

What's on the Water Horizon?

PRELIMINARY TECHNICAL PROGRAM



2016

ANNUAL FALL CONFERENCE

OCTOBER 24-27, 2016

SAN DIEGO TOWN & COUNTRY HOTEL



TUESDAY SESSIONS

Session 1 - Safe Drinking Water Act Committee

1:30 PM - 2:00 PM

FEDERAL REGULATORY UPDATE

An update on current events and trends in federal regulations.

2:00 PM - 2:30 PM

STATE REGULATORY UPDATE

An update on current events and trends in federal regulations.

2:30 PM - 3:00 PM

1,2,3-TRICHOLOROPANE MCL

California Division of Drinking Water

4:00 PM - 4:30 PM

RECYCLED WATER REGULATIONS UPDATE

Brian Bernardos,
California Division of Drinking Water

4:30 PM - 5:30 PM

LCR IMPLEMENTATION BEST PRACTICES

TBD

Session 2 – Materials Performance

1:30 PM - 2:00 PM

PIPE MATERIAL DESIGN CONSIDERATIONS TO MAXIMIZE ENERGY SAVINGS & SUSTAINABILITY

John F. Johnson, McWane Ductile

The use of differing materials for distribution and transmission pipelines with equivalent outside

diameters within water and waste water systems is many times deemed by the owners as an “apples to apples” comparison when evaluating the initial construction cost.

2:00 PM - 2:30 PM

IS AGE JUST A NUMBER? ASSESSING REMAINING USEFUL LIFE OF PIPELINE INFRASTRUCTURE

Karyn Igar, Mesa Water District

How and why to develop and implement a non-destructive and destructive testing program to determine the remaining useful life of transmission mains, determination of which pipelines to test, determining inspection technology, choosing which destructive tests to run, and selecting a testing laboratory.

2:30 PM - 3:00 PM

HOW TO KNOW THAT YOUR SYSTEM IS ABOUT TO BLOW

Shonnie Cline, Syrinix, Inc.

Participants of this session will receive an overview of the type of data, the performance and practical application, as well as an overview of the cost/benefit realized through the utilization of newly available “Smart Water” pipeline monitoring technologies.

4:00 PM - 5:00 PM

CONDITION ASSESSMENT AND REPAIR OF LARGE DIAMETER WELDED STEEL PIPELINE UTILIZING MAGNETIC FLUX LEAKAGE

Rodney S. Woods, P.E., Moulton Niguel Water District

Preparation requirements for Magnetic Flux Leakage (MFL) inspection. How to extend the remaining service life utilizing AWWA M11 design standard and ASME B31.G corrosion assessment (identifying repair areas).

TUESDAY SESSIONS

5:00 PM - 5:30 PM

AWWA C906 INTRODUCES 0.63: HOW ONE NUMBER UNLOCKED THE FULL POTENTIAL OF A MATERIAL'S PERFORMANCE CHARACTERISTIC

Chase Auansakul,
Chevron Phillips Performance Pipe

An update on the current published AWWA C906 standard, the distinguishing difference between design factor and safety factor of high performance piping materials, the comparison between pressure class and pressure rating and the introduction to pipeline fatigue design.

Session 3 – Pipe Rehabilitation

1:30 PM - 2:00 PM

BUILDING A RESILIENT WATER DISTRIBUTION SYSTEM - THE L.A. STORY

Alvin Bautista,
Los Angeles Department of Water and Power

Participants will learn about the complexity of the Los Angeles Department of Water and Power's (LADWP) water distribution system, how this asset is managed, and the resources needed for maintenance and/or replacement. Discussion will be provided on the different sets of challenges faced by LADWP in upgrading its infrastructure, and the toolbox of options the utility uses to achieve its infrastructure replacement and rehabilitation goals. Examples and lessons learned from project applications will be provided in the presentation.

2:00 PM - 2:30 PM

WATER MAIN REHABILITATION IN AMERICAN CANYON USING PIPE BURSTING

George Mallakas, TT Technologies and
Bo Botteicher Underground Solutions, Inc.

Participants will learn about how the City of American Canyon, CA rehabilitated a critical potable water steel pipeline in 90 days via pipe bursting rehabilitation method, decision making process for pipeline rehabilitation that the City of American Canyon CA went through, as well as a review of construction sequencing, pipe material selection, and lessons learned.

2:30 PM - 3:00 PM

EAST BAY MUD'S EXPERIENCE WITH PREMATURE FAILURE OF COPPER WATER SERVICE LATERALS

Antonio Martinez,
East Bay Municipal Utility District

Participants in this session will learn about a specific systemic issue related to materials performance of copper water service laterals in EBMUD's distribution system and how it impacts their operations, system performance, future. This presentation will review EBMUD's copper service line evaluation and replacement program, including analysis of the data gathered on the existing system. It will also review the rehabilitation methods that are being used to address the patterns of leaks that are found.

TUESDAY SESSIONS

4:00 PM - 4:00 PM

PIPELINE PROBABILITY OF FAILURE METHODOLOGY, ANALYSIS, AND RESULTS

Andy Yang, San Jose Water and
Damaris Villalobos-Galindo, San Jose Water

Participants in this session will learn how San Jose Water Company (SJWC) formulated a customized probability of failure analysis using a neural network model to approximate a function that would best explain the relationships between pipeline failure and the different factors that contribute to the deterioration of water mains. The function obtained was then used to rank every pipe segment along the 2,400 mile long distribution system and, subsequently, assisted in planning the pipe replacement and rehabilitation program for SJWC.

4:30 PM - 5:00 PM

STATISTICS BEHIND REMAINING LIFE, WHY SAMPLES ARE IMPORTANT

Craig Daly, Pure Technologies

The purpose of this session is to provide a higher level understanding of the effects of sample size on widely used asset management tools to ensure their proper use in assisting decision making. This session will demonstrate how variations in the number of data samples can impact decision making with regard to asset renewal and maintenance. It will also focus on the quantity of data collected and data interpretation to demonstrate impacts to decision making.

5:00 PM - 5:30 PM

ICE PIGGING

Kevin Barnes, Suez Water Advanced Solutions

This presentation describes a new sustainable technique for cleaning the potable water distribution

system using slush ice called Ice Pigging. Ice Pigging has been proven to be between 100 and 1000 times more effective at removing sediment and biofilm than water flushing alone. The presentation will detail the science behind Ice Pigging how ice has been proven to clean more effectively than water, Ice Pigging Operation and applications and benefits.

Session 4 – Security and Emergency Planning

1:30 PM - 2:00 PM

A COLLABORATIVE APPROACH TO INFRASTRUCTURE RELIABILITY

Erin Baker, Santa Clara Valley Water District

How a water wholesaler worked with regional retail partners to optimize where infrastructure investments are needed to improve regional reliability in earthquake and super storm events.

2:00 PM - 3:00 PM

FIRE AND WATER WORKING TOGETHER TO KEEP THIRST AT BAY

Mary Ellen Carroll, San Francisco Public Utilities Commission and Erica Arteseros, San Francisco Fire Department

Participants will learn about collaboration between the San Francisco Public Utilities Commission and San Francisco Fire Department to address public information, water quality, and alternate water delivery after a disaster.

4:00 PM - 5:00 PM

LESSONS LEARNED FROM THE INTENTIONAL DESTRUCTION OF A LARGE INFLATABLE DAM

Steve Dennis, Alameda County Water District (retired)

TUESDAY SESSIONS

Participants will learn about the 2015 intentional act to destroy a large inflatable dam owned and operated by the Alameda County Water District. This session will present the event, the response actions taken, and information on the subsequent investigation which ultimately led to the arrest and conviction for those responsible.

5:00 PM - 5:30 PM

INNOVATIVE PREPAREDNESS AND RESPONSE PRACTICES TO SUPPORT WATER SYSTEM RESILIENCE

Christine Herndon, Herndon Solutions

Participants will learn security practices outside of AWWA/EPA guidelines. Presentation will focus on project progress and stimulate audience discussion and participation.

Session 5A – Financial Management

1:30 PM - 2:00 PM

EQUITY CROWDFUNDING FOR WATER P3S

Brian Ross, InfraShares

Participants will learn the benefits and challenges associated with implementing crowdfunding for a water infrastructure P3 including discussions of stakeholder engagement, regulatory framework, financial structure, and crowdfunding platforms.

2:00 PM - 2:30 PM

FINANCIAL RESILIENCY & CONSERVATION PRICING AREN'T MUTUALLY EXCLUSIVE: DEVELOPING NEW SUSTAINABLE RATE STRUCTURE

Pierce Rossum, Carollo Engineers

Unprecedented conservation has revealed a critical revenue and expenditure misalignment. To address this we developed a Demand Charge, a new rate structure component that bridges the gap between the revenue stability of a fixed charge and the conservation messaging of a variable rate.

Session 5B – Operators

4:00 PM - 4:30 PM

AUTOMATIC CONTROL VALVES AND YOUR DISTRIBUTION SYSTEM. A CASE STUDY OF OPERATIONS, MAINTENANCE AND FAILURES

Randall Harris, California Water Service Company

Participants in this session will learn the importance of operator training and regularly scheduled maintenance and the effects of automatic control valve failure in a water distribution system.

4:30 PM - 5:00 PM

PIPELINE CONDITION ASSESSMENT

Catherine Lou, California Water Service Company

Participants will learn about the different pipeline condition assessment technologies. They will also gain a better understanding of what is involved in completing an assessment from the Operator/Utility side on various pipelines and the information that can be collected to use for planning pipeline replacement projects.

TUESDAY SESSIONS

Session 6 – Water Management and Efficiency

1:30 PM - 2:00 PM

OPTIONS FOR ADDRESSING CLIMATE CHANGE-DRIVEN WATER SUPPLY AND DEMAND IMBALANCES IN SAN DIEGO

Allison Danner, Bureau of Reclamation, Lower Colorado Regional Office and
Goldamer Herbon, City of San Diego, Public Utilities Department

Participants in this session will learn how climate change may impact the water supply system in the San Diego region, what the potential options are for addressing supply-demand imbalances, and how these options may perform if they are implemented.

2:00 PM - 2:30 PM

LEADING BY EXAMPLE - MEETING WATER-USE REDUCTION TARGETS WITH IN-HOUSE WATER EFFICIENCY

Sue Mosburg, Sweetwater Authority

Participants in this session will learn the importance of metering authorized unbilled water consumption and following water efficiency tips for Water Loss Control, compliance with state reduction targets, and public perception and education.

2:30 PM - 3:00 PM

YES, CONSERVATION PROGRAMS DO SAVE WATER!

Kat Wuelfing, Erler & Kalinowski, Inc. and
Andy Florendo, Solano County Water Agency

A pilot study examining single-family residential water use, the water conservation savings actually achieved to date from the implementation of specific water

conservation programs, and the remaining water conservation potential for a Northern California city.

4:00 PM - 4:30 PM

BECOMING DROUGHT PROOF - A HOLISTIC APPROACH FOR WATER MANAGEMENT OR BIG DATA FOR WATER?

Sivan Cohen, Ayyeka Technologies

Participants in this session will learn about the state of critical water infrastructure in the U.S. and demonstrate how remote monitoring systems enable utilities to measure and monitor water supply and water use.

4:30 PM - 5:00 PM

MODERN TECHNIQUES IN WELL FIELD MANAGEMENT: PRODUCING THE MOST WATER AT THE LEAST COST

Dennis E. Williams, GEOSCIENCE Support Services, Inc.

Participants in this session will learn how to evaluate economic feasibility of operating a ground water supply system; how to maximize ground water production at the least cost; and how to determine whether to repair or replace pumps and whether to rehabilitate or replace wells.

5:00 PM - 5:30 PM

DETERMINATION OF THE SUSTAINABLE YIELD AND USABLE STORAGE CAPACITY FOR THE YUCAIPA BASIN, YUCAIPA, CALIFORNIA

Dr. Johnson Yeh, GEOSCIENCE Support Services, Inc.

Participants in this session will learn the application of state of art tool various independent approach for evaluation of sustainable yield for a groundwater basin, application tool to calculate potential storm

TUESDAY SESSIONS

water capture for additional water supply and assessing usable groundwater basin storage capacity.

Session 7 – Engineering & Construction

1:30 PM - 2:00 PM

COMPREHENSIVE CONDITION ASSESSMENT OF FOREBAY OUTLET TOWER IN A SHORT SHUTDOWN WINDOW: A CASE STUDY

Dr. Graham Bell, HDR Engineering, Inc.

Participants in this session will learn about a case study focused on a comprehensive condition assessment of a partially submerged aged reinforced concrete structure performed in a short shutdown window. The methodology and results of field corrosion testing and laboratory analyses are presented.

2:00 PM - 3:00 PM

PIPE MATERIAL SELECTION CONSIDERATIONS TO MAXIMIZE ENERGY SAVINGS & SUSTAINABILITY

John F. Johnson, McWane Ductile

This presentation will focus upon the significant energy costs that are saved (or expended) over the life of the system as a result of the decisions made during the design and specifications stage of a project in determination of the pipeline material to be utilized. It will be shown that use of pipeline materials with larger inside diameters can save a utility virtually millions of dollars in energy costs over the life cycle of the pipeline.

4:00 PM - 5:00 PM

HEXAVALENT CHROMIUM COMPLIANCE FROM A WATER UTILITIES PERSPECTIVE

Nelson Lui, California Water Service Company

Participants will learn how a water utility maintained compliance with the Hexavalent Chrome regulation by partnering with a team of industry experts and contractors to install ten permitted, full scale treatment systems. In the pre-design phase, Cal Water worked with consultants to determine the best available technology to treat this chronic contaminant.

Session 8 – Distribution System Water Quality

1:30 PM - 2:00 PM

REDOX CHEMISTRY IN WATER DISTRIBUTION INFRASTRUCTURE WITH RESIDUAL DISINFECTANTS AND THE CONTROL OF METALS AND METALLOIDS

Haizhou Liu, University of California, Riverside

Participants in this session will learn key physicochemical processes governing the chemistry of the water distribution system and the impacts of residual disinfectants on the stability of metal and metalloids in drinking water.

2:00 PM - 2:30 PM

SWITCHING TO CHLORAMINES: THE STOCKTON EXPERIENCE

Robert Granberg, City of Stockton

This talk will present the City of Stockton's experience with upgrading a the DWSP surface water treatment plant to utilize chloramines instead of free chlorine as a residual disinfectant.

2:30 PM - 3:00 PM

CONTROLLING CHLORAMINE DECAY IN A LARGE DISTRIBUTION SYSTEM

Sun Liang, Metropolitan Water District of Southern California

TUESDAY SESSIONS

This presentation will discuss methods to investigate the effects of different water treatment processes and water quality parameters in order to minimize chloramine decay rates in the distribution system. Chloramine decay mitigation strategies for consecutive distribution systems will also be presented.

4:00 PM - 4:30 PM

KINETICS AND MECHANISMS OF CR(VI) FORMATION VIA THE OXIDATION OF CR(III) SOLID PHASES BY CHLORINE IN DRINKING WATER

Michelle Chebeir, University of California, Riverside

Hexavalent chromium Cr(VI) is being considered for more stringent drinking water standards by regulatory agencies. Cr(VI) can be inadvertently produced via the oxidation of trivalent chromium Cr(III) solids. This presentation will discuss the kinetics and mechanisms of Cr(III) solids oxidation by chlorine in drinking water and associated Cr(VI) formation.

4:30 PM - 5:00 PM

CHLORAMINE RESIDUAL OPTIMIZATION AND MANAGEMENT

Brent Simmons, Process Solutions, Inc.

This presentation will discuss the results of pilot projects utilizing a very simple and reliable total chlorine analyzer at East Bay Municipal Utilities District and San Jose Water Company. The Monoclor™ process manages the desired residual set point by continuously iterating around the break point curve optimum for monochloramine.

Session 9 - Research

1:30 PM - 2:00 PM

NATIONAL CYANOTOXIN OCCURRENCE AND THE FUTURE OF REMOTE SENSING

Tarrah Henrie, Corona Environmental Consulting

Participants will learn about the occurrence of cyanotoxins in recreational, untreated and treated drinking water in the US. California is a pilot state for the a national remote sensing project to look for cyanobacteria blooms. Preliminary data from that project will be shown.

2:00 PM - 2:30 PM

FLUORESCENCE-AIDED WATER TREATMENT PROCESS OPTIMIZATION FOR CYANOTOXIN REMOVAL

Christopher Miller, University of Akron

Participants in this session will learn about multiple fluorescence metrics to monitor and model the performance of the coagulation process for dissolved organic matter removal, powdered activated carbon dosing for cyanotoxin reduction, and estimating chlorine-disinfectant demand for calculating cyanotoxin reduction by free chlorine.

2:30 PM - 3:00 PM

THE CHALLENGES OF TREATING CLEAR LAKE WATER

Keith Ahart, Golden State Water Company

Participants in this session will learn about the day-to-day reality of treating the challenging water of Clear Lake from an operator's perspective. Participants will also learn how innovative solutions can be applied to address the issues presented by this challenging source water.

TUESDAY SESSIONS

4:00 PM - 4:30 PM

MODELING DAMAGE AND RECOVERY OF WATER SUPPLY IN AN EARTHQUAKE SEQUENCE

Keith Porter, University of Colorado Boulder

Participants will learn of a new earthquake water-supply loss model that addresses the whole earthquake sequence, service restoration over time, and dependence on fuel, crew availability, and other lifelines. We model EBMUD and SJWC restoration in a Hayward Fault earthquake.

4:30 PM - 5:00 PM

NAPA EARTHQUAKE AND EFFECTS ON PIPES

Joy Eldredge, City of Napa

Participants will learn the effects the 6.0 Napa Earthquake had on Napa's water system. The presentation will discuss the impact the seismic event had on cast iron, asbestos-cement, ductile iron, and PVC pipes noting the proximity to the faults, the age and the soil formations.

Session 10 – Women's Networking Event

Details coming soon.

WEDNESDAY SESSIONS

Session 11A – Security and Emergency Planning

7:30 AM - 12:00 PM

CALWARN

Ray Riordan, Chair CalWARN

In this 1/2 Day track, the attendees will learn/understand the value of this mutual aid and assistance network during a disaster. The focus is on the mechanics of the California and Nevada Water/Wastewater Agency Response Networks (WARN).

Session 11B – Energy

2:00 PM - 2:30 PM

PROCUREMENT, DESIGN, AND IMPLEMENTATION OF WATER-TO-WIRE GRID-TIED IN-CONDUIT PRESSURE REDUCING TURBINE (PRT)

Narendra Amarnani, County of Los Angeles - Internal Services Department - Office of Sustainability - Energy Management Division and TJ Kim, County of Los Angeles - Waterworks Division

Participants will learn to conduct preliminary study of Pressure Reduction Valve equipped sites for suitability to install a Pressure Reduction Turbine to generate electricity grid-tied to electric utility. Craft appropriate Statement of Work. Lead the project through appropriate phases including construction, and testing.

2:30 PM - 3:00 PM

WATER-ENERGY INTENSITY: MORE THAN JUST A NUMBER

Sarina Sriboonlue, Arcadis

Water and energy resources are inextricably connected. Consistent with its commitment to energy and water conservation, in 2015, IEUA elected to voluntary report the energy intensity of its water, wastewater, and recycled water operations in accordance with California's Urban Water Management Plan Guidebook. While seemingly simple numbers, the calculations required IEUA to be intimately familiar with organizational and operational boundaries, direct vs. indirect control, and consequential vs. non-consequential energy production, terms more common in the power sector. The presentation will summarize the energy intensity methodology, need-to-know terms, and IEUA's key findings (i.e., what the numbers mean). Additionally, while there is a tendency to think energy intensity will decrease over time, many utilities may soon find the opposite to be true. Find out why.

4:00 PM - 5:00 PM

WATER SYSTEM OPTIMIZATION: ALIGNING ENERGY EFFICIENCY, WATER QUALITY, AND SYSTEM PERFORMANCE

Steven C. Jones and Robert B. Sowby, Hansen, Allen & Luce, Inc.

Participants in this session will learn best practices to optimize a water system for energy efficiency, water quality, and system performance. These three parameters do not always compete with each other but can balance to produce productive synergies discussed here.

WEDNESDAY SESSIONS

Session 12 - Meters

7:30 AM - 8:30 AM

WATER LOSS CONTROL, IMPACTING YOUR NON-REVENUE WATER THROUGH LARGE METER EVALUATION, TESTING AND CALIBRATION

Mike Simpson, M.E. Simpson Company

The presentation will provide an in depth exploration of the techniques of large meter evaluation, testing and calibration from an in the field, technical perspective as well as providing knowledge and information about the specific steps in calibration/repair of large meters. This presentation is designed for hands on supervisors, operators, technicians and managers.

10:00 AM - 10:30 AM

LOS ANGELES DEPARTMENT OF WATER AND POWER - TOOLS & TECHNIQUES USED TO DETERMINE LARGE METER ACCURACY & DEGRADATION RATES

Kenneth C. Molli, Veolia North America and
Cree Horner, Los Angeles Department of Water
and Power

This presentation will review the tools and techniques used by the project team to compile more accurate information regarding the performance of LADWP large meter population and its annual accuracy degradation rates. The presentation will share the opportunities of revenue protection resulting from a more aggressive and targeted meter maintenance program.

10:30 AM - 11:30 AM

WATER LOSS MANAGEMENT - LEAK DETECTION

Dan Milliron, National Meter & Automation

In this presentation we will discuss: The role of leak detection within the framework of a Water Audit and Loss Control program, The current cost of water and water cost trends and the current methods and techniques of acoustic leak detection.

The Primary focus of this presentation will be on Acoustic Leak detection. The general principles, best practices, methodology, equipment and limitations will be discussed at length. Attendees should leave with an understanding of current leak detection practices and why leak detection is an important part of any water conservation program.

11:30 AM - 12:00 PM

INHERENT VALUE OF AMI THROUGH SMART INFRASTRUCTURE

Bernard Dunham, Delta Engineering

Water Utilities today all face the challenge of heightened resource management with existing or limited staffing. AMI is a tool designed to empower both the utility and customer, while maximizing utility efficiencies with tangible and exacting results.

Our discussion will overview the defined milestones in: selection of an AMI technology, defined applications inherent to an AMI technology resulting in Smart Infrastructure, and anticipated return upon Utility investment.

WEDNESDAY SESSIONS

1:30 PM - 2:30 PM

PANEL DISCUSSION: CELLULAR RADIO IMPLEMENTATIONS FOR METER READING

Morrice Blackwell – Panel Moderator

Panelists:

Adam Queen –

Consolidated Mutual Water Company

Moquey Marquross -

Meternet USA

Third representative - TBD

Implementing cellular radios for meter reading is a fairly new innovation offering many benefits to utilities. In this panel, two utilities and one water service company will describe their deployments and take questions from the audience. Each of the three deployments are unique and will offer a different perspective on the technology.

2:30 PM - 3:00 PM

ADVANCED USES OF AMI NETWORKS

Ryan Carnathan, Sensus

AMI networks have increased in popularity over the past 10 years. Much of this popularity has been driven by increased needs for more information from the field. Advancements of AMI has expanded upon the meter. Sensors and data collections devices are now being introduced into AMI system to further expand the functionality of the water distribution system. We will explore some of the available options today and discuss how they can be utilized in your system.

4:00 PM - 5:30 PM

PANEL DISCUSSION: IMPROVING WATER SYSTEM OPERATIONS AND CUSTOMER SERVICE TO THE END USER THROUGH USE OF AN AMI DEPLOYMENT

Rich Sanders – Panel Moderator

Panelists:

Marc Lippert

Lake Arrowhead Community Services District

Tom Martin

Padre Dam Municipal Water District

Todd Eising

City Of Folsom

Mark Lopez

Lake Arrowhead Community Services District

The session will be panel based with a focus on water and on available technologies and the pros and cons of technology and deployment strategies. A detailed overview of what is currently available on the market and technology environmental obstacles that need to be overcome in the selection process. ROI and NPV of systems will be discussed as well as financing available to utilities for these projects

Each of the two case studies will be presented by the utility employee in charge of the project and cover the process from RFP through deployment to benefits received

Each utility will discuss as well their customer service enhancements and how the public has responded. The panel will hold a Q&A period for all the attendees of the session before closing.

WEDNESDAY SESSIONS

Session 13 - Backflow

7:30 AM - 8:00 AM

ROLES AND RESPONSIBILITIES: TESTER ISSUES

Jeff Flynt, Palomar Backflow Inc.

Participants in this session will learn the issues administrative authorities are challenged with backflow testers in their jurisdiction.

8:00 AM - 8:30 AM

DISTRICT CHALLENGES WITH BACKFLOW AND CROSS CONNECTION CONTROL

John Barry, Jr., City Of Oceanside Water Utilities

Participants in this session will learn how to institute a web based data entry backflow program. Discussion topics will include buy in from management, training of backflow testers and overcoming technological hurdles.

10:00 AM - 10:30 AM

WHAT IS THE BACKFLOW TESTER PERFORMANCE EXAM ALL ABOUT?

Paul Schwartz, University of Southern California, Foundation for Cross-Connection Control and Hydraulic Research

Participants in this session will learn how a backflow prevention assembly tester becomes certified. The examination process includes a hands-on performance exam used to test the applicants knowledge and their proficiency with the proper field test procedures. This includes both proper working backflow preventers and common failure modes.

10:30 AM - 11:00 AM

LEAD FREE ISSUES AND ITS AFFECT ON ASSEMBLY REPAIR

Henry Chang, University of Southern California, Foundation for Cross-Connection Control and Hydraulic Research

Recent changes to the Federal Governments definition of lead free has caused many changes to the materials backflow preventers are made of. These material changes have cause confusion when lead free can and cannot be used and how repairing old and new assemblies needs to be done. This presentation will take us through the changes to the lead free definition and how it has changed the repair parts we can use.

11:00 AM - 12:00 PM

HOT TOPIC PANEL DISCUSSION

Panelists: All Expert Speakers from Session 14

Participants in this session will have the ability to present questions to a panel consisting of industry experts on Backflow and Cross Connection Control

1:30 PM - 2:00 PM

RECYCLED WATER PROGRAM CHALLENGES RELATING TO BACKFLOW AND CROSS CONNECTION CONTROL

James Lee, Eastern Municipal Water District

Participants in this session will learn the challenges a local water agency are faced with administering a recycled water program.

WEDNESDAY SESSIONS

2:00 PM - 2:30 PM

SUCCESSFULLY PERFORMING A SHUTDOWN TEST

Ben Bennett, Backflow Prevention Specialists, Inc.

Participants in this session will learn about shutdown tests for alternative source facilities and challenges associated with completing them safely and successfully.

2:30 PM - 3:00 PM

MANAGING A CROSS CONNECTION CONTROL PROGRAM

Kenneth Payne, San Francisco Public Utilities Commission

Participants in this session will learn how San Francisco's cross-connection control program is responding to changing water landscape through measures such as revising city ordinances, increasing interdepartmental coordination, enhancing information management systems, and improving public outreach.

4:00 PM - 4:30 PM

ENFORCEMENT ISSUES

Steve Plyler, Rincon Water District

Participants in this session will learn the challenges administrative authorities have enforcing the regulations referenced in their Cross Connection Control Program for backflow prevention.

4:30 PM - 5:00 PM

RECYCLED WATER PROGRAM FOR CITY OF SAN DIEGO

Thomas Deeds, City Of San Diego Public Utilities Department

Participants in this session will learn the how a local water agency has successfully implemented a Recycled Water Program.

Session 14A – Tanks, Reservoirs and Structures

10:00 AM - 10:30 AM

THE TICKING TIME BOMB: DEALING WITH CORROSION WITHIN PRESSURE VESSELS

Joanna Rembis, Harper & Associates Engineering, Inc.

The discussion will cover the requirements as set forth in the API 510 for inspecting, maintaining, and repairing pressure vessels. Inspection of the vessels shall include welds, appurtenances, flanges, safety items and the frequency inspections should occur. In addition, the discussion will review general types of failures, problem areas and common conditions found in pressure vessels.

10:30 AM - 11:00 AM

LESSONS LEARNED IN WATER STORAGE TANK MANAGEMENT

Mark Griffin, P.E., Tank Industry Consultants

Attendees will learn from the "lessons learned" from over 1,000 collective years of water tank engineering and inspection. The attendees will be invited to share

WEDNESDAY SESSIONS

their "war stories" so that all can learn from the lessons of others.

11:00 AM - 12:00 PM

BUILDING A WATER STORAGE TANK WITHIN 100 YARDS OF THE SAN ANDREAS FAULT: A COLLABORATIVE APPROACH

Jeffrey Wanlass, West Yost Associates

Participants of this session will learn that through a collaborative design approach multiple mitigation measures were identified and implemented to reduce effects of surface fault rupture and ground movement on a critical water storage tank in a high seismicity area.

Session 14B – Engineering & Construction

2:30 PM - 3:00 PM

RACE TO CONSTRUCT A ONE OF A KIND PUMP STATION TO PRESERVE DRINKING WATER SUPPLY FOR TWO MILLION PEOPLE AND 40 MILLION VISITORS

Noah Hoefs, Southern Nevada Water Authority

This presentation will cover the challenges encountered throughout the design and construction of the Southern Nevada Water Authorities' Low Lake Level Pump Station, a pump station designed to have a flowrate of 900 mgd, expandable to 1200 mgd. The project's fast tracked approach to beat the falling Lake Mead water levels will also be covered.

4:00 PM - 4:30 PM

PIPELINE DESIGN METHOD AGAINST LARGE DISPLACEMENT FAULT

Takeshi Hara, Kubota Corporation

This presentation will demonstrate a method for designing water pipeline systems against fault

displacements by using Earthquake Resistant Ductile Iron Pipes (ERDIP). The ERDIP pipeline is capable of absorbing the large ground displacements that occur during severe earthquakes by its joints movement (expansion, contraction, and deflection) and locking system. Existing ERDIP pipelines have been exposed to lots of severe earthquakes and there has been no documented failure in the last 41 years.

4:30 PM - 5:00 PM

PLANNING FOR SEISMIC RESILIENCE: A SURVEY OF USER EXPERIENCE WITH EARTHQUAKE RESISTANT DUCTILE IRON PIPE (ERDIP) WITHIN THE WESTERN U.S.

Deborah Russell, Kennedy Jenks Consultants

Earthquake-resistant ductile iron pipe (ERDIP) has been used successfully for the last 40 years. However, preliminary projects and pilot studies are just now being implemented using this technology within Western United States and Canada. This presentation will discuss the alternative ERDIP products and steel pipe for fault crossings that are available. Additionally, the results of a survey performed to gauge user experience with the design and installation of ERDIP will be presented and projects challenges will be discussed.

5:00 PM - 5:30 PM

DESIGN/BUILD REPAIR OF 10MG RESERVOIR

Tim Hampton, City of Pomona

Participants will learn about the benefits of using a Design/Build process for projects which require expedited schedules. The City of Pomona chose the Design/Build process to repair a leaking reservoir which provides storage for nearly 1/3 of the City.

WEDNESDAY SESSIONS

Session 15 - Environmental, Health & Safety

7:30 AM - 8:00 AM

IDENTIFYING HAZARDOUS ATMOSPHERES IN WATER DISTRIBUTION PIPELINE CONSTRUCTION: AN LADWP APPROACH

Tonya Howard-Taylor, Los Angeles Department
of Water and Power

Participants in this session will learn what potential hazardous atmospheres exist in doing water distribution pipe line installation, and learn how to identify potential hazardous atmospheres on their jobsites.

8:00 AM - 8:30 AM

HAZARDOUS MATERIALS BUSINESS PLANS (HMBP) - COMMUNITY RIGHT TO KNOW REPORTING AND DESIGNING SUFFICIENT SITE MAPS

Camille Yu, Golden State Water Company

In the State of California, the Hazardous Materials Business Plan (HMBP) Program, which is codified in California's Code of Regulations and Health and Safety Code, satisfies the Emergency Planning and Community Right to Know Act (EPCRA) reporting requirement. One aspect of the HMBP program is to develop a site map which clearly identifies several facility characteristics that could assist first responder's in the event of a release or other emergency at the site involving hazardous materials. Golden State Water Company (GSWC) has approximately 150 facilities statewide that are subject to the HMBP regulations. This presentation will provide a brief overview of GSWC's HMBP Compliance program and focus on the facility mapping aspect.

10:00 AM - 11:00 AM

"SAFETY SYSTEMS" ON MULTI EMPLOYER WORKSITES

Alexander Williams, California Water Service Co.

Multi-employer worksites with regards to OSHA/ General Order compliance. The overview will allow attendees to understand the what, how and when of a multi-employer worksite. The examples of real cases involving multi-employer worksites receiving citations and what could have been done to prevent such cases. Then understanding what a multi-employer site looks like and discussion on the specific citations and how multi-employers receive citations.

11:00 AM - 12:00 PM

HOW GREEN ARE YOU? ECONOMIC AND ENVIRONMENTAL SUSTAINABILITY: ASSESSING THE GLOBAL WARMING POTENTIAL OF YOUR UNDERGROUND INFRASTRUCTURE.

Gregory M. Baird, Water Finance Research
Foundation

Sustainability concerns apply to many critical resources such as water. On a per capita basis, the U.S. leads the world in water usage, with a substantial portion of water consumed/leaked by infrastructure systems. This presentation will explain the current industry trends and drivers for sustainability practices for water and wastewater utilities.

This presentation will report on various research and findings on the carbon foot print of common materials used in water underground infrastructure cast against a 100 year period following ISO standards for conducting and LCA and will review the various economic and environmental impact/benefits in fiscal-environmental sustainability planning exercises.

WEDNESDAY SESSIONS

1:30 PM - 2:00 PM

REDUCING INJURY/PROPERTY DAMAGE RATES: THROUGH COMMITMENT, INVOLVEMENT, AND ACCOUNTABILITY

Dan Bresniker and Sue Mosburg, Sweetwater Authority

Whether a business is public or private maintaining a safe work environment is essential in order to keep employee injury and property damage rates low. Since its inception in 1977, Sweetwater Authority (Authority) has been strongly committed to providing a safe and healthy work environment for employees. To accomplish this task the Authority actively promotes employee involvement, commitment, and personal accountability. Analysis of the Authority's incident rates has shown an increase in the number of incidents reported, yet a drop in the number of injury and property damages.

2:00 PM - 3:00 PM

COMPLIANCE CERTAINTY DURING THIS “PERFECT STORM” OF EMERGING ENVIRONMENTAL REGULATIONS: STORM WATER, POTABLE WATER, AND GROUND WATER

Garret Williams & Yair Crane, E2ManageTech

This session will present a very brief history on the CWA and Porter Cologne (California) NPDES and WDR regulations. Discussions will highlight emerging organizational challenges; developing legal precedence; and evolving risk management principles. Through the lenses of proactive planning, information/risk management strategies, and institutional investment plans, several case studies will be presented to highlight the value and benefit of these approaches.

4:00 PM - 5:00 PM

GOING ABOVE AND BEYOND: LAND USE BASED DEMAND MODEL DEVELOPMENT, ENERGY INTENSITY ASSESSMENT, AND CLIMATE CHANGE VULNERABILITY ANALYSIS FOR AN URBAN WATER MANAGEMENT PLAN

Sarina Sriboonlue, Venkat Radhakrishnan and Anna Corrigan, Arcadis U.S. Inc.

Participants at this session will learn what efforts are currently being made to recruit and train the next generation of water industry professionals, and how they can participate and benefit from these critical efforts.

WEDNESDAY SESSIONS

Session 16A – Financial Management

10:00 AM - 10:30 AM

PROTECT YOUR BOND RATING DURING DROUGHT CONDITIONS - LESSONS FROM SOUTH FLORIDA AND CALIFORNIA PARALLELS

Scott E. Harder, Environmental Financial Group

Factors leading to a AAA rating, Benchmark metrics, Forecast techniques at short time scale, Rate design considerations. Managing and communicating with decision-makers, bond holders, credit ratings agencies, and the public.

10:30 AM - 11:00 AM

STANDARD AND POOR'S UPDATED MUNICIPAL UTILITY RATINGS CRITERIA

Ted Chapman, Standard and Poor's

Participants will learn about the updated criteria used by Standard and Poor's to assign credit ratings to municipal waterworks, sanitary sewer, and storm water utility revenue bonds.

11:00 AM - 11:30 AM

TAX ADVANTAGED DEBT-POST ISSUANCE COMPLIANCE: ANSWERING THE WHO, WHAT & WHEN

Joan M. DiMarco, PFM Asset Management LLC

Issuers of Tax Advantaged Debt take on compliance responsibilities that last the lifetime of the debt. Participants will learn how to methodically review the life cycle of their debt and how build on other processes and procedures done within the organization to achieve an integrated, functioning system for compliance.

Session 16B – New Technologies

11:30 AM - 12:00 PM

HOW TO HIKE UP THE MOUNTAIN OF ASSET MANAGEMENT FOR A SMALL UTILITY

Mike Alvord, Newhall County Water District

When looking to implement Asset Management many of us look at it as an insurmountable mountain to climb. This presentation will provide the perspective of Newhall County Water District (a small to mid-sized utility in Southern California) in their ascent of their "Mountain". Specifically the planning and approach they decided to take to implement Maximo CMMS. With a methodology that supports a gradual ascent and takes advantage of all the learning and benefits along the way. Through this approach Newhall discovers that their hike is hard but rewarding as they climb ever closer to the peak. This presentation will dive into the details on the districts methodology and the challenges they face.

1:30 PM - 2:00 PM

Q: I NEED THAT AS-BUILT NOW?

A: YOU CAN GET IT YOURSELF, IT'S EASY

Josephine Shih, Irvine Ranch Water District

Irvine Ranch Water District (IRWD) faced the continuous challenge of getting as-builts and other documents to the people who needed them both internally and public facing. The district solution was to try something new and implement a solution for public access to GIS maps and engineering drawings.

This presentation will go through the steps the district took to figure out how this could be done and if it even should be done.

WEDNESDAY SESSIONS

2:00 PM - 2:30 PM

WEAVING THE FABRIC OF SCADA AND ENTERPRISE SOFTWARE WITH ARCGIS

Lisa O'Connell, City of Anaheim and
Albair Hanna Westin Project Manager

This presentation will go through the steps the City of Anaheim (COA) – Public Utilities Department (Department) took to select a path with software that fit its needs and the incremental approach they took to execute their goal. In addition we will cover what to expect in the journey as you take on a multifaceted integration project, which include what challenges and adjustments to expect.

Session 16C – Communications

2:30 PM - 3:00 PM

THE PUBLIC'S PERCEIVED VALUE OF WATER

Karen Snyder, Senior Director, Katz & Associates

Participants will learn survey results about the public's perceived value of water – some people are willing to pay more, but not nearly enough! The presentation will also include more cogent arguments about water's value – what are they and how do you use them?

4:00 PM - 4:30 PM

PURE WATER SAN DIEGO: EFFECTIVE STRATEGIES FOR COMMUNICATING WITH YOUTH AND YOUNG ADULTS

Brent Edison, Deputy Director, External Affairs,
City of San Diego Public Utilities

This presentation will share how to effectively communicate with and educate youth and young adults about potable reuse through the City of San Diego's successful partnerships with local college universities, schools, environmental groups, and more.

4:30 PM - 5:00 PM

SEEING IS BELIEVING - UTILIZING POTABLE REUSE DEMONSTRATION FACILITY TOURS TO BUILD PROGRAM SUPPORT

Wendy Hovland, Public Outreach Strategist, NV5

The Advanced Water Purification Program is a potable reuse program being led by Padre Dam Municipal Water District in east San Diego County. We use the tour experience to instill confidence in the treatment process, highlight the professionalism and competence of the water/wastewater providers, and reinforce the program goals, all while building support for the program. We will also share statistics and research on the effectiveness of a cohesive tour experience that underscores the importance of the popular and true saying "seeing is believing!"

Session 17 – Leadership Development

10:00 AM - 10:30 AM

LAUNCHING A FORMAL WOMEN'S NETWORKING GROUP AT YOUR ORGANIZATION

Noune Garounts, Metropolitan Water District of Southern California

Participants will learn about the benefits of providing a formal networking organization for women within the workplace, available options, and how to successfully build support for launching such a program.

WEDNESDAY SESSIONS

10:30 AM - 11:00 AM

CREATING CAREER PATHWAYS FOR THE 21ST CENTURY WATER INDUSTRY WORKFORCE

Don Jones, Cuyamaca College

Participants at this session will learn about innovative approaches and programs to recruit and train the next generation of water industry professionals, and how they can participate and benefit from these critical efforts.

11:00 AM - 11:30 AM

IMPLEMENTING A SELF-SUSTAINING INNOVATION PROGRAM

Gary Eaton, San Diego County Water Authority

Participants at this session will learn about the benefits of implementing an innovation program and a number of tips about how one can be successful in building corporate and organizational support for such a program.

11:30 AM - 12:00 PM

EFFECTIVE APPROACHES FOR MENTORING NEW EMPLOYEES

Andrew Linard, Los Angeles Department of Water and Power

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

1:30 PM - 3:00 PM

PROFESSIONAL BRANDING - DISCOVER THE BRAND OF YOU™

BeNeca Griffin, Moments of Focus

Both organizations and individuals benefit from branding. In this interactive session, participants will learn how to develop a personal and professional brand that will help them excel within their careers.

Session 18A – Water Well Technology

7:30 AM - 8:00 AM

WELLHEAD CONTROL OF INJECTION FLOW, PRESSURE, AND AIR ENTRAINMENT FOR GROUNDWATER RECHARGE

Kent O'Brien, GHD, Inc.

Injection wells are increasingly complex and customized to provide for control of injected water while preventing air entrainment and accommodating frequent maintenance. This presentation describes unique groundwater injection situations and the corresponding well and wellhead design solutions.

8:00 AM - 8:30 AM

AVAILABLE FILTER PACKS FOR WATER WELLS - THE GOOD, THE BAD AND THE UGLY

Diane Smith, Hydrosmith, Inc.

There is considerable variation in commonly available filter packs used in modern water wells. The discussion will include a comparison of geology of each deposit, physical and chemical characteristics, their limitations, and new alternative materials.

WEDNESDAY SESSIONS

10:00 AM - 10:30 AM

SAND PRODUCTION IN WELLS

Kevin McGillicuddy, Roscoe Moss Company

Participants in this session will learn about the causes, assessment methods, and potential remedial measures that can be taken to reduce or eliminate sand production in water wells.

10:30 AM - 11:00 AM

MAXIMIZING GROUNDWATER PRODUCTION IN SHALLOW BASINS

Chris Coppinger, GEOSCIENCE Support Services

Limited production in shallow groundwater basins can be increased with modifications in operations and pumping equipment. However, alternative well designs can maximize available water resources in basins that have historically been overlooked.

11:00 AM - 11:30 AM

GROUNDWATER EXPLORATION: PILOT HOLES VERSUS WELL COMPLETION WATER QUALITY RESULTS

Noah Heller, BESST, Inc.

Attendees will learn about some of the limitations of back-fill zone tests in pilot holes used for predicting water quality for scaled-up municipal well completions. They will also learn about how to use long screened pilot holes.

11:30 AM - 12:00 PM

VERTICAL GROUNDWATER FLOW IN WELLS

Russell Kyle, Wood Rodgers, Inc.

Participants will learn how vertical flow in groundwater wells occurs under passive and dynamic pumping conditions, and the implications of these flows on water quality.

Session 18B – Asset Management

2:30 PM - 3:00 PM

UTILITIES ASSET MANAGEMENT PROGRAM IMPLEMENTATION AND SOLUTIONS

Robert Secrest, Carlsbad Municipal Water District

How to implement an asset management program within a small to medium size utilities division or water district.

4:00 PM - 4:30 PM

AN OBJECTIVE CMMS EVALUATION FRAMEWORK

Sean Pour, Hazen and Sawyer

Participants in this session will learn an objective approach to evaluate CMMS solutions and help them select the system that best meets their business needs and functional and technical requirements.

4:30 PM - 5:00 PM

MULTIPLE AWARD CONSTRUCTION CONTRACT (MACC) PROGRAM

Iraj Asgharzadeh,
City of San Diego Public Works Department and
Eric Magee, David Evans & Associates

Participants in this session will learn about MACC, which is a popular Federal procurement strategy for streamlining construction contract awards.

WEDNESDAY SESSIONS

5:00 PM - 5:30 PM

SANTA CLARA VALLEY WATER DISTRICT'S DISTRICT WIDE ASSET MANAGEMENT PROGRAM

Metra Richert and John A. McHugh,
Santa Clara Valley Water District

Participants in this session will learn how a major California water district conducts its Asset Management Program, wrote an update to an asset management plan for the San Felipe Division Reach 1, including management strategies, business risks, and long term financial forecasting.

Session 19A - Water Treatment

10:00 AM - 10:30 AM

AN UPDATE ON THE TECHNOLOGIES FOR REMOVAL OF NITRATE AND PERCHLORATE

Joe Wong, Brown and Caldwell

Participants will learn about the alternative technologies for removal of nitrate and perchlorate from groundwater and get an update on the status and merits of newer technologies available for removing these contaminants.

10:30 AM - 11:00 AM

POINT OF USE TREATMENT

Kevin Berryhill, Provost and Pritchard

This presentation will cover the basics of POU treatment including regulations, treatment technologies, and implementation requirements. Significant lessons learned include device selection, treatment performance, increased HPC levels, public relations, and device access issues. These results show that POU treatment is: technically viable, cost effective, yet logistically difficult to implement.

11:00 AM - 11:30 AM

EFFECTS OF NITRIFICATION ON DISINFECTION BYPRODUCT FORMATION IN CHLORAMINATED DISTRIBUTION SYSTEMS

William Mitch, Stanford University

Participants in this session will learn about how nitrifying biofilms in chloraminated distribution systems may affect the formation of halogenated DBPs and nitrosamines.

11:30 AM - 12:00 PM

TREATMENT ALTERNATIVES FOR DBP CONTROL WITH CHALLENGING SOURCE WATERS

Todd Reynolds, Kennedy/Jenks Consultants

Participants in this session will learn about different approaches for water systems to reduce DBPs while maintaining the balance for immediate and long-term public health. The presentation will provide performance results and operator insights from existing WTPs using the described approaches, operations techniques, and technologies.

1:30 PM - 2:00 PM

LAS VIRGENES DIATOMACEOUS EARTH (DE) WTP EXPANSION REQUIRES UPDATED DBP CONTROL STRATEGY

Rich Stratton, HDR, Inc.

Participants will learn how to do a disinfection profiling and benchmarking study, how diatomaceous earth filtration works, and strategies for controlling disinfection by-products.

WEDNESDAY SESSIONS

2:00 PM - 2:30 PM

DESIGN CHALLENGES OF RETROFITTING A CONVENTIONAL WTP TO MEMBRANES TO INCREASE YEAR ROUND

Rich Stratton, HDR, Inc.

Participants will learn about how a progressive design build project is able to retrofit an existing conventional water treatment plant to membranes under budget and on schedule.

2:30 PM - 3:00 PM

Design And Construction Of An Actiflo Carb WTP For High Organics Removal And To Maintain Free Chlorine Residual In The Distribution System

Cynthia Green, HDR, Inc.

Participants will learn about the design and construction of a proven and cost-effective pretreatment system for enhanced organics removal (Actiflo Carb), integration with other plant processes, and lessons learned during the construction of a surface water treatment plant.

Session 19B – Source Water Quality

4:00 PM - 4:30 PM

TRACKING TOC: NORTH BAY AQUEDUCT

Danielle Bonham, City of Vallejo

Participants in this session will learn about TOC associated with the State Water Projects North Bay Aqueduct. Correlations will be made by comparing multiple agencies TOC results as the raw water travels through the 28 mile underground pipeline.

4:30 PM - 5:00 PM

ENHANCED WATER QUALITY AND POTABLE WATER WELL UTILIZATION BY WELL BLINDING BASED ON FLOW AND WATER

Yuan Li, Pacific Advanced Civil Engineering Inc.

Participants in this session will learn innovative methods to optimize groundwater quality and quantity by a well profiling study, including detailed well survey, flow and water quality data analysis, well blinding, and post-blinding water quality monitoring.

5:00 PM – 5:30 PM

STABLE ISOTOPE ANALYSIS AS A TOOL FOR IDENTIFYING SOURCES OF PERCHLORATE CONTAMINATION

Richard W. Head,
SL Environmental Law Group PC

Participants in this session will learn about the use of stable isotope analysis to differentiate between synthetic perchlorate, perchlorate that is indigenous to the Southwestern United States, and perchlorate that naturally occurs in South America's Atacama Desert.

WEDNESDAY SESSIONS

Session 20 - Operators

10:00 AM - 11:30 AM

OPERATOR ROUNDTABLE - PANEL DISCUSSION

Bill Cardinal, Calaveras County Water District

This is the place to come and get solutions to problems found in the Operations and Maintenance of Water Utilities. The three panelist will field questions and share experience gathered over their careers.

11:30 AM - 12:00 PM

OPERATORS ROLE IN MAXIMIZING SUSTAINABLE GROUNDWATER PRODUCTION

Chris Coppinger, GEOSCIENCE Support Services

Operational schedules and duty factors can be planned to maximize production to basin sustainable yield. Rancho California Water District's "Water Audit" process serves as an example of coordination between district management, operations, and consultant in determining yearly production.

1:30 PM - 2:30 PM

PARTNERSHIP FOR SAFE WATER TOOLS FOR DISTRIBUTION SYSTEM OPTIMIZATION

Barbara Martin, American Water Works Association (AWWA)

Participant's will learn how the Partnership for Safe Water's self-assessment process and resources can help utilities optimize distribution system performance and operations. This will be communicated through a program overview and utility case study and results.

2:30 PM - 3:00 PM

BMPS FOR THE STATEWIDE NPDES PERMIT FOR DRINKING WATER DISCHARGES

Neil McQueen, McQueen Environmental Consulting

Participants will learn about the latest sediment removal and dechlorination best management practices (BMPs) that can be deployed to meet the requirements of the new Statewide NPDES Permit for Drinking Water System Discharges.

4:00 PM - 5:00 PM

REQUIREMENTS OF THE STATEWIDE NPDES PERMIT FOR DRINKING WATER DISCHARGES

Neil McQueen, McQueen Environmental Consulting

Participants in this session will learn about the requirements of the new Statewide NPDES Permit for Drinking Water System Discharges and how it might affect their daily activities.

5:00 PM - 5:30 PM

MONITORING AND REPORTING FOR THE STATEWIDE NPDES PERMIT FOR DRINKING WATER DISCHARGES

Neil McQueen, McQueen Environmental Consulting

Participants will learn about the monitoring and reporting equipment and procedures that are required by the new Statewide NPDES Permit for Drinking Water System Discharges.

THURSDAY SESSIONS

Session 21 – Smaller Utilities

8:00 AM - 8:30 AM

Regulatory Update

Sean Sterchi, State Water Resource Control Board

8:30 AM - 9:00 AM

Revised TCR Level 1 and Level 2 Assessments

Sean Sterchi, State Water Resource Control Board

9:00 AM - 10:00 AM

Basic Leak Detection and Water Loss Accountability

Michael Sims, California Rural Water Association

10:30 AM - 11:00 AM

Use for POE/POU Devices for Arsenic and Hexavalent Chromium Compliance

Rural Community Assistance Corporation

11:00 AM - 11:30 AM

Free Software on the Internet

TBD

11:30 AM - 12:00 PM

Ask the Experts: Q&A Session

All Speakers

1:00 PM - 2:00 PM

Funding Sources: SRFs, Prop 1, USDA, EFC West, DWR, etc

State Water Resource Control Board,
United States Department of Agriculture and
Department of Water Resources

2:00 PM - 2:30 PM

Financing for the Colonias

Daniel Cardona, United States Department of
Agriculture and Luis Andrade, United States
Department of Agriculture

3:00 PM - 4:00 PM

Basic Needs for Funding: Audits, Ownership, Water Rights

George Faggella, State Water Resource Control Board

4:00 PM - 4:30 PM

Getting the Most Out of Your Consultants

Glenn Reynolds, Water Solutions, Inc

Session 22 – Desalination & Recycled Water

8:30 AM - 9:00 AM

The Question of Safety: When Resources Are Not Limitless

Phillippe Daniel, HDR Inc.

Participants will learn there are no “one-size-fits-all” answers: decisions on an appropriate level of safety require a consideration of public health risk, degree of risk reduction possible and opportunity costs if other investments were made.

THURSDAY SESSIONS

9:00 AM - 9:30 AM

An Ounce of Source Control is Worth a Ton of Treatment

Ron Coss, Orange County Sanitation District

Participants will learn about OCSD's Source Control program and how this program has allowed the OCWD's Groundwater Replenishment System to become the largest water recycling system in the United States. Discussion will include lessons learned and how unforeseen contaminants of concern were dealt with and mitigated through an enhanced monitoring program.

9:30 AM - 10:00 AM

Estimating Ground Water Underflow as a Source of Diluent Water for Indirect Potable Reuse

Joe Kingsbury, GEOSCIENCE Support Services, Inc.

Participants in this session will learn the basis and method used to estimate the amount of ground water underflow that can be credited as a source of diluent water for a ground water replenishment reuse project.

10:30 AM - 11:00 AM

Investigating the Feasibility of Direct Potable Reuse

Brian Bernados, Division of Drinking Water

Division of Drinking Water is in the process of investigating the feasibility of developing criteria for Direct Potable Reuse (DPR). An Expert Panel has been formed to consider issues such as the following: treatment reliability; evaluation of multiple barriers and monitoring tools; methods for monitoring pathogens, etc.

11:00 AM - 11:30 AM

Pure Water San Diego: Effective Strategies for Communicating with Youth and Young Adults

Brent Eidson, City of San Diego

Participants will learn how to effectively communicate with and educate youth and young adults about potable reuse through the City of San Diego's successful partnerships with local college universities, schools, environmental groups, and more.

11:30 AM - 12:00 PM

Padre Dam: Community Outreach and Public Education

Wendy Hovland, NV5

Participants will learn how to get the best and highest beneficial use from your Potable Reuse Demonstration Facility by designing a tour program that serves your community, builds support for your program and creates goodwill for your agency. Discussion will include lessons learned, research results on tour effectiveness and ideas on how to build your own tour program.

1:00 PM - 2:00 PM

Panel Discussion Recycled Water

Silvana Ghu, Hazen and Sawyer

Al Lau, Padre Dam

Tai Tseng, City of Long Beach

Participants will learn from a panel discussion the challenges with implementing a potable reuse system, recycled water approaches that have been received positively by the community, an overview of technology advances and the future of reuse in California and Nevada.

THURSDAY SESSIONS

2:00 PM - 2:30 PM

Membrane Processes - Lessons Learned and New Technologies

Sunny Wang, Brown and Caldwell

Participants will learn an overview of the application of membrane filtration technologies for water reuse.

3:00 PM - 3:30 PM

Overview of Historical and Latest Developments of Advanced Oxidation Processes for Water Resuse

Dr. David Hokanson, Trussell Technologies

This presentation will discuss the historical technologies used for UV AOP. It will also discuss emerging UV/free chlorine technologies under implementation or consideration for various projects. Finally, it will provide a brief overview of novel UV reactors under development for water reuse applications.

4:00 PM - 4:30 PM

RO Brine Minimization for Potable Reuse at Padre Dam

Seval Sen, Padre Dam and
Eileen Y. Idica, Trussell Technologies

The participants will learn about two methods used to increase recovery of RO systems for potable reuse applications; conventional recovery RO and closed-circuit desalination. Presentation will compare recoveries and system performances with respect to water quality, operability, and energy usage.

Session 23 – Asset Management

8:30 AM - 9:00 AM

Water Storage Asset Management

Kevin Barnes, Suez, Water Advanced Solutions

This presentation will discuss the method for tank maintenance available to owners and how it differs from the traditional means of procurement. Asset management programs will be discussed: single source responsibility, balanced funding, evaluation and planning, regulatory compliance, annual inspection, maintenance, and emergency service.

9:00 AM - 10:00 AM

Intelligent Hydrant Solutions

Brian Morrow, Nighthawk

Participants in this session will learn about the current DDW regulations regarding Backflow Prevention and Cross Connection Control and potential future changes.

10:30 AM - 11:00 AM

Installation of Seismic Resistant Joint 8-inch Pipe

Collin Bryant, United States Pipe and Foundry Company

Participants will learn about the considerations evaluated for pipeline replacement in an area exposed to landslides and seismic activity. Additionally information about the existing pipeline was compromised requiring a pipe product that can be easily field modified to accommodate unknown obstacles. Choice of installing seismic resistant ductile iron pipe.

THURSDAY SESSIONS

11:00 AM - 12:00 PM

Where are My Cost Savings? Shifting a Risk-Based Asset Management Program to Cost-Based Prioritization -Developing an Enterprise-wide Life Cycle Costing Framework

Greg Barid, Water Finance Research Foundation

The participants will learn how develop a life cycle costing framework as part of their asset management program in order to track, monitor and capture cost savings. The participants will also learn the various types of life cycle cost analysis tools and how to incorporate the findings into an asset management plan.

Session 24 – Water Treatment

8:30 AM - 9:00 AM

Hexavalent Chromium Treatment and Brine Minimization/Reuse Research Update

Sarah Plummer, Corona Environmental

This presentation will highlight current Proposition 50 pilot research efforts and summarize the results from bench-scale and pilot-scale brine minimization and reuse. This information will assist other utilities in selecting the appropriate Cr(VI) treatment technology and method of waste disposal.

9:00 AM - 9:30 AM

Meeting Hexavalent Chromium Compliance in Unchlorinated Systems via Stannous Chloride Application

Sarah Plummer, Corona Environmental

This presentation will provide a background of Cr(VI) conversion treatment and an overview of the stannous chloride bench-test protocol. Results from bench-scale

testing and plans for full-scale demonstration will also be discussed.

9:30 AM - 10:00 AM

Hexavalent Chromium Compliance from a Water Utilities Perspective

Nelson Lui, P.E., California Water Service Company

Participants will learn how California Water Service Co. (Cal Water) maintained compliance with the regulation by partnering with a team of industry experts and contractors to install ten permitted, full scale hexavalent chromium treatment systems in three impacted service areas. The presentation will also cover the results of column testing to determine the best performing resin to treat our source water. Additional discussions will highlight the processes associated with the design, construction, installation, start-up, on-going field operations, and optimization of the treatment systems.

10:30 AM - 11:00 AM

Evaluating the Impact of Desalinated Seawater from the Carlsbad SWRO Plant on San Diego Regional Potable Water Quality

Brent Alspach, Arcadis

This presentation will provide a comprehensive overview of the project up to the time of the CA-NV Section AWWA Fall 2016 conference, including: the critical study background; the selection of water quality and operational parameters; the identification of strategic monitoring locations; and research results to-date.

THURSDAY SESSIONS

11:00 AM - 11:30 AM

Disinfection with Free Chlorine

Xiaoyan Qu, Pacific Advanced

The City of Lathrop Consolidated Treatment Facility (CTF) is currently undertaking its Phase II expansion plan to increase its treatment capacity from 1 million gallon per day (MGD) average daily flow to 2.0 or 2.5 MGD average dry weather flow. The existing baffled-channel chlorine contact basin assumes chloramine disinfection. This study confirmed complete nitrification and effective free chlorine disinfection could provide a significant cost saving for the city while producing good quality recycled water at full-scale.

11:30 AM - 12:00 PM

Kicking It Downstream: The Effect of Water Treatment Residuals on Wastewater and Recycled Water

Paul Friedlander, Carollo Engineers

Learning outcomes include an appreciation of the complex interconnection between drinking water, wastewater, and recycled water quality; a better understanding of the potential impacts of water treatment residuals discharged to sewer; and the ability to evaluate ways to reduce impacts of water treatment residuals.