00 PM	<b>Lunch on your own</b>	
1:00 - 2:30 PM	<b>Environmental Buffers: A Critical Assessment</b>	<b>Ozone-BAC Processes</b>
1:00 PM	Public Health in Potable Reuse: The Benefits of Reservoirs <i>Brian Pecson, Trussell Technologies</i>	Removal of Contaminants During Pilot-Scale Ozone, Biological Activated Carbon, and Granular Activated Carbon for Potable Reuse <i>Edgard Verdugo, Southern Nevada Water Authority</i>
1:20 PM	The Role of Environmental Buffers in Potable Water Reuse <i>Xueying Wang, UNC Charlotte, CEES</i>	Potable Reuse Ozone-BAC Systems: Simultaneous DBP Precursors and CECs Control, and Design Optimization <i>Ruth Marfil-Vega, American Water</i>
1:40 PM	Preliminary Tests for Direct Water Reuse at the Torreele Facility In Belgium <i>Emmanuel Van Houtte, Intercommunale Waterleidingsmaatschappij Van Veurn</i>	Is Adsorptive Phase GAC Needed After Ozone/BAC for Potable Reuse? <i>Robert Angelotti, Upper Occoquan Service Authority</i>
2:00 PM	Facilitated Discussion with Audience and Speakers	Facilitated Discussion with Audience and Speakers
2:30 - 2:45 PM	<b>Networking Break</b>	
2:45 - 4:15 PM	<b>Resource Regulation and Risk Moderator: Pat Sinicropi, WaterReuse</b>	<b>Treatment Frontiers</b>
2:45 PM	Panel Discussion  <i>L'Oreal Stepney, Texas Commission on Environmental Quality</i> <i>Peter Grevatt, U.S. Environmental Protection Agency</i> TBD	Enzymatic Treatment of Pharmaceuticals and Personal Care Products in Wastewater <i>John Haugland, University of Texas At Austin</i>
3:05 PM		Recovering More Usable Water and Reducing Concentrate with Photobiological Treatment Followed by Secondary Reverse Osmosis <i>Keisuke Ikehata, Pacific Advanced Civil Engineering</i>
3:25 PM		Space Habitation Closed Loop Wastewater Recycling Systems: Applications to Terrestrial Needs <i>W. Andrew Jackson, Texas Tech University</i>
3:45 PM		Facilitated Discussion with Audience and Speakers
4:15 - 4:30 PM	<b>Networking Break</b>	
4:30 - 5:30 PM	<b>Closing Plenary Session</b>	

## **2018 International Symposium on Potable Reuse**

### **Potable Reuse Poster Session – Monday 5:00 – 6:30 PM**

Bench-Scale Testing Of Conventional Drinking Water Treatment Of Wastewater Effluent, Stormwater And Blends With Surface Water

*Kyle Thompson*

Blending With DPR Water: Impacts On Drinking Water Distribution Systems

*Justin Sutherland, Carollo Engineers*

Challenges For Orange County'S Groundwater Replenishment System Final Expansion Project

*Sandy Scott-Roberts, Orange County Water District*

Evaluating Opportunities And Challenges In Developing An Advanced Treatment Demonstration Program: HRSD'S SWIFT Case Study

*Lauren Zuravnsky, HRSD*

International Trends In Performance Assessment And Water Quality Monitoring Of Potable Reuse Schemes

*Jorg Drewes, Technische Universität München, Chair of Urban Water Systems Engineering*

Microfiltration Of Tertiary Effluent For Potable Reuse: Modeling Of Fouling And Mechanisms Of Physically Irreversible Fouling

*Kunal Gupta, Texas A&M University*

Optimizing Treatment And Protecting Public Health By Leveraging Data And Analytics For Potable Reuse

*Jason Curl, CH2M*

Partial Nitrification In Membrane Aerated Biological Reactors (Mabrs) Treating High Strength Wastewater

*Dylan Christenson, Texas Tech University*

Permitting the First Full Advanced Treatment IPR Project for Direct Groundwater Recharge in Florida

*Jarrett Kinslow, Tetra Tech*

Prospects And Challenges For Sensor Based Control Systems In UV Advanced Oxidation Treatment Systems

*Gordon Knight, Trojan Technologies*

Renewably Powered Potable Reuse

*Christopher McVey, University of California, Santa Cruz*

Upstream Wastewater Discharges Impact Two –Thirds Of Surface Water Treatment Plants In Texas, USA

*Thuy Nguyen*

Virus Control Using Iron Electrocoagulation

*Kyungho Kim*