


**Sunday, September 11, 2016**




9:00 a.m. – 12:30 p.m.	<p><b>IUVA Workshop</b>  <i>Room: Salon H-G</i></p> <ul style="list-style-type: none"> <li>Advanced Oxidation Upstream and Downstream: UV/Cl2 vs UV/H2O2  <i>Professor Olya Keen, University of North Carolina, Charlotte</i></li> <li>Making Sense of UV-Oxidation: EEO and Dose Together Ensure Potable Reuse Meets Goals  <i>Alan Royce, TrojanUV</i></li> <li>Bacteriophage Regulations and Impact on Reuse System  <i>Kati Bell, MWH</i></li> <li>Analysis of Variability in UV Disinfection Systems Following a Stochastic Approach  <i>Ernest R. Blatchley III, Purdue University</i></li> <li>UV System for High Level Disinfection – Operation and Maintenance  <i>Gary Hunter, Black &amp; Veatch</i></li> </ul>
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12:30 p.m. – 4:30 p.m.	<p><b>Technical Tour: Hillsborough DPR Pilot Tour + Brew House Tour/Tasting</b>  <i>(departs from the Hotel Lobby)</i></p>
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1:00 p.m. – 6:00 p.m.	<p><b>Registration Open</b>  <i>(Grand Ballroom Foyer)</i></p>
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	<p><b>AI</b>  <b>Reuse Boot Camp</b></p>	<p><b>BI</b>  <b>Reuse “Florida Style”</b></p>	<p><b>CI</b>  <b>Potable Reuse Operations</b></p>	<p><b>DI</b>  <b>Water Quality Topics – Part I</b></p>
	<p><b>Moderator:</b> <i>Tim Thomure, City of Tucson Water Department</i></p>	<p><b>Moderator:</b> <i>Amanda Schwerman, Black &amp; Veatch</i></p>	<p><b>Moderator:</b> <i>Troy Walker, Hazen and Sawyer</i></p>	<p><b>Moderator:</b></p>
	<p><b>Room:</b> <i>Salon C&amp;D</i></p>	<p><b>Room:</b> <i>Salon A&amp;B</i></p>	<p><b>Room:</b> <i>Salon G&amp;H</i></p>	<p><b>Room:</b> <i>Salon I&amp;J</i></p>
1:30 p.m. – 2:00 p.m.	<p><b>Welcome and Introduction</b>   <i>Guy Carpenter, AquaTecture, LLC</i></p>	<p>Aquifer Recharge in Tampa Bay: Overview of Program Objectives and Lessons Learned   <i>Christopher Hill, ARCADIS</i></p>	<p>Building a Framework for Potable Reuse Operator Certification in California   <i>Wendy Broley, Brown and Caldwell</i></p>	<p>Assessment of Ceramic MBR Technology for Municipal Water Reuse   <i>James DeCarolis, Black &amp; Veatch</i></p>
2:00 p.m. – 2:30 p.m.	<ul style="list-style-type: none"> <li>What is Water Reuse</li> <li>Water’s Supply and Water Reuse’s Role</li> <li>Speaking the Same Language and Why It’s Important</li> </ul> <p><b>Types of Reuse/Fit for Purpose</b></p>	<p>The Broward and Palm Beach Counties Regional Reclaimed Water Cooperative Partnership   <i>Kevin Carter, Broward County Water and Wastewater Services and Chris Pettit, Palm Beach County Water Utilities Department</i></p>	<p>Optimization of Wastewater Reverse Osmosis – Improving Performance through More Aggressive Operation   <i>Greg Wetterau, CDM Smith</i></p>	<p>California Title 22 Compliant Spot Check Bioassays for UV System Performance- Accurate Results Lie in the Details   <i>Steve McDermid, TrojanUV</i></p>
2:30 p.m. – 3:00 p.m.	<p><i>Amy Tracy, England-Thims &amp; Miller, Inc.</i></p> <ul style="list-style-type: none"> <li>Regulatory/Treatment Requirements</li> <li>Levels of Treatment and Allowable Uses</li> <li>Local FL Examples</li> </ul> <p><b>A TBL Approach</b>   <i>Ben Stanford, Hazen and Sawyer</i></p>	<p>Operational Testing of the First Direct Aquifer Recharge System in Florida at the South Hillsborough Aquifer Recharge Project (SHARP)   <i>Philip Waller, HDR and Bart Weiss, Hillsborough County Public Utilities Department</i></p>	<p>Two-Year Performance of Orange County’s Expanded Ground Water Replenishment System   <i>Vasu Veerapaneni, Black &amp; Veatch</i></p>	<p>Water Polishing of Municipal Wastewater Intended for Water Recycling Using a Novel Biocatalyst Technology   <i>ShihChi Weng, MWH, now part of Stantec/John Hopkins University Alliance</i></p>


	<ul style="list-style-type: none"> <li>▪ Economics</li> <li>▪ Environmental</li> <li>▪ Social</li> </ul> <p>Roundtable/Q&amp;A</p>			
3:00 p.m. – 6:30 p.m.	<b>Exhibit Hall Open</b> (Salon E&F)			
3:00 p.m. – 3:30 p.m.	<b>Networking Break</b> (Salon E&F)			
3:00 p.m. – 3:30 p.m.	<b>Poster Presentations</b> (Salon E&F)			
	<b>A2 Reuse Boot Camp</b>	<b>B2 Technical Topics</b>	<b>C2 Potable Reuse Planning</b>	<b>D2 Water Quality Topics - Part II</b>
	<b>Moderator:</b> <i>Tim Thomure, City of Tucson Water Department</i>	<b>Moderator:</b>	<b>Moderator:</b> <i>Denis Guibert, H2O Innovation</i>	<b>Moderator:</b> <i>Albrey Arrington, Loxahatchee River District</i>
	<b>Room:</b> <i>Salon C&amp;D</i>	<b>Room:</b> <i>Salon A&amp;B</i>	<b>Room:</b> <i>Salon G&amp;H</i>	<b>Room:</b> <i>Salon I&amp;J</i>
3:30 p.m. – 4:00 p.m.	<p><b>Public Perception</b></p> <p><i>Linda Macpherson, New Water ReSources</i></p> <ul style="list-style-type: none"> <li>▪ The Importance of Public Acceptance</li> </ul>	<p>Addressing Unique Differences with In-Land Desalination: A Case History of the San Antonio Brackish Groundwater Desalination Project</p> <p><i>Jarrett Kinslow, Tetra Tech</i></p>	<p>Potable Reuse in Florida</p> <p><i>Ken Broome, MWH, now part of Stantec</i></p>	<p>Salt Accounting in Surface Augmentation</p> <p><i>David Sloan, Freese and Nichols, Inc.</i></p>
4:00 p.m. – 4:30 p.m.	<ul style="list-style-type: none"> <li>▪ Social Research Summaries</li> <li>▪ Tools to Engage</li> <li>▪ Success Stories</li> </ul> <p><b>Regulatory Context</b></p> <p><i>Kati Bell, MWH, now part of Stantec</i></p>	<p>Maximizing Product Water through Brine Minimization at Padre Dam</p> <p><i>Eileen Idica, Trussell Technologies, Inc.</i></p>	<p>One Water Los Angeles 2040 Plan: Managing All Water as One Water Using a Water Balance Model</p> <p><i>Inge Wiersema, Carollo Engineers</i></p>	<p>Residual Chemicals in Reclaimed Water and the Environment: A Pacific Northwest Perspective</p> <p><i>Jeff Hansen, HDR and Wendy Steffensen, LOTT Clean Water Alliance</i></p>
4:30 p.m. – 5:00 p.m.	<ul style="list-style-type: none"> <li>▪ EPA Guidance</li> <li>▪ State and Local</li> </ul> <p><b>Implementation</b></p> <p><i>Bart Weiss, Hillsborough County Public Utilities Department</i></p> <ul style="list-style-type: none"> <li>▪ Funding Options</li> <li>▪ Supporting Materials</li> </ul>	<p>Water Reuse Technologies for Army Applications</p> <p><i>Martin Page, U.S. Army Engineer Research and Development Center</i></p>	<p>The City of Los Angeles AWPf Pilot Project - Update on Prequalification, Treatment Train Selection, Start-up and Commissioning</p> <p><i>Roshanak Aflaki, City of Los Angeles</i></p>	<p>Treatability and Chemical Stability Effects of Supply Augmentation with High-Purity Recycled Water at a Drinking Water Treatment Plant</p> <p><i>Michael Adelman, MWH, now part of Stantec</i></p>
5:00 p.m. – 6:30 p.m.	<b>Welcome Reception and New Water Brew Contest</b> (Salon E&F)			<p><b>Sponsored by</b></p>  <p>cdmsmith.com</p>



Monday, September 12, 2016			
7:30 a.m. – 4:00 p.m.	<b>Registration Open</b> <i>(Grand Ballroom Foyer)</i>		
7:30 a.m. – 3:30 p.m.	<b>Exhibit Hall Open</b> <i>(Salon E&amp;F)</i>		
7:30 a.m. – 8:30 a.m.	<b>Continental Breakfast</b> <i>(Salon E&amp;F)</i>		<b>Sponsored by</b> 
8:30 a.m. – 10:00 a.m.	<b>Opening Session</b> Room: <i>Florida Ballroom</i>  <i>Guy Carpenter, AquaTecture, LLC, WaterReuse President</i>  <i>Bob Buckhorn, Mayor of Tampa</i>  <i>Ryan Matthews, Director of the Office of Water Policy, Florida Department of Environmental Protection</i>		<b>Sponsored by</b> 
10:00 a.m. – 10:30 a.m.	<b>Networking Break</b> <i>(Salon E&amp;F)</i>		<b>Sponsored by</b> 
10:00 a.m. – 10:30 a.m.	<b>Poster Presentations</b> <i>(Salon E&amp;F)</i>		
10:05 a.m. – 10:25 a.m.	<b>Innovation Corner – Presentation by Bio-Microbics</b> <i>(Salon E&amp;F)</i>		
	<b>A3</b> <b>Big Picture Session – State of the Science on Antibiotic Resistance</b>	<b>B3</b> <b>MBR in Potable Reuse</b>	<b>C3</b> <b>Industrial Reuse - Innovations in Industrial Reuse</b>
	<b>Moderator:</b> <i>Channah Rock, University of Arizona</i>	<b>Moderator:</b> <i>Abigail Antolovich, Xylem, Inc.</i>	<b>Moderator:</b>
	<b>Room:</b> <i>Salon C&amp;D</i>	<b>Room:</b> <i>Salon A&amp;B</i>	<b>Room:</b> <i>Salon G&amp;H</i>
10:30 a.m. – 11:00 a.m.	A fast-growing body of peer-reviewed literature exists that attempts to identify direct links bacterial antibiotic resistance to water reclamation processes. This session will cover what is currently known, what is unknown, and where we need to go next to help answer public health concerns related to antibiotic resistance in water reclamation processes and applications.	Can MBR Replace MF/UF in a Potable Reuse Train - Implementation Concerns?  <i>Ufuk Erdal, CH2M</i>	The Use of Reclaimed Water for Power Plant and Wetland Rehydration Applications: Evaluation of Technologies to Meet Fit for Purpose Water Quality  <i>Mohammad Badruzzaman, MWH, now part of Stantec</i>
11:00 a.m. – 11:30 a.m.	<i>Valerie "Jody" Harwood, Ph.D., University of South Florida</i>	Resolving the Final Hurdles to MBRs for Potable Water Reuse  <i>Nicola Fontaine and Andrew Salvesson, Carollo Engineers</i>	Journey to Industrial Water Self-Sufficiency from Landfill Leachate  <i>Kelsi Oswald, Pinellas County Board of County Commissioners</i>
11:30 a.m. – 12:00 p.m.	<i>Jean E. McLain, Ph.D., University of Arizona</i>  <i>Daniel Gerrity, Ph.D., University of Nevada, Las Vegas</i>  <i>Amy Pruden, Ph.D., Virginia Tech</i>  <i>Jeff Mosher, WE&amp;RF/NWRI</i>	Efficient Retrofit with MBR to Meet Increased NEWater Feedstock Demand at the Largest WRP in Singapore  <i>Bikram Sabherwal, Black &amp; Veatch</i>	Industrial Wastewater Stream Treated to Potable Drinking Water Standards Using Zero Liquid Discharge  <i>Phillip Locke, McKim &amp; Creed</i>

12:00 p.m. – 1:00 p.m.	Networking Luncheon with Exhibitors Room: Salon E&F		<i>Sponsored by</i> 
	<b>A4</b> Big Picture Session – State-by-State Regulatory Updates	<b>B4</b> Potable Reuse Innovations	<b>C4</b> Industrial Reuse - Industrial Water Footprint
	Moderator: <i>Melissa Meeker, WateReuse</i>	Moderator: <i>Kati Bell, MWH, now part of Stantec</i>	Moderator: <i>Mel Butcher, ARCADIS</i>
	Room: <i>Salon C&amp;D</i>	Room: <i>Salon A&amp;B</i>	Room: <i>Salon G&amp;H</i>
1:00 p.m. – 1:30 p.m.	Updates from:  <b>Arizona</b> <i>Chuck Graf, Arizona Department of Environmental Quality</i>  <b>Florida</b> <i>Kristine Morris, Florida Department of Environmental Quality</i>  <b>Idaho</b> <i>Tressa Nicholas, Idaho Department of Environmental Quality</i>  <b>Oklahoma</b> <i>Michael Moe, Oklahoma Department of Environmental Quality</i>  <b>Tennessee</b> <i>George Garden, Tennessee Department of Environment and Conservation</i>  <b>Texas</b> <i>Marlo Berg, Texas Commission on Environmental Quality</i>	Optimization of Ozone-BAC Systems for Potable Reuse Applications  <i>Zia Bukhari, American Water</i>	How to Win Support and Influence the Industrial Water Footprint: Identifying Opportunity for Reduction, Making the Business Case, and Fostering Motivation for the Implementation of Industrial Water Reuse Projects  This panel will feature investigators of industrial water reuse and their industrial partners. Panelists will cover: the emerging viewpoints on water risk and social license to operate; obstacles to implementation of water reuse projects in industry; and an array of tools/techniques for successfully overcoming obstacles (with a preview of the Scorecard under development)  <i>Brian Moore, ARCADIS</i>  <i>Mary Buzby, ARCADIS</i>  <i>Todd Williams, General Motors</i>  <i>Paul Bowen, Coca-Cola Company</i>
1:30 p.m. – 2:00 p.m.		Biofiltration Optimization for Reuse Applications: Validating a Decade of Drinking Water Biofiltration Research  <i>Chance Lauderdale, HDR</i>	
2:00 p.m. – 2:30 p.m.		Direct Potable Reuse using Multi-Stage Ozone-Biological Filtration (BAF)  <i>Steve Seachrist, Gwinnett County Department of Water Resources and Kati Bell, MWH, now part of Stantec</i>	
2:30 p.m. – 3:00 p.m.		Full Scale UV Advanced Oxidation Process with Sodium Hypochlorite for Potable Reuse Treatment – An Economic Attractive Option  <i>Jens Scheideler, Xylem Inc.</i>	
3:00 p.m. – 3:30 p.m.	Networking Break (Salon E&F)		<i>Sponsored by</i> 
3:00 p.m. – 3:30 p.m.	Poster Presentations (Salon E&F)		
3:05 p.m. – 3:25 p.m.	Innovation Corner – Presentation by GE Water & Process Technologies (Salon E&F)		
	<b>A5</b> Big Picture Session – Water Supply Resiliency	<b>B5</b> Potable Pretreatment and Resiliency	<b>C5</b> Industrial Reuse - Municipal/Commercial Partnerships
	Moderator: <i>Diane Taniguchi-Dennis, Clean Water Services</i>	Moderator: <i>Eva Steinle-Darling, Carollo Engineers</i>	Moderator:
	Room: <i>Salon C&amp;D</i>	Room: <i>Salon A&amp;B</i>	Room: <i>Salon G&amp;H</i>
3:30 p.m. – 4:00 p.m.	Whiskey is for Drinking and	Resilient DPR Design from Collection System to Tap, WRRF Project 14-13	A Push for Non-Irrigation Uses of Recycled Water at Irvine Ranch Water District

	Wastewater is for Fighting – A Modern Case Study in Western Water Management	<i>Sharon Waller, Sustainable Systems LLC</i>	<i>Paul Cook, Irvine Ranch Water District</i>
4:00 p.m. – 4:30 p.m.	<i>John Kmiec, Marana Water</i>  The City of Altamonte Springs, Florida - A 30-year History of Water Reuse	Source Control and Pollution Prevention - Two P's in a Pod  <i>Alan Rimer, EnviroTechNovations</i>	Sparta Reuse Facility/ Efforts to Save the Sparta Aquifer  <i>Terry Emory, City of West Monroe</i>
4:30 p.m. – 5:00 p.m.	<i>Jo Ann Jackson, City of Altamonte Springs</i>  Achieving Water Independence through the Sustainable Water Infrastructure Project	Source and Supply Water Quality Impacts on Performance and Reliability of Potable Reuse Advanced Water Treatment Facilities  <i>Sandeep Sathyamoorthy, Black &amp; Veatch</i>	Advanced Technology to Improve Water Quality and Increase Use of Recycled Water for West Basin Carson  <i>Bryce Danker, Hazen and Sawyer</i>
5:00 p.m. – 5:30 p.m.	<i>Areeba Syed, MWH, now part of Stantec</i>	The Importance of Engineering Barriers for a Protected Pretreatment Program for IPR  <i>Penny Carlo, Carollo Engineers</i>	Wastewater Recycling in Commercial Laundry Multi-Load Washers  <i>Brian Boyd, Pacific Northwest National Laboratory</i>

## Tuesday, September 13, 2016

7:30 a.m. – 2:00 p.m.	<b>Registration Open</b> <i>(Grand Ballroom Foyer)</i>				<b>Sponsored by</b> 
7:30 a.m. – 3:30 p.m.	<b>Exhibit Hall Open</b> <i>(Salon E&amp;F)</i>				
7:30 a.m. – 8:30 a.m.	<b>Continental Breakfast</b> <i>(Salon E&amp;F)</i>				
7:35 a.m. – 7:55 a.m.	<b>Innovation Corner – Presentation by Aqua-Aerobic Systems, Inc.</b> <i>(Salon E&amp;F)</i>				
	<b>A6</b> <b>Panel Discussion:</b> <b>Reuse Decision-</b> <b>Making</b>	<b>B6</b> <b>Agricultural Reuse</b>	<b>C6</b> <b>Potable Reuse</b> <b>Benchmarks</b>	<b>D6</b> <b>Industrial Reuse -</b> <b>Technology for Oil &amp;</b> <b>Gas (Fracking)</b>	
	<b>Moderator:</b> <i>Jeff Mosher, WE&amp;RF/NWRI</i>	<b>Moderator:</b> <i>Amy Tracy, England-Thims &amp; Miller, Inc.</i>	<b>Moderator:</b> <i>Gary ReVoir, Tetra Tech</i>	<b>Moderator:</b>	
	<b>Room:</b> <i>Salon C&amp;D</i>	<b>Room:</b> <i>Salon A&amp;B</i>	<b>Room:</b> <i>Salon G&amp;H</i>	<b>Room:</b> <i>Salon I&amp;J</i>	
8:30 a.m. – 9:00 a.m.	A panel session on approaches and experiences with reuse evaluations and decision-making:  The Evaluation of New Water Sources for the GWR Final Expansion  <i>Bruce Chalmers, CDM Smith</i>	State of Agricultural Water Reuse- Impediments and Incentives  <i>Bahman Sheikh, Water Reuse Consulting</i>	From Ground Water to Surface Water, Desalination – and Now Reclaimed Water. Tampa Bay Water Explores Potable Reuse as an Alternate Water Supply  <i>Ivana Kajtezovic, Tampa Bay Water</i>		
9:00 a.m. – 9:30 a.m.	The Whole Story - How Monetizing Social and Environmental Benefits Influenced the Bottom Line for Pure Water Monterey	Fit for Purpose Water for Agricultural Preservation  <i>Jim Rasmus, Black &amp; Veatch and Christopher McKinney, City of Escondido</i>	Using the Latest Potable Water Reuse Research to Understand How to Negotiate the Gap Between the Clean Water Act and the Safe Drinking Water Act	Recycling Produced Water for Discharge or Beneficial Use  <i>Dan Mueller, Environmental Defense Fund</i>	

	<i>Jeremy Cook, HDR</i>		<i>Andrew Salvesson, Carollo Engineers</i>	
9:30 a.m. – 10:00 a.m.	A New Tool for TBL Evaluation of Water Supplies Relative to Direct Potable Reuse  <i>Ben Stanford, Hazen and Sawyer</i>	Delivering Recycled Water to Drought Stricken California Farmers  <i>Ryan Sellman, Carollo Engineers, Will Wong, City of Modesto and Michael Britten, Carollo Engineers</i>	Design Considerations for Direct Potable Reuse Projects  <i>Larry Schimmoller, CH2M</i>	Evaluation and Optimization of Conventional Treatment Trains for Multiple Reuse Applications of Oil and Gas Reclaimed Water  <i>Emily Nicholas, ConocoPhillips Center for a Sustainable WE2ST</i>
10:00 a.m. – 10:30 a.m.	<b>Networking Break</b> (Salon E&F)			
10:00 a.m. – 10:30 a.m.	<b>Poster Presentations</b> (Salon E&F)			
10:05 a.m. – 10:25 a.m.	<b>Innovation Corner – Presentation by Lewis, Longman &amp; Walker, P.A.</b> (Salon E&F)			
	<b>A7</b> <b>Panel Discussion:</b> <b>El Paso’s Potable Implementation</b>	<b>B7</b> <b>Infrastructure Topics</b>	<b>C7</b> <b>Potable Reuse Quality</b>	<b>D7</b> <b>Industrial Reuse - Technology for Oil &amp; Gas (Membranes)</b>
	<b>Moderator:</b> <i>Gilbert Trejo, El Paso Water Utilities</i>	<b>Moderator:</b> <i>Lynn Spivey, ARCADIS</i>	<b>Moderator:</b> <i>Adam Festger, TrojanUV</i>	<b>Moderator:</b>
	<b>Room:</b> <i>Salon C&amp;D</i>	<b>Room:</b> <i>Salon A&amp;B</i>	<b>Room:</b> <i>Salon G&amp;H</i>	<b>Room:</b> <i>Salon I&amp;J</i>
10:30 a.m. – 11:00 a.m.	A panel session covering key aspects of potable reuse implementation in El Paso:  Leveraging University Partnerships during DPR Pilot Testing:	Integrated Decision Support Tool for Nested, Spatially-scaled, Urban Recycled Water Infrastructure Planning  <i>Eun Jung Lee, Stanford University</i>	Considering the Challenges of Providing Pathogen Reduction of 10-Orders of Magnitude or More  <i>Philip Brandhuber, HDR</i>	
11:00 a.m. – 11:30 a.m.	Research on Bacterial Communities in El Paso’s AWPf Purified Water  <i>Corin Marron, ARCADIS</i>  Pilot Testing Membrane Pretreatment Options for a DPR Treatment Train	The Sewer Mining Toolbox - A Tool to Assess Decentralized Reuse Opportunities  <i>Sandeep Sathyamoorthy, Black &amp; Veatch</i>	Cost-effective Nitrogen Management Strategies for Potable Reuse  <i>Zakir Hirani, MWH, now part of Stantec</i>	Solving Source Water and Wastewater Disposal Limitations With a Unique High Recovery Secondary RO  <i>Ed Greenwood, Amec Foster Wheeler</i>
11:30 a.m. – 12:00 p.m.	Direct-to-Distribution DPR: Advanced Treatment Pilot Performance  <i>Brent Alspach, ARCADIS</i>	Adaptive Strategies and Partnerships for Year-Round Use of Existing Reuse Assets  <i>Brenley McKenna, Denver Water</i>	Treatability of Non-Nitrifying Secondary Wastewater Effluent for Advanced Water Treatment  <i>Sun Liang, Metropolitan Water District of Southern California</i>	Advances in Extreme Recovery Membrane Systems for Treatment of Gypsum Saturated Waters, Ammonia Removal and Destruction, and Low Temperature Crystallization for true ZLD  <i>Mitchell Frank, Saltworks Technologies Inc.</i>
12:00 p.m. – 1:30 p.m.	<b>Awards Luncheon and Annual Membership Meeting</b> Room: <i>Florida Ballroom</i>			<b>Sponsored by</b>
				 <b>MWH</b> <small>now part of</small> 

	<b>A8 Panel Discussion: Potable Reuse Monitoring</b>	<b>B8 Seawater Desalination</b>	<b>C8 Planning for Inland DPR</b>	<b>D8 Industrial Reuse - Technology for Pharma, Food &amp; Bev</b>
	<b>Moderator:</b> <i>Shane Trussell, Trussell Technologies, Inc.</i>	<b>Moderator:</b> <i>Chris Hill, ARCADIS</i>	<b>Moderator:</b> <i>Steve Jones, Garver</i>	<b>Moderator:</b>
	<b>Room:</b> <i>Salon C&amp;D</i>	<b>Room:</b> <i>Salon A&amp;B</i>	<b>Room:</b> <i>Salon G&amp;H</i>	<b>Room:</b> <i>Salon I&amp;J</i>
1:30 p.m. – 2:00 p.m.	A panel session on advances in potable reuse monitoring:  Integration of Novel Sensor Systems and Decision Tools for Direct Potable Reuse	Seawater Desalination - Regulatory and Scientific Issues Related to Intake and Discharge  <i>Joe Monaco, Dudek</i>	Planning for DPR - Its OK in OKC  <i>Gary Hunter, Black &amp; Veatch</i>	Mitigating Water Risks through a Corporate Water Management Plan - Case Study from the Milk Processing Industry  <i>Martin Andersen, DHI</i>
2:00 p.m. – 2:30 p.m.	<i>Jeff Neemann, Black &amp; Veatch</i>  Fluorescence based Real Time Continuous Membrane Integrity Monitoring in Wastewater Reuse for Potable Purposes	Conventional Versus Membrane Based Pretreatment Processes for Seawater Desalination: Perspectives from Full-Scale Operating Plants  <i>Joseph Jacangelo, MWH, now part of Stantec</i>	Future Water Supply for San Angelo, Texas: Tradeoff between IPR and DPR options  <i>Ellen McDonald, Alan Plummer Associates, Inc.</i>	
2:30 p.m. – 3:00 p.m.	<i>Seong Yoon, Nalco</i>  Instrumentation for Treatment Process Monitoring in Potable Reuse Facilities  <i>Angelica Gomez, MWH, now part of Stantec</i>	The Tampa Story: More than 8 Years Managing Large Scale Desalination  <i>Christine Owen, Tampa Bay Water</i>	DPR without RO? A Central Texas Town Sets Out to Prove it Can Be Done!  <i>Eva Steidle-Darling, Carollo Engineers</i>	Active Pharmaceutical Ingredients (API) Removal from Industrial Wastewater using a MBR/Ozone Advanced Treatment  <i>Abigail Antolovich, Xylem, Inc.</i>
3:00 p.m. – 3:30 p.m.	<b>Networking Break</b> <i>(Salon E&amp;F)</i>			
3:00 p.m. – 3:30 p.m.	<b>Poster Presentations</b> <i>(Salon E&amp;F)</i>			
	<b>A9 Panel Discussion: Potable Reuse Implementation</b>	<b>B9 Managing Desalination</b>	<b>C9 Managing Water Quality</b>	<b>D9 Industrial Reuse – Reuse for Florida Food &amp; Beverage</b>
	<b>Moderator:</b> <i>Guy Carpenter, AquaTexture, LLC</i>	<b>Moderator:</b> <i>Christine Owen, Tampa Bay Water</i>	<b>Moderator:</b> <i>Jean McLain, University of Arizona</i>	<b>Moderator:</b> <i>Keyna Cory, Florida Recycling Partnership</i>
	<b>Room:</b> <i>Salon C&amp;D</i>	<b>Room:</b> <i>Salon A&amp;B</i>	<b>Room:</b> <i>Salon G&amp;H</i>	<b>Room:</b> <i>Salon I&amp;J</i>
3:30 p.m. – 4:00 p.m.	A panel session on special topics in DPR:  Concept to Construction: Communicating From Start to Finish to Achieve Successful Potable Reuse Project  <i>Patricia Tennyson, Katz &amp; Associates, Inc.</i>	What Me Worry... It's Just the Commissioning, Acceptance and Commercial Operation of a 50 MGD Seawater Desalination Plant  <i>Howard Steiman, The Louis Berger Group and Jim Fisher, San Diego County Water Authority</i>	Consideration of Wastewater Population Source and Treatment Processes in Developing Reuse Markers to Inform Load Allocations for TMDL Impaired Water Bodies  <i>Joan Oppenheimer, MWH, now part of Stantec</i>	Recycle, Reuse and Reduce are three words Florida Recycling Partnership members incorporate every day in its business activities especially when it comes to water.  Learn from top businesses and associations such as Publix Super Markets, PepsiCo, Anheuser-Busch and PTR Balers &
4:00 p.m. – 4:30 p.m.	Community Engagement Pure Water Silicon	The Influence of Desalinated Seawater from the Carlsbad SWRO Plant on San	Use of Preformed Chloramines to Minimize NDMA Formation Potential at	

	<p>Valley Style</p> <p><i>Marta Lugo, Santa Clara Valley Water District</i></p>	<p>Diego Regional Potable Water Quality</p> <p><i>Brent Alspach, ARCADIS</i></p>	<p>City of Los Angeles' AWPf Pilot Project</p> <p><i>Sunny Wang, Brown and Caldwell</i></p>	<p>Compactors on how they reuse water and reduce consumption.</p> <p><i>Kim Brunson, Publix Supermarkets</i></p>
4:30 p.m. – 5:00 p.m.	<p>Clearwater's Preliminary Design of a Full Advanced Treatment Indirect Potable Reuse Facility in the State of Florida: Operational Insights, Lessons Learned, and Design Approach</p> <p><i>Jennifer Roque, Tetra Tech</i></p> <p>The Goldilocks Project - A Potable Reuse Solution That's Just Right...</p> <p><i>Ron Duncan, Soquel Creek Water District</i></p>	<p>Natural Gas Versus Grid Electricity for Seawater Desalination: An Economic and Environmental Life-Cycle Perspective</p> <p><i>Mohammad Badruzzaman, MWH, now part of Stantec</i></p>	<p>Integrating Microconstituent Management in Biological Treatment when Developing Broad Portfolio Water Reuse Strategies</p> <p><i>Sandeep Sathyamoorthy, Black &amp; Veatch</i></p>	<p><i>Ken Wilkey, Anheuser-Busch</i></p>
6:30 p.m. – 9:30 p.m.	<p><b>Dinner and Discovery at the Florida Aquarium</b></p>			



**Wednesday, September 14, 2016**

8:00 a.m. – 10:00 a.m. **Registration Open**  
(Grand Ballroom Foyer)

8:00 a.m. – 9:00 a.m.

**Plenary Breakfast**  
Room: *Salon E&F*

- **Legislative Update**  
*Ian Wolf, Legislative Director, WateReuse*
- **Reuse Market Trends and Opportunities**  
*Reese Tisdale, President, Bluefield Research*

With established keystone projects including the Orange County Groundwater Replenishment System and the direct potable reuse project in Wichita Falls, Texas, municipal reuse is increasingly being deployed as a regular part of diversified water management strategies, a shift from the one-off and pilot projects that we have seen most commonly in recent years.

This is creating opportunities for advanced treatment technology suppliers who have historically had limited applications in the municipal space as well as private system owners and operators who can benefit from the sale of reclaimed resources, a relative rarity within the U.S. municipal space.

In this breakfast session, Bluefield Research President Reese Tisdale will discuss the emerging business opportunities within municipal reuse for technology suppliers, system integrators, and asset owners.

Key topics covered will include:

- An updated forecast for U.S. Municipal Reuse
- Reuse opportunities in key markets
- Market leaders within the municipal reuse sector across the value chain

	<b>A10</b> <b>Panel Discussion:</b> <b>Potable Reuse</b> <b>Communications</b>	<b>B10</b> <b>Florida Supply</b> <b>Augmentation</b>	<b>C10</b> <b>Water Quality and</b> <b>Data Analytics</b>	<b>D10</b> <b>Industrial Reuse –</b> <b>Polk Power Station</b>
	<b>Moderator:</b> <i>Karen Snyder, Katz &amp; Associates</i>	<b>Moderator:</b> <i>Karen Lowe, CDM Smith</i>	<b>Moderator:</b>	<b>Moderator:</b> <i>Catherine Magliocco, Tampa Electric Company</i>
	<b>Room:</b> <i>Salon C&amp;D</i>	<b>Room:</b> <i>Salon A&amp;B</i>	<b>Room:</b> <i>Salon G&amp;H</i>	<b>Room:</b> <i>Salon I&amp;J</i>
9:00 a.m. – 9:30 a.m.	One size does not fit all. This lively panel presentation and discussion will focus on the tailored communication approaches required for potable reuse projects through expert panelists and case studies from a diverse range of utilities that are all working to effectively and transparently implement potable reuse projects	The City of Tampa Augmentation Project  <i>David Ammerman, Carollo Engineers and Brad Baird, City of Tampa</i>	List of Lists Redux  <i>Andy Eaton, Eurofins Eaton Analytical, Inc</i>	The regional reclaimed water partnership initiative sought to use available reclaimed water in the region for industrial applications. The initiative took nearly 10-years from concept to completion, requiring the partners to modify standard practices and assumptions to enable a successful project and overcome multiple challenges
9:30 a.m. – 10:00 a.m.		The 4G Wetlands: Recharging Dwindling Groundwater Supplies  <i>Rafael Vazquez-Burney, CH2M, Jeffrey Harris, Pasco County Utilities Services and Heath Stone, Phillips and Jordan</i>	The Need for Application of Predictive Analytics for Potable Reuse  <i>Kati Bell, MWH, now part of Stantec</i>	
10:00 a.m. – 10:30 a.m.		The Story of a Successful Reuse to Wetlands System  <i>Michael Bomar, Tetra Tech</i>	More Data, Less Problems - The Use of Statistical Tools and Probability Distributions to Predict Potable Reuse Water	
	<i>Brad Baird, City of Tampa</i>  <i>Marta Lugo, Santa Clara</i>			

	<p>Valley Water District</p> <p>Ali Poosti, City of Los Angeles</p> <p>Gilbert Trejo, El Paso Water Utilities</p>		<p>Quality</p> <p>Austa Parker, Carollo Engineers</p>	<p>Mark McNeal, ASRus</p> <p>Michael Weatherby, HydroGeo Consulting</p>
10:30 a.m. – 12:00 p.m.	<p><b>Closing Plenary Session</b> Room: <i>Salon E&amp;F</i></p> <p><b>Rain: A History for Stormy Times</b> <i>Cynthia Barnett, Environmental Journalist and Author</i></p> <p>Cynthia Barnett is an environmental journalist and the author of three books on water, including <i>Rain: A Natural and Cultural History</i>, longlisted for the National Book Award and named among the best books of 2015 by many reviewers including NPR's Science Friday.</p> <p>Ms. Barnett has reported on freshwater and climate worldwide, from the Suwannee River to Singapore. Her first book, <i>Mirage: Florida and the Vanishing Water of the Eastern U.S.</i> won the gold medal for best nonfiction in the Florida Book Awards and was named by the <i>Tampa Bay Times</i> as one of the top 10 books that every Floridian should read. Her <i>Blue Revolution</i>, which articulates a water ethic for America, was named by <i>The Boston Globe</i> as one of the top 10 U.S. science books of 2011. <i>The Globe</i> describes Ms. Barnett's author persona as "part journalist, part mom, part historian, and part optimist."</p> <p>Ms. Barnett's work has appeared in the <i>New York Times</i>, <i>Los Angeles Times</i>, <i>Wall Street Journal</i>, <i>The Atlantic</i>, <i>Salon</i>, <i>Politico</i>, <i>Discover</i>, <i>Orion</i> and many other publications. She teaches environmental journalism and nature and adventure writing at the University of Florida's College of Journalism and Communications. <a href="http://www.cynthiabarnett.net">www.cynthiabarnett.net</a></p>			

## Poster Presentations

**A Regional Integrated Water Resource Partnership to Increase Direct and Indirect Recharge Opportunities in West Central Florida**

*Lynn Spivey, ARCADIS*

**Alkalinity, pH, and Corrosion Control Strategies at the NCAWPF and Beyond**

*Michael Adelman, MWH, now part of Stantec*

**Assigning Pathogen Removal Credits to Desalination Intake Wells**

*Patrick Jjemba, American Water*

**Eastern Municipal Water District's Accelerated Retrofit Program – An Alternative Approach for Maintaining Community Recreation during California's Drought**

*John Wuerth, Eastern Municipal Water District*

**Floc and Drop vs. Shock and Drop: Two Treatment Approaches to Spent Brine Management from Ion Exchange Systems**

*Eric Dole, Hazen and Sawyer*

**Graphene Oxide Desalination Membrane Development and Testing for Greywater Reuse Applications**

*Curtis, Mowry, Sandia National Laboratories*

**Human Health Implications of Microplasma Ozonation for Wastewater Reuse**

*Shengkun Dong, University of Illinois at Urbana Champaign*

**In-Home Water Reuse: Alaska Water Sewer Challenge**

*Aaron Dotson, University of Alaska Anchorage*

**Process Convergence of Membrane Bioreactor (MBR) Modules Leading to the Development of a Flexible Design Concept**

*Adam Moore, H2O Innovation Inc*

The Ventura Direct Potable Reuse Demonstrating Plant- Research, Monitoring, Performance, and Outreach  
*Elisa Garvey, Carollo Engineers*