



WATERREUSE

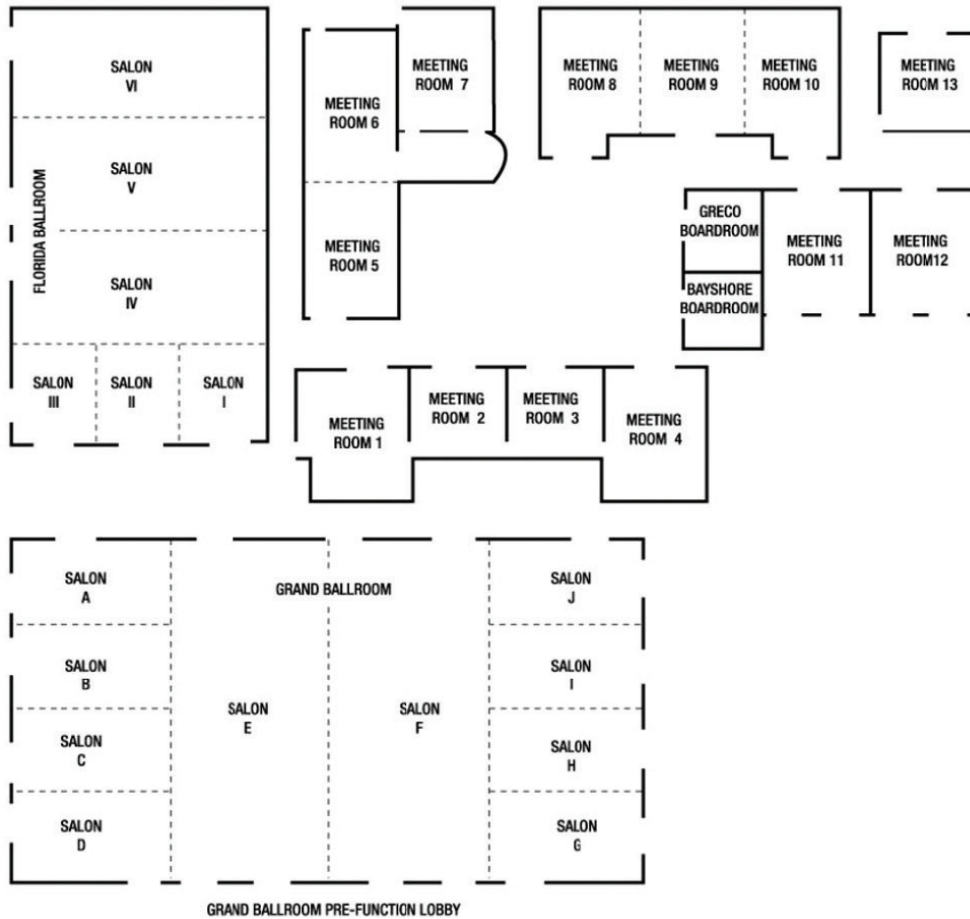
S Y M P O S I U M

TAMPA MARRIOTT
WATERSIDE HOTEL & MARINA

SEPTEMBER 11-14



EXHIBIT HALL FLOOR PLAN



General Information

Exhibit Hall

The Exhibit Hall is the central hub for the WaterReuse Symposium and is located in the Grand Salon E & F.

The Exhibit Hall will be open during the following times:

Sunday, September 11	3:30 p.m. - 6:30 p.m.
Sunday, September 12	7:30 a.m. - 3:30 p.m.
Sunday, September 13	7:30 a.m. - 3:30 p.m.

The Innovation Corner

Exhibitors will be giving 20-minute presentations within the Exhibit Hall. Come find out the latest they have to offer on their products and services.

Monday, September 12

10:05 a.m. - 10:25 a.m.

Bio-Microbics

12:05 p.m. - 12:25 p.m.

Xylem, Inc.

12:35 p.m. - 12:55 p.m.

Bureau of Reclamation

3:05 p.m. - 3:25 p.m.

GE Water & Process Technologies

Tuesday, September 13

10:05 a.m. - 10:25 a.m.

Lewis, Longman & Walker, P.A.

3:05 p.m. - 3:25 p.m.

H2O Innovation

Cappuccino Bar and Lounge

Enjoy a freshly made cappuccino in the Exhibit Hall sponsored by GE Water & Process Technologies.

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Conference Wi-Fi

Stay connected at the Symposium thanks to Arcadis, the official Conference Wi-Fi Sponsor.

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New Water Brew Contest & Beer Challenge

The WateReuse Association, in partnership with GE, Tetra Tech, Xylem and Special Hoperations, challenged more than 100 local homebrewers to produce the best tasting beer from purified recycled water.

More than 1000 gallons of wastewater was purified using multiple advanced technologies, including biological and chemical processes, ultrafiltration, reverse osmosis, and ultraviolet light. Stringent water quality tests verified that the purified water met all state and federal standards for drinking water. Each contestant received ten gallons of water to make 12 bottles of their brand of homebrew.

Certified beer tasters will judge the beer in four categories based on the basic elements of beer – Water, Hops, Malt and Yeast. Symposium attendees will have the opportunity to taste and vote for their favorite brew at the Welcome Reception on Sunday night. Winners will be announced during the Awards Luncheon on Tuesday.

Kids Recycled Water Art & Writing Contest

Winning entries from the 31st Annual WateReuse Symposium Recycled Water Art and Writing Contest will be on display at the conference. The purpose of the art and writing contest was for students to promote the importance of water management and the infinite possibilities for conserving, protecting, and advancing technologies and projects that result in greater water reuse, recycling and efficient management of water resources. The winning entries will also be recognized during the Awards Luncheon on Tuesday, September 13th.

SPONSORED BY:



Dinner and Discovery at the Florida Aquarium

Tuesday, September 13th

6:30 p.m. – 9:30 p.m.

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Walking directions can be found in your registration packet

We hope you will join us on Tuesday evening for the final networking event of the conference and a chance to experience a great dinner and networking with colleagues in this unique setting.

From playful river otters to intimidating sharks, there are more than 20,000 aquatic animals and plants to see during a visit to the Aquarium. Far more than just an attraction, the Florida Aquarium is actively working around the state in research and conservation programs. *This is sure to be a fun evening for all!*

Conference Mobile App

The Conference Mobile App provides easy-to-use interactivity that will enhance your conference experience:

SPONSORED BY:



- Browse the technical program by time, speaker or track and create your own personalized agenda
- View presentation descriptions and learning objectives
- View speaker bios and communicate directly with speakers on the app
- Rate the sessions you attend and comment on them, too
- View and download the technical presentations from the app
- Connect with Sponsors and Exhibitors and view or download their handouts
- Receive important real-time communication during the Conference
- Connect with other attendees based on interests and areas of expertise
- Attendee to Attendee messaging through private messaging within the app
- Interactive Activity Feed where attendees can post, comment on, or “like” other posts
- Share your thoughts about the conference on Facebook, Twitter and LinkedIn right from the app

Session and Presentation Surveys

Your feedback is important to us so please remember to rate each of the sessions and/or presentations that you attend. Surveys for each session and/or presentation can be found on the Conference Mobile App.

PowerPoint Presentations

PowerPoint Presentations can be found on the Symposium Mobile App under each Session and Presentation. *Following the conference, an e-mail will be sent out with a link where you can access the PowerPoint presentations as well.*

Professional Development Hours (PDHs) and Continuing Education Units (CEUs)

The WaterReuse Symposium is pleased to offer Professional Development Hours (PDHs) for all states and Continuing Education Units (CEUs) in Florida and California.

How many educational credits can I earn at the Symposium?

By attending all sessions on Sunday, Monday, Tuesday, and Wednesday, you can earn up to 2.0 Continuing Education Units (CEUs) and 20 Professional Development Hours (PDHs).

If you are signed up for the IUVA workshop on Sunday, you can earn an additional .35 CEUs and/or 3.5 PDHs.

How do I earn educational credits at the Symposium?

In order to receive CEU credit, you will be required to sign-in and sign-out of every session you attend. If you forget to sign-in or sign-out of a session, you will not receive credit for that session; you must do both at every session you attend.

In order to receive PDH hours, you will need to complete the PDH form located in your registration packet. These forms can be dropped off at one of the drop boxes located throughout the conference or mailed to the WaterReuse office after the conference.

When will I receive credits for the Symposium?

Certificates and transcripts will be made available to participants electronically within 3-4 weeks after the Symposium. Please keep in mind that, although WaterReuse does provide these files, most states will require the individual licensee to report continuing education credits.

General Information

Terminology and education credit requirements and restrictions vary widely. All participants are responsible for checking with their license/certification authority to ensure that the WaterReuse technical concurrent sessions meet specific requirements.

CEU and PDH Credit Calculations:

1.0 CEU = 10 Hours of session time
1.0 PDH = 1 Hour of session time

For Example: 1.2 CEU Credits = 12.0 PDH Credits or 17.0 PDH Credits could equate to 1.7 CEU Credits depending on individual state regulations.

Thank you to our Symposium Sponsors for their Support!



Please be sure and check out the Sponsor listings on the Symposium Mobile App where you can view their full contact information, company description, as well as valuable handouts and downloads from each.

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Thank you to our Exhibitors for their Support!



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American Water Chemicals, Inc.

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American Water Works Association

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Aqua-Aerobic Systems, Inc.

Paul Nelson, Regional Manager, Southeast
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Badger Meter, Inc.

Eddie Wentz, Southeast Regional Sales Manager
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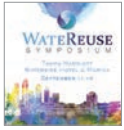
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Xylem, Inc.

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Congratulations to our 2016 WaterReuse Award Winners!



Be sure and view the Award Winners icon on the Symposium Mobile App where you can find an informational video they have each put together for the attendees to view.

WaterReuse Project of the Year – Large

City of Abilene Hamby Water Reclamation Facility and Indirect Reuse Project (Abilene, TX)

With chronic droughts reducing reservoir levels to 30 percent capacity or less in the West Texas City of Abilene (City), the City recently completed the installation of an advanced water treatment system as part of a major upgrade project to the City's Hamby Water Reclamation Facility (WRF). The new system allows the plant to directly pump up to 9 MGD of highly treated wastewater effluent into Lake Fort Phantom Hill and increase clean water supplies for the City's residents and businesses which helps protect the City from future drought conditions. The Hamby WRF and Reuse Project is the first part of a multi-phase drought response initiative aimed at addressing the City's alarmingly low raw water supplies. The \$85 million construction project was placed online in less than 12 months. By contrast, typical projects of this size normally take 24 to 36 months to complete. The City's WRF facility is the largest Membrane Bioreactor (MBR) facility in Texas (12 MGD average daily flow) and provides up to an additional 9.0 MGD of water supply through indirect potable reuse. Improved system redundancy, implementation of an automated supervisory control and data acquisition (SCADA) system, enhanced energy efficiency and biological and chemical nutrient removal capability are all key components for the treatment objectives.

WaterReuse Project of the Year – Small

Town of Davie Water Reclamation Facility (Davie, FL)

With the Water Reclamation Facility, the Town of Davie truly implements the environmental goal of recycling wastewater. Using reclaimed water has many benefits, for consumer and environment alike – from minimizing environmental impact, extending drinking water supply, lowering future capital costs for alternative water supplies, reducing fertilizer usage, to lowering water bills for customers. Using reclaimed water also moves our communities forward toward a sustainable future and to become better stewards of the environment. When Davie decided to invest in water reclamation, sustainability and innovation were top priorities. The town decided to implement Membrane Bio-Reactor (MBR) technology. This treatment alternative had not yet become a commonly selected option in the neighboring counties. However, the Town's utility staff was confident

in assuming the regional leadership role in the implementation of MBR technology. The technology was so novel, that there was no operator training publicly available. Except for training from the vendor, utility operators could not fall back on best practices from other utilities in the area. Hence, Davie facility staff developed their own Standard Operating Procedures and experience was self-taught. Then, staff started training regional counterparts on the new technology, The Town of Davie Utilities Department is proud to say that all self-taught knowledge has resulted in a steady and successful production of high quality reclaimed water.

The Town has also partnered with various educational institutions and governmental entities to facilitate tours of the water reclamation facility, teach about the benefits of using reclaimed water, and train colleagues on using MBR technology.

WaterReuse Industrial Project of the Year

J.R. Simplot Process Water Treatment and Return Plant (Caldwell, ID)

J.R. Simplot Company (Simplot), one of the world's largest producer of potato products, set an ambitious goal for its process water treatment and return plant (PWTRP) in Caldwell, Idaho: become a zero-liquid discharge facility and produce effluent suitable for reuse in production.

Part of a major expansion to consolidate Simplot's French fry production for major customers into a new facility, the PWTRP meets Simplot's challenging objectives through an innovative treatment system including primary clarification, anaerobic fermentation, enhanced biological nutrient removal (EBNR) for nitrogen and phosphorus, and activated sludge with membrane bioreactors (MBR) followed by reverse osmosis (RO) and chlorine disinfection.

The state-of-the-art PWTRP—designed and built by CDM Smith—was completed in January 2014 and treats an average of 2.3 million gallons per day (mgd) of high-strength potato processing wastewater, with a maximum capacity of 3.2 mgd. Approximately 1.7 mgd of water, equivalent to drinking water standards, is reclaimed and returned for reuse safely in the production process.

An innovative spray evaporation technology disposes of up to 320,000 gallons per day of brine reject from the RO system. All remaining effluent is used for irrigation of forage crops. Common-wall construction minimized capital costs and consolidated piping needs, minimizing operating labor and lowering the plant's overall footprint.

The integrated treatment system, delivered within budget and an aggressive schedule, reduces Simplot's dependence on ground water supplies, maintains land application hydraulic requirements, protects the environment and advances the company's sustainability mission.

WaterReuse Agriculture Project of the Year

Napa Sanitation District Recycled Water Expansion Project (Napa, CA)

Through partnerships with Napa County and the Los Carneros Water District, the Napa Sanitation District has doubled its treatment and distribution capacity for recycled water. With 40% of its influent now available as recycled water to the community through this project, the District provides a drought-resistant water source to high-value agricultural areas of Napa County to improve their water reliability.

At the Water Resource Recovery Facility, the District expanded the treatment process and the recycled water pump station to accommodate the growing need for recycled water. To deliver the irrigation water to customers, the District and key partners built 14 miles of distribution pipelines.

Through this project, the District is providing a sustainable, drought resistant, and nutrient rich water source for some of the most valuable agricultural parcels in the country. The District is maximizing resource recovery and recycling every drop of water that comes to the water resource recovery facility during the irrigation season.

The pipelines have the capability to deliver 375 million gallons of recycled water to approximately 150 vineyard properties during the irrigation season, and have the capability to be expanded to provide more recycled water in the future. Through this project, the District is relieving the pressure on the groundwater supply and saving potable water for drinking rather than irrigation. Key partnerships, years of planning and construction, and success in obtaining grant funding have resulted in this forward-thinking project that can meet future resource needs and serve as a model for other communities, especially those whose economy depends on agriculture.

WaterReuse Institution of the Year

Colorado Water Conservation Board (Denver, CO)

The Colorado Water Conservation Board (CWCB), the state's water policy agency, made many significant contributions to advance reuse over the past year and was awarded WaterReuse Colorado's 2016 "Institution of the Year".

Colorado Water Plan – CWCB staff worked closely with WaterReuse Colorado while developing the reuse section of Colorado's first Water Plan which charts a path forward to meet our state's future water needs. CWCB staff's willingness to incorporate information provided by WaterReuse Colorado and others resulted in a robust reuse-specific section of the Plan with numerous action steps forward

identified. The Water Plan also importantly calls out the key role potable reuse will play in meeting future demands.

Project to Advance Direct Potable Reuse – In March the CWCB Board voted unanimously to approve \$188,955 of state Water Supply Reserve Account funds to support WaterReuse Colorado's project "Advancing Direct Potable Reuse to Optimize Water Supplies and Meet Future Demands" (which is also funded by another \$114,500 from other project supporters). CWCB staff were extremely helpful and supportive throughout the grant application process. Without the CWCB's assistance and financial support, WaterReuse Colorado would not be undertaking this important project that will help advance potable reuse as a viable option for our communities.

Effective Reuse Spokesperson – WaterReuse Colorado is extremely grateful for CWCB Director James Eklund's highly supportive and enthusiastic Keynote speech at our April Reuse Rendezvous event. His participation and support were critical to furthering interest in and support of reuse among key water professionals and decision makers in Colorado.

WaterReuse Innovative Project of the Year

City of Goodyear, Arizona (Goodyear, AZ)

The City of Goodyear, Arizona owns and operates the State's largest municipal drinking water reverse osmosis treatment system that generates nearly 1.0 MGD of brine concentrate. Currently the brine is sent to the City's 4.0 MGD main reclamation facility for disposal which creates chemical impacts to the plant and takes up valuable capacity meant for development. Based on a "One-Water" approach with multiple stakeholders, a brine wetland has been successfully piloted to show proof of concept and the final wetlands are currently being designed for build-out for the R/O Plant. The wetlands are not only being designed for brine disposal but will: 1) significantly enhance the recreation and animal habitats for a nearby large regional county park; 2) provide a riparian restoration enhancement to the dry Gila River making this a point of destination for recreation, hiking, biking, and birding; and 3) mitigating a major flood zone by preventing the invasive dry loving tamarisk (Salt Cedar) from proliferating within the riparian area and keeping the river channelized for efficient conveyance of flood water. The City has adopted a "One-Water" philosophy whereby all water is important; even water of poor quality. The City's collaborative process included every possible stakeholder to ensure the highest most effective water reuse management option. The disposal of inland brine is providing significant benefits to various stakeholders while enhancing the environment and habitats through the process of "One-Water" as the premier system for solving this challenging issue.

WaterReuse Equipment/Manufacturer of the Year

H2O Innovation (Quebec, Canada)

As an OEM and solutions provider, H2O Innovation puts significant importance in the choice of technologies, suppliers and materials used in the fabrication of its systems. The Company has, and still does today, invested a considerable amount of energy in developing smart technologies aimed at improving the quality and efficiency of the systems it delivers across North America. These smart technologies that were at first seen as bold and unrealistic are now being praised for their ingenuity and contribution to the water treatment industry.

Through engineering, manufacturing and commissioning, H2O Innovation provides its municipal and industrial clients with the best designs, quality and services. Used for various applications (drinking water, wastewater, water reuse, desalination, and process water) the systems offered by the Company are reliable and produce safe water that surpasses the most stringent regulations.

H2O Innovation's support of its clients doesn't stop at the commissioning; it also offers complete system health care by providing specialty chemicals, technical assistance, and parts. By remaining available to its clients for service, H2O Innovation is accountable for the systems it delivers and maintains a relation of trust that grows through the years.

Providing both the systems and services has been tried and tested by many other companies though none have succeeded the way H2O Innovation has.

This success, and its contribution to the industry with its smart technologies, paved the way for H2O Innovation to be awarded with the Water Technology Company of the Year award at the 2016 Global Water Awards.

Corporate video: <https://www.youtube.com/watch?v=G6BLr53iTvI>

System fabrication time lapse: <https://www.youtube.com/watch?v=za8chmClzFM>

WaterReuse Public Education Program of the Year

Sustainable Beer Smackdown (Clean Water Services/Milwaukee Municipal Sewage District) (Hillsboro, OR and Milwaukee, WI)

The Sustainable Beer Smackdown, a partnership between Clean Water Services and Milwaukee Municipal Sewage District, is an attention-grabbing strategy to get past "the yuck factor" that so often thwarts critically important discussions of water reuse. The Smackdown is an extension of the Pure Water Brew project launched in 2014 by CWS. Last year, the two utilities partnered with Oregon and Wisconsin

homebrewers to create beer from highly purified water that had recently been effluent. They then produced and distributed an educational and humorous video promising a "duel to the last drop" between "the Best of the West" and "the Beast of the East." The actual tasting/judging event took place 9/29/15 at WEFTEC, the largest annual water quality exhibition in the world. There, national and international leaders in water resource management had the embodied and unforgettable experience of literally tasting what the future might hold. Yet the serious message behind the Smackdown reaches not only regulators and industry leaders, but the general public as well, through the savvy deployment of education and outreach strategies that leverage powerful media attention. Coverage of the Smackdown, or the underlying CWS/MMSD initiatives, has appeared everywhere from NPR and the Wall Street Journal, to Liquor.com and The Guardian. Key to the partners' success has been a willingness to not only tolerate the "sewage brewage" jokes, but to laugh along. After all, what better way to get a conversation started than over a beer?

WaterReuse Customer of the Year - Irrigation

Denver Parks and Recreation Department (Denver, CO)

Denver Parks and Recreation (DPR) provides a broad range of programs, services, facilities, and park amenities in the City and County of Denver. The city's park system encompasses more than 250 urban parks totaling over 6,000 acres, and more than 14,000 acres of pristine mountain parks. DPR manages eight golf courses, 24 lakes, over 80 miles of trails, nine dog parks, two bison herds, over 300 athletic fields and more than 300 acres of public-right-of-way. The recreation system includes 27 recreation centers and 16 outdoor pools serving over one million visitors annually. Recreation programs include arts and cultural events, outdoor education, aquatics, sports and fitness opportunities and youth programming.

Denver parks house nationally recognized cultural attractions, such as the Denver Zoo, the Denver Botanic Gardens, Historic Four Mile House, Red Rocks Amphitheater and the Buffalo Bill Museum, which collectively serve millions of visitors annually.

In Colorado's dry Front Range, water is a resource that must be conserved. As the population of Denver and the surrounding region continues to grow, the increased use of recycled water is necessary to maximize existing resources and build an adequate water supply for the future.

For more than a decade, DPR has utilized recycled water as a sustainable, low-cost irrigation resource in urban parks. In partnership with Denver Water, DPR

evaluates different irrigation methods and water management practices. DPR will continue to work with Denver Water and community partners in assessing the use of recycled water, its effects on trees and park landscaping and possible options to protect and preserve the city's trees.

WaterReuse Customer of the Year – Groundwater Recharge

Water Replenishment District: Dominguez Gap Seawater Intrusion Barrier (Los Angeles, CA)

The Water Replenishment District of Southern California: Dominguez Gap Seawater Intrusion Barrier is a recycled water project established in February 2006 to combat seawater intrusion in the Dominguez Gap Barrier (DGB). Recycled water treated with microfiltration, reverse osmosis, and chlorination from the Terminal Island Treatment Plant (TITP) is conveyed to the DGB.

WRD is involved in groundwater monitoring, safe drinking water programs, combating seawater intrusion and groundwater replenishment operations throughout Southern Los Angeles County. In 2015, WRD used nearly 4,000 AFY of recycled water out of 7,000 AFY of total water demand to protect groundwater supplies for the Central Basin and West Coast Basin.

WRD was recognized by LADWP as the Recycled Water Customer of the Year for 2016.

WaterReuse Person of the Year

Bart Weiss, Hillsborough County Public Utilities Department (Tampa, FL)

Bart Weiss is invested in reuse and that investment is much more than just time, though he invests a considerable amount of time in promoting, explaining and advancing reuse education and projects.

For years Bart has led the charge to advance reuse, providing technical expertise, advising and engaging political leaders, agricultural interests, business and industrial users, utilities and students. His easy-going personality and patience coupled with a willingness to listen thoroughly and carefully to reuse skeptics has been instrumental in advancing reuse in Florida.

Even so, Bart serves reuse at the national and state level. He is co-chair of the National Symposium to be held in Tampa this year and he sits on the National Board for WaterReuse. He has served as President of WaterReuse Florida 2011-2012 and again 2014-2015.

But Bart didn't just "serve" in these positions. He embraced each, he engaged and he encouraged others to, as well. In the awful recession, when maintaining membership was challenging for every organization, Bart dug in, revitalizing WaterReuse Florida with added member benefits in the form of fact sheets and model releases and other materials. Leading the board, he established the first symposium for reuse in November 2014.

But well beyond that, Bart was instrumental in advising Florida Senator Wilton Simpson who authored SB536 which directed the Florida Department of Environmental Protection to inventory reuse quantities and applications of reuse, the assess where the resource can be used and about the need to address public education.

Bart has worked tirelessly and persistently to advance the development and acceptance of reuse in Florida and throughout the US.

WaterReuse Young Professional of the Year


Jillian Vandergrift, CDM Smith (Denver, CO)

Ms. Jillian Vandegrift is a 27-year old environmental engineer based in Denver, Colorado. This millennial began her reuse focused career through laboratory and research experience while studying environmental engineering at Rensselaer Polytechnic Institute and Colorado State University. While getting her Master's Degree at Colorado State, she pilot tested an "opt-in" full scale Greywater Reuse Pilot System in one of the campus dormitories and provided assistance on a Model City Ordinance for Graywater Legislation in Fort Collins, Colorado. More recently, her project experience at CDM Smith has focused on technical writing in the form of regulatory assignments for several water reuse studies, primarily regarding potable reuse applications, in addition to water treatment design and water supply projects. She is a primary engineer and author of the Potable Reuse Supplement Document to the Environmental Protection Agency (EPA) 2012 Guidelines for Water Reuse document development and an engineer on Water Research Foundation Project #4508. WRF #4508 aims to produce a DPR guidance framework that water utilities and regulators can use to evaluate the safety of existing or potential future DPR scenarios and help facilitate a proactive DPR monitoring process that is protective of public health. Jill is also developing a design for a cooling tower reuse project at the University of New Mexico for golf course irrigation. Jill has taken an active and ambitious role in increasing the visibility of reuse studies at national conferences and has presented Potable Reuse topics at over 8 regional and national conferences in 2016.

Sunday, September 11, 2016

9:00 a.m. - 12:30 p.m.	IUVA Workshop – Salon H & G <ul style="list-style-type: none">Advanced Oxidation Upstream and Downstream: UV/Cl2 vs UV/H2O2 <i>Professor Olya Keen, University of North Carolina, Charlotte</i>Making Sense of UV-Oxidation: EEO and Dose Together Ensure Potable Reuse Meets Goals <i>Alan Royce, TrojanUV</i>Bacteriophage Regulations and Impact on Reuse System <i>Kati Bell, MWH, now part of Stantec</i>Analysis of Variability in UV Disinfection Systems Following a Stochastic Approach <i>Ernest R. Blatchley III, Purdue University</i> UV System for High Level Disinfection – Operation and Maintenance <i>Gary Hunter, Black & Veatch</i>			
	Technical Tour: Hillsborough DPR Pilot Tour + Brew House Tour/Tasting – departs from the Hotel Lobby			
	1:00 p.m. - 6:00 p.m. Registration Open – Grand Ballroom Foyer			
Technical Sessions	A1: Reuse Boot Camp	B1: Reuse “Florida Style”	C1: Potable Reuse Operations	D1: Water Quality Topics – Part I
Room	Salon C & D	Salon A & B	Salon G & H	Salon I & J
Moderator	<i>Tim Thomure, City of Tucson Water Department</i>	<i>Amanda Schwerman, Black & Veatch</i>	<i>Troy Walker, Hazen and Sawyer</i>	<i>Marjorie Craig, Polk County Board of County Commissioners</i>
1:30 p.m. - 2:00 p.m.	Welcome and Introduction <i>Guy Carpenter, AquaTexture, LLC</i> <ul style="list-style-type: none">What is Water Reuse	Aquifer Recharge in Tampa Bay: Overview of Program Objectives and Lessons Learned <i>Christopher Hill, Arcadis</i>	Building a Framework for Potable Reuse Operator Certification in California <i>Wendy Broley, Brown and Caldwell</i>	Assessment of Ceramic MBR Technology for Municipal Water Reuse <i>James DeCarolis, Black & Veatch</i>
	<ul style="list-style-type: none">Water’s Supply and Water Reuse’s RoleSpeaking the Same Language and Why It’s Important Types of Reuse/ Fit for Purpose <i>Amy Tracy, England-Thims & Miller, Inc.</i> <ul style="list-style-type: none">Regulatory/Treatment Requirements	The Broward and Palm Beach Counties Regional Reclaimed Water Cooperative Partnership <i>Kevin Carter, Broward County Water and Wastewater Services</i> <i>Chris Pettit, Palm Beach County Water Utilities Department</i>	Optimization of Waste-water Reverse Osmosis – Improving Performance through More Aggressive Operation <i>Greg Wetterau, CDM Smith</i>	California Title 22 Compliant Spot Check Bioassays for UV System Performance- Accurate Results Lie in the Details <i>Steve McDermid, TrojanUV</i>
2:00 p.m. - 2:30 p.m.				
2:30 p.m. - 3:00 p.m.	<ul style="list-style-type: none">Levels of Treatment and Allowable UsesLocal FL Examples A TBL Approach <i>Ben Stanford, Hazen and Sawyer</i> <ul style="list-style-type: none">EconomicsEnvironmentalSocial Roundtable/Q&A	Operational Testing of the First Direct Aquifer Recharge System in Florida at the South Hillsborough Aquifer Recharge Project (SHARP) <i>Philip Waller, HDR</i> <i>Bart Weiss, Hillsborough County Public Utilities Department</i>	Two-Year Performance of Orange County’s Expanded Ground Water Replenishment System <i>Vasu Veerapaneni, Black & Veatch</i>	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>

Sunday, September 11, 2016

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

Monday, September 12, 2016			
7:30 a.m. - 4:00 p.m.	Registration Open – Grand Ballroom Foyer		
7:30 a.m. - 3:30 p.m.	Exhibit Hall Open – Salon E & F		
7:30 a.m. - 8:30 a.m.	Section Information Exchange Committee Meeting – Meeting Room 5		
7:30 a.m. - 8:30 a.m.	Continental Breakfast – Salon E & F <div> <div>SPONSORED BY:</div>  </div>		
8:30 a.m. - 10:00 a.m.	Opening Session – Florida Ballroom <div> <div>SPONSORED BY:</div>  </div> <p>WaterReuse Update <i>Guy Carpenter, AquaTecture, LLC, WaterReuse President</i></p> <p>AWWA Update <i>Jacqueline Torbert, AWWA Vice-President and Florida Section Director</i></p> <p>WEF Update <i>Paul Bowen, WEF President</i></p> <p>Welcome <i>Bob Buckhorn, Mayor of Tampa</i></p> <p>The Future of Reuse Policy in Florida <i>Ryan Matthews, Director of the Office of Water Policy, Florida Department of Environmental Protection</i></p> <p>P3 Innovation to Address A Water Supply Challenge <i>Robert Beltran, Southwest Florida Water Management District</i> <i>Tony Delgado, Lakeland County Utilities</i> <i>David Lukcic, Tampa Electric</i></p>		
10:00 a.m. - 10:30 a.m.	Networking Break – Salon E & F <div> <div>SPONSORED BY:</div>  </div>		
10:00 a.m. - 10:30 a.m.	Poster Presentations – Salon E & F		
10:05 a.m. - 10:25 a.m.	Innovation Corner: Presentation by Bio-Microbics – Salon E & F		
Technical Sessions	A3: Big Picture Session – State of the Science on Antibiotic Resistance	B3: MBR in Potable Reuse	C3: Industrial Reuse - Innovations in Industrial Reuse
Room	Salon C & D	Salon A & B	Salon G & H
Moderator	Channah Rock, University of Arizona	Abigail Antolovich, Xylem, Inc.	Justin Mattingly, WE&RF
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.	Resolving the Final Hurdles to MBRs for Potable Water Reuse <i>Andrew Salveson, 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&RF/NWRI</i>	Efficient Retrofit with MBR to Meet Increased NEWater Feedstock Demand at the Largest WRP in Singapore <i>James DeCarolis, Black & Veatch</i>	Industrial Wastewater Stream Treated to Potable Drinking Water Standards Using Zero Liquid Discharge <i>Phillip Locke, McKim & Creed</i>

Monday, September 12, 2016			
12:00 p.m. - 1:00 p.m.	Legislative Committee Meeting – Meeting Room 2		
12:00 p.m. - 1:00 p.m.	Networking Luncheon with Exhibitors – Salon E & F		<div>SPONSORED BY:</div> <div> BLACK & VEATCH</div>
12:05 p.m. - 12:25 p.m.	Innovation Corner: Presentation by Xylem, Inc. – Salon E & F		
12:35 p.m. - 12:55 p.m.	Innovation Corner: Presentation by Bureau of Reclamation – Salon E & F		
Technical Sessions	A4: Big Picture Session – State-by-State Regulatory Updates	B4: Potable Reuse Innovations	C4: Panel Discussion: Industrial Water Footprint
Room	Salon C & D	Salon A & B	Salon G & H
Moderator	Melissa Meeker, WaterReuse	Kati Bell, MWH, now part of Stantec	Mel Butcher, Arcadis
1:00 p.m. - 1:30 p.m.	Updates from: Arizona Chuck Graf, Arizona Department of Environmental Quality	Optimization of Ozone-BAC Systemas for Potable Reuse Applications Zia Bukhari, American Water	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) Brian Moore, Arcadis Mary Buzby, Arcadis Todd Williams, General Motors Paul Bowen, Coca-Cola Company
1:30 p.m. - 2:00 p.m.	Florida Kristine Morris, Florida Department of Environmental Quality Idaho Tressa Nicholas, Idaho Department of Environmental Quality	Biofiltration Optimization for Reuse Applications: Validating a Decade of Drinking Water Biofiltration Research Chance Lauderdale, HDR	
2:00 p.m. - 2:30 p.m.	Oklahoma Michael Moe, Oklahoma Department of Environmental Quality Tennessee George Garden, Tennessee Department of Environment and Conservation Texas Marlo Berg, Texas Commission on Environmental Quality	Direct Potable Reuse using Multi-Stage Ozone-Biological Filtration (BAF) Steve Seachrist, Gwinnett County Department of Water Resources Kati Bell, MWH, now part of Stantec	
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 Jens Scheidele, Xylem, Inc.	
3:00 p.m. - 3:30 p.m.	Networking Break – Salon E & F		<div>SPONSORED BY:</div> <div></div>
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		

Monday, September 12, 2016

Technical Sessions	A5: Big Picture Session – State-by-State Regulatory Updates	B5: Potable Reuse Innovations	C5: Industrial Reuse - Industrial Water Footprint
Room	Salon C & D	Salon A & B	Salon G & H
Moderator	<i>Diane Taniguchi-Dennis, Clean Water Services</i>	<i>Eva Steidle-Darling, Carollo Engineers</i>	<i>Eric Rosenblum, Envirospectives, Inc.</i>
3:30 p.m. - 4:00 p.m.	Whiskey is for Drinking and Wastewater is for Fighting – A Modern Case Study in Western Water Management <i>John Kmiec, Marana Water</i>	Resilient DPR Design from Collection System to Tap, WRRF Project 14-13 <i>Sharon Waller, Sustainable Systems LLC</i>	A Push for Non-Irrigation Uses of Recycled Water at Irvine Ranch Water District <i>Mark Tettemer, Irvine Ranch Water District</i>
4:00 p.m. - 4:30 p.m.	The City of Altamonte Springs, Florida - A 30-year History of Water Reuse <i>Jo Ann Jackson, City of Altamonte Springs</i>	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.	Achieving Water Independence through the Sustainable Water Infrastructure Project <i>Areeba Syed, MWH, now part of Stantec</i>	Source and Supply Water Quality Impacts on Performance and Reliability of Potable Reuse Advanced Water Treatment Facilities <i>Sandeep Sathyamoorthy, Black & 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.		The Importance of Engineering Barriers for a Protected Pretreatment Program for IPR <i>Penny Carlo, Carollo Engineers</i>	Leachate to Reuse Water – Operating and Treatment Challenges within Pinellas County Solid Waste <i>Andre Dieffenthaler, Hazen and Sawyer</i> <i>Margaret Cook, Pinellas County Utilities</i>

Tuesday, September 13, 2016

7:30 a.m. - 2:00 p.m.	Registration Open – Grand Ballroom Foyer			
7:30 a.m. - 3:30 p.m.	Exhibit Hall Open – Salon E & F			
7:30 a.m. - 8:30 a.m.	Potable Reuse Committee Meeting – Meeting Room 5 & 6			
7:30 a.m. - 8:30 a.m.	Industrial Reuse Committee Meeting – Meeting Room 2			
7:30 a.m. - 8:30 a.m.	<div> Continental Breakfast – Salon E & F <div> <div>SPONSORED BY:</div> <div> <div>de la Parte & Gilbert, PA</div> <div>ATTORNEYS AT LAW</div> </div> </div> </div>			
Technical Sessions	A6: Panel Discussion: Reuse Decision-Making	B6: Agricultural Reuse	C6: Potable Reuse Benchmarks	D6: Industrial Reuse - Technology for Oil & Gas (Fracking)
Room	Salon C & D	Salon A & B	Salon G & H	Salon I & J
Moderator	<i>Jeff Mosher, WE&RF/NWRI</i>	<i>Amy Tracy, England-Thims & Miller, Inc.</i>	<i>Gary ReVoir, Tetra Tech</i>	<i>Ellen McDonald, Alan Plummer Associates, Inc.</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>	Trends in Appalachian Shale Development - Water Re-use and Recycling <i>Don Wieczenski, American Water</i>
9:00 a.m. - 9:30 a.m.	<i>Kathy Millea, Orange County Sanitation District</i> The Whole Story - How Monetizing Social and Environmental Benefits Influenced the Bottom Line for Pure Water Monterey <i>Jeremy Cook, HDR</i>	Fit for Purpose Water for Agricultural Preservation <i>Jim Rasmus, Black & Veatch</i> <i>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 <i>Andrew Salvesson, Carollo Engineers</i>	Recycling Produced Water for Discharge or Beneficial Use <i>Dan Mueller, Environmental Defense Fund</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,</i> <i>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.	<div> Networking Break – Salon E & F <div> <div>SPONSORED BY:</div> <div> <div>IDE Technologies</div> </div> </div> </div>			

Tuesday, September 13, 2016


10:00 a.m. - 10:30 a.m.	Poster Presentations – Salon E & F			
10:05 a.m. - 10:25 a.m.	Innovation Corner: Presentation by Lewis, Longman & Walker, P.A. – Salon E & F			
Technical Sessions	A7: Panel Discussion: El Paso's Potable Implementation	B7: Infrastructure Topics	C7: Potable Reuse Quality	D7: Industrial Reuse - Technology for Oil & Gas (Membranes)
Room	Salon C & D	Salon A & B	Salon G & H	Salon I & J
Moderator	Gilbert Trejo, <i>El Paso Water Utilities</i>	Lynn Spivey, <i>Arcadis</i>	Adam Festger, <i>TrojanUV</i>	Gordon Pederson, <i>Gulf Coast Waste Disposal Authority</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: Research on Bacterial Communities in El Paso's AWWP Purified Water <i>Corin Marron, Arcadis</i> <i>Scott Miller, University of California, Berkeley</i> Pilot Testing Membrane Pretreatment Options for a DPR Treatment Train <i>Daniel Olson, Arcadis</i>	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>	Solving Source Water and Wastewater Disposal Limitations With a Unique High Recovery Secondary RO <i>Ed Greenwood, Amec Foster Wheeler</i>
11:00 a.m. - 11:30 a.m.	<i>Direct-to-Distribution DPR: Advanced Treatment Pilot Performance</i> <i>Brent Alspach, Arcadis</i> <i>Chelsea Francis, Arcadis</i>	The Sewer Mining Toolbox - A Tool to Assess Decentralized Reuse Opportunities <i>Sandeep Sathyamoorthy, Black & Veatch</i>	Cost-effective Nitrogen Management Strategies for Potable Reuse <i>Zakir Hirani, MWH, now part of Stantec</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>
11:30 a.m. - 12:00 p.m.	<i>Adaptive Strategies and Partnerships for Year-Round Use of Existing Reuse Assets</i> <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>	Q&A and Discussion	
12:00 p.m. - 1:30 p.m.	Awards Luncheon and Annual Membership Meeting – Florida Ballroom <div> SPONSORED BY:  </div>			
Technical Sessions	A8: Panel Discussion: Potable Reuse Monitoring	B8: Seawater Desalination	C8: Planning for Inland DPR	D8: Industrial Reuse - Technology for Pharma, Food & Bev
Room	Salon C & D	Salon A & B	Salon G & H	Salon I & J
Moderator	Shane Trussell, <i>Trussell Technologies, Inc.</i>	Chris Hill, <i>Arcadis</i>	Steve Jones, <i>Garver</i>	Zach Gallagher, <i>Natural Systems Utilities</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 <i>Jeff Neemann, Black & Veatch</i>	Seawater Desalination - Regulatory and Scientific Issues Related to Intake and Discharge <i>Joe Monaco, Dudek</i>	<i>Planning for DPR - Its OK in OKC</i> <i>Gary Hunter, Black & Veatch</i>	Mitigating Water Risks through a Corporate Water Management Plan - Case Study from the Milk Processing Industry <i>Martin Andersen, DHI</i>

Tuesday, September 13, 2016

2:00 p.m. - 2:30 p.m.	Fluorescence based Real Time Continuous Membrane Integrity Monitoring in Wastewater Reuse for Potable Purposes <i>Seong Yoon, Nalco</i>	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>	Active Pharmaceutical Ingredients (API) Removal from Industrial Wastewater using a MBR/Ozone Advanced Treatment <i>Abigail Antolovich, Xylem, Inc.</i>
2:30 p.m. - 3:00 p.m.	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 Steinle-Darling, Carollo Engineers</i>	Disruptive Tech – Beyond Net Zero Energy Onsite Water Reuse! <i>Zach Gallagher, Natural Systems Utilities</i>
3:00 p.m. - 3:30 p.m.	Networking Break – Salon E & F <div> SPONSORED BY:  </div>			
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 H2O Innovation – Salon E & F			
Technical Sessions	A9: Panel Discussion: Potable Reuse Implementation	B9: Managing Desalination	C9: Managing Water Quality	D9: Panel Discussion: Industrial Reuse for Florida Food & Beverage
Room	Salon C & D	Salon A & B	Salon G & H	Salon I & J
Moderator	Guy Carpenter, <i>AquaTecture, LLC</i>	Christine Owen, <i>Tampa Bay Water</i>	Jean McLain, <i>University of Arizona</i>	Keyna Cory, Florida Recycling Partnership
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 & Associates, Inc.</i> Community Engagement Pure Water Silicon Valley Style <i>Miguel Silva, Santa Clara Valley Water District</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</i> <i>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 & Compactors on how they reuse water and reduce consumption. <i>Kim Brunson, Publix Supermarkets</i> <i>Ken Wilkey, Anheuser-Busch</i>
4:00 p.m. - 4:30 p.m.		The Influence of Desalinated Seawater from the Carlsbad SWRO Plant on San Diego Regional Potable Water Quality <i>Brent Alspach, Arcadis</i>	Use of Preformed NDMA Formation Potential at City of Los Angeles' AWWP Pilot Project <i>Sunny Wang, Brown and Caldwell</i>	

Tuesday, September 13, 2016

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>Tracy Clinton, Carollo Engineers</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 & Veatch</i></p>	
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6:30 p.m. - 9:30 p.m.	<p>Dinner and Discovery at the Florida Aquarium (see registration packet for walking directions)</p> 			
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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.	<p>Plenary Breakfast – Salon E & F</p> <p>Legislative Update <i>Ian Wolf, Legislative Director, WaterReuse</i></p> <p>Reuse Market Trends and Opportunities <i>Reese Tisdale, President, Bluefield Research</i></p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Key topics covered will include:</p> <ul style="list-style-type: none"> • An updated forecast for U.S. Municipal Reuse • Reuse opportunities in key markets • Market leaders within the municipal reuse sector across the value chain

Technical Sessions	A10: Panel Discussion: Potable Reuse Communications	B10: Florida Supply Augmentation	C10: Water Quality and Data Analytics	D10: Panel Discussion: Industrial Reuse - Polk Power Station
Room	Salon C & D	Salon A & B	Salon G & H	Salon I & J
Moderator	<i>Karen Snyder, Katz & Associates</i>	<i>Karen Lowe, CDM Smith</i>	<i>Chuck Drake, Tetra Tech</i>	<i>Catherine Magliocco, Tampa Electric Company</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	The City of Tampa Augmentation Project <i>David Ammerman, Carollo Engineers</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

Wednesday, September 14, 2016

9:30 a.m. - 10:00 a.m.	<p>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</p> <p><i>Brad Baird, City of Tampa</i></p> <p><i>Miguel Silva, Santa Clara Valley Water District</i></p> <p><i>Gilbert Trejo, El Paso Water Utilities</i></p> <p><i>Paul Sciuto, Monterey Regional Water Pollution Control Agency</i></p>	<p>The 4G Wetlands: Recharging Dwindling Groundwater Supplies</p> <p><i>Rafael Vazquez-Burney, CH2M</i></p> <p><i>Jeffrey Harris, Pasco County Utilities Services</i></p> <p><i>Heath Stone, Phillips and Jordan</i></p>	<p>The Need for Application of Predictive Analytics for Potable Reuse</p> <p><i>Kati Bell, MWH, now part of Stantec</i></p> <p><i>Pete Perciavalle, MWH, now part of Stantec</i></p>	<p>concept to completion, requiring the partners to modify standard practices and assumptions to enable a successful project and overcome multiple challenges</p> <p><i>David Lukic, Tampa Electric</i></p> <p><i>Scott Lee, AECOM</i></p>
10:00 a.m. - 10:30 a.m.		<p>The Story of a Successful Reuse to Wetlands System</p> <p><i>Michael Bomar, Tetra Tech</i></p>	<p>More Data, Less Problems - The Use of Statistical Tools and Probability Distributions to Predict Potable Reuse Water Quality</p> <p><i>Austa Parker, Carollo Engineers</i></p>	<p><i>Mark McNeal, ASRus</i></p> <p><i>Michael Weatherby, HydroGeo Consulting</i></p>
10:30 a.m. - 12:00 p.m.	<p>Closing Plenary Session – Salon E & F</p> <p>Part 1: Rain: A History for Stormy Times <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 Rain: A Natural and Cultural History, 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, Mirage: Florida and the Vanishing Water of the Eastern U.S. won the gold medal for best nonfiction in the Florida Book Awards and was named by the Tampa Bay Times as one of the top 10 books that every Floridian should read. Her Blue Revolution, which articulates a water ethic for America, was named by The Boston Globe as one of the top 10 U.S. science books of 2011. The Globe 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 New York Times, Los Angeles Times, Wall Street Journal, The Atlantic, Salon, Politico, Discover, Orion and many other publications. She teaches environmental journalism and nature and adventure writing at the University of Florida's College of Journalism and Communications. www.cynthiabarnett.net</p> <p>Part 2: The Future of Potable Reuse Panel Discussions <i>Moderator: Jeff Mosher, WE&RF/NWRI</i></p> <p><i>Chuck Drake, Tetra Tech</i></p> <p><i>Channah Rock, University of Arizona</i></p> <p><i>Rick Warner, Washoe County CSD - Utility Services</i></p> <p><i>Shane Trussell, Trussell Technologies, Inc.</i></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*

Thank you to our 31st Annual WaterReuse Planning Committee for your dedication and time in making this conference such a huge success!

31st Annual WaterReuse Symposium Planning Committee

Conference Chairs

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Nikolay Voutchkov, *Water Globe Consulting, LLC*

Awards

Dawn Taffler, *Kennedy/Jenks Consultants (Chair)*

Keli Callahan, *Carollo Engineers*

Monica Gasca, *Sanitation Districts of Los Angeles County*

Steve Kebbe, *Clean Water Services*

John Kmiec, *Town of Marana*

Brenley McKenna, *Denver Water*

Shannon Rodriguez, *City of Houston*

Amy Tracy, *England-Thims & Miller, Inc.*

Gilbert Trejo, *El Paso Water Utilities*

Kids Art/Writing Contest

Amanda Schwerman, *Black & Veatch*

Amy Tracy, *England-Thims & Miller, Inc.*

Facility Tour

Bart Weiss, *Hillsborough County Public Utilities Department*

Upcoming WaterReuse Events

2016 WaterReuse Potable Reuse Summit

October 17-18, 2016

The Skirvin Hilton
Oklahoma City, OK

2017 WaterReuse California Annual Conference

March 19-21, 2017

Westin San Diego
San Diego, CA

2017 Industrial and Commercial Water Reuse Conference

May 22-23, 2017

Westin Peachtree Plaza
Atlanta, GA

11th Annual IWA International Conference on Water Reclamation and Reuse

July 23-27, 2017

Long Beach Convention Center
Long Beach, CA

32nd Annual WaterReuse Symposium

September 10-13, 2017

Renaissance Phoenix Downtown Hotel
Phoenix, AZ

33rd Annual WaterReuse Symposium

September 9-12, 2018

JW Marriott Austin
Austin, TX

