CONFERENCE PROGRAM

California Annual Conference





HYATT REGENCY ORANGE COUNTY
GARDEN GROVE, CALIFORNIA

March 17-19 2019

General Information

EXHIBIT HALL HOURS

Sunday, March 17 Monday, March 18

Tuesday, March 19

3:00 p.m. – 6:30 p.m.

7:30 a.m. - 3:30 p.m.

9:30 a.m. - 2:30 p.m.

WELCOME RECEPTION

Sunday, March 17 5:00 p.m. – 6:30 p.m. Grand Ballroom E - G Sponsored by:





California has a rich 100-year history of using recycled water for agriculture. At the welcome reception meet our exhibitors while sampling delicious food grown with recycled water. Learn about agricultural reuse in California and Orange County.

PRESIDENT'S RECEPTION AT THE FIFTH

Monday, March 18 5:30 p.m. – 7:30 p.m. The FIFTH Rooftop Bar Grand Legacy at the Park 1650 S. Harbor Blvd., Anaheim, CA 92802 Sponsored by:





We hope you will join us on Monday evening for this fun-filled networking reception at Anaheim's only Rooftop Restaurant & Bar. Shuttle buses will be departing from the hotel starting at 5:00 pm and run continuously to The FIFTH and back to the hotel until 8:00 pm.

CONFERENCE WIFI

Stay connected at the WateReuse California Conference thanks to Water Systems Consulting, the official Conference Wi-Fi Sponsor. Sponsored by:



CONFERENCE MOBILE APP

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

- Browse the technical program by time, speaker or track and create your own personalized agenda
- 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 and papers from the app
- Locate sessions with the interactive maps feature
- 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 Conference Mobile Appunder each Session and Presentation.

CEUS AND PROFESSIONAL DEVELOPMENT HOURS (PDHs)

The WateReuse California Annual Conference is pleased to offer Professional Development Hours (PDHs) for all states and Continuing Education Units (CEUs) in the state of **California**.

How many educational credits can I earn at the California Annual Conference?

By attending all sessions on Sunday, Monday, and Tuesday, you can earn up to 1.5 Continuing Education Units (CEUs) and 15 Professional Development Hours (PDHs).







How do I earn educational credits at the California Annual Conference?

In order to receive **CEU credit**, you will be required to sign-in and signout 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 WateReuse office after the conference.

When will I receive credits for the California Annual Conference?

Certificates and transcripts will be made available to participants electronically within 8-10 weeks after the Conference. Please keep in mind that, although WateReuse does provide these files, most states will require the individual licensee to report continuing education credits.

In California, this will need to be done directly with CWEA.

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 WateReuse 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

1.0 Contact Hour = 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.





Plenary Sessions

OPENING SESSION

Monday, March 18 8:30 – 9:30 a.m.

Room: Grand Ballroom A-D





Peter H. Gleick *President Emeritus and Co-founder, Pacific Institute*

Dr. Peter Gleick is a scientist, innovator, and communicator on water and climate issues and a long-time advocate for a sustainable water future in California and worldwide. In 1987 he co-founded the independent thinktank Pacific Institute, which he led as

president until mid-2016, when he became president emeritus. Dr. Gleick received the prestigious MacArthur "genius" Fellowship and is an elected member of the U.S. National Academy of Sciences. He is a Fellow of the American Association for the Advancement of Science, and winner of the Ven Te Chow Award from the International Water Resources Association and the United States Water Prize from the US Water Alliance. Dr. Gleick developed one of the earliest assessments of the consequences of climate change for water resources, assessed the risks of conflict over water, and helped to define basic water needs and the human right to water — work that has been used by the United Nations and in human rights court cases. He has pioneered and advanced the concepts of the "soft path for water" and "peak water."

Awards Luncheon and Presentation

Monday, March 18 12:00 – 1:30 p.m.

Room: Grand Ballroom A-D





The Awards Luncheon will recognize excellent water reuse, reclamation, and recycling projects and practitioners. The California Section of the WateReuse Association will present the following Awards of Excellence during the luncheon on Monday:

- Recycled Water Agency of the Year (Large, Medium, and Small)
- Recycled Water Community Outreach/Public Education Program of the Year
- Recycled Water Advocate of the Year
- Recycled Water Customer of the Year
- Recycled Water Staff Person of the Year
- Lifetime Advocacy Award
- President's Award

Gordon Cologne Breakfast

Tuesday, March 19 8:00 – 9:30 a.m.

Room: Grand Ballroom A-D

Sponsored by:



Join us for a celebration of the founders of WateReuse! 2019 marks the 30-year anniversary of the association, which will be recognized at the WateReuse national symposium San Diego this September. In an interview with Peter MacLaggan learn about the mavericks that started the WateReuse Association and who inspired a legacy of laws, regulations and public acceptance that help guide the reuse industry today.

Presentation of the Gordon Cologne Awards to the Founder of WateReuse Association Presentation of Lifetime Achievement Award

Legislative Update

California has a new Governor and Legislature. 2019 will be a pivotal year for California water policy and reuse. Hear from WateReuse (WRCA) legislative advocate (Beth Olhasso, West Coast Advisors) on the latest in the what is happening inside the state Capitol and within Governor Gavin Newsom's Administration. Hear about WRCA new efforts to define potable reuse terminology, push forward Title 22 non-potable reuse changes and possibly defend water reuse from unnecessarily mandates.

Town Hall Plenary Luncheon Women in WateReuse: Diversity for the Future

Tuesday, March 19 12:00 – 2:00 p.m.

Room: Grand Ballroom A-D

An inclusive and diverse water sector is necessary to build trust and promote innovation for the future. Increased inclusion of women and a diverse workforce presents an obvious opportunity to encourage innovation and progress business goals alongside social and developmental goals.

Sponsored by:



This session, led by a professional facilitator, Desiree Adaway, will educate, entertain and provide pragmatic information related to understanding the benefits of equity and inclusivity. Women leaders from the reuse industry will serve as supporting facilitators during a series of exercises, led by Desiree, to stimulate interactive discussions.

The goal of the session is to challenge our membership to look within their organizations, and themselves, to see how they can contribute to supporting an inclusive culture at their organization. Because it's good for business, it's good for our employees and it's good for our communities.



2019 WateReuse California Award Winners



Congratulations to our 2019 WateReuse California Award Winners. Be sure and view the Award Winners icon on the Conference Mobile App where you can find the full award description as well as an informational video they have each put together for the attendees to view.

RECYCLED WATER AGENCY OF THE YEAR - SMALL City of Malibu

The City of Malibu, California worked with Woodard & Curran to plan and design its first public sewer system, treatment facility, and recycled water system. The resulting Civic Center Water Treatment Facility (CCWTF) is a 500,000 gallon-per-day membrane bioreactor utilizing an ultraviolet (UV) disinfection system to treat collected wastewater. The treated effluent meets high-quality water reuse standards, with the capacity to supply 70 million gallons of recycled water for irrigation purposes. Excess recycled water is dispersed via injection wells to an ancient buried river bed and ultimately to the ocean. Automated and remote access controls minimize the need for continuous onsite operation., and control system programming provided by the design team during construction allowed for unique customization of controls desired by the plant operations teams. The addition of the CCWTF required the city to convert private septic systems to public sewer collection. The new collection system includes 9,000 feet of gravity pipe, 4,500 feet of force main, and two lift stations with organic media odor beds to mitigate odor concerns. High groundwater levels, congested utilities, and poor soils were encountered during the installation process, which required several sections of pipe to be installed utilizing trenchless technology, including both pilot tube guided auger boring and pilot tube guided pipe ramming. Phase 1 introduced 30 commercial/business development parcels to the new collection system, and planning for Phase 2 is underway.

RECYCLED WATER AGENCY OF THE YEAR - MEDIUM

Olivenhain Municipal Water District

Olivenhain Municipal Water District is a public agency providing water, wastewater services, recycled water, hydroelectricity, and recreation to 86,000 customers in northern San Diego County. OMWD began serving 376 acre-feet of recycled water in 2003 and served approximately 3,300 AF in 2018.

Noteworthy accomplishments include:

1. Regional Collaboration – OMWD is the lead agency of the North San Diego Water Reuse Coalition, a collaboration among nine North County agencies that coordinate across jurisdictional boundaries to connect recycled water sources with demands more efficiently and cost-effectively, ultimately reducing potable water use by 46,000 AFY by 2035.

- 2. State and Federal Advocacy OMWD actively engages legislators to demonstrate the significant investments by ratepayers in developing drought-resilient supplies and the need for funding, including submitting support letters for reauthorization of WIIN and the reform and revitalization of USBR's Title XVI program to a competitive grant program. OMWD will help shape recycled water efficiency standards by participating in DWR's landscape area measurement pilot project and a recycled water variance pilot.
- 3. Public Education OMWD's recycled water program includes facility tours, printed material, news releases, presentations, videos, social media engagement, and partnering with community organizations to communicate the value and importance of recycled water.
- 4. Community Outreach OMWD continues outreach efforts to large irrigators on the benefits of retrofitting their systems, including cohosting free workshops with the City of Carlsbad and in partnership with local irrigation equipment suppliers.
- 5. Residential Recycled Water Fill Station Recycled water is available free of charge to all OMWD residential customers.

RECYCLED WATER AGENCY OF THE YEAR - LARGE

Water Replenishment District of Southern California

The Water Replenishment District of Southern California (WRD) has been a leader in advancing the use of recycled water in Southern California. With large capital projects focused on advanced treatment, innovative planning and strong partnerships, basin management for recycled water storage, expanded use of recycled water for groundwater replenishment, recycled water asset management, and public education, WRD has gone from being the single largest purchaser of imported water to becoming independent of imported water in 2019. Now WRD is focused on helping the pumpers in its service area to decrease water imports and utilize locally produced water supplies.

In 2015, WRD expanded recycled water treatment capacity at the Leo J Vander Lans Advanced Water Treatment Facility. Not only did production capacity increase from 3 MGD to 8 MGD, but process improvements resulted in significantly less waste. Treated water is used to halt seawater intrusion and protect groundwater levels and quality.

In 2018, WRD built the Albert Robles Center for Recycled Water and Environmental Learning. That facility, now in the final stages of commissioning, produces 13,000 AFY of advanced treated recycled water for use at the Montebello Forebay Spreading Grounds. During wet weather, injection wells will put treated water into the aquifer. This project eliminated WRD's use of imported water to replenish the Central Basin. Community education and outreach have been key to public acceptance of recycled water. Ideas from local residents are reflected in the creative design, amenities and interpretive features of the Albert Robles Center.

RECYCLED WATER COMMUNITY OUTREACH AND PUBLIC FDUCATION PROGRAM OF THE YEAR

Central Coast Blue

Central Coast Blue is a regional recycled water project that will develop a sustainable water supply and protect the Santa Maria Groundwater Basin. The recent drought drastically impacted water resources for the Central Coast's Five Cities communities and highlighted the need for a sustainable, drought-proof water source to ensure that reliable water supplies will be available for future extended droughts. Currently, water from the Pismo Beach Wastewater Treatment Plant and the South San Luis Obispo County Sanitation District (SSLOCSD) treatment plants is being treated and discharged to the ocean. Central Coast Blue will capture this lost water and use it to recharge the groundwater basin, creating a drought-proof, sustainable water supply for the community.

Central Coast Blue will include construction of an advanced treatment facility to treat water from the City of Pismo Beach and SSLOCSD treatment plants to produce purified water that is purer than most bottled waters. The purified water will be pumped to injection wells and injected into the groundwater basin to supplement the natural groundwater supply.

By recharging the local groundwater basin with purified water, Central Coast Blue will provide the Five Cities communities with a constant source of water supply that is independent of climate or environmental factors and can protect the groundwater basin from seawater intrusion.

RECYCLED WATER CUSTOMER OF THE YEAR

San Jose State University

San Jose State University (SJSU) has been an exemplary user of recycled water from South Bay Water Recycling for nearly two decades. Some of their already completed projects include using recycled water throughout their entire campus for non-potable uses that include toilet and urinal flushing to, cooling towers makeup, irrigation, and decorative fountains. Going beyond the typical recycled water retrofit to convert existing landscaping from potable water to recycled water, SJSU has been proactive in maximizing the use of recycled water. A perfect example is the SJSU South Campus.

The 62-acre SJSU South Campus houses the SJSU's Athletic Department and the athletic venues for football, baseball, soccer, track and field, golf, sand volleyball, and tennis. As the sports program grew and existing facilities showed their age, the Spartan Athletics program incorporated recycled water into the future planning of these facilities.

How did recycled water usage grow at SJSU South Campus? In 2014, the architecture firm Gensler formalized a plan for the South Campus site. Each sport had a plan that incorporated state-of-the-art facilities that would elevate SJSU sports efforts. In addition, each project included a review for sustainability features. Recycled water was at



the forefront of each project analysis and SJSU's commitment to recycled water. Recycled water projects for the new tennis complex, softball facilities, golf course, and soccer facilities have recently been completed. Because of SJSU's planning and foresight, the entire SJSU campus now uses more recycled water than potable water.

RECYCLED WATER STAFF PERSON OF THE YEAR

Bob Holden, Monterey One Water

EBob Holden is a pioneer recycled water practitioner. Having been on the ground floor of one of the most innovative and large scale agriculture irrigation projects in the world, Bob has been a key advocate for the acceptance of this water source in California and around the world. Bob has now been a part of the next water reuse frontier, indirect potable reuse. Pure Water Monterey is utilizing a variety of wastewaters to provide a viable water supply for the area. Bob is a true professional and outstanding member of the community. He is dedicated to his work, family and the environment. He is a recycled water role model.

RECYCLED WATER ADVOCATE OF THE YEAR

Paula Kehoe and Taylor Chang, San Francisco Public Utilities Commission

Paula Kehoe and Taylor Chang of the San Francisco Public Utilities Commission are leaders in advocating for onsite water reuse. They led San Francisco to become the first municipality in California to adopt a groundbreaking program that encourages buildings to collect, treat, and use non-potable water to meet demands such as toilet flushing and irrigation. The Non-potable Water Program established a streamlined process for allowing water sources like rainwater, graywater, and blackwater to be reused in buildings. Paula and Taylor's unwavering support and policy actions have resulted in the development of a requirement for new developments to meet their non-potable demands through onsite water reuse. In 2012, they led the SFPUC to pilot the city's first onsite blackwater treatment to flush toilets, offsetting 60% of the building's water consumption.

Demonstrating outstanding leadership and innovation, Paula and Taylor are showing how utilities and practitioners can embrace onsite water reuse in the urban environment. They have been instrumental in advocating and supporting policies to facilitate onsite water reuse statewide and nationally. In California, Paula and Taylor led the SFPUC to sponsor Senate Bill 966, which passed in September 2018 and will establish water quality standards for onsite water systems to protect public health. Recognition with this award will help Paula and Taylor continue to inspire communities to consider onsite water reuse as an important and effective strategy and increase their ability to be more resilient in the future.

Sunday, March 17, 2019

11:00 a.m 4:45 p.m.	Technical Tour – Water Replenishment District of Southern California and the City of Anaheim (departing from the main entrance of the hotel)				
12:00 p.m 5:30 p.m.	Registration Open – Grand Foyer				
Technical Sessions	A1: Planning for Reuse Groundwater Recharge - Part 1 B1: C1: C1: C1: Part 1				
Room	Garden 3	Garden 4	Garden 1 & 2		
Sponsor	Jacobs	J.R. Filanc Construction Company, Inc.	Carollo Engineers		
Moderator	Scott Lynch, Black & Veatch	Raymond Jay, Metropolitan Water District of Southern California	Andy Salveson, Carollo Engineers		
1:00 p.m 1:30 p.m.	Creating a "Virtual" One-Water Utility: Pricing and Institutional Arrangements Robert Raucher, Corona Environmental Consulting	Partnerships in Managing, Improving, and Planning Groundwater Supply Reliability Andrew Campbell, Joshua Aguilar and Joel Ignacio, Inland Empire Utilities Agency	Operating World's first UV Hypo AOP System for Reuse – An Operators Story Jens Scheideler, Xylem, Inc.		
1:30 p.m 2:00 p.m.	Prioritizing Investment of a Reclaimed Water Program through a Triple Bottom Line Approach Christina Alito, HDR	From Grand to Gradual: Implementing Groundwater Replenishment in LA Yoshiko Tsunehara, Los Angeles Department of Water and Power Joline Muñoz, City of Los Angeles, LA Sanitation	Comparison of UV/AOP Oxidants for the Removal of DBPs and their Precursors Shannon Roback, California State University, Dominguez Hills		
2:00 p.m 2:30 p.m.	Dynamic Modeling Solutions to Maximize Reuse in San Luis Obispo Jasmine Diaz, Water Systems Consulting, Inc.	Maximizing Groundwater Use in the Central and West Coast Basins through RW Sarah Mouakkad, Los Angeles Department of Water and Power Diana Gatza, Water Replenishment District of Southern California Nasir Emami, City of Los Angeles, LA Sanitation	Optimization of Ozone/ Biofiltration in Potable Reuse Treatment Trains James Barazesh, Carollo Engineers		
2:30 p.m 3:00 p.m.	LA River Flow Study: Changing Water Landscape Triggers a Paradigm Shift Azya Jackson, City of Los Angeles, LA Sanitation	Central Coast Blue: A One Water Approach to Sustainable Groundwater Supplies Michael Cruikshank, Water Systems Consulting, Inc.	NDMA Mitigation in Ozone- Biofiltration Potable Reuse Treatment Trains Daniel Gerrity, University of Nevada Las Vegas		

Sunday, March 17, 2019 (continued)

3:00 p.m 6:30 p.m.	Exhibit Hall Open – Grand Ballroom E-G			
3:00 p.m 3:30 p.m.	Networking Break – Grand Ballroom E-G			
3:00 p.m 3:30 p.m.	Poster Sessions – Grand Ballroom E-G			
Technical Sessions	A2: B2: C2: Alternative Supplies Groundwater Recharge Potable Reuse - Part 2 Treatment Monitoring			
Room	Garden 3	Garden 4	Garden 1 & 2	
Sponsor	Jacobs	J.R. Filanc Construction Company, Inc.	Carollo Engineers	
Moderator	Matt Collings, Moulton Niguel Water District	Sunshine Smith, Jacobs	Greg Wetterau, CDM Smith	
3:30 p.m 4:00 p.m.	Urban Runoff to the Rescue: How to Integrate Urban Runoff into your Wastewater Robert Morrow, Woodard & Curran	Distributed Temperature Sensing as a Tool to Evaluate Basin Cleaning Strategies Ricardo Medina, Orange County Water District	Thinking Big While Building Small: Las Virgenes-Triunfo Pure Water Demonstration David Lippman, Las Virgenes Municipal Water District Hannah Ford, Carollo Engineers	
4:00 p.m 4:30 p.m.	Planning for Stormwater to Supplement San Diego's Pure Water Program Jim Rasmus, Carollo Engineers Lan Wiborg, City of San Diego	Evaluation of Pathogen Reduction by Soil Aquifer Treatment through Soil Columns Yan Qu, Trussell Technologies, Inc.	Colloidal Particles Removal through Online Monitoring to Lower Membrane Fouling Ganesh Rajagopalan, Kennedy/Jenks Consultants Jana Safarik, Orange County Water District	
4:30 p.m 5:00 p.m.	Tapping into Available Capacity in Existing Infrastructure to Create Solutions David Pedersen, Las Virgenes Municipal Water District Amanda Heise, Jacobs	Groundwater Recharge: Using Underflow as Primary Source of Diluent Rosalyn Prickett, Woodard & Curran	Adenosine Triphosphate as an Online Surrogate to Monitor Reverse Osmosis Perform Jana Safarik, Orange County Water District	
5:00 p.m 6:30 p.m.	Welcome Reception SPONSORED BY: Water Re Sample delicious food gro	plenishment District	d learn about agricultural reuse	

in California and Orange County.

Monday, March 18, 2019					
7:30 a.m 3:30 p.m.	Registration Open – Gra	Registration Open – Grand Foyer			
7:30 a.m 3:30 p.m.	Exhibit Hall Open – Gran	d Ballroom E - G			
7:30 a.m 8:30 a.m.	Continental Breakfast – (SPONSORED BY:	Grand Ballroom E - G			
8:30 a.m 9:30 a.m.	Opening Session – Grand Ballroom A - D SPONSORED BY: Moulton Niguel Water District Welcoming Remarks – Rich Nagel, President, WateReuse California Vicente Sarmiento, Board President, Orange County Water District Peter H. Gleick (see bio on page 6) President Emeritus and Co-founder, Pacific Institute				
9:30 a.m 10:00 a.m.	Networking Break – Gra	nd Ballroom E - G			
9:30 a.m 10:00 a.m.	Poster Sessions – Grand	Ballroom E - G			
Technical Sessions	A3: Public Outreach	B3: Recycled Water Planning and Challenges	C3: Panel Discussion – DPR Research	D3: Onsite Non- Potable Reuse Challenges and Opportunities – Part 1	
Room	Garden 3	Garden 4	Garden 1 & 2	Pacific Room	
Sponsor		HDR	Trusell Technologies, Inc.	Brown and Caldwell	
Moderator	Amy Rocha, West Basin Municipal Water District	Mark Marcacci, Irvine Ranch Water District	Adam Olivieri, EOA, Inc. & Jim Crook, Environmental Engineering Consultant	Alex Page, Kennedy/Jenks Consultants	
10:00 a.m 10:30 a.m.	Prepping your Electeds for your Potable Reuse Project Mark Millan, Data Instincts, Public Outreach Consultants	Taking the Long View — Evaluating Potable Reuse for Future Supply Reliability Andrew Lazenby, Brown and Caldwell	An Update on California's Priority DPR Research Topics To help develop DPR regulations by 2023, the State of California	History and Trends in Decentralized Reuse Systems Don Berger and Monique Day, West Yost Associates	
10:30 a.m 11:00 a.m.	Skeptics Into Supporters – Creating Partnerships with Elected Officials & Agencies Melissa McChesney, Padre Dam Municipal Water Districts	To Drink or Not to Drink? Potable vs Non-Potable Reuse Paul Gilbert-Snyder, East Bay Municipal Utility District	is undertaking research in five priority research topics. This panel session—moderated by the State Expert Panel co-chairs—convenes the leads of the State's Technical Working Groups to discuss progress in the control of pathogenic microorganisms and toxic chemicals. Panel: Randy Barnard, SWRCB Julie Minton, The Water Research Foundation	Distributed Systems to Optimize Regional Water Reuse Wendy Broley, Brown and Caldwell	
11:00 a.m 11:30 a.m.	Pathway to Potable Reuse: How to Involve Your Stakeholders in Project Planning Sara Katz, Katz & Associates	Water Quality Challenges in Expanding the use of Recycled Water An Bartlett, East Bay Municipal Utility District		Plumbing Our Future Nancy King and Richard Mills, California Department of Water Resources	

Monday, March 18, 2019 (continued)

11:30 a.m 12:00 p.m.	Creating a More Effective Means of Communicating Anthony Tew, Los Angeles Department of Water and Power John Ruetten, Resource Trends, Inc.	Developing a Diverse Portfolio of Water Resources through Water Reuse Amanda Combs, Dudek	Brian Pecson, Trussell Technologies, Inc. Jean Debroux, Kennedy/Jenks Consultants Shane Trussell, Trussell Technologies, Inc. Keith Maruya, SCCWRP	On-Site Reuse Treatment Plants – Discharge Permits to Manage Downstream Impacts Charles Hardy, West Yost Associates
12:00 p.m 1:30 p.m.	Awards Luncheon – Grand Ballroom A - D SPONSORED BY: North San Diego Water Coalition			
Technical Sessions	A4: Communications Collaborative Group Workshop – Part 1	B4: Source Control Management	C4: Water Quality Challenges with Potable Reuse	D4: Onsite Non-Potable Reuse Challenges and Opportunities – Part 2
Room	Garden 3	Garden 4	Garden 1 & 2	Pacific Room
Sponsor		HDR	Trusell Technologies, Inc.	Brown and Caldwell
Moderator	Eleanor Torres, Orange County Water District	Kristopher McGinnis, Sanitation Districts of Los Angeles County	Erica Wolski, Woodard & Curran	Melanie Holmer, Brown and Caldwell
1:30 p.m 2:00 p.m.	Part 1 of a three-hour workshop session which will provide: • A formal introduction of the Communications Collaborative Group by the chair and vice chair so that all WateReuse members can learn about	Comprehensive Source Control for Potable Reuse George Tchobanoglous, University of California, Davis	Per- and Polyfluoroalkyl Substances in Advanced Treatment for Potable Reuse Eva Steinle-Darling, Carollo Engineers	Identifying and Overcoming the Barriers to Onsite Non-Potable Water Reuse in CA Amanda Rupiper, University of California, Davis – Center for Water- Energy Efficiency
2:00 p.m 2:30 p.m.	the Group. • An opportunity for WateReuse California communication and public affairs professionals to meet face-to-face with colleagues from around the state and establish or build on relationships so community	Source Control in Action! Using Source Control to Improve SWIFT Performance Tyler Nading, Jacobs	Evaluating Post Treatment Challenges for Potable Reuse Applications Megan Plumlee, Orange County Water District David Hokanson, Trussell Technologies, Inc.	Implementing an Onsite Non-potable Reuse Program in San Francisco Paula Kehoe, San Francisco Public Utilities Commission
2:30 p.m 3:00 p.m.	engagement techniques can be shared. • A hands-on effort to help solidify the Group's goal of collaboration among participants through a breakout group assignment where participants will work together (contiunued)	Surfs-up at the Ala Wai Golf Course: A New TDS Perspective for Reuse Ryan Holloway, Kenndy/Jenks Consultants	Evaluating the Integration of Purified Water Into Existing Distribution Systems Anya Kaufmann, Trussell Technologies, Inc.	Reducing Potable Water Usage at the City of Los Angeles Hyperion WRP Amy So, City of Los Angeles Bureau of Engineering

Panel Continued:

Monday, March 18, 2019 (continued)

A4 Communications Collaborative Group Workshop continued: ...together to revise the June 2016 Water Reuse Terminology document adopted by several agencies, including WateReuse Association, which was one of the public outreach needs that were identified in the interest survey conducted in August 2018.

Facilitators:

Melanie Mow Schumacher, P.E. Soquel Creek Water District

Eleanor Torres, Orange County Water District

3:00 p.m. -3:30 p.m. Networking Break - Grand Ballroom E - G

3:00 p.m. - Poster Sessions – Grand Ballroom E - G

3:30 p.m.				
Technical Sessions	A5: Communications Collaborative Group Workshop – Part 2	B5: California Reuse Updates	C5: Quantitative Microbial Risk Assessment	D5: Agriculture and Reuse
Room	Garden 3	Garden 4	Garden 1 & 2	Pacific Room
Sponsor		HDR	Trusell Technologies, Inc.	Brown and Caldwell
Moderator	Eleanor Torres, Orange County Water District	Jennifer West, WateReuse California	Brian Pecson, Trussell Technologies, Inc.	Steve Friedman, HDR
3:30 p.m 4:00 p.m.	Part 2: Communications Collaborative Group Workshop continued: Granted conditions vary throughout the state – geologically, hydrologically, politically and more. Yet some of the same	New Funding Opportunities for Recycled Water Projects (3:30 - 4:00) Mike Downey, P.E., SWRCB, DFA Water Recycling Funding Program In the past five years	PureWaterSF: Purification and Water Quality Risk Analysis for Decentralized DPR Manisha Kothari, San Francisco Public Utilities Commission Andrea Corral, Carollo Engineers	Agricultural Reuse at 20 California Wastewater Facilities Tonianne Pezzetti, California Department of Water Resources
4:00 p.m 4:30 p.m.	Vet some of the same	the Past Tive years the State Water Resources Control Board, Division of Financial Assistance has awarded well over a billion dollars in grants and loans available for recycled water project. The water board continues to prioritize the funding of recycled water projects across the State. This presentation will describe the current policies and procedures used to select and approve funding applications including the new priority scoring system for having your project placed on the Fundable List adopted in the annual Intended Use Plan.	A Review and Comparison of Microbial Risks between Planned and De Facto Reuse Jeffrey Soller, Soller Environmental, LLC	Conjunctive Use Recycled Water Program Water Storage and Ecosystem Benefits Dave Richardson, Woodard & Curran
4:30 p.m 5:00 p.m.	tackle thorny problems all face eventually. There is also a lot of collateral material and related information that has been developed throughout the state, so this Group also offers an opportunity to share resources. In addition, working together will help build the bonds that allow for additional problemsolving exercises in the future.		QMRA 101 – Fundamentals of Planning for, Interpreting, and Utilizing a QMRA Andrew Salveson, Carollo Engineers	Converting an Agricultural Research Facility from Untreated to Recycled Water Darren Haver, University of California, Division of Agriculture and Natural Resources Paul Cook, Irvine Ranch Water District

Monday, March 18, 2019 (continued)

4:30 p.m. -5:00 p.m. (Continued)

Facilitators: Patricia Tennyson.

Katz & Associates
Carolyn Schaffer,
Metropolitan Water
District of
Southern California

Rupam Soni, Metropolitan Water District of Southern California

Rebecca Gold Rubin, Soquel Creek Water District WRCA Legislation and Priorities for 2019 (4:00 - 5:00)

Learn about
California legislation
restricting

wastewater discharges to the ocean and bays and other legislation

impacting both
potable and
non-potable
recycled water
projects, including
WRCA sponsored

(Quirk). Presenters:

legislation, AB 292

Jennifer West, WateReuse California

Dave Pedersen, Las Virgenes

Municipal Water District (Chair WRCA

Leg-Reg Committee)

Christine Compton, Irvine Ranch Water District, (Vice Chair

> WRCA Leg-Reg Committee)

Beth Olhasso, West Coast

Advisors and WRCA Legislative Advocate

Roberta Larson, California Association of Sanitation Agencies

President's Reception at The FIFTH

5:30 p.m. - 7:30 p.m.

SPONSORED BY: Xylem, Inc

Shuttle buses will be departing from the hotel starting at 5:00 pm and run continuously to The FIFTH and back to the hotel until 8:00 pm.

Tuesday, March 19, 2019				
8:00 a.m 12:00 p.m.	Registration Open – Grand Foyer			
8:00 a.m 9:30 a.m	Gordon Cologne Breakfast – Grand Ballroom A - D See page 7 for details SPONSORED BY: San Diego County Water Authority			
9:30 a.m 2:30 p.m.	Exhibit Hall Open – Grand Ba	Ilroom E - G		
9:30 a.m 10:00 a.m.	Networking Break – Grand Ballroom E - G			
9:30 a.m 10:00 a.m	Poster Sessions – Grand Ball	room E - G		
Technical Sessions	A6: Panel Discussion - Trends and Predictions for Recycled Water in California A6: C6: Treatment Technologi			
Room	Garden 3	Garden 4	Garden 1 & 2	
Sponsor		Los Angeles Department of Water and Power	Fibracast Ltd.	
Moderator	Paul Cook, Irvine Ranch Water District	Lesley Dobalian, San Diego County Water Authority	Troy Walker, Hazen and Sawyer	
10:00 a.m 10:30 a.m.	General Managers and water reuse leaders from across California will look deeply in the crystal ball and describe what they see as the future of reuse in the next 20 years.	Developing a Statewide Treated Wastewater and Recycled Water Reporting System Laura McLellan, State Water Resources Control Board	Purification of Storm Water & Urban Runoff for Reuse Using Ceramic Membrane Technology Tony Powell, Purifics	
10:30 a.m 11:00 a.m.	What will climate change and sea level rise mean for reuse? How will communities plan for drought and uncertain water supplies? What will the regulatory environment look like?	Multi-Dilution NPDES Permitting: the New Path Forward Brie Post, Trussell Technologies, Inc.	A Simple Measurement of MBR Integrity That Goes Back to Basics Stephen Katz, SUEZ Water Technologies & Solutions	
11:00 a.m 11:30 a.m.	How will automation and technology change our industry? Panelists: Mike Markus, General Manager, Orange County Water District Norma Camacho, General Manager, Santa Clara Valley Water District	Permitting the First Surface Water Augmentation Project: The City of San Diego's Jeffery Pasek, City of San Diego, Public Utilities Department	Maximizing MF/UF Membrane Life – How One Utility Exceeded Industry Expectations Jim Lozier, Jacobs	
11:30 a.m 12:00 p.m.	Paula Kehoe, Director of Water Resources, San Francisco PUC Devan Upadhyay, Chief Operating Officer, Metropolitan Water District of Southern California Garry W. Brown, Executive Director & CEO, Orange County Coastkeeper	Reservoir Modeling for Surface Water Augmentation Seval Sen, Padre Dam Municipal Water District	dprShield: Piloting a New Treatment Process to Increase Recovery at OCWD Erik Desormeaux, Porifera Inc.	

Tuesday March 19 2019

Tuesday, March 19, 2019 (continued)					
12:00 p.m 2:00 p.m.	Town Hall Plenary Luncheon Women in WateReuse: Diversity for the Future - Grand Ballroom A - D See page 8 for details SPONSORED BY: Santa Clara Valley Water District				
2:00 p.m 2:30 p.m.	Networking Break – Grand Ballroom E - G				
2:00 p.m 2:30 p.m	Poster Sessions – Grand Ball	room E - G			
Technical Sessions	A7: B7: C7: A7: Operations and Potable Reuse Large System Planning Implementation Treatment Challenges				
Room	Garden 3	Garden 4	Garden 1 & 2		
Sponsor		Los Angeles Department of Water and Power	Fibracast Ltd.		
Moderator	Maroun El-Hage, Eastern Municipal Water District	Eric Owens, Water Replenishment District of Southern California	Pedro Gochicoa, Xylem, Inc.		
2:30 p.m 3:00 p.m.	One Water LA 2040 Plan: Maximizing Potential Wastewater Assets Denise Chow, City of Los Angeles, LA Sanitation	AWT Demonstration Facility Implements Innovative Design Concepts Zakir Hirani, Stantec	Fate and Transport of Microplastics in Advanced Water Treatment (AWT) Systems <i>Mutiara Ayu Sari,</i> <i>Stant</i> ec		
3:00 p.m 3:30 p.m.	Moving Towards a Sustainable Water Supply; Large-Scale Water Reuse in California's Silicon Valley Hossein Ashktorab, Santa Clara Valley Water District	Advancing Startup and Training at Pure Water San Diego Using Dynamic Simulation Troy Matsuura and Kyle Hegger, Jacobs	Regulatory Impacts of Decreasing Wastewater Flows on City of L.A Water Recycling Stephen Opot and Eryn Fleming, City of Los Angeles, LA Sanitation		
	What it takes to Retrofit 1,200-acres of Urban Public Parks in San Francisco	Addressing Potable Reuse Certification Needs - The AWOT	Comparing Efficacy of Two GAC-Containing Direct Potable Reuse Treatment Trains		

3:30 p.m. -4:00 p.m.

Claudia Llerandi,

Kennedy/Jenks Consultants Fan Lau, San Francisco Public **Utilities Commission**

Needs - The AWOT Certification Program Erin Mackey, Brown and Caldwell

Treatment Trains Jonathan Loveland, Black & Veatch

Poster Presentations

Attention Points to Manage Supply Water Quality Risks in Potable Reuse

Sandeep Sathyamoorthy, Black & Veatch

Effect of Ozone Dose on RO Permeate TOC – Pure Water Monterey Experience John Kenny, Trussell Technologies, Inc.

Grey and Yellow Water Treatment and On-Site Reuse using Constructed Wetlands

Monica Rodriguez-Estrada, Grupo Multidisciplinario Integral SC

Managing Wastewater Collection Systems Under Water Conservation: The LA Story

Regidia Voong, City of Los Angeles, LA Sanitation

Performance Based Analytical Method for Determination of 1,4-dioxane and 123-TCP

Lee Yoo, Orange County Water District

Removal of Contaminants of Emerging Concern from using a Novel Water Reclamation

Ilene Ramirez, Cal Poly Pomona
Benson Lim, Cal Poly Pomona
Mojtaba Farrokh Shad, Cal Poly Pomona
Graham Juby, Carollo Engineers
Saied Delagah, U.S. Bureau of Reclamation
Mohamadali Sharbatmaleki, Cal Poly Pomona

Reuse of Cooling Tower Blowdown at San Jose Conference Center Steven Peck, Aqua Clear

Suggested Monitoring for Direct Potable: Southern California Water Reclamation Christina Zabalza, Cal Poly Pomona



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