

# ANNUAL FALL CONFERENCE

## Preliminary Technical Program



*The Westin Mission Hills*  
*Rancho Mirage, CA*

October 22-25, 2018



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### Tuesday, October 23, 2018

#### Session 1 - Pipeline Rehabilitation

**1:30 PM - 2:00 PM**

##### **Water Distribution System Pipe Replacement Given Random Defects -- Case Study of San Francisco's Auxiliary Water Supply System**

Doug York, San Francisco Public Works

Participants in this session will learn about a new probabilistic methodology for determining relative pipe importance in water distribution networks, while factoring in the pipe's likelihood of failure and the reduction in level of service from failed pipes.

**2:00 PM - 2:30 PM**

##### **Rehabilitation of a High Pressure Water Line**

John Moody, Primus Line Inc.

Participants in this session will learn about the process of rehabilitating a high pressure water line.

**2:30 PM - 3:00 PM**

##### **Using Artificial Intelligence (AI) and Machine Learning (ML) to Predict the Likelihood of Failure (LOF) of Transmission and Distribution Water Pipelines**

Lars Stenstedt, FRACTA AI

Participants in this session will learn the background on Fracta, a new technology company that has developed machine learning based, likelihood of failure mathematical analysis tool that can effectively predict the probability of pipeline failure. Technical efficacy of the approach, value proposition and performance metrics from various projects will be discussed.

**4:00 PM - 4:30 PM**

##### **Developing and Applying Pipeline Replacement Metrics that Matter**

Jon Bauer, East Bay Municipal Utility District

Participants in this session will learn how EBMUD evaluates pipeline rehabilitation projects across a spectrum of performance indicators and the challenges inherent in standardization data collection, analysis, and presentation during an evolving pilot program.

**4:30 PM - 5:00 PM**

##### **Advances in Transient Pressure Monitoring**

James Dunning, Syrinix

Participants in this session will learn the importance of monitoring pressure in your pipelines. You may be familiar with "water hammer" but transient pressure events come in a variety of shapes and sizes – all which have been found to result in damaging leaks/bursts.

#### Session 1 - Engineering and Construction

**5:00 PM - 5:30 PM**

##### **LADWP's Earthquake Resistant Ductile Iron Pipe Projects and Resiliency Program**

Ofelia Rubio, Los Angeles Department of Water and Power

Participants in this session will learn about the Los Angeles Department of Water and Power's plan to develop a seismic resilient pipe network and its evaluation of seismic-resistant materials with the aim to pilot these products, specifically Earthquake Resistant Ductile Iron Pipe.



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### Session 2 - Security and Emergency Planning

**1:30 PM - 3:00 PM**

#### **CalWARN and NvWARN**

Ray Riordan, City of San Jose

Participants in this session will learn how the CalWARN and NvWARN networks play a critical role in disasters. Participants will gain a greater understanding on how to make their utility more resilient in the ever increasing disasters California and Nevada are experiencing. In a joint presentation with California and Nevada Water Wastewater Agency Response Network (WARN), experts within the water and emergency management industry will be working with staff from a wide and varied group of water utilities on how to make their systems more resilient to the ever increasing emergencies and disasters that can and do hit us on a regular basis.

**4:00 PM - 5:30 PM**

#### **CalWARN and NvWARN**

Ray Riordan, City of San Jose

Participants in this session will learn how the CalWARN and NvWARN networks play a critical role in disasters. Participants will gain a greater understanding on how to make their utility more resilient in the ever increasing disasters California and Nevada are experiencing. In a joint presentation with California and Nevada Water Wastewater Agency Response Network (WARN), experts within the water and emergency management industry will be working with staff from a wide and varied group of water utilities on how to make their systems more resilient to the ever increasing emergencies and disasters that can and do hit us on a regular basis.

### Session 3 - Recycled Water and Desalination Committee

**1:30 PM - 2:00 PM**

#### **Demonstration of a Novel Amphiphilic Ultrafiltration Membrane for Improved Energy Efficiency of Membrane Treatment**

Janel Grebel, Kennedy/Jenks Consultants

Participants in this session will learn about a recent field demonstration of an innovative amphiphilic, anti-adhesive ultrafiltration (UF) membrane to increase the water yield and reduce the energy demand for water treatment and reclamation.

**2:00 PM - 2:30 PM**

#### **Can Closed Circuit Desalination Boost Brackish Groundwater and Recycled Water Recovery by Squeezing Concentrate?**

Alex Waite, Brown and Caldwell

Participants in this session will learn about Closed-Circuit Desalination (CCD), an emerging membrane technology from Desalitech that may help communities move towards self-sufficiency by treating reverse osmosis concentrate until as much purified water as possible is squeezed out resulting in increased total recovery above 90% and minimized brine production.

**2:30 PM - 3:00 PM**

#### **Squeezing The Last Drop – 98% Recovery for Nanofiltration Color Removal Treatment at the City of Signal Hill**

Roy Yu, Hazen and Sawyer

Participants in this session will learn how the City of Signal Hill achieves 98% recovery for a color removal treatment plant using a unique hybrid nanofiltration membrane configuration, as well as the hydraulic and control strategy considerations required to prevent membrane scaling.

\*Sustainability Tracks



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### 4:00 PM - 4:30 PM

#### **Pure Water Oceanside - Groundwater Augmentation in the Mission Basin**

Adam Hoch, City of Oceanside

Participants in this session will learn about the challenges, solutions, and benefits of implementing an indirect potable reuse groundwater augmentation project in a small groundwater basin.

### 4:30 PM - 5:00 PM

#### **A Comparison of Sensory Compounds in Drinking Water Treatment Plants and Reclamation Plants**

Chih-Fen Tiffany Lee, Metropolitan Water District of Southern California

Participants in this session will learn the occurrence of the sensory compound in drinking water, wastewater and reclamation plants.

### Session 4 - Operator

### 1:30 PM - 2:00 PM

#### **Transmission Pipelines Cross Connection Assessment of the SFPUC Regional Water System**

Shailen Talati, San Francisco Public Utilities Commission/SF Water Power and Sewer

Participants in this session will learn the methodology and report developed for the assessments, resulting findings and experience gained at SFPUC may be of interest to other utilities that can be applied to transmission pipelines for compliance, asset management and mitigation prioritization of appurtenances.

### 2:00 PM - 2:30 PM

#### **Coachella Valley Water District's In-House Backflow Program**

Olivia Bennett, Coachella Valley Water District

Participants in this session will learn how Coachella Valley Water District releases the customer from the burden of the annual backflow test with our in-house Backflow Program. CVWD's Certified Backflow Testers install, test, maintain and annually report on our 11,000 backflow devices.

### 2:30 PM - 3:00 PM

#### **Coachella Valley Water District's Nonpotable Water Program and Golf Course Cross Connection Testing.**

Olivia Bennett, Coachella Valley Water District

Participants in this session will learn about Coachella Valley Water District's Nonpotable Water Program, connecting golf courses to nonpotable water, and how CVWD conducts cross-connection tests.

### Session 4 - Water Treatment

### 4:00 PM - 4:30 PM

#### **Mission Impossible: Simultaneous Replacement of Obsolete Air-fed Ozone Systems with Oxygen-fed Systems at two WTPs to Address Challenging T&O Issues**

Ali Sheikholeslami, East Bay Municipal Utility District

Participants in this session will learn about EBMUD's lessons learned to replace its aging ozone systems at two of its water treatment plants with oxygen-fed ozone systems, with a total project cost of approximately \$50M. The discussion will include project design, procurement, construction, and operational challenges and solutions.





## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### 4:30 PM - 5:00 PM

#### **UV Pilot Testing for Multiple Barrier UV/Sodium Hypochlorite Disinfection at EBMUD's Orinda Water Treatment Plant**

Deborah Russell & Jeff Bandy, East Bay Municipal  
Utility District

Participants in this session will learn about principles of UV  
disinfection, the drivers for selecting UV in comparison to  
other alternatives, and the benefits of pilot testing ahead of  
selecting UV disinfection equipment.

### 5:00 PM - 5:30 PM

#### **Solids Production as a Tool to Assess Cost- Effectiveness of Alternative Source Water Treatment**

Whitney Sandelin, West Yost Associates

Participants in this session will learn about a method used to  
determine the cost implications of treating higher turbidity  
source waters and assess the economic feasibility for  
treatment of alternative source waters.

### Session 5 – Safe Drinking Water Act

### 1:30 PM - 3:00 PM

#### **Federal and State Regulatory Updates**

Steve Via, AWWA and Darrin Polhemus,  
California Department of Drinking Water

### 4:00 PM - 5:30 PM

#### **Human Right to Water: Is it Possible to Have “Safe” Water and “Affordable” Water at the Same Time?**

Panel Discussion: Tarrah Henrie, Corona  
Environmental Consulting, Tim Miller, California  
American Water, Adan Ortega, Cathy Pieroni, and  
Dr. Paul Portney,

### Session 6 - Source Water Quality

### 1:30 PM - 2:00 PM

#### **Alternative Approach to the Watershed Sanitary Survey Update**

Kate Martin, Golden State Water Company &  
Tarrah Henrie, Corona Environmental

Participants in this session will learn about a pilot Watershed  
Sanitary Survey update process that allows utilities to  
develop projects to improve water quality and seek funding  
for those projects.

### 2:00 PM - 2:30 PM

#### **Non-Project Water Inflows to the State Water Project: Balancing Sustainable and Reliable Water Supplies with Water Quality Objectives**

Daniel Wisheropp, California Department of  
Water Resources

Participants in this session will learn the purpose for and  
management of non-project water turn-ins to the State  
Water Project. This session will cover historical and recent  
examples of groundwater and surface water transfers using  
the SWP, highlighting the positive and negative benefits of  
such transfers on water availability and water quality.

### 2:30 PM - 3:00 PM

#### **Analysis of Fifteen Cyanotoxins in Source and Treated Drinking Water by LC/MS/MC**

Matthew Prescott, Metropolitan Water District of  
Southern California

Participants in this session will learn the analysis of  
cyanotoxins in source and treated drinking water.



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### Session 6 – Research & Treatment

**4:30 PM - 5:00 PM**

#### **Demonstration and Commercialization of ARoNite®, a Novel Hydrogen-based Membrane Biofilm Biological Reduction Process**

David Friese, APTwater, LLC

Participants in this session will learn the effectiveness of biological denitrification of groundwater for a small community, and the unique and challenging aspect of intermittent, on-demand operation of a standalone treatment system serving five houses.

**5:00 PM - 5:30 PM**

#### **Biological Denitrification: Findings from a Pilot Study for On-Demand Water Supply for a Rural Californian Community**

John Witter, Carollo Engineers

Participants in this session will learn about the savings on chemical and energy by implementing raw water pH adjustment with sulfuric acid.

### Session 7 - Water Well Technology

**1:30 PM - 2:00 PM**

#### **Water-Supply Well Video Surveys**

Chris Johnson, Aegis Groundwater Consulting, LLC

Participants in this session will learn about the value of performing effective video surveys in water-supply wells and the recommended steps for getting the most out of video surveys.

**2:00 PM - 2:30 PM**

#### **Internal Access Tubes for Water-Supply Wells**

Geoffrey Bates, California Water Service

Participants in this session will learn about the advantages and disadvantages of utilizing internal access tubes for introducing assessment tools into water-supply wells.

**2:30 PM - 3:00 PM**

#### **Drilling Next to Existing Water-Supply Wells**

Curt McCalla, South West Pump & Drilling, Inc.

Participants in this session will learn about the risks associated with drilling a new water-supply well too close to an existing water-supply well. Appropriate measures for reducing these risks, such as setback distances, will be presented.

**4:00 PM - 4:30 PM**

#### **Maximizing Data Collection and Analysis for Decision-Making in the Well Design Process**

Thomas Harder, Thomas Harder & Company, Inc.

Participants in this session will learn what data is needed to successfully design a water-supply well and the benefits of owner involvement in the design process.

**4:30 PM - 5:00 PM**

#### **In-Situ Comparison of Water-Supply Well Filter Packs**

Scott Lewis, Luhdorff & Scalmanini, Consulting Engineers

Participants in this session will learn about the efforts of one water utility to construct a series of closely-spaced water-supply wells to allow for comparison of different types of filter pack media. The approach to evaluating different filter packs will be based in part on performance data collected during construction and testing of wells located within about 500 feet of one another.



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

**5:00 PM - 5:30 PM**

### **District-Wide Assessment of Water-Supply Wells**

Tara Rolfe & Joe Kingsbury, Wood Rodgers, Inc.

Participants in this session will learn about the development of a comprehensive well rehabilitation and replacement program for a large water utility in the Coachella Valley.

## **Wednesday, October 24, 2018**

### **Session 8 - Environmental, Health & Safety**

**7:30 AM - 8:30 AM**

### **Collaboration in Action: Participatory Ergonomics within 5 Water Utilities in the USA**

Elise Condie, BSI EHS Services

This presentation examines research commissioned by the Water Research Foundation to train 5 participating water utilities on participatory ergonomics. All utilities were provided training and guidance by a CPE on assessing ergonomic risks, and implementing some innovative solutions to self selected manual tasks. This presentation discusses successes and challenges faced by these utilities, solutions they implemented, and considerations for implementing a participatory ergonomics program within your organization, based on the learnings from these utilities.

**10:00 AM - 11:00 AM**

### **Silica Dust Exposure for Trench and Excavation Processes**

Juan Calderon & Gilbert Martinez, Cal OSHA

Participants in this session will learn about the Trenching and Excavation Hazards, the top 5 violations that are associated with these hazards and become familiar with the recent construction silica standard.

\*Sustainability Tracks

**11:00 AM - 12:00 AM**

### **Emergency Response - an LADWP Water System approach**

Ofelia Rubio, Los Angeles Department of Water and Power

The Los Angeles Department of Water and Power's (LADWP) Water System (WS) is responsible for delivering safe and reliable water supply to over 4 million customers in the City of Los Angeles. This is done over 120 Service Zones with over 7,000 miles of pipe. WS's goals and objectives with respect to emergency preparedness, response, and recovery are to maintain an organization that is capable of taking decisive actions to restore and maintain water service to the City of Los Angeles in a safe and timely manner. The LADWP WS has emergency plans in place to restore water service for essential use in the City if a natural disaster or a human-caused threat should result in the temporary interruption of water supply.

**1:30 PM - 3:00 PM**

### **Environmental Regulation Update & Enforcement Implications Under Pruitt**

Gary Lucks, Beyond Compliance

Amid regulatory roll backs and a shift in US EPA enforcement, it is essential that California businesses understand these implications to company compliance programs, staffing, and performance and accountability. The presentation will assess the current state of US EPA policies, programs, and enforcement and evaluate the interplay with the California regulatory framework, EPA Region IX priorities, State Attorney General initiatives, and NGO-related citizen suits. The presentation will also describe recent legislative and regulatory developments at the federal, California, and regional levels including key court opinions.



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### 4:00 PM - 5:00 PM

#### **Updates on CARB's Regulations for Diesel Engines in Drinking Water Utilities' Fleets - Portable Pumps, Generators & Air Compressors, Stationary Pumps and Generators, and On-Road Trucks**

Neil McQueen, McQueen Environmental Consulting

Drinking water utilities are smart to recognize the state and regional air quality regulations that govern how some types of essential equipment can be purchased, operated and retired. Participants in this session will learn how to determine which engines in their equipment are impacted by California Air Resource Board (CARB) regulations or regional air district rules. They will receive a basic understanding of the regulations affecting heavy-duty diesel trucks, as well as portable and stationary diesel engines, and the compliance procedures that must be followed for each type of equipment.

### 5:00 PM - 5:30 PM

#### **Perfluoroalkyl Substance Removal via Granular Activated Carbon: Economics & Reactivation**

Eric Forrester, Calgon Carbon Corporation

Participants in this session will learn about Per- and polyfluoroalkyl substances (PFAS) that are used in many industrial and commercial applications including non-stick cookware, stain resistant fabrics, food packaging, as well as fire fighting foam products, such as those used in civilian and military aviation firefighting. They are problematic because of their persistence in the environment and their long half-life in humans. The USEPA recommends GAC absorption as effective treatment technology for the removal of both PFOA and PFOS.

### \*Session 9

### 7:30 AM - 8:00 AM

#### **What Does Sustainability Really Mean?**

Bob Raucher, Corona Environmental Consulting

Participants in this session will learn what "sustainability" means, in both conceptual terms, and in how it may be assessed and conveyed in Triple Bottom Line and other analyses.

### \*Session 9 - Financial Management

### 8:00 AM - 8:30 AM

#### **A Strategic Approach to Sustainability**

Kevin Miller & Joe Garuba, Helix Water District

Participants in this session will learn ways to prioritize and operationalize sustainable business practices with a triple bottom line perspective.

### 10:00 AM - 11:00 AM

#### **Improving Water System Sustainability through Energy Management**

Rob Sowby, Hansen, Allen & Luce, Inc.

Participants in this session will learn about the tools, methods, and best practices for water system energy management.

\*Sustainability Tracks





## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### 11:00 AM - 11:30 AM

#### **Accessing Climate Information for Extreme Event Planning at Utilities**

Kwabena Asante, GEI Consultants Inc.

Participants in this session will learn how to access new climate monitoring information which is regularly updated by the California Department of Water Resources. Participants will also learn how to use the information in planning for extreme events.

### 11:30 AM - 12:00 PM

#### **SCE Clean Electric Pathway**

James Pasmore Jr, Southern California Edison

### \*Session 9 - Water Loss Control

### 1:30 PM - 2:00 PM

#### **Collaborative Water Loss Control: Building Regional Programs, Partnering with Wholesalers, and Finding Funds**

Lucy Andrews, Water Systems Optimization & Joe Berg, Municipal Water District of Orange County

### 2:00 PM - 2:30 PM

#### **The WAV Certificate - What It Is and Why You Should Care**

Sue Mosburg, Sweetwater Authority

California's SB555 requires urban retail water suppliers to annually submit validated water loss audits to DWR. The first audits in 2017 were validated through the Section's WL TAP. Since then, a validator training and certificate program has been developed which standardizes the technical qualifications required to validate audits. Information about the Water Audit Validator (WAV) certificate, who needs it, the value of WAV's to water systems, and lessons learned to date will be presented.

\*Sustainability Tracks

### 2:30 PM - 3:00 PM

#### **Remote Earth Imaging using L-Band RADAR to Detect Leaks in Potable Water Distribution Systems – Developing a Cost-Effective Water Loss Reduction Program**

James Perry, Utilis Corp.

Utilis will discuss the use of satellite imagery to detect non-surfacing leaks in pipe systems, both pipeline mains as well as services lines. Utilis uses earth illumination with L-Band Radar from satellites to detect saturated soil that has an elevated dielectric signature which is indicative of a pipeline leak. This technique has the ability to locate hot spots in a distribution system and focus the Boots on the Ground (BOTG) field leak inspectors to a targeted area that is less than 5% of the total. This significantly reduces the level of effort of the field crews resulting in a more efficient use of resources and a lower unit cost of finding a leak as compared to traditional leak detection methodologies including fixed based correlating acoustic systems.

Two case studies will be discussed in detail:

1.How the City of Albstadt, in southern Germany, used the Utilis satellite sensing services to analyze 570 miles of water pipeline network.

2.How Central Arkansas Water used the Utilis technology to efficiently detect previously unknown leaks.



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### 4:00 PM - 5:00 PM

#### **Above and Beyond: A Dive into the Latest Water Loss Technologies**

Barry Hales, Matchpoint, Inc.

This presentation will take the attendees on an engaging visual journey that begins in space, working its way to the surface through low-level unmanned aerial vehicular (UAV) flight, continuing underground to the exterior of the infrastructure, before arriving inside the pipe for sensor deployment and a visual and acoustic assessment experience.

### 5:00 PM - 5:30 PM

#### **Small Customer Meter Performance: Surprised by Test Data**

Kris Williams & Kim Manago, Water Systems Optimization

### Session 10 - Systems Control

### 7:30 AM - 8:30 AM

#### **Ten Steps to Architecting a Sustainable SCADA System**

Kent Melville, Inductive Automation

Participants in this session will learn the ten steps on how to build a sustainable SCADA system including utilizing smart devices and MQTT, decoupling infrastructure from applications, client-server architectures, and object-oriented design.

### 10:00 AM - 11:00 AM

#### **Benefits of Adding Power Monitoring to Your SCADA**

Joe Bingham, AES Global, Inc.

Participants in this session will learn the benefits of monitoring large electrical loads with their SCADA system.

### 11:00 AM - 12:00 AM

#### **Upgrading your SCADA System: Design-Bid-Build vs. Design-Build**

Jeffrey Childress, Tesco Controls Inc.

Participants in this session will learn about a side by side comparison of the advantages and disadvantages of using the traditional Design-Bid-Build approach vs. the alternative delivery method Design-Build approach to upgrading your SCADA System.

### 1:30 PM - 2:00 PM

#### **SCADA Security - Water Sector Guidelines**

Raluca Constantinescu, PE, PMP, Arcadis US Inc. & Blong Moua, Rockwell Automation | Connected Services

Participants in this session will learn the key elements of AWWA's recommended cybersecurity practices and the associated cybersecurity guidance tool. Arcadis will present a practical application and the report outlining recommended controls. Rockwell will introduce their new products with a focus on the industrial data center.

### 2:00 PM - 2:30 PM

#### **SCADA Panel Discussion**

Henry Palachek, Helix Water District

Participants in this session will learn and participate in an open discussion on recent SCADA developments and problem solving issues with systems.



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### Session 11 - Meter

**7:30 AM - 8:30 AM**

#### **Top Down and Bottom Up Business Case for Water Meters and AMI**

Richard Relyea, MC Engineering, Inc.

Participants in this session will learn the value of using a comprehensive top down to bottom up approach to developing a solid business case when determining how and when to implement an AMI/Meter Replacement Program.

**10:00 AM - 10:30 AM**

#### **Smart Cities Technology: Beyond the Marketing**

Colin Middaugh, Badger Meter

Participants in this session will learn what are the options for data collection, and the differences between them.

**10:30 AM - 11:30 AM**

#### **Improving Water System Operations and Customer Service to the End User Through Use of an AMI Deployment.**

Richard Sanders, Zenner USA

Participants in this session will learn about automation options to better manage water assets and to manage their conservation better. Improving customer service is also a topic of discussion. Actual Deployed systems and findings will be reviewed.

**11:30 AM - 12:00 PM**

#### **Avoid the Truck Roll - Survey of Remote Shut-Off Meters**

Michele Harvey, Meter Committee

At the end of the presentation, the audience will have a basic understanding of the remote shut off meter technologies, current market offerings and things to consider before purchasing.

### Session 11 - Security and Emergency Planning

**2:00 PM - 2:30 PM**

#### **FirstNet: A Priority Communication Solution for First Responders and Utilities**

Michael Bostic, AT&T

For the first time in history, after 911, all public safety agencies, public and private, will have access to a private broadband network with priority and preemption services during daily operations and large scale events. Utilities and service agencies are key players in these events. This session will discuss the FirstNet Public Safety Broadband network and how water and wastewater utilities will be able to utilize this priority communication service during an event or emergency incident.

**2:30 PM - 3:00 PM**

#### **The Value of Licensed Experienced Operators During an Emergency Event**

Tyler Reifert, waterTALENT LLC

Participants in this session will learn about a water system's ability to respond to any given crisis/emergency relies heavily on the ability to sufficiently staff a plant with individuals who are familiar with how to react. What methods exist for a plant to plan for the unplannable? WaterTALENT will provide a case study that explains their pool of top-certified operators that can be available to be put to use in an emergency.



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

**4:00 PM - 5:00 PM**

### **Lessons Learned from the North Bay Wildfires**

Ben Horenstein, Emma Walton, and Sean McGlynn, City of Santa Rosa

Participants in this session will learn from the recent experiences of Santa Rosa, from multiple perspectives, both the emergency response to the fire emergency and the resultant water system contamination from the fire burning the plastic pipes and appurtenances, and the approach the City took to resolve this difficult technical and public perception issue.

**5:00 PM - 5:30 PM**

### **Are You Prepared? -- Identifying Cost- Effective Options for Water Distribution and Wildland Fires**

Scott Lynch, Black & Veatch

As evidenced by recent fire activity in the West, fires can be extremely destructive to personal and public properties located at the wildland-urban interface. A case study will be presented that explains coordination between utilities and a fire department in Colorado Springs that informed emergency response and evacuation plans for future events.

## **Session 12 - Asset Management**

**7:30 AM - 8:00 AM**

### **City of Inglewood, CA - A Comprehensive Distribution System Control Program**

Roy Martinez and Doug Nail, Wachs Water Services and Jesse Sira, City of Inglewood

Participants in this session will learn about the City's approach, findings and benefits accrued throughout this multi-year, disciplined approach to asset management.

**8:00 AM - 8:30 AM**

### **Creek Asset Management Program**

Dawn Guendert, Hazen and Sawyer and Elizabeth Mercado, Santa Clara Valley Water District

Participants in this session will learn about developing asset management plan for creeks from data collection and condition assessment to developing cost effective creek management strategy.

**10:00 AM - 11:00 AM**

### **A Framework to Evaluate the Life Cycle Costs and Environmental Impacts of Water Pipelines**

John Johnson, McWane Ductile

The true value of a pipeline as an asset should be based on several factors that impact its service life. Those considerations include the consumption and production of raw materials, design, installation, operation and maintenance, and planning for the end of the pipeline's service life; as well as, the corresponding environmental impacts at each of these life cycle phases. In this presentation, a model is presented that allows utilities and engineers to evaluate the total life cycle cost associated with a water transmission pipeline.

**11:00 AM - 12:00 AM**

### **The Importance of Capturing Asset Locations**

Richard Relyea, MC Engineering, Inc. and Job Gibson, California Surveying and Drafting Supply, Inc.

Participants in this session will learn the importance of knowing where your assets are located within your system and how to use modern technology to capture and display those locations.

\*Sustainability Tracks





## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### 4:00 PM - 4:30 PM

#### **Yard Piping Condition Assessment Program – Planning for Out of Sight Assets**

Sean Pour, Hazen and Sawyer and Susanna Li  
and Alec Beyers, West Basin Municipal Water  
District

Participants in this session will learn about development of  
risk-based condition assessment programs for treatment  
facilities yard piping.

### 4:30 PM - 5:00 PM

#### **Less Paper, More Insights**

Paul Hauffen, Sedaru

Participants in this session will learn how they can use  
modern technology to move away from paper and bring  
access to mission-critical enterprise data to everyone who  
needs it.

### Session 13 - Distribution System Water Quality

### 7:30 AM - 8:00 AM

#### **22 Years Before Flint: Management Failures and Red Water in Tucson, Arizona**

Mike McGuire, Consultant

Participants in this session will learn about the technical and  
management errors that were made when treated  
Colorado River water was introduced into the Tucson Water  
distribution system 1992-94 which resulted in massive rusty  
water problems for a significant number of their customers.

### 8:00 AM - 8:30 AM

#### **Maintaining High Quality Water and Customer Satisfaction Utilizing the NO-DES Technology**

Gene Hong & Marcelo Martinez, Los Angeles  
Department of Water and Power

\*Sustainability Tracks

Participants in this session will learn about LADWP's  
experience using the NO-DES (Neutral-Output Discharge  
Elimination System).

### 10:00 AM - 10:30 AM

#### **Integration Studies: Introducing New Water into an Existing Distribution System**

Elaine W. Howe, Trussell Technologies, Inc.

Participants in this session will learn the multi-phase  
approach our firm has developed for conducting an  
integration study to assess the potential for corrosion  
related aesthetic and health consequences prior to  
introducing a new water of different water quality into an  
existing distribution system.

### 10:30 AM - 11:00 AM

#### **Don't Let Your Hydraulic Model Collect Dust! – Use your Hydraulic Model to Make the Connection**

Bobby Vera, West Yost

Participants in this session will learn about the efforts  
undertaken to develop an operational hydraulic model for  
the City of Modesto and learn how the model was used to  
develop mutual respect, trust, facilitate collaboration and  
create an environment of open communications between  
operations and engineering staff.

### 11:00 AM - 11:30 AM

#### **Cal Water Approach to Evaluating Nitrification in the Water System**

Gina Cyprych, Cal Water

Participants in this session will learn how to monitor,  
understand action levels and improve nitrification in a  
chloraminated system.



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

**11:30 AM - 12:00 PM**

### **Real-Time Distribution System Data & Visualization Utilizing Mobile Technology**

Jeffry Dennis, Win Gunadi and Steve Ma,  
Metropolitan Water District of Southern  
California

Participants in this session will learn how Metropolitan Water District successfully implements the use of mobile devices for paperless field data recording, and real-time distribution system monitoring by using a map visualization and dashboards. Participants will also learn about the challenges and benefits of deploying the compliance sampling and mobile technology project.

**1:30 PM - 2:30 PM**

### **Utilization of Mixed Oxidants to Improve Residual and Overall Water Quality in Distribution System**

Robert F. Newton, Johnson Matthey-MIOX

Participants in this session will learn about the alternative method of disinfection which has been demonstrated to improve water quality in distribution systems as well as reduce operating costs.

### **Session 13 - Communications and Customer Relations**

**2:30 PM - 3:00 PM**

### **The Tightrope Walk of Communicating about the Introduction of a New Water Supply**

Karen Snyder, Katz & Associates

Participants in this session will learn the key audiences to consider and prioritize for early outreach, messaging, including the purpose and need behind decision making, Tools and techniques that go beyond standard outreach to communicate about new water supplies, tips for communicating about complex and technical information.

**4:00 PM - 4:30 PM**

### **Information Beyond the Tables**

Meggan Valencia, Rancho California Water  
District

Participants in this session will learn how to communicate effectively and boost customer confidence in water quality.

**4:30 PM - 5:00 PM**

### **Creating Community Ambassadors through Water Academy**

Teresa Penunuri, San Diego County Water  
Authority

Participants in this session will learn how to use a Citizens Water Academy as a community engagement tool for emerging community leaders and workforce development. This session includes program structure, engagement goals, results and data-influenced strategic changes over the life of the program.



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

**5:00 PM - 5:30 PM**

### **Conveying technical information through stories to engage the public**

Stephen Groner, SGA Marketing and Research

Participants in this session will learn how to effectively communicate data and technical information to engage stakeholders, build program support and change behaviors regarding local water issues.

### **Session 14 - Water Management & Efficiency and Financial Management**

**10:00 AM - 10:30 AM**

### **Developing a Financially Sustainable Water Supply Option with Advanced Data Models**

Monobina Mukherjee, Moulton Niguel Water District

Participants in this session will learn how a public-private-academic partnership can expand the access to advanced data tools and sophisticated methods and lead to better and cost-effective decision making by the water agencies.

### **Session 14 - Water Management & Efficiency**

**10:30 AM - 11:00 AM**

### **City of Santa Monica's Water Neutrality Ordinance**

Karina Sandique, Russell Ackerman & Thomas Fleming, City of Santa Monica

Participants in this session will learn about the City of Santa Monica's goal to be water self-sufficient. Water Neutrality is a tool to reach this goal by capping new developments to their 5-year historical water use. Learn how Santa Monica is enforcing water neutral projects and review the effectiveness of the program.

### **Session 14 - Water Management & Efficiency and New Technology**

**11:00 AM - 11:30 AM**

### **In-house web app development improving customer service**

Anudeep Vanjavakam, Moulton Niguel Water District

Participants in this session will learn about powerful open source tools to promote customer service, examples of interactive apps for a water agency, and their multi-fold benefits

### **Session 14 - Water Management & Efficiency**

**11:30 AM - 12:00 PM**

### **Silver Lake and Ivanhoe Reservoirs Alternative Water Supply Evaluations and Implementation**

Jim Rasmus, Black & Veatch and Alis M. Pruett, P.E., Los Angeles Department of Water and Power

Participants in this session will learn about steps taken to assess three alternative source waters: stormwater; groundwater and recycled water for use in filling and maintaining an urban lake. Alternative management strategies and phasing plans were developed for implementation. Phase 1 implementation topics will be described.

\*Sustainability Tracks



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### Session 14 - Water Management & Efficiency and Meter

**1:30 PM - 2:30 PM**

#### **Managing an AMI and Meter Installation Project from Start to Finish**

Richard Relyea, MC Engineering

Participants in this session will learn how to effectively plan and implement a successful AMI/Meter Installation project from start to finish.

**2:30 PM - 3:00 PM**

#### **Post AMI Implementation and Non-Revenue Discovery**

Christian Di Renzo, City of Benicia

Participants in this session will learn about deploying a full AMI project and the discovery process to ascertain revenue recovery and apparent loss mitigation as evaluated by WSO.

**4:00 PM - 5:00 PM**

#### **New Smart Metering Options for Medium to Small Sized Utilities**

Andre Noel, SUEZ Advanced Solutions

Participants in this session will learn how AMI can be made affordable and applicable to small to medium sized utilities utilizing an innovative approach to procurement, installation, on-going operations and maintenance for a complete integrated AMI system.

### Session 14 - Water Management & Efficiency and New Technology

**5:00 PM - 5:30 PM**

#### **Getting to know Jane and John Smith – Using Data to Drive Customer Communication & Engagement**

Ganesh Krishnamurthy, Dropcountr and Dr.  
Steven Buck, University of Kentucky

Participants in this session will learn how to collect detailed customer household data, evolving customer communication strategies and preferences of an increasingly digital and mobile world; observed conservation impacts of multi-channel messaging; results of pilots in three unique service areas.

### Session 15 –Women's Leadership

**10:30 AM - 12:00 PM**

#### **Women's Networking Event – Stepping Into Leadership with Confidence**

Uzi Daniels, West Basin MWD, Joy Eldredge, City of Napa, Sophie Marwies James, California Water Service and Debra Kaye, V&A Consulting Engineers

Join women leaders in the water industry to engage and learn about their journeys into project management and leadership roles. The panel will include opportunities for frank discussion on knowing your worth, work life balance, salary negotiations, and more. Get all of your most pressing questions answered by the experts!





## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### Session 15 - Leadership Development

**1:30 PM - 2:00 PM**

#### **Flash Mentoring Activity for Young Professionals**

Multiple Professionals will serve as mentors (Engineers, managers, consultants, and operators)

Flash Mentoring Session. Participants in this session will have an opportunity to learn and seek guidance from several highly experienced water Industry professionals during this interactive mentoring session aimed at helping Young Professionals become more valuable employees and find greater success in their careers.

**2:00 PM - 2:30 PM**

#### **How the Water Industry Benefits from Establishing Women's Networking Groups**

Noune Garounts, Metropolitan Water District of Southern California

Participants in this session will learn the benefits of providing a formal networking organization for women within the workplace, available options, and gain practical advice about how to successfully launch a program that is fully supported by the organization and members.

**2:30 PM - 3:00 PM**

#### **The Rewards of Conducting Industry Research**

Dan Ellison, HDR Inc.

Participants in this session will learn how learn the value of participating in extra-curricular technical activities throughout their careers.

**4:00 PM - 4:30 PM**

#### **Mentoring Employees Effectively to Ensure your Agencies Long-term Success**

Andrew Linard, Los Angeles Department of Water and Power

Participants in this session will learn about the benefits of implementing effective mentoring programs for new employees, the structure of an example program, and methods for building support for these programs from impacted managers.

**4:30 PM - 5:00 PM**

#### **Lessons From Leonardo: What Leonardo da Vinci Can Teach Us About**

Jim Lauria, Mazzei Injector Co.

Participants in this session will learn six important lessons about water management from Leonardo da Vinci and his lifelong love affair with water.

**5:00 PM - 5:30 PM**

#### **The Benefits of Leading an Employee Organization**

Chisom Obegolu, Metropolitan Water District of Southern California

Participants in this session will learn how Employee Resource Groups (ERGs), or affinity groups, are an integral part of organizations of all sizes and are critical for ensuring that water agencies can achieve both near and long-term business objectives.



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### Session 16 - Water Loss Control

**7:30 AM - 8:00 AM**

#### **LADWP's Real Loss Reduction Program**

Salman Sufi & Ofelia Rubio, Los Angeles  
Department of Water and Power

This presentation discusses LADWP's new approach to reducing loss to active leaks and potentially reducing the occurrence of new leaks.

**8:00 AM - 8:30 AM**

#### **Water Loss Control and Pressure Management in Denmark: Lessons Learned from Decades of Engagement**

Pia Jacobsen, Danish Water Technology Alliance  
and Julie Ryan, South Tahoe Public Utility District

In the framework of the MoU between California and Denmark to share knowledge and collaborate on water issues, this is a joint presentation discussing how lessons learned from Denmark would inspire and benefit California water systems in strategies to optimizing the distribution system in achieving increasingly low water loss levels.

Displaying Water Audit figures from both CA & DK and elaborating on similarities, differences and where we could learn from one another. The presentation showcases a couple of innovative initiatives on water loss control and pressure management.

South Tahoe Public Utility Department is piloting pressure management aiming to lower and stabilize the pressure in a small zone by viable set-points at the PRV. The initial learnings and potentials in the pilot.

Aarhus Water strategy is going from static pressure (elevated tanks) to dynamic (pump stations). The operation will convert into an automated integrated control from "well to tap".

The participants will gain inspiration and insight on strategic and operational actions to bring into their own water loss control program.

### Session 16 - Operator

**10:00 AM - 11:00 AM**

#### **Using Particle Counters in Combination with Turbidimeters to Obtain a Better Understanding of Coagulation and Filtration Performance.**

John Clark, Chemtrac

The instrument combines sample chlorination with thermally-accelerated formation of THMs, and subsequent rapid THM determination. Results from this THM precursor analyzer are being compared in a long-term pilot study to precursor concentrations, characteristics, and levels determined by conventional laboratory methods that take an average of three to five days to return data on resulting THM levels.

**11:00 AM - 11:30 AM**

#### **Twelve Years of Fluoride Design and Operational Experiences at Helix Water District**

Larry Lyford, Helix Water District

This novel instrument benefits water utilities by helping them to adjust their treatment processes accordingly to minimize the production of THMs; and for some, even reduce the costs of producing water that satisfies THM regulations. This presentation was detail data from a long-term pilot study on the performance of this innovative online raw-water THM precursor analyzer.

\*Sustainability Tracks



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### 11:30 AM - 12:00 PM

#### **Twelve Years of Fluoride Design and Operational Experiences at Helix Water District**

Larry Lyford, Helix Water District

Participants in this session will hear the lessons learned by Helix Water District staff over the course of twelve years. Starting with the original design and permit amendments. The how and why to no day-tank. Installation and safety challenges and how they were overcome. Operations and Maintenance success and improvements made, including the full replacement of the failed storage tank and why Helix performs the work with in-house staff.

### 1:30 PM - 3:00 PM

#### **Operators Round Table Discussion**

Bill Cardinal, Calaveras County Water District,  
Dan Armendariz, Cal Water and Michelle Berens,  
Helix Water

Participants in this session will share issues and solutions to operations problems. These can be related to Distribution systems, Water Treatment, CMMS, Employee issues and anything related to Water treatment operations.

### 4:00 PM - 4:30 PM

#### **Turbidity - A Quantum Leap in Technology**

Erica Schouten, Swan Analytical USA

Participants in this session will learn what turbidity is, its history, the measurement principle, calibration and the new low-maintenance turbidity meter.

### 4:30 PM - 5:00 PM

#### **Online Instrument for Raw-Water THM Precursor Analysis**

Tom Williams & Rick Bacon, Aqua Metrology Systems

THM formation is dependent on water quality, treatment operations and network activity. As such, the quantity and quality of THM precursors in water sources will affect disinfection by-product levels. A robust online raw-water THM precursor analyzer has been developed to rapidly assess the THM-FP levels in raw, not yet chlorinated, water.

### Session 17 - Research

### 7:30 AM - 8:00 AM

#### **Determination and characterization of organic matter to optimize potable reuse treatment**

Amanda Scott, Suez Water Technologies and Solutions Analytical Instruments

### 8:00 AM - 8:30 AM

#### **Balancing Pathogen Control and DBP Formation in Recycled Water with Sequential Chlorine Disinfection**

Brie Webber, Trussell Technologies, Inc.

Participants in this session will learn an important aspect of potable reuse – disinfection – and findings from a recent pilot study that investigated the feasibility of disinfecting tertiary filtered wastewater effluent using free chlorine.



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### Session 17 – Research and Treatment

**10:00 AM - 10:30 AM**

#### **Advances in Membrane Filtration: Ceramic Membranes, Polymeric Membranes and Intelligent Controls: Part 1**

Eric Hoek, UCLA

This talk will begin with a review of state-of-the-art and emerging MF/UF technologies, and will conclude by presenting a model that ties together the impacts of influent water quality and membrane properties on water recovery, energy demand, capital costs and operating costs.

**10:30 AM - 11:00 AM**

#### **Advances in Membrane Filtration: Ceramic Membranes, Polymeric Membranes and Intelligent Controls: Part 2**

Eric Hoek, UCLA

This talk will begin with the presentation of performance data from two MF/UF pilot studies of ceramic and polymeric membranes on: (1) municipal wastewater and (2) industrial wastewater. The presentation will conclude with comparison of performance and costs using the model from Part 1.

**11:00 AM - 11:30 AM**

#### **Membrane Technologies: State of the Art and Areas of Future Innovation: part 1**

Val S. Frenkel, GREEELEY and HANSEN

**11:30 AM - 12:00 PM**

#### **Membrane Technologies: State of the Art and Areas of Future Innovation: part 2**

Val S. Frenkel, GREEELEY and HANSEN

### Session 17 – Research

**1:30 PM - 2:00 PM**

#### **Planning for Variations: Designing Multi Source Influent Water Quality Facilities with Monte Carlo Blending Simulations**

Lee Portillo, Black & Veatch, Pei-Shin Wu, Tatiana Guarin, John Witter, Penny Carlo and Jess Brown

**2:00 PM - 2:30 PM**

#### **Savings on Chemical and Energy by Implementing Raw Water pH Adjustment with Sulfuric Acid**

Mian Wang, Santa Clara Valley Water District

**2:30 PM - 3:00 PM**

#### **Biological Treatment for Inorganic Contaminants from Water Sources**

Giridhar Upadhyaya, Carollo Engineering





## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### Thursday, October 25, 2018

#### Session 18 – Tanks, Reservoirs & Structures

**8:00 AM - 9:00 AM**

##### **How To Maintain 64 & Counting Reservoirs**

Dan Ruiz, Brian Fogg and Joanna Rembis,  
Coachella Valley Water District

Participants in this session will learn about the types of evaluations that are performed and the frequency of the evaluations. How CWD prepares for the costs associated with the evaluation and rehabilitation of the reservoirs.

**9:00 AM - 9:30 AM**

##### **The Destruction of Epoxy Coatings By Chlorine Vapor**

Krista Harper, Harper & Associates Engineering, Inc.

Participants in this session will learn about the different types of coatings for water tanks and how the chlorine vapor effects the epoxy coating system. Also, discuss the different research that has been performed to determine if there are different coatings that can prevent the chlorine vapor from damaging the steel substrate

**10:00 AM - 10:30 AM**

##### **Rethinking Aging Reservoir Replacement: Sustainability and Environmental Benefits to Reservoir Restoration VS Replacement**

Richard Brady, Richard Brady & Associates

Older reservoirs in their system can be completely rehabilitated to new condition at a significant cost and time savings compared to full replacement. Demolition of older structures can be avoided, along with the environmental headaches. Rehabilitation can occur quickly during low demand winter periods and can be classified as major maintenance instead of a new capital project.

**10:30 AM - 11:00 AM**

##### **Is Your Tank Salty?**

Andre Harper, Harper & Associates Engineering, Inc.

Participants in this session will learn how to determine if salts are present on the steel surfaces, the effects salts have on coating systems and how to remove salts from steel surfaces

**11:00 AM - 11:30 AM**

##### **Need Temporary Storage Options?**

Krista Harper, Harper & Associates Engineering, Inc.

Participants in this session will learn about the multiple types of temporary storage available, as well as how to decide what type is needed for a particular situation

#### **\*Session 19 - Energy & Sustainability**

**8:00 AM - 9:30 AM**

##### **What is the voluntary Water Energy Nexus Registry and why is it needed?**

Panel TBD

**10:00 AM - 10:30 AM**

##### **Large Agency TCR Experience to date: Proceedings, research, methodologies and overall benefits**

Panel TBD

**10:30 AM - 11:00 AM**

##### **Mid-sized Agency TCR Experience to date: What it takes to currently report, what are the benefits to them, and what do they think will be the benefits in the future**

Panel TBD

\*Sustainability Tracks



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

**11:00 AM - 11:30 AM**

### **Small Agency TCR Experience to date: What are some of the barriers to currently reporting**

Panel TBD

#### **Session 20 - Water Treatment**

**8:00 AM - 8:30 AM**

### **Novel Hexavalent Chromium Remediation Systems with Online Chromium Monitoring System Demonstrated at California Utilities**

Vladimir Dozortsev, Aqua Metrology Systems,  
Tim Williams, Kennedy/Jenks Consultants and  
Tom Williams, Aqua Metrology Systems

Participants in this session will learn about a new technology integrating real-time sensing with an innovative treatment system for removing carcinogenic Hexavalent Chromium from drinking water that has been successfully demonstrated at California utilities. In addition, a comparison of this technology alongside another Hexavalent Chromium removal system will be presented.

**8:30 AM - 9:00 AM**

### **Porous Iron Composite for Cr(VI) Removal from a California Well Water**

Kyle Unger, Höganäs Environment Solutions

There is an emerging technology for the removal of hexavalent chromium and total chromium in the presence of co-contaminants (As, U, and NO<sub>3</sub><sup>-</sup>). A six month pilot study was conducted with special focus on removal efficiency, leakage rates, breakthrough indicators and media life.

**9:00 AM - 9:30 AM**

### **Hexavalent Chromium Reduction with Stannous (Chloride) at Coachella Valley Water District**

Dan Ruiz, Coachella Valley Water District and  
Tarrah Henrie, Corona Environmental Consulting

Participants in this session will learn about the challenges of meeting California's hexavalent chromium MCL and the benefits of Cr(VI) reduction with stannous.

**10:00 AM - 10:30 AM**

### **PCE Wellhead Treatment Using Low-Profile Air Strippers**

Keith Mortensen , Provost & Pritchard Consulting Group

Participants in this session will learn the wellhead treatment measures taken by the City of Fresno to treat two wells contaminated by PCE. The session will also cover the basics of PCE contamination and wellhead treatment options.

**10:30 AM - 11:30 AM**

### **Cal Water Company-wide approach to compliance with the 1,2,3 - Trichloropropane (1,2,3-TCP) MCL**

Talle Lopez & Nelson Lui, Cal Water

Participants in this session will learn how to approach the new TCP MCL by installing multiple treatment systems in multiple water systems state wide



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### Session 21 - New Technology

**8:00 AM - 8:30 AM**

#### **Pipe Penetrating Radar: Developing Predictive Asset Management Models using Advanced Condition Assessment**

Csaba Ekes, SewerVUE Technology

Participants in this session will learn about the advantages of advanced condition assessment methods in developing cost-effective asset management plans for water and wastewater infrastructure.

**8:30 AM - 9:30 AM**

#### **IIoT and the value of Industrial Analytics for Water Utilities**

Goran Novkovic, Toronto Water - Valiver

IIoT and industrial analytics are two of the most exciting developments in the water industry, but water utilities need new types of the organization to fully realize their potentials. The value for water utilities is in data, and data is at the heart of every IIoT system. Unfortunately, much of this value is buried. In a typical water utility, more than 90% of data is discarded without attempting to derive knowledge. The current situation must be improved urgently. Water professionals must recognize opportunities enabled by IIoT systems and industrial analytics to drive the innovation.

**10:00 AM - 11:00 AM**

#### **Advancing Water Utilities with Safe and Secure Industrial IoT Systems**

Goran Novkovic, Toronto Water - Valiver

Industrial IoT cybersecurity is not keeping up with the pace of innovation and deployments. Using IIoT devices and systems currently available on the market requires an urgent attention by water utilities and water professionals. IIoT is commonly lacking safety and security features. IIoT vendors limit cybersecurity features to ensure low-cost, and water utilities might not be adequately protected. The need for implementing safe and secure IIoT systems has never been more important. IIoT deployments in water utilities require water professionals to make knowledgeable decisions about IIoT solutions.

### Session 22 - Engineering and Construction

**8:30 AM - 9:00 AM**

#### **Fresno Southeast Surface Water Treatment Plant: Challenges during design and construction**

Katie Ottoboni & Peter VonBucher, Carollo Engineers, Inc.

Participants in this session will learn about key lessons learned and challenges during design and construction of an 80 mgd drinking water treatment plant for the City of Fresno.



## ANNUAL FALL CONFERENCE

OCTOBER 22 - 25, 2018  
RANCHO MIRAGE, CA

*The Westin Mission Hills*

American Water Works Association  
California-Nevada Section

## Preliminary Technical Program

### 10:00 AM - 10:30 AM

#### **A Major Project on Miner Road: Reconstructing a Roadway and Culvert Around a Critical Water Main**

Dustin La Vallee, East Bay Municipal Utility  
District

Participants in this session will learn about the importance of close and efficient project communication between both internal and external stakeholders as well as the steps taken to successfully complete an emergency project with competing priorities.

### 10:30 AM - 11:00 AM

#### **"Water Well Asset Management Programs: A New Sustainable Approach to Maintaining Well Performance and Water Quality"**

Mike Judkins, SUEZ Advanced Solutions

Participants in this session will learn about sustainable management of water wells.

### 11:00 AM - 11:30 AM

#### **The Importance of Routine/Timely Maintenance of Water Storage Tanks**

Gregory R. "Chip" Stein, P.E., Tank Industry  
Consultants

Participants in this session will learn the reasons why routine/timely tank rehabilitation is important to responsible asset management, as well as the possible ramifications of not performing routine tank maintenance.