

Heber Public Utility District

Report to the Board of Directors

Date: February 19, 2020
From: Laura Fischer, General Manager
Subject: General Manager's Report to Board of Directors

HPUD EVENTS

I am very sorry to report that the Leap Year Event was cancelled.

Movie Night will be on March 13th at Tito Park.

Clean Up Day is on March 7th. CR&R will be accepting drop off at the HPUD property across the Wastewater Treatment Plant on Rockwood Road from 7am to noon.

HPUD OPERATIONS AND ADMINISTRATION

Newsletter

We will be preparing a Newsletter for our March utility bill. This newsletter will include information about the upcoming movie night, clean up day, and the U. S. Census information. I am also requesting information from the library, school and SAL.

CR&R Recycling Reports

I have attached the quarterly reports from CR&R.

Water and Sewer Master Plan

I attended a Kick-Off meeting for the Water and Sewer Master Plan. Attending with Graciela and I were representatives from the County of Imperial and Michael Baker International Consulting. This project is funded by a grant awarded through the Imperial County Regional Water Management Group and managed by the County of Imperial. The project will result in a product that will include a hydraulic model for water and sewer, prioritized capital improvement projects for maintenance and planned expansions, as well as digital maps. The project should be completed by January 2021.

Water Sanitary Survey

Two representatives from the State Water Board visited Heber PUD inspecting our water plant and surveying our administration and financial documents. The Water Board performs the sanitary survey every three years. We will share the report as soon as it is made available to staff. We don't anticipate any findings or violations.

Regional Water Quality Control Board Inspection

The Regional Water Quality Control Board (RWQCB) held their annual inspection of the wastewater treatment plant in January. The staff was pleased with their comments and there are no findings or concerns. We will make this report available as soon as it is available.

Memo to BOD 02/20/20

Election 2020 for Two Seats on the HPUD Board of Directors

Just wanted to remind you all that this is an election year for HPUD. Directors Nolasco and Pompeyo are up for re-election. Paperwork needs to be into the County Election Department by the end of August.

Correspondence Attached:

Thank you letters

CSDA Cal for Nominations



environmental services

the face of a greener generation

CITY OF XXX

COMMODITY REVENUE 4TH QTR 2019

OCT-NOV-DEC 2019

	CURBSIDE %	CURBSIDE TONS	GROSS REVENUE	NET REVENUE (GROSS - COST)
COMMODITY				
ALUMINUM	0.15%	0.07	\$ 292.31	\$ 285.15
TIN/STEEL	4.69%	2.13	\$ 188.13	\$ (29.00)
PET	0.50%	0.23	\$ 222.82	\$ 199.57
HDPE	0.52%	0.23	\$ 107.00	\$ 83.12
MX PLASTICS	0.00%	0.00	\$ -	\$ -
ALL GLASS	3.67%	1.67	\$ 32.30	\$ (137.85)
RESIDUE	41.09%	18.66	\$ (839.72)	\$ (2,743.10)
NEWSPAPER	17.76%	8.06	\$ -	\$ (822.59)
MX PAPER	17.02%	7.73	\$ 33.86	\$ (754.78)
CARDBOARD	14.60%	6.63	\$ 389.17	\$ (287.13)
	100.00%	45.42	\$ 425.86	\$ (4,206.62)

CRSR
CITY OF HEBER 2019
SOLID WASTE & RECYCLING TONS SUMMARY REPORT
4TH QTR 2019

RESIDENTIAL

MONTH	CURBSIDE DIVERTED	CURBSIDE LANDFILLED	TOTAL RESI DIVERSION %
Jan-19	48.08	142.22	25.27%
Feb-19	64.83	124.82	34.18%
Mar-19	74.24	124.83	37.29%
Apr-19	59.27	174.87	25.31%
May-19	76.53	104.73	42.22%
Jun-19	59.70	116.52	33.88%
Jul-19	75.61	158.06	32.36%
Aug-19	50.62	114.99	30.57%
Sep-19	69.98	140.22	33.29%
Oct-19	72.01	163.88	30.53%
Nov-19	68.16	146.70	31.72%
Dec-19	51.64	200.94	20.45%
4TH QTR TOTAL	191.81	511.52	27.27%

COMMERCIAL

MONTH	2030			2030			TOTAL COM DIVERSION %
	COMMERCIAL DIVERTED	COM LANDFILLED	COM BIN DIVERSION %	COMMERCIAL ROLL OFF RECYCLE	COMM ROLL OFF RESIDUAL/DIRECT LANDFILLED	ROLL OFF DIVERSION %	
Jan-19	3.85	85.14	4.33%	5.58	6.16	47.53%	9.36%
Feb-19	2.76	79.18	3.37%	0.00	0.00	0.00%	3.37%
Mar-19	2.74	83.01	3.20%	3.05	5.25	36.72%	6.15%
Apr-19	3.70	83.19	4.26%	0.00	0.00	0.00%	4.26%
May-19	3.70	87.88	4.04%	0.00	0.00	0.00%	4.04%
Jun-19	2.70	78.22	3.34%	2.05	1.36	60.00%	5.63%
Jul-19	2.26	78.26	2.81%	0.00	0.00	0.00%	2.81%
Aug-19	1.82	77.36	2.30%	0.00	0.00	0.00%	2.30%
Sep-19	2.04	75.60	2.63%	8.62	5.74	60.00%	11.58%
Oct-19	2.26	84.08	2.62%	0.00	7.01	0.00%	2.42%
Nov-19	3.11	79.97	3.74%	0.00	0.00	0.00%	3.74%
Dec-19	3.30	81.56	3.89%	9.72	10.94	47.05%	12.34%
4TH QTR TOTAL	8.67	245.61	3.41%	9.72	17.95	35.13%	6.52%

C&D PROCESSING

MONTH	4060		
	C&D ROLL OFF RECYCLE	C&D ROLL OFF LANDFILLED	C&D DIVERSION %
Jan-19	18.88	25.99	42.08%
Feb-19	17.88	7.92	69.30%
Mar-19	12.99	6.67	66.06%
Apr-19	0.00	0.00	0.00%
May-19	15.99	10.66	60.00%
Jun-19	9.90	6.60	60.00%
Jul-19	0.00	0.00	0.00%
Aug-19	0.00	0.00	0.00%
Sep-19	0.00	5.05	0.00%
Oct-19	14.50	26.78	35.13%
Nov-19	0.00	5.70	0.00%
Dec-19	16.32	13.44	54.84%
4TH QTR TOTAL	30.82	45.92	40.16%

OVERALL TOTAL

MONTH	TOTAL DIVERTED	TOTAL LANDFILLED	OVERALL DIVERSION
Jan-19	76.39	259.51	22.74%
Feb-19	85.47	211.92	28.74%
Mar-19	93.02	219.76	29.74%
Apr-19	62.97	258.06	19.61%
May-19	96.22	203.27	32.13%
Jun-19	74.35	202.70	26.83%
Jul-19	77.87	236.32	24.78%
Aug-19	52.44	192.35	21.42%
Sep-19	80.64	226.61	26.24%
Oct-19	88.77	281.75	23.96%
Nov-19	71.27	232.37	23.47%
Dec-19	80.98	306.88	20.88%
ANNUAL TOTAL	940.38	2,831.51	24.93%
4TH QTR TOTAL	241.02	821.00	22.69%

THIS REPORT REFLECTS THE MOST UP-TO-DATE INFORMATION FOR ALL MONTHS LISTED.

DISTRICT LEADERSHIP

DR. WARD ANDRUS

Superintendent

SHERI HART

Assistant Superintendent, Educational Services

ARNOLD PRECIADO

Assistant Superintendent, Business Services

CAROL MORENO

Director, Human Resources



BOARD OF TRUSTEES

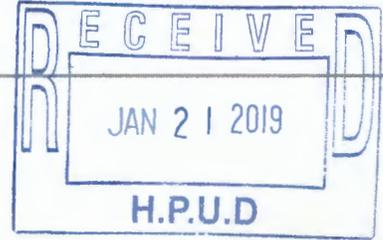
DIAHNA GARCIA-RUIZ

RYAN CHILDERS

TODD EVANGELIST

JACINTO JIMENEZ

EMMA JONES



January 15, 2020

Heber Public Utility District
1078 Dogwood Rd #103
Heber, CA 92249

To whom it may concern,

On behalf of the Central Union High School District Board of Trustees, I would like to thank you for your generous donation of \$200.00 to the SHS HOSA Club for Halloween Festival. There is no doubt that the students will benefit from your generous donation.

The assistance of citizens like you will enable this school district to accomplish far more than it otherwise could have. You are to be commended for your support of our schools.

Sincerely,

Dr. Ward Andrus
Superintendent

CENTRAL UNION HIGH SCHOOL
1001 BRIGHTON AVENUE
EL CENTRO, CA 92243
(760) 336-4300
CRAIG LYON, PRINCIPAL

SOUTHWEST HIGH SCHOOL
2001 OCOTILLO DRIVE
EL CENTRO, CA 92243
(760) 336-4100
MATT PHILLIPS, PRINCIPAL

DESERT OASIS HIGH SCHOOL
1302 SOUTH 3RD STREET
EL CENTRO, CA 92243
(760)336-4555
FERNANDO O'CAMPO, PRINCIPAL

**CENTRAL UNION
ADULT EDUCATION**
2345 S. 2ND ST. STE. #A
EL CENTRO, CA. 92243
(760) 312-7050
DARRELL PECHTL, DIRECTOR

ADMINISTRATIVE OFFICES
351 ROSS AVENUE, EL CENTRO, CA 92243
(760) 336-4500, WWW.CUHSD.NET

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Superintendent

SHERI HART

Assistant Superintendent, Educational Services

ARNOLD PRECIADO

Assistant Superintendent, Business Services

CAROL MORENO

Director, Human Resources



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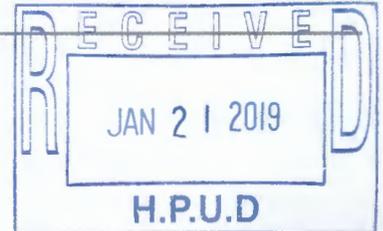
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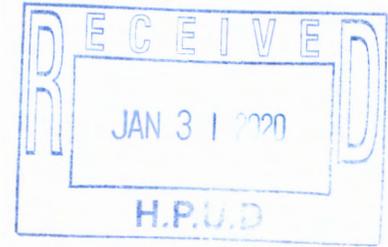
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**California Special
Districts Association**
Districts Stronger Together



DATE: January 27, 2020
TO: CSDA Voting Member Presidents and General Managers
FROM: CSDA Elections and Bylaws Committee
**SUBJECT: CSDA BOARD OF DIRECTORS CALL FOR NOMINATIONS
SEAT C**

The Elections and Bylaws Committee is looking for Independent Special District Board Members or their General Managers who are interested in leading the direction of the California Special Districts Association for the 2021 - 2023 term.

The leadership of CSDA is elected from its six geographical networks. Each of the six networks has three seats on the Board with staggered 3-year terms. Candidates must be affiliated with an independent special district that is a CSDA Regular Member in good standing and located within the geographic network that they seek to represent. (See attached CSDA Network Map)

The CSDA Board of Directors is the governing body responsible for all policy decisions related to CSDA's member services, legislative advocacy, education and resources. The Board of Directors is crucial to the operation of the Association and to the representation of the common interests of all California's special districts before the Legislature and the State Administration. Serving on the Board requires one's interest in the issues confronting special districts statewide.

Commitment and Expectations:

- Attend all Board meetings, usually 4-5 meetings annually, at the CSDA office in Sacramento.
- Participate on at least one committee, meets 3-5 times a year at the CSDA office in Sacramento.
(CSDA reimburses Directors for their related expenses for Board and committee meetings as outlined in Board policy).
- Attend, at minimum, the following CSDA annual events: Special Districts Legislative Days - held in the spring, and the CSDA Annual Conference - held in the fall.
*(CSDA does **not** reimburse expenses for the two conferences even if a Board or committee meeting is held in conjunction with the event, however does comp registration for the two events)*
- Complete all four modules of CSDA's Special District Leadership Academy within 2 years of being elected.
*(CSDA does **not** reimburse expenses for the Academy classes even if a Board or committee meeting is held in conjunction with the event).*

- Complete Annual Chief Executive Officer Evaluation.

Nomination Procedures: Any Regular Member in good standing is eligible to nominate one person, a board member or managerial employee (as defined by that district's Board of Directors), for election to the CSDA Board of Directors. **A copy of the member district's resolution or minute action and Candidate Information Sheet must accompany the nomination. The deadline for receiving nominations is March 26, 2020. Nominations and supporting documentation may be mailed, faxed, or emailed.**

Mail: 1112 I Street, Suite 200, Sacramento, CA 95814

Fax: 916.442.7889

E-mail: amberp@csda.net

Once received, nominees will receive a candidate's letter in the mail. The letter will serve as confirmation that CSDA has received the nomination and will also include campaign guidelines.

CSDA will begin electronic voting on May 25, 2020. All votes must be received through the system no later than 5:00 p.m. July 10, 2020. The successful candidates will be notified no later than July 14, 2020. All selected Board Members will be introduced at the Annual Conference in Palm Desert, CA in August 2020.

Expiring Terms

(See enclosed map for Network breakdown)

Northern Network Seat C-Fred Ryness, Director, Burney Water District*
Sierra Network Seat C-Pete Kampa, GM, Saddle Creek Community Services District*
Bay Area Network Seat C-Stanley Caldwell, Director, Mt. View Sanitary District*
Central Network Seat C-Sandi Miller, GM, Selma Cemetery District*
Coastal Network Seat C-Vincent Ferrante, Director, Moss Landing Harbor District*
Southern Network Seat C-Arlene Schafer, Director, Costa Mesa Sanitary District*

(* = Incumbent is running for re-election)

If you have any questions, please contact Amber Phelen at amberp@csda.net.

AGAIN, THIS YEAR!

This year we will be using a web-based online voting system, allowing your district to cast your vote easily and securely. *Electronic Ballots will be emailed to the main contact in your district May 25, 2020. All votes must be received through the system no later than 5:00 p.m. July 10, 2020.*

*Districts can opt to cast a paper ballot instead; but you must contact Amber Phelen by e-mail Amberp@csla.net **by March 26, 2020** in order to ensure that you will receive a paper ballot on time.*

CSDA will mail paper ballots on May 25, 2020 per district request only. ALL ballots must be received by CSDA no later than 5:00 p.m. July 10, 2020.

The successful candidates will be notified no later than July 14, 2020. All selected Board Members will be introduced at the Annual Conference in Palm Desert, CA in August 2020.



**California Special
Districts Association**
Districts Stronger Together

2021-2023 BOARD OF DIRECTORS NOMINATION FORM

Name of Candidate: _____

District: _____

Mailing Address: _____

Network: _____ (see map)

Telephone: _____
(PLEASE BE SURE THE PHONE NUMBER IS ONE WHERE WE CAN REACH THE CANDIDATE DIRECTLY)

Fax: _____

E-mail: _____

Nominated by (optional): _____

Return this form and a Board resolution/minute action supporting the candidate and Candidate Information Sheet by mail, or email to:

CSDA
Attn: Amber Phelen
1112 I Street, Suite 200
Sacramento, CA 95814
(877) 924-2732 (916) 442-7889 fax
amberp@csla.net

DEADLINE FOR RECEIVING NOMINATIONS – March 26, 2020



2021-2023 CSDA BOARD CANDIDATE INFORMATION SHEET

The following information **MUST** accompany your nomination form and Resolution/minute order:

Name: _____

District/Company: _____

Title: _____

Elected/Appointed/Staff: _____

Length of Service with District: _____

1. Do you have current involvement with CSDA (such as committees, events, workshops, conferences, Governance Academy, etc.):

2. Have you ever been associated with any other state-wide associations (CSAC, ACWA, League, etc.):

3. List local government involvement (such as LAFCo, Association of Governments, etc.):

4. List civic organization involvement:

****Candidate Statement** – Although it is not required, each candidate is requested to submit a candidate statement of no more than 300 words in length. **Any statements received in the CSDA office after March 26, 2020 will not be included with the ballot.**



California Special Districts Association

DISTRICT NETWORKS





Tuesday, April 7, 2020

	Session 1 Safe Drinking Water Act	Session 2 Water Treatment/ Leadership Devel.	Session 3 Backflow Programs	Session 4 Water Loss
ROOM				
1:30 PM - 2:00 PM	State & Federal Regulator Update	Its Name Was M.U.D.: 97 Years of EBMUD History	Backflow Tester Ethics & The Impacts to Your Cross Connection Control Program	Modeling Economic Water Losses for Urban Water Retailers in CA
2:00 PM - 2:30 PM		Solving Regional Issues Together: A History of Water in Las Vegas	Basics of Backflow & Type 2 Detector Assemblies	Trackle - Next Gen Water Info Mngmt., Tracking & Actionable Intelligence...
2:30 PM - 3:00 PM	USEPA Lead & Copper Rule: Everything You Need to Know	History of the San Francisco Regional Water System		
3:00 PM - 4:00 PM (BREAK)				
4:00 PM - 4:30 PM	California Lead & Copper Regulatory Overview	150 Years of San Jose Water Company	Does a Failed Assembly Prevent Backflow?	Update on State Water Loss Activity & Proposed Regulation
4:30 PM - 5:00 PM	Lead Testing in Schools, Lead Inventory, and LCR	Young Professionals Flash Mentoring Session		
5:00 PM - 5:30 PM				Testing Fire Service Backflow Assemblies
	Session 5 Asset Management	Session 6 Tanks, Reservoirs & Structures	Session 7 Distribution System Water Quality	Session 8 Financial Management
ROOM				
1:30 PM - 2:00 PM	Asset Mngmt at Metropolitan Water District of So. Cal	Gene Wash Reservoir Discharge Line Refurbishment	Earthquake Response, Vulnerability Assessment & Rehab of Water Conveyance Tunnels...	Case Study: A Rate Setting Strategy That Worked for the Sweetwater Authority
2:00 PM - 2:30 PM	Balancing Strategical & Tactical Asset Mngmt. Elements for Emerging Asset Mngmt .Prgms.	Steel Tanks, Chlorine Corrosion & Air Circulation Systems	Large Scale Fire Related Benzene/VOC Dist. System Contamination	Protection of Groundwater, Well Design & Treatment
2:30 PM - 3:00 PM	Developing a Pilot Asset Mngmt. Plan for Large Diameter Pipelines	Setting Sites on the Future of CA's Water Storage	SFPUC's Strategy for Compliance w/SB 1398 Public Water Systems...	
3:00 PM - 4:00 PM (BREAK)				
4:00 PM - 4:30 PM	Not Just Another ERP Presentation...	Design History & Evolution of Prestressed Concrete Tanks	Chloramination & Nitrification Control	Incorporating Customer Use Distribution...
4:30 PM - 5:00 PM	Transforming the Water Utility Business...	No Water, No... Paint? Waterborne Coatings for Tanks & Trtmt. Plants	Hydraulic Transients & Surge Mitigation	Cost Recovery Options for Emerging Contaminants...
5:00 PM - 5:30 PM	Developing a Risk-Based Desktop Cond. Assessment	20 Years of Improving Water Quality by Mixing & Aeration...	Distribution Water Quality Modeling...	The Financing Fix: Scaling Localized Water Infrastructure



Technical Program (Tuesday, April 7, 2020)

A maximum of 25 contact hours are available for Spring Conference. Please be sure to scan in and out of each session.

Session 1 - Safe Drinking Water Act

Room:

1:30 PM - 2:30 PM

STATE AND FEDERAL REGULATORY UPDATE

Darrin Polhemus (DDW, State Board)

Participants in this session will learn about the latest regulatory updates from state and federal regulators.

2:30 PM - 3:00 PM

USEPA LEAD AND COPPER RULE: EVERYTHING YOU NEED TO KNOW

Luis Garcia-Bakarich (EPA Region 9)

Participants in this session will hear an in depth summary of the proposed USEPA Lead and Copper Rule and how it may impact their utility.

4:00 PM - 4:30 PM

CALIFORNIA LEAD AND COPPER REGULATORY OVERVIEW

Kurt Souza (State Water Resources Control Board, Division of Drinking Water)

Participants in this session will learn all of the regulatory activities related to lead and copper in California, including school and daycare testing requirements and lead service line inventories.

4:30 PM - 5:30 PM

LEAD TESTING IN SCHOOLS, LEAD INVENTORY, AND LCR

David Kimbrough (Pasadena Water and Power)

Participants in this session will hear from a local California utility about their efforts to comply with current regulatory requirements and how water utilities may be affected by the new proposed federal requirements for lead and copper.

Session 2 - Water Treatment

/ Leadership Development

Room:

1:30 PM - 2:00 PM

ITS NAME WAS M.U.D.: 97 YEARS OF EBMUD HISTORY

Jeff Bandy (East Bay Municipal Utilities District)

Participants in this session will learn about East Bay Municipal Utility District's nearly 100-year history, from the water wars of the turn of the century to the formation the District in 1923 and completion of the large infrastructure projects that continue to play a critical role in providing clean, safe and reliable water to over 800,000 customers in the East Bay.

2:00 PM - 2:30 PM

SOLVING REGIONAL ISSUES TOGETHER: A HISTORY OF WATER IN LAS VEGAS

David Rexing (Las Vegas Valley Water District)

Participants in this session will learn about the important role of water and how it shaped the Las Vegas community. From sustaining a small town off a railroad line to supporting a major metropolitan city of more than 2 million, Las Vegas has cooperatively worked together to manage this limited and precious resource through the development of a regional agency. The creation of the Southern Nevada Water Authority has given a unified and cooperative voice to a resource that would otherwise go litigated and contentious.

2:30 PM - 3:00 PM

HISTORY OF THE SAN FRANCISCO REGIONAL WATER SYSTEM

Steven Ritchie (San Francisco Public Utilities Commission)

Participants in this session will learn about the history of the San Francisco Regional Water System, including resource development, distribution system establishment, and challenges faced.

4:00 PM - 4:30 PM

150 YEARS OF SAN JOSE WATER COMPANY

Sharon Whaley (San Jose Water Company)

Participants in this session will learn about San Jose Water Company's 150-year history serving the South Bay.

4:30 PM - 5:30 PM

YOUNG PROFESSIONALS FLASH MENTORING SESSION

Dustin La Vallee (East Bay Municipal Utilities District)

Participants in this session will have the opportunity to network with and receive guidance from multiple highly experienced water industry professionals during this interactive mentoring session. Mentors with experience as water system operators, designers, managers, and project managers will be provided from several leading water agencies and consulting firms.

Session 3 - Backflow Programs

Room:

1:30 PM - 2:00 PM

BACKFLOW TESTER ETHICS AND THE IMPACTS TO YOUR CROSS CONNECTION CONTROL PROGRAM

Chris Castaing (San Diego County Water Authority)

Participants in this session will learn how the actions of a backflow tester in your jurisdiction can positively or negatively impact your cross connection control program.

2:00 PM - 3:00 PM

BASICS OF BACKFLOW AND TYPE 2 DETECTOR ASSEMBLIES

Sean Perry (Watts)

Participants in this session will learn about the history of backflow devices, how they work hydraulically, what a detector assembly is and why is it needed, and be introduced to the new "Type 2" detector assemblies.

4:00 PM - 4:30 PM

DOES A FAILED ASSEMBLY PREVENT BACKFLOW?

Patrick Sylvester (University of Southern California)

Participants in this session will learn what the failure of a field test on a backflow prevention assembly means. Does the water line need to be shut off until repairs are made? Is there an imminent danger to the water supply? Can a tester leave an assembly, "online" when it fails a field test? Answers to these questions and more will be discussed in this session.

5:00 PM - 5:30 PM

TESTING FIRE SERVICE BACKFLOW ASSEMBLIES

Ben Bennett (Backflow Prevention Specialists, Inc.)

Participants in this session will learn about the approved procedures and laws pertaining to testing fire.

Session 4 - Water Loss

Room:



1:30 PM - 2:00 PM

MODELING ECONOMIC WATER LOSSES FOR URBAN WATER RETAILERS IN CALIFORNIA

Amanda Rupiper (Center for Water-Energy Efficiency)

Participants in this session will learn about how water loss reductions can be estimated using utility specific data and how these reductions can be examined on an economic basis. Additionally, participants will learn about the challenges associated with calculating utility specific standards given limited data and varying degrees of data validity.

2:00 PM - 2:30 PM

TRACKLE - NEXT GENERATION WATER INFORMATION MANAGEMENT, TRACKING AND ACTIONABLE INTELLIGENCE PLATFORM TO HELP AGENCIES AND ITS CUSTOMERS TO TRACK WATER USE EFFECTIVELY

Amit Sharma (Aquatrax Solutions) & Joe Berg (Municipal Water District of Orange County)

Participants in this session will learn about the Trackle, a next-generation water information management, tracking and actionable intelligence platform that will help agencies and its customers track water use effectively.

2:30 PM - 3:00 PM

THE NEW AWWA FREE WATER LOSS SOFTWARE V6 AND THE AWWA PERFORMANCE INDICATORS

Will Jernignan (Cavanaugh)

Participants in this session will learn about the newly launched Version 6 of the AWWA Free Water Audit Software, including a new user interface for assessment of the Data Validity Grading and other key changes to data inputs and performance indicators.

4:00 PM - 4:30 PM

UPDATE ON STATE WATER LOSS ACTIVITY AND PROPOSED REGULATION

Max Gomberg (State Water Resources Control Board)

Participants in this session will learn the most recent activities regarding the State's proposed water loss regulation (Senate Bill 555).

4:30 PM - 5:00 PM

AMI NETWORKS- SENSORS- AND SMART WATER

Kevin Cornejo (Mueller Water Products) & Virgil Diaz, Jr. (Mueller Water Products)

Participants in this session will learn about the integration of AMI (Advanced Metering Infrastructure) data to form a DMA and the future of DSS (Decision Support Systems) in data and water loss through the use of AMI meter data, pressure monitoring data, and leak monitoring data.

5:00 PM - 5:30 PM

WATER LOSS PREVENTION AND REVENUE RECOVERY PROGRAM

Craig Irey (Irvine Ranch Water District) & Robert Brown (Irvine Ranch Water District)

Participants in the session will learn about Irvine Ranch Water District's expanded Water Loss Control Program. These expanded activities include identifying malfunctioning meters and addressing authorized unmetered connections and unauthorized connections, which have already recovered over \$626,000 for the District from billing previously unbilled water usage.

Session 5 - Asset Management Room:

1:30 PM - 2:00 PM

ASSET MANAGEMENT AT METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Sergio Escalante (Metropolitan Water District of Southern California)

Participants in this session will learn about Metropolitan Water District progress towards implementing an asset management initiative.

2:00 PM - 2:30 PM

BALANCING STRATEGICAL AND TACTICAL ASSET MANAGEMENT ELEMENTS FOR EMERGING ASSET MANAGEMENT PROGRAMS

Stephen Harrison (California Water Service Co.)

Participants in this session will learn the steps taken to evaluate what key documentation is required to continue asset management maturity; the approach to document asset requirements; EAM/GIS system congruence; knowledge and change management; and most importantly, the tactical approach to measure and management asset's reliability, level of service, and life-cycle status.

2:30 PM - 3:00 PM

DEVELOPING A PILOT ASSET MANAGEMENT PLAN FOR LARGE DIAMETER PIPELINES

Ricardo Rafael Hernandez (Metropolitan Water District of Southern California)

Participants in this session will learn how the Metropolitan Water District of Southern California is developing a pilot asset management plan for over 830 miles of large diameter pipelines.

4:00 PM - 4:30 PM

NOT JUST ANOTHER ERP PRESENTATION: ONE REGIONAL AGENCY'S EXPERIENCE

Nate Adams (Santa Margarita Water District), Suzanne Timani (Esri) & Robert Grantham (Santa Margarita Water District)

Participants attending the presentation should walk away with one agency's lessons learned from a full scale replacement of its information systems, including how we achieved collaboration across departments, the challenges and benefits gained from the undertaking, and the outside support we relied upon to guide us through the process.

4:30 PM - 5:00 PM

TRANSFORMING THE WATER UTILITY BUSINESS: FROM PAPER TO PREDICTIVE AND PREEMPTIVE!

Paul Hauffen (Sedaru)

Participants in this session will learn how to implement paperless processes and workflows across a water utility enterprise; how to use real-time communications to improve business outcomes and the bottom line; how to save time, money and preserve institutional knowledge by optimizing water utility operations; how to predict system capacity and sources of water loss and prevent them before they happen; and the future of water utility operational asset management and how that can be achieved.

5:00 PM - 5:30 PM

DEVELOPING A RISK-BASED DESKTOP CONDITION ASSESSMENT

Ashley Smith (Peterson Brustad Inc.)

Participants in this session will learn common methods used for developing a risk-based condition assessment including consideration of available data and issues important to the utility. Desktop condition assessments are a cost-effective approach to help determine what additional assessments are recommended. This session will outline the development of the framework for the City of Roseville's Transmission Main Evaluation and review project goals and findings.

Session 6 - Tanks, Reservoirs & Structures Room:

1:30 PM - 2:00 PM



GENE WASH RESERVOIR DISCHARGE LINE REFURBISHMENT

Fraser Wyatt (Metropolitan Water District of Southern California)
Participants in this session will learn what considerations were taken in the design and planning for the refurbishment of a discharge line at the bottom of a dam, with unique challenges due to location and operational requirements. In particular, considerations for how to keep the reservoir in service and operating at maximum water service during refurbishment will be discussed.

2:00 PM - 2:30 PM

STEEL TANKS, CHLORINE CORROSION AND AIR CIRCULATION SYSTEMS

David Gould (Crescenta Valley Water District) & Krista Harper (Harper & Associates Engineering, Inc.)
Participants in this session will learn about design modifications to existing tanks to help reduce chlorine corrosion that has occurred in interior roof and rafters of steel tanks. This includes discussion of a new air circulation system, additional vents in the roof and results observed two years after the tank was re-coated.

2:30 PM - 3:00 PM

SETTING SITES ON THE FUTURE OF CALIFORNIA'S WATER STORAGE

Cheyenne Harris (Brown and Caldwell)
Participants in this session will learn an overview of the coordination efforts with California Water Commission, the innovative invoice development process, and lessons learned that can be applied to other projects with complex funding scenarios.

4:00 PM - 4:30 PM

DESIGN HISTORY AND EVOLUTION OF PRESTRESSED CONCRETE TANKS

Tanner Bennett, P.E. (DN Tanks)
Participants in this session will learn about the history of prestressed concrete tanks in the United States dating back almost 80 years. Participants will gain an understanding of the design evolutions the unique features of prestressed concrete storage structures.

4:30 PM - 5:00 PM

NO WATER, NO ... PAINT? WATERBORNE COATINGS FOR TANKS & TREATMENT PLANTS

Tony Ippoliti (Tank Industry Consultants)
Participants in this session will learn about waterborne versions of protective coatings that are available, acceptable for use on water storage tanks, and are included in the AWWA D102 Standard.

5:00 PM - 5:30 PM

20 YEARS OF IMPROVING WATER QUALITY BY MIXING & AERATION... ONE STEP AT A TIME

David Summerfield (Medora Corp. -SolarBee/GridBee)
Participants in this session will learn about our company's history of mixing, boosting and aerating tanks & reservoirs. Early tank mixers were normally designed for other applications and then quickly retrofitted to solve an urgent water quality storage tank problem. Today this industry has evolved to computer-controlled mixing and residual boosting where water data is swiftly relayed via wireless SCADA signals. Learn about small steps and giant leaps as we see an industry grow from its humble beginnings to the highly sophisticated world that it now occupies.

Session 7 - Distribution System Water Quality Room:

1:30 PM - 2:00 PM

EARTHQUAKE RESPONSE, VULNERABILITY ASSESSMENT AND REHABILITATION OF WATER CONVEYANCE TUNNELS IN HIGH SEISMIC HAZARD

REGIONS: WHITEWATER TUNNEL NO. 2 SEISMIC RESILIENCE STUDY

Kingsley C. Ozegbe (Metropolitan Water District of Southern California)
Participants in this session will learn about seismic risks assessment for primary water delivery tunnels, evaluation methodology and mitigation measures.

2:00 PM - 2:30 PM

LARGE SCALE FIRE RELATED BENZENE/VOC DISTRIBUTION SYSTEM CONTAMINATION

Yvonne Heaney (CA Division of Drinking Water)
Participants in this session will learn the facts and myths of benzene/VOC contamination in a distribution system following a wildfire. Discussion includes evaluation of potentially affected areas and best practices for recovery. In addition, pipe materials, health impacts, previous water system response, scientific data, studies conducted, lessons learned from previous contamination events, and areas of research interest are discussed. Industry should be aware of this emerging sector of potential wildfire impact on water systems.

2:30 PM - 3:00 PM

SFPUC'S STRATEGY FOR COMPLIANCE WITH SB 1398 PUBLIC WATER SYSTEMS: LEAD USER SERVICE LINES

Rahul Shah (San Francisco Public Utilities Commission)
Participants in this session will learn about SFPUC's strategy to estimate the total number of water services that may have lead whips or components. Findings and results will be presented, which will be used to propose a service line replacement program that will be submitted to the State Water Resources Control Board by June 2020.

4:00 PM - 4:30 PM

CHLORAMINATION AND NITRIFICATION CONTROL

Harsh Ashani (Corona Environmental Consulting) & Dave Schultise (Golden State Water Company)
Participants in this session will learn about chloramination; ideal ratios for chloramine components; nitrification and indicators of nitrification; examples of nitrification episodes; and nitrification control plans.

4:30 PM - 5:00 PM

HYDRAULIC TRANSIENTS AND SURGE MITIGATION

Frank Smith (Blacoh)
Participants in this session will learn about hydraulic transients and how they occur. In addition to discussing surge modeling and how it impacts new system/pump station design, we will review methods to detect and troubleshoot where transient events are taking place.

5:00 PM - 5:30 PM

DISTRIBUTION WATER QUALITY MODELING - ANOTHER TOOL IN THE SUPPLY INTEGRATION TOOLKIT

Patrick Johnston (West Yost Associates)
Participants in this session will learn how to use water quality modeling to better understand the blending of different supplies in the distribution system.

Session 8 - Financial Management Room:

1:30 PM - 2:00 PM

CASE STUDY: A RATE SETTING STRATEGY THAT WORKED FOR THE SWEETWATER AUTHORITY

Steve Gagnon, PE (Raftelis, Inc)
Participants in this session will learn how the Sweetwater Authority developed a new structure to fund operations and garnered community support.



2:00 PM - 3:00 PM

PROTECTION OF GROUNDWATER, WELL DESIGN AND TREATMENT

Thi Pham (Rural Community Assistance Corporation (RCAC))

Participants in this session will learn how a groundwater system works, well system components and the purpose for these components. They will be able to identify water quality issues, water quality remediation or treatment solutions using non-treatment and treatment options, and the pros and cons of the different options available.

4:00 PM - 4:30 PM

INCORPORATING CUSTOMER USE DISTRIBUTION WHEN CALCULATING DROUGHT SURCHARGES

Bjorn Kallerud (RDN, Inc.), Anthony Elowsky (RDN, Inc.) & Ichiko Kido (RDN, Inc.)

Participants in this session will learn about a proposed change to the methodology of drought surcharges. Drought surcharges between the current and proposed methodologies are compared for a medium-sized water district in southern California. The results suggest the current methodology under-collects drought surcharge revenue.

4:30 PM - 5:00 PM

COST RECOVERY OPTIONS FOR EMERGING CONTAMINANTS - SHIFTING TREATMENT COSTS FROM RATEPAYERS TO POLLUTERS

Richard Head (SL Environmental Law Group PC)

Participants in this session will learn about how to decrease financial liability following chemical contamination. Under the theory of "products liability" manufacturers of chemicals responsible for contamination are held accountable for the associated treatment costs. By including a legal review of cost recovery options as part of a systematic approach to evaluate remediation efforts, water utilities may be able to lessen their financial burden.

5:00 PM - 5:30 PM

THE FINANCING FIX: SCALING LOCALIZED WATER INFRASTRUCTURE

Cynthia Koehler (WaterNow Alliance)

Participants in this session will learn about the many types of distributed water infrastructure at their disposal that address our most pressing water challenges. This session will describe a recent government clarification that allows for these solutions to be financed in a similar manner to traditional infrastructure. We will explore case studies of communities that created finance innovations to implement infrastructure solutions and introduce free resources that water managers need to scale decentralized water infrastructure.



Wednesday, April 8, 2020

	Session 9 Systems Control Technology	Session 10 Meters	Session 11 Reuse & Desalination	Session 12 Water Quality (100 Year Track)	Session 13 Energy & Sustainability / Smaller Utilities
ROOM					
7:30 AM - 8:00 AM	Donald Duck's Guide to Standardization: Benefits and Pitfalls	Improving Utility Operations through AMI Data Analytics	Stock-take on Reuse - Guiding Regional Reuse through Distributed Systems	One Hundred Years' Advances in Public Water Supplied to Californians	Optimizing Water Distribution Pump Operating Policies to Access Dynamic Energy Markets
8:00 AM - 8:30 AM			Managing Decreasing Flows, Increasing Loads, Struvite and Producing Recycled Water	A History of California's Drinking Water Program	The Role of the Water Sector in Electric Reliability
8:30 AM - 9:00 AM (BREAK)					
9:00 AM - 9:30 AM	Tomorrowland's SCADA System Today	Building an Intelligent Water System	Stormwater for Reuse	Nevada Division of Environmental Protection Bureau of Safe Drinking Water	Public Safety Power Shutoffs: Perspective from an Electric Utility
9:30 AM - 10:00 AM			Journey to a New Desalter, Now What?	Federal Drinking Water Regulations - 1962 U.S. Public Health Service to Present	EBMUD's Response to October 2019 Public Safety Power Shutoff Events
10:00 AM - 10:30 AM	Managing SCADA System Technology Obsolescence	Intermediate Meter Testing and Business Case for AMI	Surface Water Augmentation Regulation & Lake Jennings Tracer Study	A History of California and Nevada Groundwater Since 1920	
10:30 AM - 11:00 AM		Managing a Successful Water Meter/AMI Implementation Project...	Water Replenishment District - Lessons Learned	Removal of Particulate Material in Water Treatment	Planning for Sustainability at a Public Water Utility...
11:00 AM - 1:30 PM (LUNCH)					
1:30 PM - 2:00 PM	IIOT and the Cloud, is it for Small Municipalities and Water Facilities?		Year-Long Optimization of a Full-Scale Application of Closed-Circuit Reverse Osmosis...	100 Years of Chlorination in California and Nevada	Developing a GIS Asset Management Program on a Budget- Small Water Utility Case Studies
2:00 PM - 2:30 PM	How Did My SCADA System Just Graduate From College?	Managing What You Measure: Using Temperature, Pressure and Other Meter Data to Proactively Manage Your Utility	Update on Carlsbad Desalination Plant	The Last 100 Years in Corrosion, Colored Water, Metals Release and Scale Formation in Drinking Water	Cost and Regional Planning Methodology for the Statewide Needs Assessment
2:30 PM - 3:00 PM	SCADA Technology Panel Discussion		Orange County Groundwater Replenishment System - Final Expansion	Taste and Odor, Color and Water Quality Aesthetic Issues Over the Last 100 Years	Aeration Versus TOC Reduction for DBP Compliance: What is the Right Tool for Your Municipal WTP?
3:00 PM - 4:00 PM (BREAK)					
4:00 PM - 4:30 PM	How to WIN Big - LADWP's Road Map for Integrating Data Silos	Lessons Learned with AMI/AMR in Sacramento	Use of Bioanalytical Screening Tools for Surveying Treatment Processes in Water Reuse	Natural Organic Matter and Disinfection By-products	Camp Fire Recovery - Challenges of Returning a Community to Potable Service
4:30 PM - 5:00 PM			Implementing a \$1B Potable Reuse Program: Recent Developments	Analytical Methods and their Importance in Protecting Public Health	Camp Fire Recovery Update: Support for Rebuilding and Long-Term System Recovery
5:00 PM - 5:30 PM	Mickey's Steamboat Tour - SCADA Features Supporting Operations & Maintenance	Inside the Meter Box: Helix Water District's Meter Maintenance Program and Approach...	Integrating Online System Monitoring and Real Time Controls Solutions...	Laboratories, Drinking Water, and Public Health: 100 Years of Progress	Solutions for Under Performing Drinking Water Systems in California



Wednesday, April 8, 2020

	Session 14 Water Treatment	Session 15 Operators	Session 16 Water Mngmt & Efficiency / Young Professionals	Session 17 Leadership Development	Session 18 SEP / Women's Leadership / Envir. Health & Safety	Session 19 Engineering & Construction / Pipeline Rehab.
7:30 AM - 8:00 AM	Hidden Valley Lake Community Services District Pilots Innovative Hexavalent Chromium Remediation System	Particle Counting in Water Treatment Filtration Plants	100+ Year History of Water Meters and Conservation at EBMUD	Leadership through Collaboration, Innovation, and Organizational Change	Emergency Water Main By-Passing with NSF Hose	Putting Risk on Ice: Using Ground Freezing to Mitigate Groundwater Risks on Deep Excavations
8:00 AM - 8:30 AM	Tracer Study for Disinfectant Contact Tank with Varying Flows, Flow Directions, and Operational Conditions	The Magic of Consolidating Data from Multiple Sources into a Single Database		Leadership That Yields Results	Water without Power - Planning for Public Safety Power Shutoffs	How to Hot Tap a 93 year old, 96-inch, 260-foot deep tunnel...
8:30 AM - 9:00 AM (BREAK)						
9:00 AM - 9:30 AM	Groundwater Treatment of Fluoride, Arsenic and Hexachrome...	Jar Testing Made Easy	Making Every Drop Count Since 1918: A Past, Present and Future Look at Water Conservation and Efficiency in the Coachella Valley	Innovation Through Collaboration	Womens' Leadership	80 Years of Water Delivery - The Incredible Story Behind the Engineering of the Colorado River Aqueduct
9:30 AM - 10:00 AM	Is it Time to Talk About Cr(VI) Again?					Rainbow Bridge Waterline Rehabilitation with Compression Fit Liner
10:00 AM - 10:30 AM	Lessons Learned: Design and Construction of a Wellhead Treatment System	Managing Manganese Challenges in an Ozone Water Treatment Plant	Rainbow Water Conservation Study: a Flume Pilot	Critical Communications Skills for All Water Professionals	Environmental Hazards During and After a Wildfire/Natural Disaster	San Gabriel Employs Artificial Intelligence to Manage Pipe Assets
10:30 AM - 11:00 AM	Point-of-Entry Treatment using Granular Activated Carbon...	Public Safety Power Shutoff (PSPS): Is Loss of Power to Every Facility the New Norm?	Course Correcting Your Incentive Program: How Do You Know When It's Time to Make a Change?			Emerging Renewal Technology for Pressurized Pipelines
11:00 AM - 1:30 PM (LUNCH)						
1:30 PM - 2:00 PM	PFAS Treatment Options for Surface Water and Groundwater Systems	Operator Round Table	QWEL: Accelerating Sustainable Landscapes Through Workforce Training	Leadership in the Past, Present and Future	Chloramination and Nitrification Control	City of Napa Freeway Crossings Restoration (South Napa Earthquake 2014)
2:00 PM - 2:30 PM	TCE to 1,4-dioxane to PFOA/PFOS: Tackling Multiple Contaminants at the Tucson International Airport Area Groundwater Remediation Project (TARP)		Water Conservation Online Learning	Expert Panel on the Evolution of Leadership in the Water Industry	Hydraulic Transients and Surge Mitigation	"Future-Proofing" Water Piping Infrastructure
2:30 PM - 3:00 PM	PFAS: Bench Scale Testing and Design of Granular Activated Carbon and Ion Exchange Treatment Systems		"SAFER" Drinking Water Program			Distribution Water Quality Modeling - Another Tool in the Supply Integration Toolkit
3:00 PM - 4:00 PM (BREAK)						
4:00 PM - 4:30 PM	Planning PFAS Treatment Systems in Orange County	Alternative Sample Adapter Kits		Develop Your Full Potential as a Manager	Construction General Stormwater Permit: What you need to know for Linear Underground Projects	Advancements in Multi-sensor Pipeline Inspection Systems: Assessing the Condition of Large Diameter Pipes
4:30 PM - 5:00 PM	Validating Rapid Small-Scale Column Tests (RSSCTs) to replicate large scale systems for PFAS	The Chemistry of Chlorine and Chlorine Monitoring			Innovations in Stormwater Capture	Trenchless Rehabilitation of 900 feet of 6-inch Welded Steel Pipe with Flexible Fabric Reinforced Pipe
5:00 PM - 5:30 PM	A Small Town on Florida Coast Strives for Complete Elimination of PFAS in Drinking Water with Ion Exchange System		Public Persuasion		Creating Data Driven Maintenance Practices with Pressure Monitoring	



Technical Program (Wednesday, April 8, 2020)

A maximum of 25 contact hours are available for Spring Conference. Please be sure to scan in and out of each session.

Session 9 - Systems Control Technology Room:

7:30 AM - 8:30 AM

DONALD DUCK'S GUIDE TO STANDARDIZATION: BENEFITS AND PITFALLS

Jeffrey Childress (Tesco Controls Inc.)

Participants in this session will learn how to maximize the long-term benefits of standardizing on electrical, instrumentation and controls equipment. By examining often unconsidered pitfalls that are commonly associated with the standardization process, participants will leave the presentation better prepared to succeed during their standardization journey.

9:00 AM - 10:00 AM

TOMORROWLAND'S SCADA SYSTEM TODAY

Travis Cox (Inductive Automation)

Participants in this session will learn about the need for an OT platform that is built on a foundation of open technology and interoperability. They will learn how to leverage today's technology and how to bring smartphones and tablets into the work environment. Fully embracing new technology will allow operations to take their applications to the next level and allow more access to users in the organization.

10:00 AM - 11:00 AM

MANAGING SCADA SYSTEM TECHNOLOGY OBSOLESCENCE

Titus Crabb (Vertech)

Participants in this session will learn the operational and financial risks associated with SCADA and control system obsolescence. Several strategies will be presented for dealing with technology obsolescence along with the associated risks and benefits for each approach. Real-world case studies will be presented demonstrating the approaches other water districts have taken and the outcomes they achieved. Participants will leave with a solid framework for evaluating technology and developing a strategy for managing their unique circumstances.

1:30 PM - 2:00 PM

I IOT AND THE CLOUD, IS IT FOR SMALL MUNICIPALITIES AND WATER FACILITIES?

Joe Bingham (AES Global)

Participants in this session will learn core concepts and ideas about IIoT (the Industrial Internet of Things) and how the cloud works.

2:00 PM - 2:30 PM

HOW DID MY SCADA SYSTEM JUST GRADUATE FROM COLLEGE? I REMEMBER CHANGING THEIR POWER SUPPLIES AS IF IT WERE YESTERDAY!! MY, HOW SCADA SYSTEMS HAVE MATURED OVER 100 YEARS.

Jeff Montano (Westin Technology Solutions)

Participants in this session will learn about the process of developing a SCADA maturity model. This presentation will discuss the development process, oversight of the model, and when to consider full automation due to accurate model decision-making.

2:30 PM - 3:00 PM

SCADA TECHNOLOGY PANEL DISCUSSION

Henry Palechek (Helix Water District) - Moderator
Group Panel discussion on SCADA technology.

4:00 PM - 5:00 PM

HOW TO WIN BIG - LADWP'S ROAD MAP FOR INTEGRATING DATA SILOS

Christine Cotton (Arcadis US, Inc.), Raluca Constantinescu (Arcadis US, Inc.), Nicole Smith (Los Angeles Dept. of Water and Power) & Vince Rivera (Los Angeles Dept. of Water and Power)

Participants in this session will learn about key steps and recommended practices in developing a "big data" master plan. LADWP will present several practical applications and use cases for Tujunga, San Pedro and Green Verdugo treatment stations.

5:00 PM - 5:30 PM

MICKEY'S STEAMBOAT TOUR - SCADA FEATURES SUPPORTING OPERATIONS & MAINTENANCE

Chris Schleich (Enterprise Automation) & Adam Ekstrand (Enterprise Automation)

Participants in this session will learn about design techniques and tools built into the SCADA screens for a Southern California 10MGD desalinization facility that support operators, maintenance technicians, and graphic design that leads to user self-training.

Session 10 - Meters Room:

7:30 AM - 8:30 AM

IMPROVING UTILITY OPERATIONS THROUGH AMI DATA ANALYTICS

Robert Gustin (Neptune Technology Group, Inc.)

Participants in this session will learn that today's Smart Water AMI Systems offer a myriad of data beyond billing, including operational data to improve overall utility operations. Access to real-time and historical system data is crucial to optimizing utility operations and customer service. Examples of meter data, alarms, distribution system sensor applications, and host analytics will be reviewed in detail in support of the presentation.

9:00 AM - 10:00 AM

BUILDING AN INTELLIGENT WATER SYSTEM

James Smith (Sensus) & Chris Thomson, P.E. (NC & MD) (Sensus)

Participants in this session will learn nontraditional applications of an advanced meter infrastructure systems in ways that add value for a water utility. They will explore the value of having both pressure and consumption measured in a water distribution system, and how the combination of the two can yield additional insights. Examples will highlight the problem, method/approach, and solution with cost and time savings calculated.

10:00 AM - 10:30 AM

INTERMEDIATE METER TESTING AND BUSINESS CASE FOR AMI

Richard Relyea (MC Engineering, Inc.)

Participants in this session will learn how strategic analysis of an existing water meter population using current analytics and historic information can help fund a meter replacement project and build a business case for AMI Meter Reading Technology.

10:30 AM - 11:00 AM

MANAGING A SUCCESSFUL WATER METER/AMI IMPLEMENTATION PROJECT FROM START TO FINISH

Richard Relyea (MC Engineering, Inc.)

Participants in this session will learn how to successfully implement a water meter change out/AMI implementation project and realize the preparation and planning such a project entails.

2:00 PM - 3:00 PM



MANAGING WHAT YOU MEASURE: USING TEMPERATURE, PRESSURE AND OTHER METER DATA TO PROACTIVELY MANAGE YOUR UTILITY

Jacob Jaspersen (Badger Meter)

Participants in this session will learn about data and alerts available to utilities through recent upgrades in metering technology. With the rise in static metering technology, utilities are now able to collect more data than ever on their metering applications. Residential ultrasonic and mag meters provide a myriad of sensor data beyond consumption, including things like water pressure, water temperature, water quality, consumption conditions like high flow alerts - and much more. The challenge that utilities now face is what to do with all that information, especially in the face of water conservation and sustainability pushes in many parts of the country. This presentation will walk through the different alerts and data now available to utilities, along with ways to incorporate that data into your day-to-day operations to allow you to more proactively manage your utility and water system.

4:00 PM - 5:00 PM

LESSONS LEARNED WITH AMI/AMR IN SACRAMENTO

Todd Artrip (Sacramento Suburban Water District)

Participants in this session will learn about how Sacramento Suburban Water District has utilized 6 different meter readings systems and has a wealth of knowledge that pertains to selecting and operating AMI/AMR systems. This session will focus on the challenges associated with operating multiple systems concurrently, AMI/AMR pilot testing criteria and selection, AMI deployment, why to use AMI, AMI system failure and resolution, AMI data pros and cons, changing technologies, and future risk management.

5:00 PM - 5:30 PM

INSIDE THE METER BOX: HELIX WATER DISTRICT'S METER MAINTENANCE PROGRAM AND APPROACH TO TACKLING MINOR ISSUES THAT CAN ADD UP

Dan Baker (Helix Water District)

Participants in this session will learn how Helix Water addresses some of the minor issues that affect most water districts. Some common issues include leaking angle stops, rodents filling pits with soil, and changing grade.

Session 11 - Reuse & Desalination Room:

7:30 AM - 8:00 AM

STOCK-TAKE ON REUSE - GUIDING REGIONAL REUSE THROUGH DISTRIBUTED SYSTEMS

Jocelyn Lu (CUWA)

Participants will learn about the distributed systems approach, defined as a regionally optimized combination of water reuse strategies for local conditions, to produce an effective "fit-for-community" reuse strategy.

8:00 AM - 8:30 AM

MANAGING DECREASING FLOWS, INCREASING LOADS, STRUVITE AND PRODUCING RECYCLED WATER

Kaitlin Zusy (Black & Veatch)

Participants in this session will learn about a Title 22 Recycled Water production facility and the treatment, permitting and testing obstacles to overcome; how to list strategies to manage struvite formation and describe ways to look for signs of formation before it happens; phosphorus harvesting principles; and in which conditions a phosphorus harvesting system is effective.

9:00 AM - 9:30 AM

STORMWATER FOR REUSE

Sunny Wang (City of Santa Monica)

Participants of the session will learn the steps the City of Santa

Monica is taking for one of the first stormwater reuse project in California for groundwater augmentation via direct injection.

9:30 AM - 10:00 AM

JOURNEY TO A NEW DESALTER, NOW WHAT?

Alex Waite (Brown and Caldwell)

Participants in this session will learn about post-treatment stabilization and corrosion control strategy development when introducing a new potable water supply into an existing distribution system. This presentation will examine the corrosion control desk-top modeling study for the City of Camarillo's North Pleasant Valley Groundwater Desalter.

10:00 AM - 10:30 AM

SURFACE WATER AUGMENTATION REGULATION AND LAKE JENNINGS TRACER STUDY

Michelle Berens (Helix Water District)

Participants in this session will learn the major requirements of the new Surface Water Augmentation regulation. The pre-project tracer study performed in Lake Jennings will be discussed as well as the modeling efforts to obtain project permitting and operational optimization.

10:30 AM - 11:00 AM

WATER REPLENISHMENT DISTRICT - LESSONS LEARNED

Eric Owens (WRD)

Participants will learn about the Water Replenishment District of Southern California's (WRD) efforts to ensure the productivity and health of two aquifers that lay beneath Los Angeles County. Formed in 1959, WRD's service area covers a 420-square-mile region of southern Los Angeles County and includes 43 cities within the service area. WRD ensures that a reliable supply of high quality groundwater is available through the artificial replenishment of various qualities of recycled water and stormwater capture. WRD also invests significant time and resources into cleaning up plumes previously contaminated by seawater intrusion or industrial activity. This presentation will focus on WRD's programs developed for delivering high quality recycled water and cleaning up contaminated plumes with the basins.

1:30 PM - 2:00 PM

YEAR-LONG OPTIMIZATION OF A FULL-SCALE APPLICATION OF CLOSED-CIRCUIT REVERSE OSMOSIS ON BRACKISH GROUNDWATER FOR MUNICIPAL USE

Lee Portillo (Black & Veatch)

Participants in this session will learn about a first-of-its-kind ground water CCRO pilot test and how the results impact the final design and economics of high recovery CCRO.

2:00 PM - 2:30 PM

UPDATE ON CARLSBAD DESALINATION PLANT

Jeremy Crutchfield (SDCWA)

Participants in this session will learn what it takes to plan, develop and integrate seawater desalination into a regional water portfolio.

2:30 PM - 3:00 PM

PAST, PRESENT, AND FUTURE OF MWD'S RECYCLED WATER PROGRAM

Sandy Scott-Roberts (OCWD)

Participants in this session will explore an overview of OCWD's GWRS and learn about the Final Expansion.

4:00 PM - 4:30 PM

USE OF BIOANALYTICAL SCREENING TOOLS FOR SURVEYING TREATMENT PROCESSES IN WATER REUSE

Luciana Pereyra (Trussell Technologies, Inc.) & Fernanda Bacaro (Trussell Technologies, Inc.)



Participants in this session will learn about California's requirement for bioanalytical screening for constituents of emerging concern in recycled water; steps to perform bioassay screening in recycled water and aspects of the method that require standardization; and early bioassay results from potable reuse projects in California.

4:30 AM - 5:00 PM

IMPLEMENTING A \$1B POTABLE REUSE PROGRAM: RECENT DEVELOPMENTS

Phillippe Daniel (Liquisti LLC)

Participants will learn about capital program delivery alternatives, their pros and cons, and the current factors influencing how this \$1B program will be designed, constructed, financed and operated.

5:00 PM - 5:30 PM

INTEGRATING ONLINE SYSTEM MONITORING AND REAL-TIME CONTROLS SOLUTIONS TO FACILITATE REGIONAL COLLABORATION AND WATER SUPPLY RELIABILITY IN THE AGE OF IPR/DPR

Zeynep Erdal (Black and Veatch) & Andrew Chastain Howley (Black and Veatch)

Participants in this session will learn about new approaches and technology to monitor and control reuse systems to prevent failure and maintain public safety.

Session 12 - Water Quality (100 Year Track)

Room:

7:30 AM - 8:00 AM

ONE HUNDRED YEARS' ADVANCES IN PUBLIC WATER SUPPLIED TO CALIFORNIANS

Craig Thompson (West Yost Associates)

Participants in this session will learn what was accepted as "state-of-the-art" in drinking water regulations and treatment 100 years ago and what (and when) changes in drinking water regulations, advances in water treatment and distribution, and operator training and certification have occurred during the past 100 years. We will include a historical overview of how access to drinking water meeting current standards has changed over time in both California and Nevada.

8:00 AM - 8:30 AM

A HISTORY OF CALIFORNIA'S DRINKING WATER PROGRAM

Robert Brownwood (State Water Resources Control Board, Division of Drinking Water)

Participants in this session will learn about the history of California's Drinking Water Program, the individuals instrumental in developing the program, the concerns that led to the Program's establishment and expansion of the drinking water program within the state.

9:00 AM - 9:30 AM

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION BUREAU OF SAFE DRINKING WATER

My-Linh Nguyen (Nevada Division of Environmental Protection Bureau of Safe Drinking Water)

Nevada Division of Environmental Protection Bureau of Safe Drinking Water

9:30 AM - 10:00 AM

FEDERAL DRINKING WATER REGULATIONS - 1962 U.S. PUBLIC HEALTH SERVICE TO PRESENT

Corine Li (U.S. EPA Region 9)

Participants in this session will learn about the history of the 1974 Safe Drinking Water Act and its implementing regulations.

10:00 AM - 10:30 AM

A HISTORY OF CALIFORNIA AND NEVADA

GROUNDWATER SINCE 1920

Gary R. Lynch (Retired)

Participants will learn how the use of groundwater has developed and changed over the last 100 years in California and Nevada, including the usage patterns and treatment needs.

10:30 AM - 11:00 AM

REMOVAL OF PARTICULATE MATERIAL IN WATER TREATMENT

Issam Najm (WQTS, Inc.)

Participants in this session will learn about the fundamentals of the coagulation, flocculation, sedimentation, and filtration technologies used in drinking water treatment.

1:30 PM - 2:00 PM

100 YEARS OF CHLORINATION IN CALIFORNIA AND NEVADA

Dr. Michael J. McGuire (Historian / Author)

Participants in this session will learn the history of the first use of chlorine, how it spread to California and Nevada, and how the introduction of this disinfection method changed public health forever.

2:00 PM - 2:30 PM

THE LAST 100 YEARS IN CORROSION, COLORED WATER, METALS RELEASE AND SCALE FORMATION IN DRINKING WATER

R. Rhodes Trussell (Trussell Technologies Inc.)

Participants in this session will learn about the history of corrosion, colored water, lead, and copper over the past 100 years.

2:30 PM - 3:00 PM

TASTE AND ODOR, COLOR AND WATER QUALITY AESTHETIC ISSUES OVER THE LAST 100 YEARS

Dr. Mel Suffet (UCLA)

Participants in this session will learn about the history of how taste, odor, and color problems in water supplies are evaluated and solved.

4:00 PM - 4:30 PM

NATURAL ORGANIC MATTER AND DISINFECTION BY-PRODUCTS

Stuart W. Krasner (Retired)

Participants in this session will learn about disinfection by-products (DBPs), their formation and control, and regulatory activity. They will learn about their precursors (e.g., natural organic matter [NOM], bromide) and chemistry and treatability. They will learn how to balance the control of regulated and emerging DBPs as well as the latest research and information.

4:30 AM - 5:00 PM

ANALYTICAL METHODS AND THEIR IMPORTANCE IN PROTECTING PUBLIC HEALTH

Andy Eaton (Eurofins Eaton Analytical, LLC)

Participants in this session will learn why quality assurance and quality control are fundamental parts of all newer analytical methods. They will also learn about the history of analytical methods in the water industry and the impact of evolving reporting levels.

5:00 PM - 5:30 PM

LABORATORIES, DRINKING WATER, AND PUBLIC HEALTH: 100 YEARS OF PROGRESS

David Eugene Kimbrough (Pasadena Water & Power)

Participants in this session will learn about the history of laboratories as part of the water industry and public health.

Session 13 - Energy & Sustainability / Smaller Utilities

Room:



7:30 AM - 8:00 AM

OPTIMIZING WATER DISTRIBUTION PUMP OPERATING POLICIES TO ACCESS DYNAMIC ENERGY MARKETS

Erin Musabandesu (Center for Water and Energy Efficiency - UC Davis)

Participants in this session will learn how water utilities can access more dynamic energy markets using existing water storage facilities and optimized pump control policies. We will explore the importance of dynamic energy demand management and outline California energy markets and programs that promote energy load shifting. Additionally, we will discuss the preliminary results of a pilot study examining a water utility's ability to shift energy using a real-time decision support tool optimizing pump operating policies.

8:00 AM - 8:30 AM

THE ROLE OF THE WATER SECTOR IN ELECTRIC RELIABILITY

Laurene Park (Water Energy Innovations Inc.)

Participants in this session will learn about changes in California's electricity portfolio that are driving changes to markets, technologies, and electric utility systems and infrastructure, unique aspects of the water sector that position it to play a significant role in local and regional electric reliability, and the value proposition of becoming a major player. The presentation will summarize findings and recommendations from case studies with 7 W-WWW utilities and seek input from participants about their own electric reliability opportunities and recommendations (changes to policies, regulations, programs, funding, etc.)

9:00 AM - 9:30 AM

PUBLIC SAFETY POWER SHUTOFFS: PERSPECTIVE FROM AN ELECTRIC UTILITY

Espy Brache (Southern California Edison)

Participants in this session will hear from Southern California Edison about their Public Safety Power Shutoff program and their work with affected water utilities.

9:30 AM - 10:30 AM

EBMUD'S RESPONSE TO OCTOBER 2019 PUBLIC SAFETY POWER SHUTOFF EVENTS

Brett T. Kawakami (East Bay Municipal Utilities District) & Tony Montano (East Bay Municipal Utilities District)

Participants in this session will learn how to plan and prepare for large-scale power disruptions. This presentation will describe the engineering analysis, emergency operations team planning, and field activities to prepare and respond to PSPS events. Participants will also learn how EBMUD crafted and delivered effective messages that maintained customer confidence and helped to guide customer efforts to minimize discretionary water use in PSPS impacted areas.

10:30 AM - 11:00 AM

PLANNING FOR SUSTAINABILITY AT A PUBLIC WATER UTILITY: EFFORTS TO SAVE ENERGY THROUGH BATTERY STORAGE AND MORE

Jesse Pompa (Inland Empire Utilities Agency)

Participants in this session will learn about Irvine Ranch Water District's innovative project to install battery storage at 11 of its facilities including wellheads and sewage treatment plants.

1:30 PM - 2:00 PM

DEVELOPING A GIS ASSET MANAGEMENT PROGRAM ON A BUDGET- SMALL WATER UTILITY CASE STUDIES

Julia Carey (MC Engineering)

Participants in this session will learn about GIS maps and related workflows that MC Engineering has developed for Clearlake Oaks County Water District (CLOCWD), in Clearlake Oaks, California. MC Engineering and CLOCWD created a record drawing organization

tool, water distribution system maps, and several online reporting forms. In addition, a drawing markup workflow was developed that enables field staff to suggest edits for distribution system maps. All of the maps, apps, and forms were developed with standard Esri mapping products and can be viewed on any mobile device or computer.

2:00 PM - 2:30 PM

COST AND REGIONAL PLANNING METHODOLOGY FOR THE STATEWIDE NEEDS ASSESSMENT

Tarrah Henrie (Corona Environmental Consulting)

Participants in this session will learn about how the State Water Resources Control Board is assessing the needs of at-risk and under performing water systems through a project made up of three elements: Element 1 – Identification of public water systems that are in violation or at-risk of under performing ; Element 2 – Identification of domestic wells and state small water systems at-risk of under performing; Element 3 – Cost-analysis for interim and long-term solutions for problems identified in Elements 1 and 2. Corona Environmental Consulting, LLC (Corona) has been engaged as a sub-consultant to the University of California, Los Angeles to develop the most cost-effective and sustainable long-term resolutions for under performing and at-risk water systems (Element 3). An update on the cost modeling, GIS based tool, and water system database that are being developed to make the regional plans will be presented.

2:30 PM - 3:00 PM

AERATION VERSUS TOC REDUCTION FOR DBP COMPLIANCE: WHAT IS THE RIGHT TOOL FOR YOUR MUNICIPAL WTP?

Ellen Gaby (Ixom Watercare)

Participants in this session will learn those conditions in which aeration should be considered as a primary DBP reduction tool.

4:00 PM - 4:30 PM

CAMP FIRE RECOVERY - CHALLENGES OF RETURNING A COMMUNITY TO POTABLE SERVICE

Michael Lindquist (Water Works Engineers)

Participants in this session will learn about water system recovery in the town of Paradise following the 2018 Camp fire, which destroyed much of the existing above-ground infrastructure. VOCs were detected at consumer laterals across the system, which required immediate response. This presentation will discuss the sampling program and resulting outreach effort, which was undertaken with a goal of complete transparency. The mechanics of contamination and flushing will be covered for this case, as well as lessons learned regarding how the situation took an emotional toll on the community.

4:30 AM - 5:00 PM

CAMP FIRE RECOVERY UPDATE: SUPPORT FOR REBUILDING AND LONG-TERM SYSTEM RECOVERY

Colleen Boak (Water Works Engineers)

Participants in this session will learn about Paradise Irrigation District's recovery efforts following the 2018 Camp Fire and the unique pressures caused by this situation. Most service laterals were contaminated with fire-related VOCs, but some were not, leading to unique distribution challenges. This presentation will cover a number of topics, including the Interim Water Supply Program; new District policies, standards, and staffing challenges; use of the CalWARN network for mutual aid; efforts to secure funding for system rebuild; and efforts to improve emergency response and make the system more resilient in the future. This will cover a number of topics important for fire resiliency and water system response throughout Nevada and California.

5:00 PM - 5:30 PM

SOLUTIONS FOR UNDER PERFORMING DRINKING WATER SYSTEMS IN CALIFORNIA

Katie Porter (Brown and Caldwell) & Laura Feinstein (Pacific Institute)



Participants in this session will learn about findings of a Water Research Foundation project that examines the challenges with providing safe drinking water in California, potential solutions, and opportunities for regional partnerships. While the number of Californians served by drinking water systems with at least a short-term violation is very large (6 million people over three years), the number of people served by systems with persistent violations is a fraction of that (227,000 people over three years). Small systems have sustainability challenges for many reasons including financial challenges, limited technical resources, and existing institutional framework. The increasing complexity of treatment required to address emerging contaminants and water supply shortages exacerbates each of these factors. Solutions that have the biggest impact when implemented properly are operational solutions, treatment solutions, source water solutions, and partnership solutions. More than 90% of the under-served population in California resides within 30 miles of a large, high-performing water utility, highlighting the potential impact of regional solutions. While focused on California, the lessons learned apply more broadly to communities across the United States.

Session 14 - Water Treatment Room:

7:30 AM - 8:00 AM

HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT PILOTS INNOVATIVE HEXAVALENT CHROMIUM REMEDIATION SYSTEM

Vladimir Dozortsev (Aqua Metrology Systems) & Kirk Cloyd (Hidden Valley Lake Community Services District)

Participants in this session will learn about a novel Cr(VI) remediation system using an innovative approach to generate a stannous ion reagent in-situ via an electrolytic process that has been evaluated at the Hidden Valley Lake Community Services District during a pilot demonstration studying the efficacy of the technology to continuously reduce Cr(VI) to below 10 ppb.

8:00 AM - 8:30 AM

TRACER STUDY FOR DISINFECTANT CONTACT TANK WITH VARYING FLOWS, FLOW DIRECTIONS, AND OPERATIONAL CONDITIONS

Weizhi Cheng, P.E. (SRT Consultants), Clemens Heldmaier (Montara Water & Sanitary District) & Julian Martinez (Montara Water & Sanitary District)

Participants in this session will review tracer study methods along with a case study of a unique tracer study conducted for a small water utility in California. A running tracer mass balance method based on EPA Guidelines to evaluate clear well with variable flows, flow directions and operational conditions was used. The effect of reverse flow from distribution system and its effect on water disinfection will be discussed.

9:00 AM - 9:30 AM

GROUNDWATER TREATMENT OF FLUORIDE, ARSENIC AND HEXACHROME USING ACTIVATED ALUMINA AND IRON OXIDE MEDIA

Ganesh Rajagopalan (Kennedy Jenks Consultants) & Ray Kolisz (Twenty-nine Palms Water District)

Participants in this session will learn about the ability of adsorbents to treat groundwater containing multiple contaminants. They will be able to compare the differences between activated alumina and iron oxide in removing various contaminants. They will also learn about adsorption of hexavalent chromium by the two media. Finally, they will learn the relationship between operating pH, associated chemical addition and the waste disposal options during treatment.

9:30 AM - 10:00 AM

IS IT TIME TO TALK ABOUT CR(VI) AGAIN?

Craig Gorman (Corona Environmental Consulting)

Participants in this session will learn about key findings from Cr(VI) related research that has occurred since the MCL was rescinded

to help utilities position themselves for the MCL when it is reestablished.

10:00 AM - 10:30 AM

LESSONS LEARNED: DESIGN AND CONSTRUCTION OF A WELLHEAD TREATMENT SYSTEM

Dustin Stickney (Montrose Environmental Group)

Participants in this session will learn about lessons learned during design and construction of a granular activated carbon system for wellhead treatment. These issues include process selection, permit requirements, equipment pre-purchasing, contractor pre-screening, and stakeholder input.

10:30 AM - 11:00 AM

POINT-OF-ENTRY TREATMENT USING GRANULAR ACTIVATED CARBON: A UNIQUE AND COST- EFFECTIVE APPROACH TO REMOVING 1,2,3-TCP FOR SMALL COMMUNITIES

Stefanos Word (Micheal K. Nunley & Associates)

Participants in this session will learn how point-of-entry (POE) treatment using granular activated carbon with an empty-bed contact time of 1 to 1.5 can remove 1,2,3-TCP. Recent pilot testing conducted has indicated that POE treatment systems can consistently remove 1,2,3-TCP in a reliable and cost-effective manner for smaller communities with a low number of service connections. Regulatory compliance, design considerations, capital, and O&M costs will be discussed.

1:30 PM - 2:00 PM

PFAS TREATMENT OPTIONS FOR SURFACE WATER AND GROUNDWATER SYSTEMS

Alex Franchi (AECOM)

Participants in this session will learn about PFAS treatment technologies for surface water and groundwater treatment plants. The focus will be on innovative technologies, recent full-scale, piloting, lab-scale and modeling efforts.

2:00 PM - 2:30 PM

TUCSON WATER'S AOP TREATMENT FACILITY - TRANSFORMATION OF TUCSON WATER'S CERCLA- TO-DRINKING WATER PROGRAM AFTER 25 YEARS

Jeff B. Biggs (Tucson Water) & Corin Marron (Arcadis - US)

The history of contaminated groundwater in Tucson, AZ as it relates to an EPA Superfund site. In addition, learn how Tucson Water dealt with the discovery of 1,4-dioxane in 2002 and PFAS in 2013 within the existing TCE plume. The participants will learn how Tucson Water constructed an AOP treatment facility in 14 months and now is addressing PFAS removal.

2:30 PM - 3:00 PM

PFAS: BENCH SCALE TESTING AND DESIGN OF GRANULAR ACTIVATED CARBON AND ION EXCHANGE TREATMENT SYSTEMS

Melanie Rivera (Kennedy/Jenks Consultants) & Kajori Purkayastha (Kennedy/Jenks Consultants)

Participants in this session will learn about bench scale testing of both granular activated carbon (GAC) and ion exchange (IX) for PFAS removal performed on behalf of several clients through a partnership between Kennedy Jenks and Water Quality Treatment Solutions. Kennedy Jenks has designed a variety of GAC treatment systems and designed IX PFAS treatment facilities up to 6,000 gpm.

4:00 PM - 4:30 PM

PLANNING PFAS TREATMENT SYSTEMS IN ORANGE COUNTY

Andrew Wiesner (Carollo)

Participants in this session will learn about the planning and initial engineering feasibility for PFAS treatment for in 71 wells across 11 cities and water districts in the Orange County Groundwater Basin. Orange County Water District (OCWD), which manages the basin,



initiated the study to collaboratively plan and develop treatment alternatives. In the presentation, the planning approach to identify and screen alternatives and the initial engineering feasibility evaluations will be discussed.

4:30 AM - 5:00 PM
VALIDATING RAPID SMALL-SCALE COLUMN TESTS (RSSCTS) TO REPLICATE LARGE SCALE SYSTEMS FOR PFAS

Adam Redding (Calgon Carbon Corporation)
Participants in this session will learn about the pros and cons of applying lab-scale column evaluations to predict large-scale adsorber performance.

5:00 PM - 5:30 PM
A SMALL TOWN ON FLORIDA COAST STRIVES FOR COMPLETE ELIMINATION OF PFAS IN DRINKING WATER WITH ION EXCHANGE SYSTEM

Rob Crow (Aqueous Vets)
Participants in this session will learn how a town on the Florida coast responded to the EPA's 2016 health advisory after finding levels of PFAS exceeding 300 ppt within some of its wells. The system constructed is one of the largest PFAS removal treatment systems in the continental US. Four different resins were trialed, one in each vessel, and then tested to determine the most effective resin for the town's water supply. Participants will see how the system was designed and installed and the results of the various resins within the system.

Session 15 - Operators
Room:

7:30 AM - 8:00 AM
PARTICLE COUNTING IN WATER TREATMENT FILTRATION PLANTS

Rudy Plaza-Pante (Plante Water Consultants)
Participants in this session will learn about particle counting technology; how to calibrate particle counters using polystyrene latex standards; how to prepare standards; how to evaluate data; and the difference between turbidity and particle count turbidity.

8:00 AM - 8:30 AM
THE MAGIC OF CONSOLIDATING DATA FROM MULTIPLE SOURCES INTO A SINGLE DATABASE

Michelle Berens (Helix Water District)
Participants will learn the benefits of having all operational data in a single location. Lessons learned during the implementation process will be discussed. Examples of how reporting processes have been streamlined will be given.

9:00 AM - 10:00 AM
JAR TESTING MADE EASY

Guy Schott (State Water Resources Control Board, Division of Drinking Water)
Participants in this session will learn about new jar testing and filterability procedures to assist in selecting the best coagulant and optimum dosage.

10:00 AM - 10:30 AM
MANAGING MANGANESE CHALLENGES IN AN OZONE WATER TREATMENT PLANT

Larry Lyford (Helix Water District) & Issam Najm (WQTS, Inc.)
Participants in this session will learn why and how to develop a manganese study and what the results can tell you depending on various water quality and treatment options.

10:30 AM - 11:00 AM
PUBLIC SAFETY POWER SHUTOFF (PSPS): IS LOSS OF POWER TO EVERY FACILITY THE NEW NORM?

Bob Janowski (City of Napa Water)
Participants in this session will learn the benefits of emergency preparedness and of equal importance the lessons learned from a first-hand experience. Every situation is unique and will bring one or more challenges that may be outside of your control. City of Napa experienced the first Northern California PSPS that affected every water facility and water service was maintained to every customer with no interruptions throughout the event.

1:30 PM - 3:00 PM
OPERATOR ROUND TABLE

Michelle Berens (Helix Water District), Chris Castaing (San Diego County Water Authority), Craig M. Thompson, P.E. (West Yost Associates) & Bill Cardinal (Calaveras County Water District)
Participants in this session will be able to bring problems and solutions to their peers for discussion. The panel and audience will share and learn from the other professionals in the room. The floor is open to any discussion on water industry topics.

4:00 PM - 4:30 PM
ALTERNATIVE SAMPLE ADAPTER KITS

John Graham (California Water Service)
Participants in this session will learn that sample collectors are not limited to extreme and often ineffective processes such as bleaching or flaming sample taps to ensure a representative sample.

4:30 AM - 5:30 PM
THE CHEMISTRY OF CHLORINE AND CHLORINE MONITORING

Randy Turner (SWAN Analytical USA)
Participants in this session will learn about the chemistry of chlorine, which is rather complex. They will learn about breakpoint chlorination and chloramination, as well monitoring of chlorine residuals and process limitations.

Session 16 - Water Management
/ Young Professionals
Room:

7:30 AM - 8:30 AM
100+ YEAR HISTORY OF WATER METERS AND CONSERVATION AT EBMUD

David Wallenstein (East Bay Municipal Utility District)
Participants in this session will learn about EBMUD's history with use of water meter for billing and conservation practices. They will learn how an EBMUD research project is investigating the potential for water and energy savings from Advanced Metering Infrastructure (AMI). They will learn about some of EBMUD case studies and lessons learned that may be beneficial for their own AMI deployments.

9:00 AM - 10:00 AM
MAKING EVERY DROP COUNT SINCE 1918: A PAST, PRESENT AND FUTURE LOOK AT WATER CONSERVATION AND EFFICIENCY IN THE COACHELLA VALLEY

Jennifer Shimmin (Coachella Valley Water District)
Participants in this session will learn about the rich history of the Coachella Valley Water District, its present status, and what the future looks like for CVWD. This includes the establishment of the District, securing water rights to alternative water sources, addressing overdraft through aquifer recharge, ongoing conservation programs, and future developments. Participants will learn how the District makes every drop count in an arid climate that is plush with agriculture and tourism.

10:00 AM - 10:30 AM
RAINBOW WATER CONSERVATION STUDY: A FLUME PILOT

Eric Adler (Flume)
Participants in this session will learn how to run a successful rebate



program on smart home water monitoring solutions, as well as receive insight on the general successes of Flume's Utility Rebate Programs, pilot studies and more.

10:30 AM - 11:00 AM

**COURSE CORRECTING YOUR INCENTIVE PROGRAM:
HOW DO YOU KNOW WHEN IT'S TIME TO MAKE A
CHANGE?**

Karina Sandique (Metropolitan Water District of Southern California)
Participants in this session will learn methods for analyzing the success of an incentive program, as well as the best methodology for determining changes needed to prime their program for success.

1:30 PM - 2:00 PM

**QWEL: ACCELERATING SUSTAINABLE LANDSCAPES
THROUGH WORKFORCE TRAINING**

Lisa Cuellar (California Water Efficiency Partnership) & Andy Florendo (Solano County Water Agency)

Participants in this session will learn best practices for implementing regional training programs targeting the landscape workforce to help improve outdoor water use efficiency. Additionally, participants will gain insights into multi-agency coordination and key considerations for effective program delivery.

2:00 PM - 2:30 PM

WATER CONSERVATION ONLINE LEARNING

Brenda Cervantes (Lane Community College Energy and Water Programs)

Participants in this session learn how the Lane Community College Water Conservation Technician program trains students without asking them to attend a single day of training on the Lane campus. We will share how our first class in Alternative Water Sources successfully completed a hands on experience without students being on campus in person.

2:30 PM - 3:00 PM

"SAFER" DRINKING WATER PROGRAM

Laurel Firestone (State Water Resources Control Board)

5:00 PM - 5:30 PM

PUBLIC PERSUASION

George Hawkins (Moonshot)

Session 17 - Leadership Development

Room:

7:30 AM - 8:00 AM

**LEADERSHIP THROUGH COLLABORATION,
INNOVATION, AND ORGANIZATIONAL CHANGE**

David Katzev (EBMUD)

Participants in this session will learn about East Bay Municipal Utility District's new initiative focused on pipeline replacement. The District relies on 4,200 miles of pipelines to distribute water to approximately 1.4 million customers. To address the problem of aging infrastructure and an increasing break rate, the District embarked on a major initiative (Pipeline Rebuild) to research and test innovations in pipeline replacement design and construction with an end goal to create long-term plans to replace and maintain the distribution system with cost-effective, efficient, and innovative measures.

As part of the Pipeline Rebuild effort, an innovation workflow cycle was developed and refined to document current practices and pilot and test new technologies and methods to streamline the District's pipeline replacement program. Each pilot project starts with an idea or problem, summarizes the value proposition, and highlights expected challenges. Data and observations are collected, and each pilot concludes with peer reviewed papers with metrics, findings, and recommendations. This business model highlights tools for collaboration, proven methods to innovate and document project findings, and effective processes for communication and

implementing change in a large water utility.

8:00 AM - 8:30 AM

LEADERSHIP THAT YIELDS RESULTS

Breonia Lindsey (Los Angeles Department of Water and Power)

Participants in this session will learn about practical, effective methods for managers to build trust and nurture the professional development of a water distribution workforce. The presentation will cover multiple avenues LADWP's Water Distribution Division uses for transitioning the training and development of construction, operations, and maintenance personnel from technical, hands-on work to supervision and management.

9:00 AM - 9:30 AM

INNOVATION THROUGH COLLABORATION

Cristina Ahmadpour (Isle Utilities)

Participants in this session will learn how innovation today is about driving better organizational performance with the best available tools, processes and people. This presentation will discuss how external and internal collaboration is key to driving innovation within water utilities large and small. Innovation is critical for water agencies. The workforce is changing rapidly as baby boomers continue to retire. Successful conservation efforts are resulting in reduced revenues from water sales. At the same time, aging infrastructure is leading to the need for increasing capital expenditures. Agencies are turning more towards technological solutions which are now more abundant and becoming more enterprise wide. The top priorities for several water utilities in the CA-NV region will be highlighted and how external collaboration can be a resource to advance projects, save time and money. Attendees of this session will also hear about internal frameworks that can help utilities prioritize and process opportunities that drive innovation.

9:30 AM - 11:00 AM

**CRITICAL COMMUNICATIONS SKILLS FOR ALL
WATER PROFESSIONALS**

Bill Stierle (Corporate Culture Development)

Participants will learn about critical messaging strategies and techniques helpful for communicating with the public, regulators, politicians, news agencies and coworkers. The presentation will cover lessons learned from the front line of the Flint, Michigan water crisis and will include practical steps to address emotional reactions and conflict in an effective way. These communication tools reduce emotional reactions to yield more effective communication and problem solving skills during stressful situations.

1:30 PM - 2:00 PM

LEADERSHIP IN THE PAST, PRESENT, AND FUTURE

Laura Johnson (EBMUD)

Participants in this session will hear from a current water utility manager regarding their experience as a manager and where they see the role of managers and leaders going as utilities and companies work to increase collaboration, opportunities, and retention.

2:00 PM - 3:00 PM

**EXPERT PANEL ON THE EVOLUTION OF
LEADERSHIP IN THE WATER INDUSTRY**

Teresa Penunuri (SDCWA), Cristina Ahmadpour (Isle Utilities) & Bill Stierle (Corporate Culture Development)

Participants in this interactive session will learn how leadership approaches have evolved over time in the water industry and what skills may become most valuable moving forward. Participants will be able to raise questions and hear different perspectives from leaders within the water industry and from those that train and coach them.

4:00 PM - 5:00 PM

DEVELOP YOUR FULL POTENTIAL AS A MANAGER

BeNeca Griffin (Moments of Focus)

Participants in this interactive session will learn how to become more intentional and effective managers by defining the partnership they have with their organization. The water industry and its organizations



benefit from the personal growth of its leaders. Participants will define their professional mission and management style and outline how their mission impacts their organizational goals and the teams they lead. This session will help participants identify their purpose, power, and vision for their position to increase their effectiveness in leading staff, forming strategic partnerships and mentoring others.

Session 18 - Security & Emergency Planning / Women's Leadership / Environmental Health & Safety

Room:

7:30 AM - 8:00 AM

EMERGENCY WATER MAIN BY-PASSING WITH NSF HOSE

Isaac Alatorre (Portable Pipeline Systems)

Participants in this session will learn what it takes to build an emergency preparedness program utilizing lay-flat hose within their organization to respond to water main breaks and planned outages. They will also learn product knowledge and pitfalls to avoid when deploying these systems in the field. Case studies from several cities and water districts will help in understanding the variety of applications for lay-flat hose. Additionally, attendees will learn how resource typing with CalWarn can help with product selection.

8:00 AM - 8:30 AM

WATER WITHOUT POWER - PLANNING FOR PUBLIC SAFETY POWER SHUTOFFS

Max Fefer (East Bay Municipal Utility District) & Brett Kawakami (East Bay Municipal Utility District)

Participants will learn how a large water utility planned and mitigated for a PSPS event and evaluated its distribution system's vulnerability to a widespread, extended duration power outage.

9:00 AM - 10:30 AM

WOMENS' LEADERSHIP

10:30 AM - 11:00 AM

ENVIRONMENTAL HAZARDS DURING AND AFTER A WILDFIRE/NATURAL DISASTER

Yvonne Heaney (State Water Resource Control Board, Division of Drinking Water)

Participants of this session will learn how to recognize safety hazards during and after natural disasters, and what responding staff can do to keep themselves safe. Imagine experiencing the worst-case scenario: a natural disaster hits your town. In what feels like only a moment, the landscape around you transforms into something unrecognizable - and extremely dangerous. Hazards are everywhere, both in and out of plain sight. Natural disasters can hit anywhere, anytime, and water system staff may be called to respond while an emergency is still unfolding. Understanding what these hazards look like and how to keep responding staff protected can mitigate accidents and prevent bodily harm.

During and after a natural disaster, risk will always be present. Whether it's a wildfire where trees are falling, power lines are down, and buildings are burning, or whether it's an earthquake that ends quickly but has profound impacts on the infrastructure both above and below ground, traditional safeguards can and will fail. Because natural disasters don't occur every day, it's rare to experience one, and practicing for a real-life scenario can be difficult. It's therefore important to become as familiar as possible with what could happen and prepare for the time when action during a crisis is necessary.

In 2018, California was struck by some of the largest and worst wildfires in its history, resulting in historically catastrophic damage. 2019 was met with an earthquake that resulted in loss of water service for 10 days. Division of Drinking Water (DDW) staff worked with water systems during these crises and spent a great deal of time working in and around the disaster zones. DDW will share first-hand experience and real-world examples of the threats and

dangers encountered in the field, and what can be done to prepare. This session will explore the many hazards responders face during and after a natural disaster, what can be done to prepare for the worst, and how to stay safe while responding to the aftermath of a natural disaster.

Natural disaster can occur anywhere, anytime. Water system staff could be called to action while an emergency situation is occurring, and it's extremely important to be aware of the hazards one may face in a disaster situation that is still unfolding. Lives have been lost during response, and this session aims to prepare staff to act with precaution during emergencies. Special emphasis given for wildfires.

1:30 PM - 2:00 PM

NEW ASBESTOS CEMENT PIPE REGULATIONS WITH SOUTH COAST AIR QUALITY DISTRICT - RULE 1403

Brandy Hancocks (Golden State Water Company) & Stacy Taylor (Mesa Water District)

Participants will learn about the primary changes in Asbestos Cement Pipe regulations and how to get involved in the rule-making process.

2:00 PM - 2:30 PM

CAL/OSHA - UPDATES AND IMPLICATIONS

Lisa Baiocchi (Walter & Prince LLP)

Participants in this session will learn about the latest Cal/OSHA regulatory updates, as well as enforcement actions and trends. The presentation will also address Cal/OSHA's Process Safety Management requirements and current inspection and enforcement tactics, as they relate to water treatment and related processes. Only California related topics will be discussed.

2:30 PM - 3:00 PM

CAL/OSHA - UPDATES AND IMPLICATIONS

Lisa Baiocchi (Walter & Prince LLP)

Participants in this session will learn about the latest Cal/OSHA regulatory updates, as well as enforcement actions and trends. The presentation will also address Cal/OSHA's Process Safety Management requirements and current inspection and enforcement tactics, as they relate to water treatment and related processes. Only California related topics will be discussed.

4:00 PM - 4:30 PM

CONSTRUCTION GENERAL STORMWATER PERMIT: WHAT YOU NEED TO KNOW FOR LINEAR UNDERGROUND PROJECTS

Amy Kronson (State Water Resources Control Board) & Michael Kashak (Santa Ana Regional Water Quality Control Board)

Participants in this session will learn the key components of the Construction General Stormwater Permit as it pertains to Linear Underground Projects and how to comply with statewide regulations.

4:30 AM - 5:30 PM

INNOVATIONS IN STORMWATER CAPTURE

Charley Wilson (Southern California Water Coalition), Rich Nagel (Jacobs), Susan Moasio (Jacobs) & Dustin Atchison (Global Technology)

Participants in this session will learn how to develop best management practices and creative funding sources to build projects in urban watersheds where funding and space are tight; integrate resilient stormwater strategies to address vulnerable communities; leverage existing infrastructure for improved performance and reduced costs; and develop programmatic approaches for O&M and workforce development.

Session 19 - Engineering & Construction / Pipeline Rehabilitation

Room:



7:30 AM - 8:00 AM

PUTTING RISK ON ICE: USING GROUND FREEZING TO MITIGATE GROUNDWATER RISKS ON DEEP EXCAVATIONS

Andy Smith (West Yost Associates)

Participants in this session will learn the basics about ground freezing – what it is and how it works – and why ground freezing should be considered as a potential solution to challenging ground water conditions on construction projects. Participants will also learn some do's and don'ts when crafting specifications related to shoring systems and groundwater control.

8:00 AM - 8:30 AM

HOW TO HOT TAP A 93 YEAR OLD, 96-INCH, 260-FOOT DEEP TUNNEL: EBMUD'S DESIGN APPROACH TO ADD CORROSION PROTECTION CHEMICALS INTO A LIVE RAW WATER TUNNEL

Emily Sing (East Bay Municipal Utility District)

Participants in this session will learn about EBMUD's pipeline corrosion control strategy using chemical treatment with hydrated lime and carbon dioxide. Participants will also learn the design approach to installing a 260-foot deep chemical injection system, and considerations for construction of two shaft penetrations into a nearly century-old raw water tunnel while minimizing risk and operational disruptions.

9:00 AM - 9:30 AM

80 YEARS OF WATER DELIVERY - THE INCREDIBLE STORY BEHIND THE ENGINEERING OF THE COLORADO RIVER AQUEDUCT

John Shamma (Metropolitan Water District)

Participants in this session will learn about the significant engineering undertaking that resulted in the construction of the Colorado River Aqueduct which was declared one of seven modern civil engineering wonders in the United States by the American Society of Civil Engineers. The CRA has five pumping plants that were designed almost 90 years ago and are still performing flawlessly today. Understanding how engineers managed this feat is important in understanding the durability of their final product.

9:30 AM - 10:00 AM

RAINBOW BRIDGE WATERLINE REHABILITATION WITH COMPRESSION FIT LINER

Todd Kotey (Murraysmith) & Davina Carboni (Murraysmith)

Participants in this session will learn about rehabilitating pipelines using a compression fit HDPE lining system.

10:00 AM - 10:30 AM

SAN GABRIEL EMPLOYS ARTIFICIAL INTELLIGENCE TO MANAGE PIPE ASSETS

Kristofer Olsen, PE, Chief Engineer (San Gabriel Water Company)

Participants will learn how San Gabriel Water Company applies innovative solutions to identify its most vulnerable water mains and to mitigate non-revenue water. In 2017, San Gabriel engaged with Fracta, which provides artificial intelligence (AI) machine learning (ML) solutions to substantiate its leak-tracking system and prioritize water mains for rehabilitation and replacement. Over the past year, the utility has leveraged Fracta's Likelihood of Failure (LOF) results to provide evidence to support cost-effective main replacement projects.

10:30 AM - 11:00 AM

EMERGING RENEWAL TECHNOLOGY FOR PRESSURIZED PIPELINES

Brad Conder, P.E. (Aegion Corporation)

Participants in this session will learn about new solutions to rehabilitate pressurized water and sewer pipelines. Historically, the most common renewal technology has been to replace the main using open cut construction; however, trenchless products

can provide potentially cost-effective alternatives to traditional replacement. We will review four recent pressure pipe rehabilitation projects that utilized separate trenchless products and discuss the engineering, material construction, installation and cost effectiveness of each product.

1:30 PM - 2:00 PM

CITY OF NAPA FREEWAY CROSSINGS RESTORATION (SOUTH NAPA EARTHQUAKE 2014)

Michael J. Hether, P.E. (City of Napa)

Participants in this session will learn about the challenges associated with the design and construction of several freeway crossings damaged during the South Napa Earthquake event in 2014. Participants will also learn general aspects of the City's experience with the FEMA public assistance process, Caltrans encroachment permit issuance (i.e. changes Caltrans has made to rules associated with highway crossings installed via directional drill), as well as design aspects associated with inter-agency coordination.

2:00 PM - 2:30 PM

"FUTURE-PROOFING" WATER PIPING INFRASTRUCTURE

Gilbert Garcia (JM Eagle)

Participants in this session will learn about PVC-O (polyvinyl chloride oriented) pipe. Participants will learn about seismic-resistant water pipe that is also corrosion resistant.

2:30 PM - 3:00 PM

COMPREHENSIVE SEISMIC UPGRADE PROGRAM TO IMPROVE SEISMIC RELIABILITY OF REGIONAL WATER DELIVERY SYSTEM

Winston Chai (Metropolitan Water District of Southern California)

Participants in this session will learn about the overall seismic risks to water infrastructure within southern California and how one may develop a program to evaluate, prioritize, and mitigate the specific risks to an agency's complete inventory of structures.

4:00 PM - 4:30 PM

ADVANCEMENTS IN MULTI-SENSOR PIPELINE INSPECTION SYSTEMS: ASSESSING THE CONDITION OF LARGE DIAMETER PIPES.

Csaba Ékes (SewerVUE Technology)

Participants in this session will learn how to make intelligent decisions in managing critical pipe infrastructure. This presentation will cover the practical applications of pipe penetrating radar for water and wastewater condition assessment as well as different methods by which multi-sensor pipeline inspection technology can be deployed.

4:30 AM - 5:00 PM

TRENCHLESS REHABILITATION OF 900 FEET OF 6-INCH WELDED STEEL PIPE WITH FLEXIBLE FABRIC REINFORCED PIPE

John Moody (Raedlinger Primus Line)

Participants in this session will learn about the properties of a unique slip lining system which utilizes flexible fabric reinforced pipe for pressure pipeline rehabilitation.

5:00 PM - 5:30 PM

CREATING DATA DRIVEN MAINTENANCE PRACTICES WITH PRESSURE MONITORING

James Smith (Sensus)

Participants in this session will learn how to apply data driven approaches to water distribution system maintenance tasks.



Thursday, April 9, 2020

	Session 20 Water Treatment	Session 21 Water Quality Analysis	Session 22 Water Well Technology	Session 23 Environmental Health & Safety
ROOM				
8:00 AM - 8:30 AM	Optimizing Chemical Dosing at a Drinking WTP to Save Money, Improve Performance, and Meet Regulatory Requirements		Modern Drilling Methods Featuring Electric and Slant Well Technology	Best Management Practices (BMP) for Drinking Water Releases by Drinking Water Systems
8:30 AM - 9:00 AM	Optimization of Residuals Dewatering Using Centrifuges		Out of Sight and Out of Mind: Treating Your Well as an Asset	Traffic Control During Water Main Breaks
9:00 AM - 9:30 AM	Coagulant and Flocculant 101: Chemistry, Handling/ Storage, Activation, and Optimization	Designing for PFOA and PFOS Treatment at the New Fallbrook Groundwater Plant	The Importance of Water Level Data Collection	
9:30 AM - 10:00 (BREAK)				
10:00 AM - 10:30 AM	If One Were to Develop a New NF/RO Membrane...		Real Time Data Collection to Increase Accuracy & Reliability of Isolated Aquifer Zone Testing	
10:30 AM - 11:00 AM	A Fundamental Study of the Stability, Minimization, and Disposal of Supersaturated Brine...	Chloramine Disinfectant Residual Optimization & Management in Dist. Systems...	Annual Well Testing - Tracking Well Performance for Proactive Well Field Maintenance	
11:00 AM - 11:30 AM	Installing an Acid System to Improve Performance...	Novel Real-time Lead Corrosion Risk Management System	Ranney (Horizontal) Collector Wells: The California Experience	
11:30 AM - 12:00 PM	Reducing Water and Energy Consumption...	Update on ELAPs regulations: One Lab's Perspective	100 Years of Water Well Design and Construction	
	Session 24 Security & Emergency Planning	Session 25 New Technology	Session 26 Communications & Customer Relations	
ROOM				
8:00 AM - 8:30 AM	CA & NV WARN Meeting & Exercise	There's An App For That		
8:30 AM - 9:00 AM		Not Just Another ERP Presentation: One Regional Agency's Experience		
9:00 AM - 9:30 AM				
9:30 AM - 10:00 (BREAK)				
10:00 AM - 10:30 AM	CA & NV WARN Meeting & Exercise	Agricultural Water Consumption Estimation Model (AWCEM)	5 Reasons Your Agency Needs a Brand Refresh and How to Accomplish It	
10:30 AM - 11:00 AM		Utilizing Online GIS to Organize Record Drawings and Streamline Field Operations- CLOCWD Case Study	Competing Risks – Communication Insights Provided by High Profile Health Risk Scores	
11:00 AM - 11:30 AM			A Tale of Two Community Outreach Campaigns...	
11:30 AM - 12:00 PM		Partnering with Technology Companies	Cyanotoxins Response Preparedness and Communication Strategies...	



Technical Program (Thursday, April 9, 2020)

A maximum of 25 contact hours are available for Spring Conference. Please be sure to scan in and out of each session.

Session 20 - Water Treatment

Room:

8:00 AM - 8:30 AM

OPTIMIZING CHEMICAL DOSING AT A DRINKING WTP TO SAVE MONEY, IMPROVE PERFORMANCE, AND MEET REGULATORY REQUIREMENTS

John D. Parsons (Contra Costa Water District) & David Hammond (Earth Science Labs, Inc.)

Participants in this session will learn about ways to get multiple benefits from a single chemical additive and how to optimize dosing so as to be cost-effective. This will include some alternatives for control of algae in source water, reduction of taste and odor compounds, and reduction of TOC.

8:30 AM - 9:00 AM

OPTIMIZATION OF RESIDUALS DEWATERING USING CENTRIFUGES

Alex Gorzalski (Hazen and Sawyer)

Participants in this session will learn about the fundamentals of residuals dewatering systems, as well as steps that can be taken to optimize existing processes. This talk will cover residuals collection, thickening, centrifuge dewatering, and dewatered cake storage.

9:00 AM - 9:30 AM

COAGULANT AND FLOCCULANT 101: CHEMISTRY, HANDLING/STORAGE, ACTIVATION, AND OPTIMIZATION

Yong Kim (UGSI Solutions, Inc.)

Participants in this session will learn the basics of coagulant and polymeric flocculant as well as the application and optimization of their usage. The presentation demonstrates how to maximize the efficiency of polymeric flocculant by examining the effect of dilution water and many other factors such as charge site exposure and application of mixing energy. Case studies will show that well-designed polymer mixing systems can improve the performance of clarification and dewatering processes.

10:00 AM - 10:30 AM

IF ONE WERE TO DEVELOP A NEW NF/RO MEMBRANE SPECIFICALLY FOR UNCHARGED ORGANIC SOLUTE REJECTION, HOW PERMEABLE COULD IT BE TO WATER WHILE MEETING ORGANIC SOLUTE REJECTION GOALS?

Eric M. V. Hoek Ph.D. (UCLA Samueli Engineering School)

Participants in this session will develop a comprehensive theoretical and practical understanding of the relationships between NF/RO membrane physical properties (such as thin film pore size, porosity and thickness) and chemical properties (such as thin film hydrophilicity/hydrophobicity) on uncharged organic transport through NF/RO membranes.

10:30 AM - 11:00 AM

A FUNDAMENTAL STUDY OF THE STABILITY, MINIMIZATION, AND DISPOSAL OF SUPERSATURATED BRINE FROM CONVENTIONAL AND CLOSED-CIRCUIT RO

Gil Hurwitz (Black & Veatch)

Participants in this session will learn about the fundamental kinetics leading to brine instability from a first-of-its-kind groundwater closed-circuit reverse osmosis (CCRO) demonstration facility as well as the economic feasibility of a range of field-ready treatment options, ranging from acidification to advanced softening, to stabilize the supersaturated CCRO brine for disposal or reuse.

11:00 AM - 11:30 AM

INSTALLING AN ACID SYSTEM TO IMPROVE PERFORMANCE AT A POTABLE REUSE DEMONSTRATION FACILITY

Art Garcia (Kleinfelder), Joseph Quicho (City of San Diego Public Utilities) & Margaret Llagas (City of San Diego Public Utilities)

Participants in this session will learn how a sulfuric acid storage and feed system was installed to optimize pH-anti-scalant dose, determine the most efficient anti-scalant and to maximize reverse osmosis recovery. This system also reduced membrane cleaning frequency and expanded the membrane's useful service life.

11:30 AM - 12:00 PM

REDUCING WATER AND ENERGY CONSUMPTION THROUGH ON-SITE WINERY WASTEWATER REUSE AND VIBRATORY REVERSE OSMOSIS TREATMENT

Amanda Rupiper (University of California, Davis)

Participants in this session will learn about on-site non-potable water systems and their potential to reduce water and energy consumption. Specifically, participants will learn about an on-site reuse technology that uses a vibrating membrane to treat winery wastewater so that it can be reused again indoors. Participants will learn about how this technology can be optimized for a given feed source and how the performance of this technology changes given different feed water quality and technology settings.

Session 21 - Water Quality Analysis

Room:

9:00 AM - 9:30 AM

DESIGNING FOR PFOA AND PFOS TREATMENT AT THE NEW FALLBROOK GROUNDWATER PLANT

Emily Darby (Trussell Technologies)

Participants in this session will learn about the plans for PFOA and PFOS removal at Fallbrook's new groundwater plant. Participants will learn about the raw water quality that drove the design for PFOA/PFOS removal, the treatment options that were considered (granular activated carbon (GAC), ion exchange, and reverse osmosis), the GAC design that resulted from this evaluation, and the operational plan to optimize the GAC treatment system.

10:30 AM - 11:00 AM

CHLORAMINE DISINFECTANT RESIDUAL OPTIMIZATION AND MANAGEMENT IN DISTRIBUTION SYSTEMS: TAMING THE BREAKPOINT CURVE AUTOMATICALLY

Robin Giguere Ph.D. (PSI Water Technologies) and Arek Karrian (Los Angeles Dept. of Water & Power)

Participants in this session will learn how operational activities such as tank dumping, frequent tank cycling, chlorine "burns" in distribution systems and inefficient chlorine "boosting" in tanks and reservoirs increases utility expense due to unpredictable manpower scheduling, overtime and additional lab work as operators struggle to meet water quality levels, particularly in warm weather months. Most chloramine decay occurs post-treatment plant as water ages in pipes, reservoirs and tanks; this presentation will discuss both issues and automated solutions.

11:00 AM - 11:30 AM

NOVEL REAL-TIME LEAD CORROSION RISK MANAGEMENT SYSTEM

Vladimir Dozortsev (Aqua Metrology Systems)

Participants in this session will learn about a novel real-time



lead corrosion risk management system that provides timely and accurate predictive data on dissolved and total lead in water samples to inform utilities and consumers of their exposure to the risk of lead contamination.

11:30 AM - 12:00 PM

UPDATE ON ELAPS REGULATIONS: ONE LAB'S PERSPECTIVE

Cindy Ziernicki (Helix Water District)

Participants in this session will learn about implications of ELAP's proposed regulations from one laboratory's perspective.

Session 22 - Water Well Technology Room:

8:00 AM - 8:30 AM

MODERN DRILLING METHODS FEATURING ELECTRIC AND SLANT WELL TECHNOLOGY

Darrell Tweidt (Boart Longyear)

Participants in this session will learn about innovative drilling technologies which will accommodate the municipal market for wells in adverse lithological conditions, including the use of electric drilling equipment and slant well technology.

8:30 AM - 9:00 AM

OUT OF SIGHT AND OUT OF MIND: TREATING YOUR WELL AS AN ASSET

Tom Regan (Stantec)

Participants in this session will learn how to evaluate the useful life of a water well and develop and implement a well maintenance plan to optimize well operation.

9:00 AM - 9:30 AM

THE IMPORTANCE OF WATER LEVEL DATA COLLECTION

Anthony Hicke (Richard C. Slade & Associates LLC)

Participants in this session will learn real-world techniques to help increase the validity and usefulness of data. The presentation will focus on the importance of verifying and corroborating water level data during data collection and analysis. Information presented can be immediately implemented by supervisors and/or field staff into existing water level monitoring programs. Attendees will be presented with examples of water levels measurement protocols to implement as well as recommendations for data collection field sheets and in-field review procedures.

10:00 AM - 10:30 AM

REAL TIME DATA COLLECTION TO INCREASE ACCURACY & RELIABILITY OF ISOLATED AQUIFER ZONE TESTING

Terry Watkins (Geoescience Support Services)

Participants in this session will learn how zone testing can be used to provide well design alternatives that maximize flow or minimize water quality concerns and develop a business case analysis to assist in alternative selection. New instruments reduce the uncertainty in measuring flow, water level, and water quality parameters. Cloud based cellular telemetry allows key decision makers to access real-time data from the borehole remotely.

10:30 AM - 11:00 AM

ANNUAL WELL TESTING - TRACKING WELL PERFORMANCE FOR PROACTIVE WELL FIELD MAINTENANCE

Sean Spaeth (Wood Rodgers, Inc.)

Participants in this session will learn the importance of implementing a standard operating procedure to collect consistent data on well performance and pump efficiency to identify problems before they become emergencies.

11:00 AM - 11:30 AM

RANNEY (HORIZONTAL) COLLECTOR WELLS: THE CALIFORNIA EXPERIENCE

Henry Hunt (Granite Construction)

Participants in this session will learn about the history of Ranney collector wells in California and Nevada and how design, construction, and operations of these wells compare to vertical wells.

11:30 AM - 12:00 PM

100 YEARS OF WATER WELL DESIGN AND CONSTRUCTION

Kevin McGillicuddy (Roscoe Moss Company)

Participants in this session will learn about the evolution of water well drilling, construction and testing in California and Nevada. Many municipalities and water districts operate wells constructed using current materials and methods alongside wells installed more than a hundred years ago. Understanding the history of well construction materials and methods will allow a better understanding of the problems faced by aging well-fields and how modern and historic wells can be operated in a single system.

Session 23 - Environmental Health & Safety Room:

8:00 AM - 8:30 AM

BEST MANAGEMENT PRACTICES (BMP) FOR DRINKING WATER RELEASES BY DRINKING WATER SYSTEMS

Francois Rodigari (San Jose Water Company)

Participants in this session will learn the latest information on what they need to know to discharge water from drinking water systems.

8:30 AM - 9:30 AM

TRAFFIC CONTROL DURING WATER MAIN BREAKS

Alex Williams (California Water Service)

Participants in this session will learn how traffic control planning helps prevent incidents and accidents during water main breaks. The presentation will cover formulating simple processes to eliminate major situations during emergencies related to water main breaks during both daytime and nighttime work.

Session 24 - Security & Emergency Planning Room:

8:00 AM - 9:30 AM

CA & NV WARN MEETING AND EXERCISE

Lisa Deklinski (City of Sacramento, Utility Department)

& Jim Wollbrinck (San Jose Water)

Participants in this session will learn how the CalWARN and NVWARN networks play a critical role in disasters and the new CalWARN Operation Plan makes it easy and understandable. Participants will gain a greater understanding on how to make their utility more resilient in the ever-increasing disasters California and Nevada are experiencing. If you do not think you need this meeting...just ask Paradise Irrigation District, Santa Rosa Water and Redding Water... you will change your mind!

10:00 AM - 12:00 PM

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Session 25 - New Technology Room:

8:00 AM - 8:30 AM

THERE'S AN APP FOR THAT

New Technology Committee

Participants in this session will learn from different utilities about apps which save them time, money, or both. Mobile apps available on Apple, Android, and other platforms will be presented, including the conference app. The goal of this session is to promote adopting new technologies into workflows to boost productivity.

8:30 AM - 9:30 AM

NOT JUST ANOTHER ERP PRESENTATION: ONE REGIONAL AGENCY'S EXPERIENCE

Nate Adams (Santa Margarita Water District) & Suzanne Timani (ESRI)

Participants in this session will learn about one agency's experience with a full scale replacement of its information systems, including how we achieved collaboration across departments, the challenges and benefits gained from the undertaking, and the outside support we relied upon to guide us through the process.

10:00 AM - 10:30 AM

AGRICULTURAL WATER CONSUMPTION ESTIMATION MODEL (AWCEM)

Foad Foolad (DCSE, Inc)

Participants in this session will learn about the Agricultural Water Consumption Estimation Model (AWCEM). The Mapping Evapotranspiration at high Resolution with Internalized Calibration (METRIC) model will also be discussed, as well as how the crop mapping neural network model works and how the crop data is used in AWCEM.

10:30 AM - 11:30 AM

UTILIZING ONLINE GIS TO ORGANIZE RECORD DRAWINGS AND STREAMLINE FIELD OPERATIONS-CLOCWD CASE STUDY

Julia Carey (MC Engineering) & Mark Carey (MC Engineering)

Participants in this session will learn how online water system maps can supplement or replace paper-based map-books and be accessed in the field. Participants will also learn how to integrate online reporting forms into GIS maps. In addition, participants will be learn how online GIS can be utilized to organize district record drawings.

11:30 AM - 12:00 PM

PARTNERING WITH TECHNOLOGY COMPANIES

Pete Atkin (Samsara, Inc.)

Participants in this session will learn how some of today's key technology trends are driving the world of connected operations forward as well as how their organizations can develop mutually beneficial relationships with technology companies. During the session, participants will be presented with a partnership case study highlighting how rapid feedback loops and development cycles allowed one water company to gain real-time visibility into overall pump efficiency (OPE).

Session 26 - Communications & Customer Relations Room:

10:00 AM - 10:30 AM

5 REASONS YOUR AGENCY NEEDS A BRAND REFRESH AND HOW TO ACCOMPLISH IT

Grace Cardenas (Rancho California Water District)

Participants in this session will learn why government agencies brands, collaterals, and social media channels are often outdated and falling behind. This session explores why visual cues matter now more than ever, outlines the top 5 reasons why a company should consider a brand refresh and gives you hands-on steps to refreshing your look no matter what your budget. The session will also present Rancho Water's case study on their recent brand refresh -- including the process, pitfalls, and ultimate triumph

10:30 AM - 11:00 AM

COMPETING RISKS - COMMUNICATION INSIGHTS PROVIDED BY HIGH PROFILE HEALTH RISK SCARES

Phillippe Daniel (Liquisti LLC)

Participants will learn principles for more effectively engaging with customers on health risks plus publicly available data visualization tools to support those efforts.

11:00 AM - 11:30 AM

A TALE OF TWO COMMUNITY OUTREACH CAMPAIGNS: COMPARING & CONTRASTING STRATEGIES TO GARNER PROJECT SUPPORT

Sarah Davis (City of Oceanside)

Participants in this session will learn the successes and difficulties in conducting effective public outreach and education campaigns to garner support for water projects. Representatives from two water agencies in east and north county San Diego will discuss how they utilized primary/secondary research to guide the planning and implementation of campaigns that include branding, key messaging, marketing materials, events, speakers bureaus and more to inform stakeholders, change mis-perceptions and turn naysayers into project advocates.

11:30 AM - 12:00 PM

CYANOTOXINS RESPONSE PREPAREDNESS AND COMMUNICATION STRATEGIES—A WATER UTILITY PERSPECTIVE

Atlati Daneshvar (Valley Water)

Participants in this session will learn the following key points: Development of a contingency monitoring and response plan is essential for management of cyanotoxins in drinking water; Aligned communication with community is essential for incident management; Hypothetical scenario exercises help in the preparation for extreme events and establish strong and efficient inter-agency communications.



Attendee Registration Form

Date: _____ Time: _____

I am a speaker at this conference.

Attendee Name: _____

Title: _____ Company: _____

Address: _____ City: _____ State: _____ Zip: _____

Phone: _____ Cell: _____ Fax: _____

Email: _____ AWWA Member #: _____

Type of Membership (please check one): Individual Organization Operator/Admin. Utility

Complimentary Spouse/Guest* (If attending): _____

*Household members only. Does not include Water Industry Personnel.

Member Registration	Early On/Before 1/24/20	PRE On/Before 3/13/20	Onsite After 3/13/20	Subtotals
<input type="checkbox"/> FULL REGISTRATION: Includes All Technical sessions, Keynote Lunch & Exhibitor Hosted Lunch & Exhibit Hall Entrance	\$499	\$549	\$599	\$ _____
<input type="checkbox"/> Tuesday One-Day : Includes Keynote Lunch, Exhibit Hall Entrance & Technical Sessions	\$279	\$329	\$379	\$ _____
<input type="checkbox"/> Wednesday One-Day : Includes Exhibitor Hosted Lunch, Exhibit Hall Entrance & Technical Sessions	\$279	\$329	\$379	\$ _____
<input type="checkbox"/> EDUCATION PACKAGE Wednesday/Thursday Includes Technical Sessions & Exhibit Hall Entrance	\$279 No Meals	\$329 No Meals	\$379 No Meals	\$ _____
<input type="checkbox"/> Thursday One-Day Includes Technical Sessions	\$169	\$169	\$169	\$ _____
<input type="checkbox"/> STUDENT - Must be full time Student/AWWA Student Member <input type="checkbox"/> RETIREE REGISTRATION - Must be: 1) Retired from all gainful employment. 2) A member of AWWA for at least 15 years. 3) At least 60 years of age.	FREE No Meals	FREE No Meals	FREE No Meals	\$ FREE

LUNCHES
If not included with registration fee.
<input type="checkbox"/> Keynote Lunch (\$50)
<input type="checkbox"/> Exhibitor Hosted Lunch (\$50)
Subtotal \$ _____

SPECIAL EVENTS
<input type="checkbox"/> Tues. Technical Tour (\$60)
<input type="checkbox"/> Wed. Technical Tour (\$60)
<input type="checkbox"/> Water for People (\$TBD)
Subtotal \$ _____

Non-Member Registration	Early On/Before 1/24/20	PRE On/Before 3/13/20	Onsite After 3/13/20	Subtotals
<input type="checkbox"/> FULL REGISTRATION: Includes All Technical sessions, Keynote Lunch & Exhibitor Hosted Lunch & Exhibit Hall Entrance	\$599	\$649	\$699	\$ _____
<input type="checkbox"/> Tuesday One-Day : Includes Keynote Lunch & Exhibit Hall Entrance	\$299	\$349	\$399	\$ _____
<input type="checkbox"/> Wednesday One-Day : Includes Exhibitor Hosted Lunch & Exhibit Hall Entrance	\$299	\$349	\$399	\$ _____
<input type="checkbox"/> EDUCATION PACKAGE Wednesday/Thursday Includes Technical Sessions & Exhibit Hall Entrance	\$299 No Meals	\$349 No Meals	\$399 No Meals	\$ _____
<input type="checkbox"/> Thursday One-Day Includes Technical Sessions	\$169	\$169	\$169	\$ _____

CONTACT HOURS
<input type="checkbox"/> FREE (I am an individual, operator or administrative AWWA member)
<input type="checkbox"/> \$25 (My utility/organization is an AWWA member OR I am not an AWWA member)
Subtotal \$ _____

PAYMENT METHOD
Check # _____ Payable to CA-NV Section AWWA (U.S. Funds)
PO# _____
Credit Card: <input type="checkbox"/> Visa <input type="checkbox"/> MC <input type="checkbox"/> AMEX
Card No.: _____
Exp. Date: _____ CVV: _____
Name on Card: _____
Authorized Signature: _____
Billing Zip Code: _____ <i>Must be Zip Code in which your credit card statement is mailed</i>
Email (to receive a receipt): _____

PAYMENT INFORMATION
Registration Total: _____ Special Events Total: _____
Meal Total: _____ Contact Hours: _____
Total Amount Due: _____

Refund requests must be submitted in writing to the Section office by March 29, 2020. A 25% administrative fee will be deducted from all refunds. **No Refunds Granted after March 29, 2020.** By submitting this form, you are consenting to having your photo/video taken at the event which may be used for future Section promotions. To opt-out email info@ca-nv-awwa.org.

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