

## Saturday, July 22, 2017

8:30 – 15:00 **Technical Tour - San Diego Area Tours** *(Lunch Included)*  
*(Tour is not Included with Registration, Additional Fees Apply)*

## Sunday, July 23, 2017

7:30 – 17:30 **Registration Open**  
**Room:** *Promenade Ballroom Foyer*

### Pre-Conference Workshops

*(additional fees apply)*

8:30 – 10:00	<p><b>Workshop #1: Moving Towards Safe Water Reuse for Food Crop Irrigation: a Sustainable Solution in an Era of Climate Variability</b></p> <p><b>Room:</b> <b>Moderator:</b></p> <p>In this workshop, speakers will describe 1) the state of the science regarding water reuse on food crops; 2) grower perspectives; 3) the complex regulatory framework concerning water reuse on food crops in the U.S.; and 4) reflections from Israel, a global leader in agricultural water reuse.</p> <p><i>Amy Sapkota, University of Maryland (USA)</i> <i>Channah Rock, University of Arizona (USA)</i> <i>Clive Lipchin, Arava Institute for Environmental Studies (Israel)</i></p>
10:30 – 12:00	<p><b>Workshop#2: Antibiotic Resistance: What Every Water Professional Needs to Know</b></p> <p><b>Room:</b> <b>Moderator:</b></p> <p>Over the past several years, several highly-publicized research projects have attempted to identify direct links between bacterial antibiotic resistance and water reclamation processes. This session will cover the realities of antibiotic resistance: What do we know? What is not known? What separates a well-designed study from research studies reporting spurious results?</p> <p><i>Jean McLain, University of Arizona (USA)</i> <i>Channah Rock, University of Arizona (USA)</i> <i>Daniel Gerrity, University of Nevada Las Vegas (USA)</i> <i>Walter Jakubowski, Consultant (USA)</i> <i>Amy Sapkota, University of Maryland (USA)</i> <i>Jeff Mosher, Water Environment and Reuse Foundation (USA)</i></p>
9:00 – 12:00	<p><b>Workshop #3: Successful Strategies for Sustainable Industrial Water Reuse</b></p> <p><b>Room:</b> <b>Moderator:</b></p> <p>Panelists will describe the motivations for companies to implement water reuse strategies and discuss the technologies used to reuse and recycle water in industrial settings. These strategies will be illustrated further with case studies that explore the implementation of industrial water reuse from both public and private perspectives.</p> <p><i>Eric Rosenblum, Envirosppectives (USA)</i> <i>Elise Goldman, West Basin Municipal Water District (USA)</i> <i>Abigail Antolovich, Xylem (USA)</i> <i>Josef Lahnsteiner, VA TECH WABAG (Austria)</i> <i>Tony Adel Rizk, Eastern Washington University (Saudia Arabia)</i> <i>Paul O'Brien, Woodard &amp; Curran (USA)</i></p>

<p>9:00 – 12:00</p>	<p><b>Workshop #4: DPR Risk Reduction and Critical Control Point Monitoring for Public Health</b>  <b>Room:</b>  <b>Moderator:</b></p> <p>This Workshop will take advantage of several recently completed and integrated ongoing research projects by the WaterReuse Research Foundation to provide design engineers and utility managers a better understanding of CCP management within their potable reuse facilities. WRRF studies included are:</p> <ul style="list-style-type: none"> <li>• WRRF 11-10 Risk Reduction Principles for DPR (Carollo)</li> <li>• WRRF 12-06 Guidelines for Engineered Storage for DPR (Carollo)</li> <li>• WRRF 13-03 Critical Control Point Assessment to Quantify Robustness and Reliability of Multiple Treatment Barriers of DPR Scheme (Hazen and Sawyer)</li> <li>• WRRF 14-01 Integrating Management of Sensor Data for a Real Time Decision Making and Response System (Black and Veatch)</li> <li>• WRRF 14-16 Operational, Monitoring and Response Data from Unit Processes in Full-Scale Water Treatment, IPR, and DPR (Carollo).</li> <li>• WRRF-15-11 Demonstration of High Quality Drinking Water Production Using Multi-Stage Ozone-Biological Filtration (BAF): A Comparison of DPR with Existing IPR Practice (Gwinnett County Dept. of Water Resources)</li> </ul> <p><i>Ben Stanford, Hazen and Sawyer (USA)</i>  <i>Andy Salvesson, Carollo Engineers (USA)</i>  <i>Jeff Neeman, Black &amp; Veatch (USA)</i>  <i>Troy Walker, Hazen and Sawyer (USA)</i>  <i>Denise Funk, Gwinnett County Department of Water Resources (USA)</i></p>
<p>9:00 – 12:00</p>	<p><b>Workshop #5: Acceptance of Potable Reuse Projects - What We've Learned So Far</b>  <b>Room:</b>  <b>Moderator:</b> <i>Mark Millan, Data Instincts – Public Outreach Consultants, and Patsy Tennyson, Katz &amp; Associates</i></p> <p>How do you gain public acceptance of proposed potable reuse projects? Learn what tactics, methods and messages are working in terms of outreach related to introducing potable reuse projects to communities. This session will provide several illuminating views and insights into what it takes to successfully introduce and potentially implement potable reuse projects into a community. This series of speakers will describe and share what they see is working and what challenges remain for gaining public acceptance.</p> <p><i>Heather Smith, Thames Water (United Kingdom)</i>  <i>Kevin DeVito, CyberCity 3D, Inc (USA)</i>  <i>Mark Millan, Data Instincts, Public Outreach Consultants (USA)</i>  <i>Melissa McChesney, Padre Dam Municipal Water District, California (USA)</i>  <i>Steve Thomas, Pure Water Monterey (USA)</i></p>
<p>12:00 – 13:30</p>	<p><b>Lunch on Your Own</b></p>
<p>12:30 – 17:30</p>	<p><b>Technical Tour - The Water Replenishment District of Southern California – The Use of Recycled Water for Recharge in Urban Los Angeles County</b> <i>(Lunch Not Included)</i>  <i>(Tour is not Included with Registration, Additional Fees Apply)</i></p>

	<b>A1: Potable Reuse Treatment Studies by Utilities</b>	<b>B1: Distributed Treatment and Energy Topics</b>	<b>C1: Groundwater Recharge Operations and Planning</b>	<b>D1: Sources, Formation, and Control of Nitrosamines</b>
	<i>Room: Promenade Room 103 A&amp;B</i>	<i>Room: Promenade Room 102 A&amp;B</i>	<i>Room: Promenade Room 101B</i>	<i>Room: Promenade Room 101A</i>
	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>
13:30 – 13:50	<p>Development of a Cartridge Filter Management Procedure to Reduce Replacement Frequency and RO Fouling</p> <p><i>Jana Safarik, Orange County Water District (USA)</i></p>	<p>Pilot-Scale Tests of a Novel Filtration Approach with Low Energy Demand for Tertiary Treatment in Wastewater Reclamation Applications</p> <p><i>Thomas Vistisen Bugge, Grundfos (Singapore)</i></p>	<p>Optimizing Recycled Water and Stormwater Networks to Augment Urban Groundwater Recharge</p> <p><i>Jonathan Bradshaw, Stanford University; ReNUWI Engineering Research Center (USA)</i></p> <p><i>Richard Luthy, Stanford University (USA)</i></p>	<p>Formation and Sources of N-Nitrosamines in Potable Reuse</p> <p><i>Eric Dickenson, Southern Nevada Water Authority (USA)</i></p>
13:50 – 14:10	<p>Innovative Potable Water Purification Without RO – Direct Potable Reuse Demonstration Pilot in Central Florida</p> <p><i>David Ammerman, Carollo Engineers (USA)</i></p>	<p>Pilot Studies of Advanced Water Treatment and Waste Heat Recovery Technologies for Distributed Potable and Near-Potable Reuse Applications</p> <p><i>Martin Page, U.S. Army Engineer Research and Development Center (USA)</i></p>	<p>Experiences of Reuse Associated with Managed Aquifer Recharge</p> <p><i>Elio Mauro, Suez (France)</i></p>	<p>Rejection of NDMA and NDMA Precursors: The Role of Reverse Osmosis Membrane Age</p> <p><i>Shannon Roback, Orange County Water District (USA)</i></p>
14:10 – 14:30	<p>Phased Retrofit of Singapore’s Changi WRP with MBR Technology to Meet NEWater Feedstock Demand</p> <p><i>James DeCarolis, Black &amp; Veatch (USA)</i></p>	<p>Permutations and Combinations for Designing the Largest Water Reuse Ultraviolet Disinfection System in North America</p> <p><i>Bill Sotirakos, Carollo Engineers (USA)</i></p>	<p>Water Quality Benefits of the Groundwater Replenishment System</p> <p><i>Greg Woodside, Orange County Water District (USA)</i></p>	<p>RO-Induced Shifts in Chloramine Chemistry Cause Nitrosamine Regrowth at Potable Reuse Plants</p> <p><i>Daniel McCurry, University of Southern California (USA)</i></p>
14:30 – 14:50	<p>Pesticide Removal through Wastewater and Advanced Treatment: Full-Scale and Bench-Scale Testing for the Pure Water Monterey Project</p> <p><i>Robert Holden, Monterey Regional Water Pollution Control Agency (USA)</i></p> <p><i>John Kenny, Trussell Technologies, Inc. (USA)</i></p>	<p>Holistic Evaluation of Decentralized Water Reuse: Life Cycle Assessment and Cost Analysis of Membrane Bioreactor Systems in Water Reuse Implementation</p> <p><i>Jay Garland, U.S. Environmental Protection Agency (USA)</i></p>	<p>Fiber Optic Distributed Temperature Sensing as a Tool for Measuring Recharge Rate in a Potable Reuse Spreading Basin</p> <p><i>Christine Pham, Orange County Water District (USA)</i></p>	<p>Trade-offs in Disinfection Byproduct Formation in Potable Water Reuse Using Various Oxidant Combinations</p> <p><i>Erica Marti, Southern Nevada Water Authority (USA)</i></p>

14:50 – 15:00	Panel Discussion	Panel Discussion	Panel Discussion	Panel Discussion
15:00 – 19:00	<b>Exhibit Hall Open</b> <i>Room: Promenade Ballroom 104C and Foyer</i>			
15:00 – 15:30	<b>Networking Break</b> <i>Room: Promenade Ballroom 104C and Foyer</i>			
15:00 – 15:30	<b>Poster Presentations</b> <i>Room: Promenade Ballroom Foyer</i>			
	<b>A2: Potable Reuse - Design and Operations</b>	<b>B2: Wastewater Treatment for Water Reuse</b>	<b>C2: Environmental and Groundwater Topics</b>	<b>D2: Topics on Antibiotic Resistant Bacteria and Antibiotic Resistance Genes</b>
	<i>Room: Promenade Room 103 A&amp;B</i>	<i>Room: Promenade Room 102 A&amp;B</i>	<i>Room: Promenade Room 101B</i>	<i>Room: Promenade Room 101A</i>
	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>
15:30 – 15:50	Orange County' s Ground Water Replenishment System Expansion – Operating Results  <i>Srinivas Veerapaneni, Black &amp; Veatch (USA)</i>	Integration of Aerobic Granular Sludge and Membrane Filtration for Sustainable Wastewater Reclamation  <i>Oliver Iorhemen, University of Calgary (Canada)</i>	Identifying Markers of Reuse Effluent Loading to Impaired Water Bodies  <i>Joan Oppenheimer, Stantec (USA)</i>	Disinfection Strategies for Controlling Occurrence of Antibiotic Resistance Genes in Reclaimed Water Distribution Systems  <i>Ni Zhu, Virginia Tech (USA)</i>
15:50 – 16:10	Configuring a Robust, State-Of-The Art Advanced Treatment Facility on a Limited Site: an Engineering Case Study from Pure Water San Diego  <i>Steven Winfree, Stantec (USA)</i>	Evaluating Organic Carbon Removal in a Decentralized, Anaerobic Treatment System for Water Reuse in South Africa  <i>Natalie Mladenov, San Diego State University (USA)</i>	Maximizing Reuse and Maintaining Environmental Stewardship of Receiving Waters  <i>Evan Geer, Brown and Caldwell (USA)</i>	Occurrence of Antibiotics and Antibiotic Resistance in Recycled Water Applications  <i>Daniel Gerrity, University of Nevada, Las Vegas (USA)</i>
16:10 – 16:30	Evaluation and Bench Testing to Retrofit a Conventional WTP for Potable Reuse  <i>Jason Assouline, CH2M (USA)</i>	Field Testing of a Solar- Powered Anaerobic Membrane Bioreactor (Anmbr) for Decentralized Wastewater Recycling  <i>Robert Bair, University of South Florida (USA)</i>	Potable Reuse Groundwater Recharge in Southern California: Soil Column and Infiltration Performance Tests  <i>Paul Chau, Kennedy/Jenks Consultants (USA)</i>  <i>Dennis LaMoreaux, Palmdale Recycled Water Authority (USA)</i>	Environmental Antibiotic Resistance is Due to Natural Phenomena, Not Anthropogenic Activities  <i>Ian Pepper, University of Arizona (USA)</i>
16:30 – 16:50	Expansion of the City of Los Angeles' Terminal Island Advanced Water Purification Facility: How to Translate an	Integrated Solutions for Water Reuse and Recovery Resources: Comparing and Identifying Sustainable	Virus Removal from Wastewater at a Managed Aquifer Recharged Facility	Wastewater Treated for Direct Potable Re-use: The Human Health Risk Priorities in South Africa

	IPR Design into a Constructed Facility <i>Zacheis Adam, Carollo Engineers (USA)</i>	Water Reuse Treatment Options <i>Pranoti Kikale &amp; Sherri Cook, University of Colorado, Boulder(USA)</i>	<i>Walter Betancourt, University of Arizona (USA)</i>	<i>Nonhlanhla Kalebaila, Water Research Commission (South Africa)</i>
16:50 – 17:00	Panel Discussion	Panel Discussion	Panel Discussion	Panel Discussion
17:30 – 19:00	<b>Welcome Reception and Beer Tasting with Padre Dam Pilsner featuring Ballast Point</b> <b>Room:</b> <i>Promenade Ballroom 104C and Foyer</i>			

## Monday, July 24, 2017

7:30 – 17:30	<b>Registration Open</b> <b>Room:</b> <i>Promenade Ballroom Foyer</i>			
7:30 – 15:30	<b>Exhibit Hall Open</b> <b>Room:</b> <i>Promenade Ballroom 104C and Foyer</i>			
7:30 – 8:15	<b>Continental Breakfast</b> <b>Room:</b> <i>Promenade Ballroom 104C and Foyer</i>			
8:15 – 10:00	<b>Opening Keynote Session</b> <b>Room:</b> <i>Promenade Ballroom 104 A&amp;B</i> <i>Diane D'arras, Suez; IWA President (France)</i> <i>Jörg Drewes, Technical University of Munich; Chair, IWA Water Reuse Specialist Group (Germany)</i> <i>Jeff Kightlinger, Metropolitan Water District of Southern California (USA)</i> <i>Peter Joo Hee Ng, PUB, Singapore's National Water Agency (Singapore)</i> <i>Takashi Asano, University of California, Davis (USA)</i>			
10:00 – 10:30	<b>Networking Break</b> <b>Room:</b> <i>Promenade Ballroom 104C and Foyer</i>			
10:00 – 10:30	<b>Poster Presentations</b> <b>Room:</b> <i>Promenade Ballroom Foyer</i>			
	<b>A3: Potable Reuse Utility Demonstration Studies</b>	<b>B3: Advanced Treatment Technologies for Control of Chemicals</b>	<b>C3: Water Reuse as Sustainable Supply</b>	<b>D3: Pathogen Removal and Control</b>
	<b>Room:</b> <i>Promenade Room 103 A&amp;B</i>	<b>Room:</b> <i>Promenade Room 102 A&amp;B</i>	<b>Room:</b> <i>Promenade Room 101B</i>	<b>Room:</b> <i>Promenade Room 101A</i>
	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>
10:30 – 10:50	Comparing the Performance of Pilot-Scale Carbon-Based and Membrane-Based Potable Reuse Treatment Systems  <i>Ramola Vaidya, Virginia Tech (USA)</i>	Micropollutant Removal by Membrane Separation: Prediction, Optimization, and Emerging Processes  <i>Long Nghiem, University of Wollongong (Australia)</i>	Water Meta-Cycle as a Sustainable Water Reuse System at Regional Level: A Case Study at Gaotang County, Shandong, China  <i>Zhuo Chen, Shenzhen Tsinghua University (China)</i>	Converting Operational Monitoring Data to Probabilistic Log Reduction Values  <i>Stuart Khan, University of New South Wales (Australia)</i>

10:50 – 11:10	<p>L.A.'s Transition from Non-Potable Reuse to Potable Reuse through Ozone, Biological Activated Carbon, and Soil Aquifer Treatment</p> <p><i>Roshanak Aflaki, City of Los Angeles, LA Sanitation (USA)</i></p>	<p>NF Rejection of CECs from Municipal WRRF Secondary Effluents for DPR Applications</p> <p><i>Michael Watts, Garver (USA)</i></p>	<p>Assessment of Water-Energy (WE) Nexus in Urban Water Reuse System Using a Metabolic Approach: a Mexican Case Study</p> <p><i>Oriana Landa-Cansigno, University College London (United Kingdom)</i></p>	<p>Achieving Maximum Pathogen Removal Credit for UF and RO in Potable Reuse Schemes – Full Scale Experience at the Bennyup Advanced Water Recycling Facility</p> <p><i>Jim Lozier, CH2M (USA)</i></p>
11:10 – 11:30	<p><i>Keel Robinson, Xylem (USA)</i></p> <p><i>Shane Trussell, Trussell Technologies, Inc. (USA)</i></p>	<p>Moving Towards Potable Water Reuse: Fate and Transformation of Persistent Priority Contaminants with Microfiltration, Reverse Osmosis, Advanced Oxidation Processes and Chlorine Disinfection</p> <p><i>Susana Kimura Hara, University of South Carolina (USA)</i></p> <p><i>Kristin Cochran, University of South Carolina (USA)</i></p>	<p>Nitrogen Removal in Wetland Systems by Anammox Bacteria for Water Reuse in Subtropical Humid Climates</p> <p><i>Pongsak (Lek) Noophan, Kasetsart University (Thailand)</i></p>	<p>Modifying Existing Infrastructure to Maximize Pathogen Control for Both Potable and Non-Potable Reuse</p> <p><i>Al Lau, Padre Dam Municipal Water District (United States)</i></p> <p><i>Brian Pecson, Trussell Technologies, Inc. (USA)</i></p>
11:30 – 11:50	<p>Pure Water Monterey: Successful Fast-Track Design of Northern California's First IPR Project</p> <p><i>Todd Reynolds, Kennedy/Jenks Consultants (USA)</i></p>	<p>Impact of Pre-Oxidation on The Removal of Regulated and Emerging Disinfection Byproducts by Granular Activated Carbon: A Potable Reuse Pilot-Scale Evaluation</p> <p><i>Edgard Verdugo, Southern Nevada Water Authority (USA)</i></p>	<p>Sustainability Assessment for Indirect Potable Reuse Demonstration in Reno, NV</p> <p><i>Laura Haak, University of Nevada, Reno (USA)</i></p>	<p>Realizing Reverse Osmosis Potential for Potable Reuse: Demonstrating Enhanced Pathogen Removal</p> <p><i>Rodrigo Tackaert, Trussell Technologies, Inc. (USA)</i></p>
11:50 – 12:00	Panel Discussion	Panel Discussion	Panel Discussion	Panel Discussion
12:00 – 13:30	<b>Lunch On Your Own</b>			
	<b>A4: Key Questions in Implementing Reuse</b>	<b>B4: Removal of Trace Organic Compounds by Advanced Treatment Technologies for Potable Reuse</b>	<b>C4: Guidance and Assessment of Water Reuse Programs</b>	<b>D4: Assessment of Pathogens and Removal in Wastewater and Water Reuse</b>
	<i>Room: Promenade Room 103 A&amp;B</i>	<i>Room: Promenade Room 102 A&amp;B</i>	<i>Room: Promenade Room 101B</i>	<i>Room: Promenade Room 101A</i>
	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>

13:30 – 13:50	<p>Source Control and Wastewater Treatment in Advanced Reuse Operations</p> <p><i>Ian Law, IBL Solutions (Australia)</i></p>	<p>From Modernized To Advanced Treatment, Micropollutant and Disinfection in a Fully Integrated Indirect Water Potable Reuse Scheme: Lausanne WWTP</p> <p><i>Sylvain Donnaz, Suez Treatment Infrastructure (France)</i></p> <p><i>Jeromine Albertini, Suez Treatment Infrastructure (France)</i></p>	<p>WaterVal, a Framework to Validate Treatment Technologies for the Safe Implementation of Water Reuse</p> <p><i>Cedric Robillot, Australian WaterSecure Innovations Ltd (Australia)</i></p>	<p>How Much Reduction of Viruses Do We Need for Recycled Water; A Continuous Need for Assessment?</p> <p><i>Charles Gerba, University of Arizona (USA)</i></p>
13:50 – 14:10	<p>Water Reuse: A Key Initiative of Water sustainability in Singapore</p> <p><i>Lim Mong-Hoo, PUB Singapore (Singapore)</i></p>	<p>Predicting RO Removal of Toxicologically Relevant Unique Organics</p> <p><i>Daisuke Minakata and Muxue Zhang, Michigan Technological University (USA)</i></p>	<p>Good Practice Guidance for the Governance of Water Reuse Schemes</p> <p><i>Jos Frijns, KWR Water cycle Research Institute (Netherlands)</i></p>	<p>Monitoring Pathogen Concentrations through the City of Oceanside's San Luis Rey Wastewater Treatment Plant</p> <p><i>Shane Trussell, Trussell Technologies, Inc. (USA)</i></p>
14:10 – 14:30	<p>Evaluation of Surface Water Augmentation at Lake Jennings</p> <p><i>Seval Sen, Padre Dam Municipal Water District (USA)</i></p>	<p>Predicting the Attenuation of Trace Organic Compounds (Torcs) by Advanced Treatment Technologies in Water Reuse using Spectroscopic Surrogates</p> <p><i>Minkyu Park, University of Arizona (USA)</i></p>	<p>Assessing Feasibility of a Large-Scale IPR Program for Southern California</p> <p><i>Paul Brown, Paul Redvers Brown Inc. (United States)</i></p> <p><i>John Bednarski, Metropolitan Water District of Southern California (USA)</i></p> <p><i>Bob Harding, Metropolitan Water District of Southern California (USA)</i></p>	<p>Norovirus Measurements in Locally-Collected Greywater and Wastewater: Implications for Risk Management of Decentralized Water Reuse</p> <p><i>Michael Jahne, U.S. Environmental Protection Agency (USA)</i></p>
14:30 – 14:50	<p>Investigating Fertilizer Drawn Forward Osmosis Process for Groundwater Desalination for Irrigation in Egypt</p> <p><i>Peter Nasr, Center of Sustainable Development at the American University in Cairo (Egypt)</i></p>	<p>Treatment of Poly- and Perfluoroalkyl Substances (PFAS) in Potable Reuse Systems</p> <p><i>Eric Dickenson, Southern Nevada Water Authority (USA)</i></p>	<p>Oklahoma's Development of the Three R's: A Reuse Regulation Rulebook</p> <p><i>Michael Graves, Garver (USA)</i></p>	<p>Understanding Pathogen Variability and Reduction in Wastewater to Establish Log Credits for Direct Potable Reuse</p> <p><i>Carla Cherchi, Stantec (USA)</i></p>
14:50 – 15:00	Panel Discussion	Panel Discussion	Panel Discussion	Panel Discussion
15:00 – 15:30	<p><b>Networking Break</b>  <b>Room:</b> Promenade Ballroom 104C and Foyer</p>			

15:00 – 15:30	<b>Poster Presentations</b> <b>Room:</b> <i>Promenade Ballroom Foyer</i>			
	<b>A5: Public Engagement Topics for Recycled Water</b>	<b>B5: Concentrate Management: Treatment and Planning</b>	<b>C5: Utility Planning for Reuse</b>	<b>D5: Bioassays and Other Innovative Monitoring</b>
	<b>Room:</b> <i>Promenade Room 103 A&amp;B</i>	<b>Room:</b> <i>Promenade Room 102 A&amp;B</i>	<b>Room:</b> <i>Promenade Room 101B</i>	<b>Room:</b> <i>Promenade Room 101A</i>
	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>
15:30 – 15:50	Customer Engagement in the Australian Water Utility Industry  <i>Catherine Ferrari, Water Corporation (Australia)</i>	A Novel Photobiological Process for Reverse Osmosis Concentrate Treatment Using Brackish Water Diatoms  <i>Keisuke Ikehata Pacific Advanced Civil Engineering, Inc. (USA)</i>	Water Independence Now - The Road to Locally Sustainable Water Resources in a Growing Urban Region  <i>Robb Whitaker, Water Replenishment District of Southern California (USA)</i>	A Framework for the Application of Bioassays to Water Reclamation and Reuse  <i>Richard Bull, Retired (USA)</i>
15:50 – 16:10	Why Communication, Education and Public Participation Matters: Case Studies from South Africa  <i>Nonhlanhla Kalebaila, Water Research Commission (South Africa)</i>	Assessment of Open Water Unit Process Treatment Wetlands for Management of Reverse Osmosis Concentrate from Municipal Water Reuse  <i>Rachel Scholes, University of California, Berkeley (USA)</i>	It Takes A Village: Ensuring Success in Advancing Large-Scale Water Reuse Programs in Our Communities  <i>Brent Eidson, City of San Diego Public Utilities Department (USA)</i>  <i>Sara Katz, Katz &amp; Associates, Inc. (USA)</i>	WE&RF Research Efforts on Bioassays  <i>Stefani McGregor and Jeff Mosher, Water Environment and Reuse Foundation (USA)</i>
16:10 – 16:30	Potable Reuse Terminology - Less Jargon/More Understanding  <i>Ian Law, IBL Solutions (Australia)</i>	RO Brine Minimization for Potable Reuse at Padre Dam  <i>Seval Sen, Padre Dam Municipal Water District (USA)</i>  <i>Eileen Idica, Trussell Technologies, Inc. (USA)</i>	Meeting Water Supply Needs through Potable Reuse in California's Silicon Valley  <i>Hossein Ashktorab, Santa Clara Valley Water District (USA)</i>	Occurrence and Fate of Low Molecular Weight Compounds in Potable Water Reuse Systems  <i>Emily Marron, University of California, Berkeley (USA)</i>
16:30 – 16:50	From Yuck to Yes -- Enabling Change  <i>Melissa Meeker, Water Environment &amp; Reuse Foundation (USA)</i>	Inland Reuse Planning and Brine Management Options  <i>Gary Hunter, Black &amp; Veatch (USA)</i>	An Innovative Approach to Large-Scale Potable Reuse in Virginia  <i>Tyler Nading, CH2M (USA)</i>	Nitrogen Management Strategies for Potable Reuse  <i>Zakir Hirani, Stantec (USA)</i>
16:50 – 17:00	Panel Discussion	Panel Discussion	Panel Discussion	Panel Discussion



## Tuesday, July 25, 2017

7:30 – 15:30	<b>Registration Open</b> <b>Room:</b> <i>Promenade Ballroom Foyer</i>			
7:30 – 15:30	<b>Exhibit Hall Open</b> <b>Room:</b> <i>Promenade Ballroom 104C and Foyer</i>			
7:30 – 8:30	<b>Continental Breakfast</b> <b>Room:</b> <i>Promenade Ballroom 104C and Foyer</i>			
8:30 – 9:30	<p><b>Plenary Session - Potable Reuse: Health and Safety</b> <b>Room:</b> <i>Promenade Ballroom 104 A&amp;B</i></p> <p><i>David Cunliffe, South Australia Health Department (Australia)</i> <i>Joan Rose, Michigan State University (USA)</i></p> <p>Drs. David Cunliffe and Joan Rose will address the audience on the public health aspects of reusing water for drinking. Dr. Cunliffe will bring his experience working for the South Australia Health Department. Dr. Rose, a recent winner of the Stockholm Water Prize, will share her research on pathogen risk assessments. They will both speak for about 20 minutes each, allowing ample time for the session moderator, Dr. Stuart Khan, to facilitate discussion and audience participation.</p>			
9:30 – 10:00	<b>Networking Break</b> <b>Room:</b> <i>Promenade Ballroom 104C and Foyer</i>			
9:30 – 10:00	<b>Poster Presentations</b> <b>Room:</b> <i>Promenade Ballroom Foyer</i>			
	<b>A6: DPR Performance and Operation</b>	<b>B6: Ozone and Biofiltration for Water Reuse Applications</b>	<b>C6: Integrate Planning - Utility Experience</b>	<b>D6: Onsite Nonpotable Water Systems</b>
	<b>Room:</b> <i>Promenade Room 103 A&amp;B</i>	<b>Room:</b> <i>Promenade Room 102 A&amp;B</i>	<b>Room:</b> <i>Promenade Room 101B</i>	<b>Room:</b> <i>Promenade Room 101A</i>
	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>
10:00 – 10:20	<p>Ultraviolet Treatment for Simultaneous Disinfection and Contaminant Destruction in a DPR Train</p> <p><i>Siva Sarathy, TrojanUV (Canada)</i></p>	<p>Biofiltration – an Emerging Process for Water Reuse</p> <p><i>Peter Huck, University of Waterloo (Canada)</i></p>	<p>Keeping San Clemente Green &amp; Clean: Impact of Capturing Urban Runoff on Municipal Recycled Water Flows</p> <p><i>Nathan Chase, RMC, A Woodard &amp; Curran Company (USA)</i></p>	<p>National Blue Ribbon Commission to Advance Innovation in Decentralized Non-Potable Water Systems</p> <p><i>Paula Kehoe, San Francisco Public Utilities Commission (USA)</i></p>
10:20 – 10:40	<p>Direct Potable Reuse – Development of a Proactive Framework for Reliable Operations</p> <p><i>Troy Walker, Hazen and Sawyer (USA)</i></p>	<p>Evaluating and Optimizing the use of Ozone, Bio-filtration and Activated Carbon at the UOSA Potable Reuse Facility</p> <p><i>Bob Angelotti, Upper Occoquan Service Authority (USA)</i></p>	<p>LADWP's Transition to Local Supplies, Recycled Water Reuse from NPR to IPR to DPR</p> <p><i>Yoshiko Tsunehara, Los Angeles Department of Water and Power (USA)</i></p>	<p>A Risk-Based Framework for the Development of Public Health Guidance for Decentralized Non-Potable Water Systems</p> <p><i>Sybil Sharvelle, Colorado State University (USA)</i></p>

			<i>Brian Dietrick, RMC, A Woodard &amp; Curran Company (USA)</i>	
10:40 – 11:00	Microbiological stability in Direct Potable Reuse (DPR) Distributions Systems: Insights from Pilot-Scale Research using Flow Cytometry and High-throughput Sequencing  <i>Scott Miller, University of California, Berkeley (USA)</i>	Holistically Optimizing Biofiltration Systems in Reuse Applications for Improved Reliability and Performance  <i>Chance Lauderdale, HDR (USA)</i>	Potable Reuse Implementation in the Silicon Valley: Risk Identification, Assessment and Management  <i>Phillippe Daniel, HDR (USA)</i>	Design of Decentralized Non-potable Water Systems (DNWSs): Pathogen Removal and Monitoring Systems  <i>Harold Leverenz, University of California, Davis (USA)</i>
11:00 – 11:20	New Training Materials for DPR Operator Certification  <i>Ben Stanford, American Water (USA)</i>	Robust “Membrane-free” Advanced Treatment Solutions for Inland IPR Projects  <i>Vijay Sundaram, University of Nevada, Reno (USA)</i>	Reclaimed Water Expansion - An Approach That Makes Sense  <i>Andrew Burnham, Stantec (USA)</i>	Endogenous System Microbes as Treatment Process Indicators for Decentralized Non-potable Water Reuse  <i>Nichole Brinkman, U.S. Environmental Protection Agency (USA)</i>
11:20 – 11:40	Observations from Over Two Years Studying the DPR Project in Big Spring, TX  <i>Eva Steinle-Darling, Carollo Engineers (USA)</i>	Safe and Sustainable Reuse in New Mexico Through Ozone-Based AOP  <i>Keel Robinson, Xylem (USA)</i>	Salt/Nutrient Challenges in the San Fernando Valley  <i>Anthony Hicke, ULARA Watermaster (USA)</i>  <i>Brian Dietrick, RMC, A Woodard &amp; Curran Company (USA)</i>	Novel Demonstration of Decentralized Direct Potable Water Reuse  <i>Manisha Kothari, San Francisco Public Utilities Commission (USA)</i>
11:40 – 12:00	Panel Discussion	Panel Discussion	Panel Discussion	Panel Discussion
12:00 – 13:30	<p><b>Keynote Luncheon - International Perspectives: Role of Water Reuse for Sustainable Development and Circular Economy</b></p> <p><b>Room:</b> <i>Promenade Ballroom 104 A&amp;B</i></p> <p><i>Lim Mong Hoo's, PUB, Singapore's National Water Agency (Singapore)</i>  <i>Rafael Mujeriego, Universitat Politècnica de Catalunya (Spain)</i>  <i>Akissa Bahri, National Agricultural Institute (Tunisia)</i>  <i>Hu Hong-Ying, Tsinghua University, Beijing (China)</i></p> <p>We are pleased to have four international officials share their perspective on how water reuse has helped achieve sustainability and integration of industry in their region. Each delegate will share their experience for 10 minutes, followed by a stimulating panel discussion facilitated by Grant Davis. The audience is encouraged to participate.</p>			

	<b>A7: DPR Criteria and Reliability</b>	<b>B7: Ozone and Biofiltration for Potable Reuse and Trace Organics Removal</b>	<b>C7: Integrated Planning for Water Reuse</b>	<b>D7: Agriculture Irrigation with Recycled Water</b>
	<b>Room:</b> <i>Promenade Room 103 A&amp;B</i>	<b>Room:</b> <i>Promenade Room 102 A&amp;B</i>	<b>Room:</b> <i>Promenade Room 101B</i>	<b>Room:</b> <i>Promenade Room 101A</i>
	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>
13:30 – 13:50	California Expert Panel on Developing Criteria for Direct Potable Reuse  <i>Brian Bernados, California State Water Resources Control Board (USA)</i>	Introducing Sequential Biofiltration Hybrid Systems for Enhanced Removal of Trace Organic Compounds And Pathogens during Water Reclamation  <i>Johann Müller, Technical University of Munich (Germany)</i>	A Proven Model for Urban Water Reuse  <i>Andrzej Listowski, University of Wollongong, Australia (Australia)</i>	State of use of Recycled Water in Agricultural Irrigation--Impediments and Incentives  <i>Bahman Sheikh, Water Reuse Consulting (USA)</i>
13:50 – 14:10	Feasibility Analysis for Developing Uniform Water Recycling Criteria for Direct Potable Reuse in California – Quantifying the Reliability of Multiple Barriers  <i>Adam Olivieri, EOA, Inc. (USA)</i>	Demonstrating Simultaneous Removal of Multiple Contaminants for Potable Reuse using Ozone, Biofiltration, and Activated Carbon  <i>Edgard Verdugo, Southern Nevada Water Authority (USA)</i>	An Exploration of Various Water Reuse Pathways: Whole Plant Implications and the Criticality of Integrated Water Supply Planning  <i>Stephanie Ishii, Hazen and Sawyer (USA)</i>	A Global Assessment of the De Facto Reuse of Untreated Wastewater in Irrigated Agriculture  <i>Anne Thebo, University of California, Berkeley (USA)</i>
14:10 - 14:30	Assessing the Reliability of Public Health Protection in DPR: QMRA Results from a One-year Demonstration Project  <i>Brian Pecson, Trussell Technologies, Inc. (USA)</i>	O3 Squared: Ozone-Biofiltration-Ozone in Melbourne Australia  <i>Nick Burns, Black &amp; Veatch (USA)</i>	Direct Potable Reuse Plays and Integral Role in Meeting Water Demands in the Lower Rio Grande Valley  <i>Phillip Cook, Black &amp; Veatch (USA)</i>	Understanding Reuse Potential of Nanoparticles-Contaminated Water for Irrigation  <i>Arun Kumar, Indian Institute of Technology Delhi India (India)</i>
14:30 – 14:50	Design Considerations for Direct Potable Reuse Projects  <i>Larry Schimmoller, CH2M (USA)</i>	Optimization of Ozone-BAC Treatment Processes for Potable Reuse Applications  <i>Ruth Marfil-Vega, American Water (USA)</i>	Exploring Wastewater Storage to Meet Water Demands in the Columbia Basin Project  <i>Charity Davidson &amp; Jennifer McConnell, U.S. Bureau of Reclamation (USA)</i>	Treatment of Oilfield Produced Water for Agricultural Reuse – Lessons Learned from Water Planet’s Pilot at Bakersfield California  <i>Anna Jawor, Water Planet (USA)</i>
14:50 – 15:00	Panel Discussion	Panel Discussion	Panel Discussion	Panel Discussion
15:00 – 15:30	<b>Networking Break</b> <b>Room:</b> <i>Promenade Ballroom 104C and Foyer</i>			

15:00 – 15:30	<b>Poster Presentations</b> <b>Room:</b> <i>Promenade Ballroom Foyer</i>			
	<b>A8:</b> <b>DPR Monitoring and Water Quality for Microbial and Chemical Safety</b>	<b>B8:</b> <b>Evaluation of Advanced Oxidation and Water Quality</b>	<b>C8:</b> <b>Water Reuse Planning - Costs and Economics</b>	<b>D8:</b> <b>Managed Aquifer Recharge and Soil Aquifer Treatment</b>
	<b>Room:</b> <i>Promenade Room 103 A&amp;B</i>	<b>Room:</b> <i>Promenade Room 102 A&amp;B</i>	<b>Room:</b> <i>Promenade Room 101B</i>	<b>Room:</b> <i>Promenade Room 101A</i>
	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>
15:30 – 15:50	Assessment of Techniques to Evaluate and Demonstrate the Safety of Water from Direct Potable Reuse Treatment Facilities: Perception versus Reality  <i>Channah Rock, University of Arizona (USA)</i>	Does UVAOP Deserves Better Pathogen Credits in Potable Reuse Applications  <i>Ufuk Erdal, AECOM (USA)</i>	Identifying and Enhancing the Economic Pathways for Water Reuse and Stormwater Harvesting  <i>Lars Hanson, CAN (USA)</i>	Sequential Managed Aquifer Recharge Technology (SMART) – Principles, Performance and Optimization Strategies  <i>Karin Hellauer, Technical University of Munich (Germany)</i>
15:50 – 16:10	Ensuring the Microbial Safety of Direct Potable Reuse: Recommendations and Research Needs Identified by the California Expert Panel  <i>Kara Nelson, University of California, Berkeley (USA)</i>	Evaluation of Surrogates for Iodinated Contrast Media Treated by LP-UV/H2O2 AOP  <i>Israel Lopez, University of Arizona (USA)</i>	Implementing the Sewer Mining Toolbox: Developing Conceptual Cost Curves for Fit-for-Purpose Recycled Water  <i>Jonathan Loveland, Black &amp; Veatch (USA)</i>	Sequential Managed Aquifer Recharge (SMART): Results of Demonstration-scale Operation in Berlin, Germany  <i>Alexander Sperlich, Berliner Wasserbetriebe (Germany)</i>
16:10 – 16:30	Evaluation of Microbiological Risks Associated with Direct Potable Reuse  <i>Jeffrey Soller, Soller Environmental, LLC (USA)</i>	Predicting the Fate of Organic Compounds Degradation in UV/H2O2 and UV/Chlorine Advanced Oxidation Processes  <i>Daisuke Minakata, Michigan Technological University (USA)</i>	Reclaimed Water Cost of Service Studies – An Advanced Example  <i>Andrew Burnham, Stantec (USA)</i>	Analysis of Select Transformation Products as Intrinsic Tracers to Characterize Redox Conditions during the Initial Phase of Soil-Aquifer Treatment  <i>Uwe Hübner, Technical University of Munich (Germany)</i>
16:30 – 16:50	Resilient DPR Design from Collection System to Tap, WE&RF Project 14-13  <i>Sharon Waller Sustainable Systems LLC – Consulting (USA)</i>	UV/Hypochlorite Advanced Oxidation Process for 12 MGD IPR Project  <i>Richard Loeffler, Xylem/Wedeco (USA)</i>	Potable Reuse vs Seawater Desalination: Comparing Costs of Alternative Water Supplies  <i>Greg Wetterau, CDM Smith (USA)</i>	Removal of N-Nitrosodimethylamine (NDMA) Precursors in the Environmental Buffer during De Facto Potable Reuse  <i>Gwen Woods-Chabane, HDR (USA)</i>

16:50 – 17:00	Panel Discussion	Panel Discussion	Panel Discussion	Panel Discussion
19:00 – 23:00	<p><b>Networking Dinner at The Aquarium of the Pacific</b></p> <p><i>Address: 100 Aquarium Way, Long Beach, CA</i></p> <p>We hope you will join us on Tuesday evening for the final networking event of the conference and a chance explore the Aquarium of the Pacific, home to more than 11,000 ocean animals, representing nearly 500 species, the Aquarium celebrates the planet's largest and most diverse body of water: the Pacific Ocean. Conference attendees will experience a great dinner, a live band and networking with colleagues in this unique setting.</p>			

## Wednesday, July 26, 2017

7:30 – 15:30	<p><b>Registration Open</b></p> <p><i>Room: Promenade Ballroom Foyer</i></p>			
7:30 – 15:30	<p><b>Exhibit Hall Open</b></p> <p><i>Room: Promenade Ballroom 104C and Foyer</i></p>			
7:30 – 8:30	<p><b>Continental Breakfast</b></p> <p><i>Room: Promenade Ballroom 104C and Foyer</i></p>			
8:30 – 9:30	<p><b>Plenary Session - Challenges and Opportunities for Non-potable Reuse</b></p> <p><i>Room: Promenade Ballroom 104 A&amp;B</i></p> <p><i>Laura Alcalde-Sanz, Joint Research Centre, European Commission</i>  <i>Josef Lahnsteiner, VA TECH WABAG (Austria)</i></p> <p>Laura Alcalde-Sanz and Josef Lahnsteiner will provide information on Europe's experience with reusing water for non-potable purposes. They will talk about opportunities to expand agricultural, industrial, and other non-potable applications to continue to develop that sustainable supply. After they will both speak for about 20 minutes each, discussion and audience participation will be facilitated by Kevin Hardy of NWRI.</p>			
9:30 – 10:00	<p><b>Networking Break</b></p> <p><i>Room: Promenade Ballroom 104C and Foyer</i></p>			
9:30 – 10:00	<p><b>Poster Presentations</b></p> <p><i>Room: Promenade Ballroom Foyer</i></p>			
	<b>A9: Risk Assessment and QMRA for Water Reuse</b>	<b>B9: Evaluation of Novel Advanced Treatment Technologies</b>	<b>C9: Topics in Advancing Water Reuse</b>	<b>D9: Industrial Reuse: Pilots and Studies</b>
	<i>Room: Promenade Room 103 A&amp;B</i>	<i>Room: Promenade Room 102 A&amp;B</i>	<i>Room: Promenade Room 101B</i>	<i>Room: Promenade Room 101A</i>
	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>
10:00 – 10:20	Making the Case for Indirect Potable Reuse in France: Risk Management and Environmental Benefits of a	A Novel Concept to Integrate Energy-Recovery into Potable Water Reuse Treatment Schemes	A Roadmap to Water Reuse as an Element of a Diverse and Resilient Water Management Strategy	

	<p>Prospective IPR System at Vendee</p> <p><i>Ulf Miehe, Kompetenzzentrum Wasser Berlin gGmbH (Germany)</i></p>	<p><i>Nils Horstmeyer, Technical University of Munich (Germany)</i></p>	<p><i>Vijay Sundaram, Stantec (USA)</i></p>	
10:20 – 10:40	<p>Risk Management and Life-Cycle Assessment of Indirect Potable Reuse in El Port de la Selva/Spain – An Operational IPR Site Using Managed Aquifer Recharge</p> <p><i>Ulf Miehe, Kompetenzzentrum Wasser Berlin gGmbH (Germany)</i></p>	<p>A Low Cost, Low Maintenance Method of Wastewater Desalination Using Physical Online Membrane Cleaning instead of Periodic Chemical Cleaning</p> <p><i>Boris Liberman, IDE Technologies (Israel)</i></p>	<p>Moving Water Reuse to the Center of the Water-food-energy Trilemma: a Case Study of the Urban/Agricultural Interface</p> <p><i>Brent Haddad, University of California, Santa Cruz (USA)</i></p>	<p>Scaling-up Electro-Fenton for Industrial Wastewater Treatment Reuse</p> <p><i>Olivier Lefebvre, National University of Singapore (Singapore)</i></p>
10:40 – 11:00	<p>Quantitative Microbial Risk Assessment of Potable Reuse Treatment with Ozone and Biological Filtration</p> <p><i>Erfaneh Amoueyan, University of Nevada Las Vegas (USA)</i></p>	<p>Optimization of Forward Osmosis in Challenging Environmental Applications for Water Reuse and Zero Liquid Discharge</p> <p><i>Kirsten Remmen, University of Applied Sciences and Arts Northwestern Switzerland (FHNW) (Switzerland)</i></p>	<p>Getting Ahead of DPR: Collaborative Approach to Direct Potable Reuse Implementation in Colorado</p> <p><i>John Rehring &amp; Austa Parker, Carollo Engineers (USA)</i></p>	<p>Case Study: Impact of Industrial Water Reuse at Lagunitas Brewing Company</p> <p><i>Baji Gobburi, Cambrian Innovation (USA)</i></p>
11:00 – 11:20	<p>Comparative Microbial Assessment of Recycled Water from Urban Runoff and Recycled Water from Treated Wastewater Sources in Southern California</p> <p><i>Ryan Sinclair Loma, Linda University School of Public Health (USA)</i></p>	<p>A Novel Forward Osmosis Membrane Bioreactor – Membrane Distillation System for High-Strength Wastewater Treatment Applications</p> <p><i>Nicki Furtaw, University of Nevada, Reno (USA)</i></p>	<p>Updating California's Recycled Water Policy</p> <p><i>Laura McLellan, California State Water Resources Control Board (USA)</i></p>	<p>Evaluation of Innovative Technologies for Multipurpose Use of Municipal Reclaimed Water at Nuclear Power Plants</p> <p><i>Mohammad Badruzzaman, Stantec (USA)</i></p>
11:20 – 11:40	<p>Evaluating the Health Risks from Exposure to Legionella in Reclaimed Water Aerosols</p> <p><i>Kerry Hamilton, Drexel University (USA)</i></p>	<p>Waste-heat-driven Membrane Distillation: Experimental analysis of System Configurations and Impact Of Waste-heat Source Variability on Water Production and Heat Transfer</p>	<p>California Recycled Water Use in 2015</p> <p><i>Tonianne Pezzetti, California Department of Water Resources (USA)</i></p>	<p>Integrated UF and RO Application in Challenging Coal to Chemical Wastewater Reuse</p> <p><i>Andrea Lima, Dow Water and Process Solutions (USA)</i></p>

		<i>Ryan Gustafson, University of Southern California (USA)</i>		
11:40 – 12:00	Panel Discussion	Panel Discussion	Panel Discussion	Panel Discussion
12:00 – 13:30	<b>Lunch On Your Own</b>			
	<b>A10: Potable Reuse in Texas: Beyond Big Spring and Wichita Falls</b>	<b>B10: Membrane Bioreactors (MBRs) and Pathogen Removal and Credits</b>	<b>C10: Economic, Environmental, and Social Assessments for Water Reuse</b>	<b>D10: Industrial Reuse: Planning and Approaches</b>
	<b>Room:</b> <i>Promenade Room 103 A&amp;B</i>	<b>Room:</b> <i>Promenade Room 102 A&amp;B</i>	<b>Room:</b> <i>Promenade Room 101B</i>	<b>Room:</b> <i>Promenade Room 101A</i>
	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>	<b>Moderator:</b>
13:30 – 13:50	This panel will provide participants with a background on the potable reuse regulatory framework in Texas and an overview of the range of potable reuse projects currently operating or under consideration for implementation in the state. Case studies will be used to illustrate the value of the case-by-case approach that the Texas Commission on Environmental Quality has taken to facilitate implementation of potable reuse projects in Texas. Participants will gain an understanding of the treatment and monitoring approach implemented to protect public health across the case studies.	Giving Credit Where Credit is Due – MBR for Potable Water Reuse  <i>Stephen Katz, GE Water &amp; Process Technologies (Canada)</i>	Sustainable Indirect Water Reuse in Mexico City: Advanced Treatment using Membranes  <i>Sylvain Donnaz, Suez Treatment Infrastructure (France)</i>	A Systematic Approach for Quality Control to Minimize Risk of Water Quality Failure in Industrial Water Reuse Schemes  <i>Henrik Grüttner, DHI (Denmark)</i>
13:50 – 14:10		Can MBR Replace MF/UF in a Potable Reuse Train? Concerns and Limitations  <i>Ufuk Erdal, AECOM (USA)</i>	Case Studies of the Economic, Environmental, and Social Impacts of Direct Potable Reuse  <i>Benjamin Stanford, Hazen and Sawyer (USA)</i>	Integrated Industrial Water Management in the Chemical Industry  <i>Thomas Track, DECHEMA e.V. (Germany)</i>
14:10 – 14:30		Granting Pathogen Credits to MBR for Full Advanced Treatment Train for Potable Reuse  <i>Zakir Hirani, Stantec (USA)</i>	Improving the Reliability of the Indirect Potable Reuse System using a Real-Time Decision Support System Based on an Integrated Modeling Approach  <i>Adnan Lodhi, Virginia Tech (USA)</i>	Is Produced Water the New "Toilet-to-Tap" for California?  <i>Lee Portillo, Black &amp; Veatch (USA)</i>
14:30 – 14:50		<i>Caroline Russell, Carollo Engineers (USA)</i>  <i>Eva Steinle-Darling, Carollo Engineers (USA)</i>	Demonstration Study to Evaluate Pathogen Removal Performance Of Membrane Bioreactors (MBR) for Water Reuse in California  <i>Luisa Sangines, Santa Clara Valley Water District (USA)</i>	Triple Bottom Line Analysis of a Wastewater Treatment Plant to Augment Water Supply through Reuse – Lessons Learned at Livermore, California  <i>Colin Chung, Kayuga Solution (USA)</i>
14:50 – 15:00		Panel Discussion	Panel Discussion	Panel Discussion

	<p><i>Ellen McDonald, Alan Plummer Associates, Inc. (USA)</i></p> <p><i>Tom Taggart, City of San Marcos, TX (USA)</i></p> <p><i>Marlo Berg, Texas Commission on Environmental Quality (USA)</i></p> <p><i>Gilbert Trejo, El Paso Water Utilities (USA)</i></p>		
15:00 – 15:30	<p><b>Networking Break</b>  <b>Room:</b> <i>Promenade Ballroom 104C and Foyer</i></p>		
15:00 – 15:30	<p><b>Poster Presentations</b>  <b>Room:</b> <i>Promenade Ballroom Foyer</i></p>		
15:30 – 17:00	<p><b>Closing Plenary Session - The Future of Water Reuse</b>  <b>Room:</b> <i>Promenade Ballroom 104 A&amp;B</i></p> <p>This session will provide an international view on future issues and opportunities for water reuse. George Tchobanoglous will facilitate the panel discussion of several key established reuse experts and up-and-comers. The audience is sure to hear diverse outlooks for the future from various countries, generations, and professional prospective. Participation is encouraged, not only to shape the discussion through questions, but also through audience polling.</p>		
<p><b>Thursday, July 27, 2017</b></p>			
8:30 – 15:30	<p><b>Technical Tour – Los Angeles Area Tour</b> (Lunch Included)  <i>(Tour is not Included with Registration, Additional Fees Apply)</i></p>		
8:30 – 16:00	<p><b>Technical Tour – Orange County Area Tour</b> (Lunch Included)  <i>(Tour is not Included with Registration, Additional Fees Apply)</i></p>		