Since 1918

# PALMDALE WATER DISTRICT

2029 East Avenue Q • Palmdale, California 93550 • Telephone (661) 947-4111
Fax (661) 947-8604
www.palmdalewater.org
Facebook: palmdalewaterdistrict
Twitter: @palmdaleH2O

**Board of Directors**

ROBERT E. ALVARADO
Division 1

JOE ESTES
Division 2

GLORIA DIZMANG
Division 3

KATHY MAC LAREN
Division 4

VINCENT DINO
Division 5

ALESHIRE & WYNDER
Attorneys

September 24, 2015

## *Agenda for Regular Meeting of the Board of Directors of the Palmdale Water District to be held at the District's office at 2029 East Avenue Q, Palmdale*

## *Monday, September 28, 2015*

## *7:00 p.m.*

*NOTE:* To comply with the Americans with Disabilities Act, to participate in any Board meeting please contact Dawn Deans at 661-947-4111 x1003 at least 48 hours prior to a Board meeting to inform us of your needs and to determine if accommodation is feasible.

Agenda item materials, as well as materials related to agenda items submitted after distribution of the agenda packets, are available for public review at the District's office located at 2029 East Avenue Q, Palmdale (Government Code Section 54957.5). Please call Dawn Deans at 661-947-4111 x1003 for public review of materials.

***PUBLIC COMMENT GUIDELINES:*** **The prescribed time limit per speaker is three-minutes. Please refrain from public displays or outbursts such as unsolicited applause, comments, or cheering. Any disruptive activities that substantially interfere with the ability of the District to carry out its meeting will not be permitted and offenders will be requested to leave the meeting. (PWD Rules and Regulations, Appendix DD, Sec. IV.A.)**

Each item on the agenda shall be deemed to include any appropriate motion, resolution, or ordinance to take action on any item.

1) Pledge of Allegiance.
2) Roll Call.
3) Adoption of Agenda.
4) Public comments for non-agenda items.
5) Presentations:

5.1) Drought Report-Review of "Water Conservation and Reduction in Water Demand Efforts Report as of August, 2015." (PIO/Conservation Director McNutt).

6) Action Items - Consent Calendar (The public shall have an opportunity to comment on any action item on the Consent Calendar as the Consent Calendar is considered collectively by the Board of Directors prior to action being taken.)

6.1) Approval of minutes of regular meeting held September 9, 2015.

6.2) Payment of bills for September 28, 2015.

6.3) Approve absence of President Mac Laren from September 9, 2015 meeting due to employment commitments. (General Counsel Dunn)

7) Action Items – Action Calendar (The public shall have an opportunity to comment on any action item as each item is considered by the Board of Directors prior to action being taken.)

7.1) Consideration and possible action to authorize the creation of an Ad Hoc Committee to review Director compensation and expenses and the President to appoint its members tabled from September 9, 2015 Regular Board Meeting. (President Mac Laren)

7.2) Consideration and possible action on authorization of the following conferences, seminars, and training sessions for Board and staff attendance within budget amounts previously approved in the 2015 Budget:

a) A.W.W.A. CA-NV Annual Fall Conference "Solutions for a Changing World" to be held October 26 – 29, 2015 in Las Vegas, Nevada.

b) West Coast Infrastructure Exchange (WCX) "Public-Private Partnerships for the Water Sector" to be held October 28-29, 2015 in Stanford, California.

7.3) Adjourn to Public Facilities Corporation meeting.

7.4) Adjourn to Public Financing Authority meeting.

8) Information Items:

8.1) Reports of Directors:

a) Meetings/General Report.

b) Standing Committee/Assignment Reports (Chair):

1) Outreach Committee

2) Water Supply & Reliability Committee

3) Antelope Valley State Water Contractors Association

8.2) Report of General Manager.

a) September, 2015 written report.

8.3) Report of General Counsel.

9) Public comments on closed session agenda matters.

10) Break prior to closed session.

11) Closed session under:

11.1) Conference with Legal Counsel – Existing Litigation: A closed session will be held, pursuant to Government Code §54956.9 (d)(1), to confer with Special Litigation Counsel regarding pending litigation to which the District is a party. The title of such litigation is as follows: *Antelope Valley Ground Water Cases.*

11.2) Conference with Legal Counsel – Potential Litigation: A closed session will be held, pursuant to Government Code §54956.9 (d)(4), to confer with District General Counsel regarding to determine whether to initiate litigation, one case.

12) Public report of any action taken in closed session.

13) Board members' requests for future agenda items.

14) Adjournment.

MATTHEW R. KNUDSON,
Assistant General Manager

MRK/dd

# P A L M D A L E  W A T E R  D I S T R I C T

## *B O A R D  M E M O R A N D U M*

**DATE:** September 24, 2015 **September 28, 2015**

**TO:** BOARD OF DIRECTORS **Board Meeting**

**FROM:** Mr. Dennis D. LaMoreaux, General Manager

**RE:** ***AGENDA ITEM NO. 6.3 – APPROVE ABSENCE OF PRESIDENT MAC LAREN FROM SEPTEMBER 9, 2015 MEETING DUE TO EMPLOYMENT COMMITMENTS.***

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President Mac Laren was absent from the September 9, 2015 Board Meeting. Agenda Item No. 6.3 has been placed on the Consent Calendar to excuse this absence pursuant to Section 4.07.2 of the District's Rules and Regulations which states, "The Board shall excuse absences by approving such absences pursuant to the Consent Calendar at the next regular Board meeting."

# P A L M D A L E  W A T E R  D I S T R I C T

## *B O A R D  M E M O R A N D U M*

**DATE:** September 24, 2015 **September 28, 2015**

**TO:** BOARD OF DIRECTORS **Board Meeting**

**FROM:** Mr. Dennis D. LaMoreaux, General Manager

**RE:** ***AGENDA ITEM NO. 7.1 – CONSIDERATION AND POSSIBLE ACTION TO AUTHORIZE THE CREATION OF AN AD HOC COMMITTEE TO REVIEW DIRECTOR COMPENSATION AND EXPENSES AND THE PRESIDENT TO APPOINT ITS MEMBERS TABLED FROM SEPTEMBER 9, 2015 REGULAR BOARD MEETING. (PRESIDENT MAC LAREN)***

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Attached please find a list of Ad Hoc Board Committees since December 2013. Please let me know if you should have any questions.

## AD HOC BOARD COMMITTEE MEETINGS SINCE DECEMBER 2013:

- Ad Hoc Legal Services Committee (2014)
  Director Dizmang, Director Dino

- Ad Hoc Board Norms Committee (2014)
  President Mac Laren, Director Dizmang

- Ad Hoc Littlerock Dam Committee (2014)
  Director Estes, President Mac Laren

- Ad Hoc Fin & Feather Committee (2014)
  Director Dino, Director Alvarado

- Ad Hoc GM Contract Committee (2015)
  Director Alvarado, Director Dizmang

- Ad Hoc Best Practices Committee (2015)
  Director Estes, Director Alvarado

- Ad Hoc Energy Committee (2015)
  Director Dino, President Mac Laren

# AWWA ANNUAL FALL CONFERENCE
## Las Vegas, Nevada
## October 26 – 29, 2015

**NAME:**_____

_____

ADVANCE REGISTRATION DEADLINE**:** OCTOBER 16, 2015

MEALS: ___YES ___NO SPOUSE: ___YES ___NO SPOUSES' TOUR: ___YES ___NO

---

**DEPARTMENTAL TRAVEL BUDGET:**

REGISTRATION:_____ TRAVEL:_____
TOTAL REMAINING BALANCE:_____

---

**PROPOSED EXPENSES:**

| | |
|---|---|
| Registration: | _____ |
| Transportation: | _____ |
| Meals:* | _____ |
| Miscellaneous: | _____ |
| TOTAL: | _____ |

*DIRECTORS: Expenses are outlined in Section 4.06.1 of the District's Rules and Regulations.
*FOR STAFF: Meal limitations are outlined on pages 30 and 31 of the District's Employee Manual.
Please review these limitations.

---

**HOTEL ACCOMMODATIONS:** ___YES ___NO REGISTRATION DEADLINE:_____
ARRIVAL DATE/TIME:_____ DEPARTURE DATE/TIME:_____

TYPE OF ACCOMMODATIONS:
_____ SINGLE (1 PERSON)
_____ DOUBLE (2 PEOPLE)
_____ (2 PEOPLE/2 BEDS)

---

**AIRLINE RESERVATIONS:** ___YES ___NO

DEPART FROM _____ on _____ at _____ AM/PM
(airport) (date) (time)

RETURN FROM _____ on _____ at _____ AM/PM
(airport) (date) (time)

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SUPERVISOR APPROVAL:_____ DATE:_____




# Join us for the Annual Fall Conference!

This year the California-Nevada Section is bringing together the best water industry professionals across two states to discuss and share solutions for the future. The West is changing and so is the way we manage our water. The Conference theme this year is "Solutions for a Changing World" and the technical program will revolve around what is being done as well as what could be done in the future. There will be roughly 150 sessions with top experts speaking on projects or topics that they have been closely involved with. This year we will be embracing a new schedule and we hope you enjoy!

This year the Annual Fall Conference is debuting some new events and occasions that have not previously been a part of the conference. For first time attendees there will be an orientation to help you get the most out of your experience at our event. Also a new "Early Bird Session" from 7:30-8:30 has been added on Wednesday for those attendees that like to get an early start to their day! In the exhibit hall there will be two new editions, the Innovation Lounge and the Exhibit Hall Breakfast which will also both take place on Wednesday.

# General Session Speaker Lineup

**Opening Session Speaker: Chad Pregracke, Living Lands & Waters**

Chad and his Living Lands & Waters crew have organized and led over 800 cleanups on 23 rivers in 20 states and removed an estimated eight million pounds of garbage. Pregracke had an idea that evolved into a movement that has helped to restore one of America's greatest icons, the Mississippi River.Chad has been recognized by former President, George W. Bush as a national "Point of Light."He received a standing ovation at the Kennedy Center from all four living former U.S. Presidents for his inspirational message on dreaming big, taking action, persevering, leading and collaborating. He has been the keynote speaker for college graduations, business conferences and events, classrooms, nonprofit organizations and more. Named "America's Hardest Working Person" by Mitchum, Pregracke's enthusiasm, sense of humor and passion amplifies his story and entertains audiences. Ultimately, his message inspires people to believe they can make a difference.

**Keynote Speaker: Maureen Stapleton, San Diego County Water Authority**

As General Manager, Stapleton oversees a dynamic agency that is aggressively pursuing a comprehensive array of water supply and infrastructure programs designed to diversify and improve the reliability of San Diego County's water supply. She successfully negotiated the landmark 2003 Colorado River Quantification Settlement Agreement which included the Imperial Irrigation District Water Transfer and the lining of the All American and Coachella canals that together will provide up to 21.4 million acre-feet of water to San Diego County over 110 years. She is also responsible for the implementation of a $3.1 billion Capital Improvement Program, including the Emergency Storage Project, a system of new and expanded reservoirs, interconnected pipelines and pumping stations designed to make water available to the San Diego region during an emergency. In addition, the Water Authority is aggressively implementing the addition of desalinated seawater to the region's water supply, strongly promoting water conservation through incentives, assistance programs and outreach, and supporting recycling and reuse projects by its member agencies to further diversify the region's water supply sources.

## Conference Highlights

**This Annual Fall Conference has new events for everyone to enjoy! This year we will also be introducing a New Schedule, so check the link and see all the new events we have to offer.**

**Exhibit Hall Highlights**

On Wednesday morning at 8:30 - 10:00 AM we will have a NEW Continental Breakfast. You will have the opportunity to go get coffee, a small snack, and network with exhibitors.

**1st Timer Orientation**

For first time attendees we will be holding a new orientation at the beginning of the conference. You will learn what our conferences are all about and how to get the most out of your time at conference. Orientation will take place on Tuesday from 7:30 - 8:30 AM.

**Can INDUSTRY Help our DROUGHT? How Leading Industries are Meeting Today's Economic and Water Supply Challenges Workshop**

On Thursday CA-NV AWWA and the Nevada Water Resource Association will team up to introduce a new voice into the conversation about managing limited supplies.

# Exhibit Hall Events

**The Exhibit Hall will once again be filled with great exhibitors, prize drawings, and the Exhibitor Happy Hour. This year will also have the new, Innovation Pavilion, on Wednesday.**

**New Hours**:
Tuesday 3:00 - 7:00 PM
Wednesday 8:30 - 4:00 PM

**Exhibitor Happy Hour**
on Tuesday 5:30 - 7:00 PM.

**NEW Innovation Pavilion**
In the Exhibit Hall on Wednesday we will have the Innovation Pavilion, hich is where you can see some of the latest water technology, including a drone you can fly!

# Hotel

Tropicana Las Vegas - A DoubleTree by Hilton Hotel
3801 Las Vegas Blvd South
Las Vegas, NV 89109, US
We are now accepting hotel reservations for our upcoming event. Through this website you can book, modify or cancel your hotel reservations at any time and receive updated information about the event. Make sure to include your Hilton HHonors number to receive points. We look forward to seeing you!

American Water Works Association
California-Nevada Section

# ANNUAL FALL SCHEDULE

**Monday, October 26**

| | |
|---|---|
| 7:00am – 4:30pm | Registration |
| 7:00am – 9:30am | Section Leaders Meeting |
| 5:30pm – 7:00pm | Membership Welcome Reception |
| 9:30am – 5:00pm | Committee Meetings |

**Tuesday, October 27**

| | |
|---|---|
| 7:30am – 4:30pm | Registration |
| 7:30am – 8:30am | 1st Timer Orientation |
| 8:00am | Technical Tour |
| 8:30am – 10:00am | Opening Session |
| 10:15am – 11:15am | Awards Ceremony |
| 11:15am – 11:30am | Break |
| 11:30am –1:30pm | Keynote Luncheon |
| 1:30pm – 3:00pm | Technical Sessions |
| 3:00pm – 4:00pm | Exhibit Hall Grand Opening |
| 3:00pm – 7:00pm | Exhibit Hall hours |
| 3:30pm | Prize Drawings in Exhibit Hall |
| 4:00pm – 5:30pm | Technical Sessions |
| 5:30pm – 7:00pm | Exhibit Happy Hour (Prize Drawing TBD) |

**Wednesday, October 28**

| | |
|---|---|
| 7:30am – 4:30pm | Registration |
| 7:30am –8:30am | Technical Sessions |
| 8:00am | Technical Tour |
| 8:30am – 10:00am | Exhibit Hall Continental Breakfast |
| 8:30am – 4:00pm | Exhibit Hall Hours |
| 9:15am | Prize Drawing in Exhibit Hall |
| 10:00am –12:00pm | Technical Sessions |
| 12:00pm - 1:30pm | Exhibitor Lunch in Exhibit Hall |
| 12:30pm | Prize Drawing in Exhibit Hall |
| 1:30pm –3:00pm | Technical Sessions |
| 3:00pm – 4:00pm | Break & Prize Drawing in Exhibit Hall |
| 4:00pm –5:30pm | Technical Sessions |

**Thursday, October 29**

| | |
|---|---|
| 7:30am – 4:30pm | Registration |
| 8:00am | Technical Tour |
| 8:30am – 10:00am | Technical Sessions |
| 9:00am – 5:00pm | Workshop |
| 10:00am – 10:30am | Break |
| 10:30am – 12:00pm | Technical Sessions |
| 12:00pm - 1:00pm | Lunch Break (Lunch not provided) |
| 3:15pm – 3:30pm | Break |

Program ends at 12pm except the Anchor Workshop







# Can INDUSTRY Help Fix our Drought?

## How Leading Industries are Meeting Today's Economic and Water Supply Challenges

**CA-NV/NWRA Joint Workshop**
**October 29, 2015**
**8:00am - 3:30pm**

CA-NV AWWA and the Nevada Water Resources Association will team up to introduce a new voice into the conversation about managing limited supplies. The workshop will feature representatives from a variety of industries including agriculture, mining, and energy who will share their strategies and experiences in dealing with regional water supply challenges.

The workshop offers a rare opportunity for municipal water treatment and supply professionals to become familiar with water supply solutions beyond municipal applications. Participants will learn how these vital industries have developed solutions to maintain the reliable water supply they require to sustain their economic viability during the current drought without threatening local supplies.



## Agenda: (subject to change)

8:15-8:30 Opening Remarks

8:30-9:00 Maintaining Sustainable Water Supplies, David Johnson, Deputy GM- Engineering and Operations for SNWA and LVVWD

9:00-9:30 The Legacy of Perchlorate, James Dotchin, Department of Environmental Protection, NV

9:30-10:00 Partnership of Mine and Municipality: How Newmont Provided a Water Supply for Town of Long Canyon, NV, Paul Pettit, Newmont USA

10:00-10:30 Break

10:30-11:00 What's Happening with Farms? Example of Water Use and Conservation Practices in the Agricultural Industry, Sam Routson, Winnemucca Farms Inc.

11:00-Noon A Well's a Well – Comparison of Water Well Construction Techniques from the Oil Patch and Municipal Perspectives, Kevin McGillicuddy, Roscoe Moss Company

Noon-1:00 Lunch Break

1:15-1:45 Hydraulic Fracturing in Nevada, History, Current Use and Development of Regulations, Richard Perry, NV Division of Minerals

1:45-2:15 Water Management for Unconventional Oil and Gas Development, John Wind, Intergrated Sustainability

2:15-2:45 Impact of Methane Leaks on Drinking Water Aquifers: Stimulation of SRB's, Glenn Miller, UNR Professor, Dept. of Natural Resources and Environmental Science

2:45-3:15 Fracking Facts and Farce: Politics and Practice from AWWA Prespective, Tim Worley, Executive Director, CA-NV Section AWWA

3:15-3:30 Questions from audience to the panel and wrap up

American Water Works Association
**California-Nevada** Section

**REGISTER at www.ca-nv-awwa.org or for more information email Sara at sbaxter@ca-nv-awwa.org**

# CA-NV/NWRA Joint Workshop Registration Form

# Can INDUSTRY Help Fix our Drought?

How Leading Industries are Meeting Today's Economic and Water Supply Challenges

October 29, 2015 8am - 3:30pm

AWWA Member#: _____

Attendee Name: _____

Attendee Mailing Address: _____

City: _____ State: _____ Zip: _____

Cell Phone: _____ Home Phone: _____

Attendee E-mail: _____

Company Name: _____

Company Address: _____

City: _____ State: _____ Zip: _____

Company Phone: _____ Fax: _____

## CHOOSE YOUR REGISTRATION

| Workshop: | Members | Non Members |
|---|---|---|
| ☐ Pre Registration | $149 | $149 |
| ☐ Onsite Registration | $149 | $149 |
| **Students:** | | |
| ☐ Pre Registration | Free | |
| ☐ Onsite Registration | Free | |

**CONTACT HOURS** (Not included in Registration)

| | | |
|---|---|---|
| ☐ I'm an Individual AWWA Member | FREE | ---- |
| ☐ My Company is an AWWA Member | $20 | ---- |
| ☐ I am a Non Member | ---- | $20 |

**TOTAL AMOUNT DUE:** _____

## CA-NV AWWA CANCELLATION POLICY

Requests for refunds and requests for transfers must be made in writing and are subject to the following conditions: Full refund of fee paid (minus $50.00 handling fee) will be issued for cancellations received more than three weeks prior to event date. All fees are non-refundable thereafter.

## PAYMENT OPTIONS

Make checks payable, in U.S. funds, to CA-NV AWWA

Check # _____ PO # _____
(Must be accompanied by a physical copy of the Purchase Order)

Payment Method: Credit Card: Visa ___ MC ___ AMEX ___

Name on Card: _____

Credit Card # _____

Exp. Date: _____ Billing Zip Code: _____

Authorized Signature: _____

If you need a copy of your receipt, please enter e-mail address:

E-mail _____

Return this completed form with your payment or purchase order to CA-NV AWWA • 10435 Ashford Street • Rancho Cucamonga, CA 91730 or submit by fax to (909) 291-2107 or by email info@ca-nv-awwa.org

American Water Works Association
California-Nevada Section

OCTOBER 26-29, 2015
TROPICANA RESORT, LAS VEGAS, NV

# SOLUTIONS FOR A CHANGING WORLD



OCCUPATION CODES (please check one): __WTR Water Utility __CTR Contractor __CNS Consultant __MFG Manufacturer __REF Manufacturer's Representative

__DIS Distributor __EDU Educator __RES Research Laboratory __FED Federal Government __STA State Government __STU Student__OPR Water Operator

__I am a speaker at this conference. Date _____ Time _____

Attendee Name_____

Title _____ Company _____

Address _____ City _____ State_____ Zip_____

Phone _____ Cell _____ Fax _____

Attendee Email_____ AWWA Member #_____

Type of Membership (check one) __Individual __Organization __Operator/Admin. __Utility __I am a CWEA Member (same rate as CA-NV AWWA Member)

Complimentary Spouse/Guest (If attending) *Household members only. Does not include Water Industry Personnel._____

| Member Registration | PRE On or Before 10/ 16/ 15 | Onsite From 10/ 17/ 15 | |
|---|---|---|---|
| ☐ FULL REGISTRATION: Includes Keynote Lunch & Exhibitor Hosted Lunch & Exhibitor Reception | $495 | $545 | $ _____ |
| ☐ Tuesday One-Day : Includes Keynote Lunch & Exhibitor Reception | $275 | $315 | $ _____ |
| ☐ Wednesday One-Day: Includes Exhibitor Hosted Lunch & Exhibit Hall Entrance | $275 | $315 | $ _____ |
| ☐ EDUCATION PACKAGE Wednesday/Thursday Includes Technical Sessions & Exhibit Hall Entrance | $275 NO MEALS | $315 NO MEALS | $ _____ |
| ☐ Thursday One-Day Includes Technical Sessions | $149 | $149 | $ _____ |
| ☐ STUDENT - Must be full time Student/AWWA Student<br>☐ 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 | $ _____ |

| Non Member Registration | PRE On or Before 10/ 16/ 15 | Onsite From 10/ 17/ 15 | |
|---|---|---|---|
| ☐ FULL REGISTRATION: Includes Keynote Lunch & Exhibitor Hosted Lunch & Exhibitor Reception | $545 | $595 | $ _____ |
| ☐ Tuesday One-Day : Includes Keynote Lunch & Exhibitor Reception | $325 | $375 | $ _____ |
| ☐ Wednesday One-Day: Includes Exhibitor Hosted Lunch & Exhibit Hall Entrance | $325 | $375 | $ _____ |
| ☐ EDUCATION PACKAGE Wednesday/Thursday Includes Technical Sessions & Exhibit Hall Entrance | $325 NO MEALS | $375 NO MEALS | $ _____ |
| ☐ Thursday One-Day Includes Technical Sessions | $149 | $149 | $ _____ |

## LUNCHES

☐ Keynote Lunch $50

☐ Exhibitor Hosted Lunch $50

Subtotal $_____

## SPECIAL EVENTS

☐ Tues. Technical Tour $40

☐ Wed. Technical Tour $40

Subtotal $_____

## CONTACT HOURS

☐ FREE
(I am an individual, operator or administrative AWWA member)

☐ $20.00
(My utility/organization is an AWWA member or I am not an AWWA member)

## PAYMENT METHOD

Check #_____
Payable to CA-NV AWWA (U.S. funds)

PO#_____
Must be accompanied by a physical copy of the PO

Credit Card: ☐ Visa ☐ MC ☐ AMEX

Card No.:_____

Exp. Date:_____

Name on Card:_____

Authorized Signature:_____

Billing Zip Code:_____
Must be Zip Code in which your credit card statement is mailed
For copy of receipt, please write email address:

## 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 September 1, 2015. A $50 administrative fee will be deducted from all refunds. **No Refunds Granted after October 1, 2015.** By submitting this form, you are consenting to having your photo taken at the event which may be used for future Section promotions.

**CA-NV AWWA: 10435 Ashford Street, 2nd Floor**
**Rancho Cucamonga, CA 91730,**
**Phone: (909) 481-7200**
**Fax: (909) 291-2107**
**www.ca-nv-awwa.org**

Company _____

Group Coordinator Name _____

## GROUP INFORMATION

### Special Offer

Purchase 6 Attendee Registrations & Receive the 7th Attendee Registration FREE!

To qualify, all registered attendees must work for the same company and have the same Group/Company Coordinator name.

NAME
EMAIL
AMOUNT
MEMBER #
CONTACT HOURS
☐ Free with Individual Membership
☐ $20 All Others

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Additional Registration Comments (Optional)

_____

_____

Please send both registration pages to process all attendees.
If sending more than 7 employees, make copies of the second page as needed.

Have Questions? Please contact our Registration Specialist at 909.291.2117

## Tuesday, October 27, 2015

### Session 1 - Research

**1:30PM**

**Simultaneous Removal of Cr(VI), Iron, and Manganese: Bench to Full Scale Treatment in Under A Year!**

Craig Gorman, Corona Environmental Consulting

Participants will learn about advances in hexavalent chromium treatment, specifically with respect to the reduction coagulation filtration proces.

**2:00 PM**

**Full Scale Strong Base Anion Exchange Chromium 6 Treatment Experience**

Tarrah Henrie, Corona Environmental Consulting

Participants will learn about the schedule, permitting, start-up and validation testing, and waste brine minimization of full scale strong base anion exchange treatment for Chromium 6.

**2:30 PM**

**Synthesis and Application of Highly Reactive TiO2 Nanocrystals to Catalytically Remove Hexavalent Chromium**

Gongde Chen, University of California, Riverside

Participants in this session will learn a cost-effective and highly efficient chromium removal technology based on a novel TiO2 catalyst with high reductive power.

BREAK

**4:00 PM**

**VOC Treatment and Future Regulatory Impacts**

Katie Porter, ARCADIS

Participants will learn about the occurrence and removal of regulated and unregulated VOCs that are present in the surveyed water systems, and the types of changes that utilities may need to incur to comply with various future regulatory scenarios.

**4:30 PM**

**PTA Modeling to Evaluate Potential Compliance with Future Federal cVOC Regulations**

Richard Brown, EE&T, Inc.

Participants in this session will learn background information from Water Research Foundation project 4453 regarding possible federal cVOC regulatory scenarios and the ability of existing PTA facilities to meet these new criteria without modifications, or by a variety of modifications (higher A:W, different packing media PTA in series, PTA pre-treatment following by GAC).

### Session 2 - Water Treatment

**1:30 PM**

**High Recovery Water Treatment Facility at Fort Irwin**

Jason Yoshimura, CDM-Smith, Mark Standriff

Participants in this session will learn about the treatment processes that will be used to achieve greater than 99 percent recovery with zero liquid discharge at the new Fort Irwin water treatment facility.

**2:00 PM**

### The Use of Dye Adsorption Rate to Determine the Remaining Service Life of Activated Carbons

Adam Redding, Evoqua Water Technologies

Participants in this session will learn about work to identify a method for determining the relative degree of exhaustion for GAC in fixed bed filters.

**2:30 PM**

### NSF/ANSI 419: A New National Standard for Membrane Filtration

Stefan Buck, NSF International, Jonathan Cruz

Participants in this session will learn about a new standard and product certification program for membrane filtration products that will allow comparison of log removal rates between different products.

BREAK

**5:00 PM**

### Biological Fixed-bed Treatment Process: An Effective Treatment Approach for the Removal of Multiple Contaminants from Groundwater Resources

Giridhar Upadhyaya and Jess Brown, Carollo Engineers

Participants will learn about fixed-bed biological treatment process and its effectiveness for the removal of multiple contaminants from drinking water sources, including nitrate, perchlorate, hexavalent chromium, uranium, and VOCs.

## Session 3 - Operator

**1:30 PM**

### Reducing DBP Formation

Tom Coughlin, Chemtrade

Participants will learn that increased TOC removal often has a diminishing effect toward lowering DBP levels. The effect of different oxidants on DBP formation. The "unexpected consequences" associated with specific oxidants. The physical approaches for reducing DBP formation

**2:30 PM**

### Tools and Methods for Filter Run Optimization

Larry Lyford, Helix Water District

Participants will learn how Helix Water District optimizes filters for performance, water quality, and costs using a wide variety of tools and processes.

BREAK

**4:00 PM**

### Coagulant Overview

Tom Coughlin, Chemtrade

Participants will learn to provide plant operators with a better understanding of how inorganics work, the factors that affect their performance, how their treating characteristics differ, and what coagulants are best-suited for specific treatment

## Session 4 - Financial Management

**1:30 PM**

### Metropolitan Increases Incentives for Local Resources Development

Ray Mokhtari, Metropolitan Water District of Southern California

Metropolitan developed funding program, currently known as the Local Resources Program (LRP) This presentation will provide a brief history of the LRP, how it has evolved over the past three decades, 2014 program refinements, and lessons learned.

**2:00 PM**

### PPP: Poseidon Water and Carlsbad Desalination Project

Graham Beatty, Poseidon Water

Participants will about desalination in California, description of the Carlsbad Desalination Project, current status of the project, contract structure and future opportunities.
Another potential topic to explore could be the power/water nexus and desalination's role in renewable power initiatives.

**2:30 PM**

### A Look Behind the Wizard's Curtain – How Riverside Saved $23.5 Million with Solar PV

Matthew Bates, Riverside Public Utilities

Participants will learn the process for procuring a solar developer, the advantages and disadvantages of solar, the different tariff options for evaluating project size, and negotiating a solar contract. Participants will get a basic look behind the wizard's curtain to developing a successful, renewable, and low-cost alternative energy source that benefits their rate payers.

**BREAK**

**4:00 PM**

### Tiers or Tears: Designing Cost-Based Increasing Block Rates

John Farnkopf, HF&H Consultants, LLC and Warren Back, Rancho California Water District

Participants will learn how to evaluate tiered rate structures to determine whether they reflect the cost of service from lowest to highest use. Methods will be presented for determining the size of each tier, setting the rate for each tier and evaluating the price increments between tiers. These methods will be explained within the broader context of a conventional rate study that includes revenue requirement projections and cost of service allocations to each customer class

**5:00 PM**

### Revisiting Fixed Charges

Steve Gagnon, Raftelis Financial Consultants

Participants will learn how California's drought will substantially affect many water purveyor revenues as water agencies strive to meet Governor Brown's Executive Order B-29-15 to reduce water use by 25% through February 2016. Many water agencies will reconsider their fixed charges and resulting revenue in efforts to minimize revenue loss. This begs the question of what costs should the fixed charge cover and collect. We conclude with a review of typical fixed charges for several California water purveyors.

## Session 5 - Communications

**1:30 PM**

### "Total" Water - Connecting the Dots: Comprehensive Approach to Communicating about Water Supply, Infrastructure Investments, and Rates

Karen Snyder, Katz & Associates and Hillery Francis, Southern Nevada Water Authority

Participants will learn details about the challenges and benefits of promoting a comprehensive water management discussion, addressing the synergies of issues associated with supply, infrastructure, finance, construction, rates, maintenance, and operations. Fresno's "Recharge Fresno" campaign will be shared demonstrating a successful application of a comprehensive water management strategy.

**2:30 PM**

### How to Get a Regional Groundwater Project Off The Ground! Lessons Learned From the San Francisco Public Utilities Commission

Greg Bartow, San Francisco Public Utilities Commission

Participants will learn about how the SFPUC overcame challenges through the planning and design for this project to implement this important regional groundwater project and how to apply the lessons learned to current and future groundwater projects.

BREAK

**4:00 PM**

### Alternative Construction Details for Extended Life of Welded Steel Storage Tanks Roofs

Leslie D. Scott, P.E., Paso Robles Tank,

Participants in this session will learn how to enhance their tank asset preservation strategies through the use of various options for roof construction details for new welded steel tanks or tank refurbishment projects.

**5:00 PM**

### Where'd the Tank Go? Color Change, Lead Abatement, and Rehabilitation of a High Profile 2.25 MG Steel Reservoir

Tim Ross, Helix Water District,

Participants will learn lessons from the Johnstown Tank Improvement Project in Lakeside, CA. Highlights include successfully communicating the proposed project and reservoir color change with the surrounding retirement community, existing coating lead abatement, and structural modification of a 75 foot tall tank.

## Session 6 - Tanks, Reservoirs, & Structures

**1:30 PM**

### California Zinc and Revised RCRA Regulated Heavy Metal Rules - Impact Water Storage Tanks

Mark Griffin, Tank Industry Consultants and Travis Peterson, California American Water Company

Participants will learn to navigate the revised federal environmental regulations and California's revised heavy metal regulations

regarding the definition of solid waste as pertain to environmental issues that must be considered when planning to rehabilitate an existing tank or construct a new tank.

**2:00 PM**

**Water Storage Tank Asset Management: An Alternative Sustainable Approach to Traditional Water Storage Tank Maintenance Procurement**

Kevin Barnes, Utility Service Co

Participants will learn how Sustainable Tank Asset Management can:
- Assist with GASB 34 compliance
- Be renewable each year at tank owner's option
- Cover all aspects of tank asset management, including engineering services and renovations
- Extend tank service life
- Offer flat annual fee eliminating unplanned expenditures
- Transfer rehabilitation risk

**2:30 PM**

**Replacing the Roof of an 80 year old Reservoir with a Prefabricated Aluminum Roof System**

John Farley, Riverside Public Utilities

Participants in this session will learn about Riverside Public Utilities' Linden Reservoir Roof Replacement Project, which involved replacing the roof of a 16 million gallon reservoir that was originally built in the 1920's, including what factors were considered in assessing the condition of the existing reservoir and selecting the new roof system.

BREAK

**4:00 PM**

**Replacement of Earthen Reservoir with Two Pre-stressed Concrete Tanks on a Challenging Site**

Cindy Bertsch, Water Works Engineers

Participants will learn from one utility's experience of replacing an earthen reservoir with pre-stressed concrete tanks while keeping some storage on-line on a site with high groundwater, geotechnical instability, expansive soils, public scrutiny, and located near earthquake faults.

**4:30 PM**

**Successful Nitrification Control Using Chloramine Boosting and Mixing in Tanks: Results from Livermore, CA**

Robert (Ryan) Brewer, California Water Service

Participants in this session will learn how active mixing, disinfectant boosting and water quality monitoring can substantially reduce the frequency and magnitude of nitrification in chloraminated water distribution systems.

## Session - 7 Water Well Technology

**1:30 PM**

**Water for Energy – How Water Supply Well Design Principles Assist Energy Production Operations**

Kevin McGillicuddy, Roscoe Moss Company

Participants in this session will learn about well design and construction practices for energy production operations. A discussion comparing the different approaches in water supply and oilfield well design will be provided.

**2:00 PM**

### Analysis and Evaluation of Aquifer Pumping Test Data - What Can We Learn and What is Relevant?

Russell John Kyle, Wood Rodgers, Inc.

Participants will learn about the process of properly conducting aquifer pumping tests, analysis and evaluation of data, and the relevance of results to the end user.

**2:30 PM**

### Assessing Groundwater Resources Using Airborne Geophysics

James C. Cannia, Exploration Resources International

Participants will learn application of airborne geophysics for siting well locations, developing hydrogeological frameworks, aquifer characterization and well head protection.

BREAK

**4:00 PM**

### Mitigating an MCL through Well Modification

Scott L. Rogers, Indio Water Authority

Participants in this session will learn to determine a cost effective solutions for meeting the new MCL by examining alternative methods by the modification of the design for a well. The presentation will focus on the results of modifying the well to lower the level of hexavalent chromium produced by the well.

**4:30 PM**

### A New Era: VFD Conversions in Times of Drought

Sean Maguire, Kennedy-Jenks Consultants

Participants will learn the City of Davis is in the process of introducing surface water to their City for the first time. Learn how converting key lead wells to VFD will help the transition and how this will all occur in times of drought.

**5:00 PM**

### Mitigating Drought Conditions through Optimizing ASR Recovery

Nathan Nutter, Carollo Engineers,

Participants will learn how to maximize the operating efficiency of their ASR well/s. This is critical during current drought conditions, because maximizing water storage is imperative to not only water supply, but also the health of the well.

## Session 8 - Material Performance

**1:30 PM**

### U. S Pipe and the Ductile Iron Pipe Research Association Introduces New Products and Certifications

Richard Rowell, US Pipe & Foundry

Participants will learn about the Ductile Iron Pipe Research Association's new products introductions and certifications.

**2:00 PM**

### Approved Products List -- From Evaluation to Approval

Doa Meade, Las Vegas Valley Water District

Participants will learn why an on-line approved products list and an associated product evaluation process can be beneficial to the utility as well as the construction industry.

BREAK

**4:00 PM**

### No-lead Brass Service Valve Performance in Colorado River Water

Holly McNaught, Southern Nevada Water

Participants will learn in accordance with the Reduction of Lead in Drinking Water Act, no-lead (<0.25%) brass service valves must now be installed for new connections or as replacements throughout the distribution system. In this study, no-lead (<0.25%) and low-lead red brass (<8%) corporation stops and angle meter service valves were evaluated for ten-months using a flow-through pipe rig with Colorado River water. In both no-lead and low-lead valves, the fraction of tin increased from a minor (<10%) to a major (>40%) element on the wetted interior surface. Corrosion changes were consistent across valve and material types, except for the formation of a white precipitate of lead on the external surface of low-lead angle meter valves and non-wetted fittings. Copper enrichment from potential dezincification was identified in the pack joint fitting crevice of the angle meter valves. Changing to no-lead brass is not anticipated to result in an increased service valve failure rate.

## Session 9 - SDWA Committee

**1:30 PM**

### Federal Regulatory Update

Bruce Macler, USEPA

The USEPA's Safe Drinking Water Act (SDWA) documents Federal regulations for drinking water systems. Current components of the SDWA regulations include Rules for monitoring, operation and communications for water systems. This presentation serves to provide updates on the status and implementation schedules for several Federal regulations, including the LT2, DBP2, UCMR, LCRr, TCRr and other relevant and current actions and activities which affect water systems in CA and NV.

**2:00 PM**

### California Regulatory Update

Karen Larsen, State of California WQCB Division of Drinking Water

The California Water Quality Control Board's Division of Drinking Water (DDW) oversees the establishment and implementation of State regulations for drinking water systems. This presentation serves to provide updates on the status and implementation schedules for several Federal regulations being implemented or managed at the State level, including the LT2, DBP2, UCMR, LCRr and TCRr regulations, as well as updates to recent or pending new State-specific regulations and actions such as the Hexavalent Chromium rule, 1, 2, 3-TCP proposed rule, water system fees and SRF program.

**2:30 PM**

### Nevada Regulatory Update

Jennifer Carr, State of Nevada DEP

The Nevada Division of Environmental Protection (DEP) oversees the establishment and implementation of State regulations for drinking water systems. This presentation serves to provide updates on the status and implementation schedules for several Federal regulations being implemented or managed at the State level, including the LT2, DBP2, UCMR, LCRr and TCRr regulations, as well as updates to recent or pending new State-specific regulations

BREAK

**4:00 PM**

### AWWA Regulatory Update

American Water Works Association

The AWWA is the principal advocate for the water industry. Staff head up stakeholder workgroups tracking the developing of new Federal and State regulations. AWWA will provide a brief summary of political state of affairs in Washington DC as well as a summary of regulations in development at the Federal level and each one's anticipated impact on the industry.

**4:30 PM**

### rTCR Implementation in California and Nevada

Karen Larsen, State of California DDW

Participants in this session will learn about the specific new rTCR requirements in California and Nevada which go into effect April of 2016.

## Wednesday, October 28, 2015

### Session 10 - Distribution System Water Quality

**7:30 AM**

**Assessing DBP Occurrence: Impacts of the Stage 2 DBPR in California, Nevada, and the U.S.**

Chad Seidel, Corona Environmental Consulting

Participants in this session will learn how regulated DBP concentrations have changed over time, particularly given the implementation of the Stage 1 and 2 DBP Rules.

**8:00 AM**

**UCMR3 and Implications for UCMR4**

Andrew Eaton, Eurofins Eaton Analytical

Participants in this session will learn about what we have found in the UCMR3 monitoring program, with a focus on CA/NV regions and potential implications of UCMR3 findings for UCMR4 (2018)

BREAK

**11:00 AM**

**Water Quality Degradation in Premise Plumbing**

Jennifer Clancy, Corona Environmental Consulting LLC

Participants in this session will learn about opportunistic pathogens including Legionella and their role in waterborne disease. These common environmental organisms become pathogens when they amplify in building water systems and are released in aerosols in showers, spas, etc., resulting in disease and often death.

**11:30 AM**

**Distribution Water Quality Modeling - Another Tool in the Disinfection Toolkit**

Polly Boissevain, West Yost and Associates

Participants in this session will learn how water quality modeling can be used to enhance distribution system disinfection strategies. With a well-calibrated hydraulic model, water quality modeling can provide insight into and improve practices that promote disinfection residual maintenance.

**12:00 PM**

**Occurrence of UCMR Contaminants in Drinking Water Materials and Treatment Chemicals**

David Purkiss, NSF International

Participants in this session will learn what UCMR Contaminants are in Drinking Water Materials and Treatment Chemicals

LUNCH

## Session 11 - Source Water Quality

**1:30 PM**

### The Case for Hypolimnetic Oxygenation to Control Methyl Mercury Bioaccumulation in Seasonally Stratified Reservoirs

Stephen McCord, McCord Environmental and John McHugh, Santa Clara Valley Water District

Participants in this session will learn how a major California water district monitored mercury and related conditions in water and biota in four of its reservoirs, the important role of oxygen in driving mercury cycling, and the effects of hypolimnetic oxygenation on methylmercury production and cycling.

**2:00 PM**

### Water Quality Issues in the Tulare Lake Basin

Brian Shoener, Provost & Prichard

Participants will learn the scope of drinking water quality issues affecting disadvantaged communities in Fresno, Kern, Kings and Tulare counties. This presentation will identify the population affected by the water issues, treatment alternatives, and obstacles and barriers to implementation.

**2:30 PM**

### LIMS for the Smaller Water Quality Laboratory

Jeff Koelewyn, Castaic Lake Water Agency

Participants in this session will learn about the benefits of implementing LIMS software in a smaller laboratory, selecting a LIMS vendor, and the process of transitioning from a legacy system to a new LIMS system.

**BREAK**

**4:00 PM**

### An Innovative Method to Improve Calibration Accuracy of Online Ozone Residual Analyzers

Susan Yuskiewicz, MWD of Southern California

Participants will learn a time-saving innovative method to accurately calibrate ozone residual analyzers. Utilizing a surrogate analyzer calibrated with purified water and ozone solution produced by a self-contained ozone generating system, interferences with the indigo colorimetric method are eliminated.

**4:30 PM**

### Removing Trace Organic Contaminants Using Biofiltration in Potable Reuse Systems

Marco Velarde, University of Nevada, Las Vegas

Participants in this session will learn how different types of media used in a pilot scale biofiltration skid can be used to remove trace organic contaminants and how ozone can be used to increase removal efficiency.

**5:00 PM**

### A Hazardous Ozone Disinfection Byproduct: NDMA Formation and Implications for Water Reuse

Erica Marti, SNWA and UNLV

Participants in this session will learn about N-nitrosodimethylamine (NDMA) formation due to ozonation. Specifically, this presentation will focus on ozone-reactive NDMA precursors and factors that affect NDMA formation. Also covered is the effectiveness of pre-chlorination as an NDMA mitigation strategy.

## Session 12 – Treatment Research

**7:30 AM**

### Dwindling Supply Drives Southern California Water Supplier to Treat Groundwater Supply with Color, Methane, H2S, TOC and Ammonia

Andrew Borgic, Water Works Engineering

Participants will learn about groundwater treatment options for reducing concentrations of co-occurring contaminants including color, methane, H2S, ammonia, and moderate TOC with resulting high TTHMs when chlorine is utilized as a disinfectant. Participants of this session will gain knowledge from the "Lessons Learned" portion of the presentation covering lessons learned by the design team during the initial water quality sampling, technology evaluations, pilot testing, design, construction and startup.

**8:00 AM**

### Indirect Potable Reuse with Ozone, Biofiltration and Soil Aquifer Treatment

Fred Gerringer, Trussell Technologies

Participants in this session will learn about the water quality and regulatory benefits of combining ozonation and biofiltration with soil aquifer treatment for indirect potable reuse.

BREAK

**10:00 AM**

### Regulatory and Research Aspects of the San Gabriel Valley Indirect Potable Reuse Groundwater Replenishment Project

Reymundo Trejo, Upper San Gabriel Valley Municipal Water District

Participants in this session will learn about Upper District's efforts to supplement water demands in the San Gabriel Valley with recycled water. Details will be provided on the process, which includes research efforts and a well thought out regulatory approach.

**10:30 AM**

### Detection of Microplastics in Water and Wastewater Streams Using Fluorescence Spectroscopy

Cari Campbell, AWWA Student Chapter - San Diego State University

Participants in this session will learn why microplastics are a problem in water and wastewater streams, as well as the environment. Participants will hear a summary of our research procedures as well as the results, and why it is important.

**11:00 AM**

### How to Develop Defensible Water Rates

Brian Jewett, Black & Veatch

Participants will learn how establishing cost-based rates, fees, and charges is an important component in a well-managed and operated water utility. This session will provide a substantive look at the M1 Manual in the context of rate setting during challenging times. Particular attention will be given to current

topics facing today's utilities including but not limited to conservation pricing, drought restrictions, legal requirements for rate setting, and affordability.

Session 13 - Research

**1:30 PM**

**Hydrogen Sulfide Removal from Groundwater by Granular Activated Carbon**

Keisuke Ikehata, Pace

Participants in this session will learn some new insights about the low-cost, low-maintenance microbiologically-driven hydrogen sulfide and odor removal using granular activated carbon, which may be applicable to the treatment of otherwise good quality groundwater.

**2:00 PM**

**Performance of Various Organic and Inorganic Flocculants in Removing Whiting Particles As Evaluated By a Particle Counter and a Digital Flow Cytometer**

Xuexiang He, Southern Nevada Water Authority

Participants in this session will learn the effectiveness of various organic or inorganic flocculants in removing calcite and therefore reducing particles that have a potential in adversely impacting water treatment efficiency.

**2:30 PM**

**Use of High Resolution Accurate Mass Spectrometry to Identify Additional Analytes of Concern**

Andrew Eaton, Eaton Eurofins Analytical

Participants in this session will learn about new tools to assist them with looking for emerging contaminants, particularly in reuse water.

BREAK

**4:00 PM**

**Water Utilities Taking the Lead in Innovation**

John Arena, Kenya Henderson, Dave Rexing, Paul Gagliardo. MWD, LVVWD

Participants will learn the challenges that utilities face to find and evaluate innovative technology. Examples of projects and programs initiated by utilities to foster innovation, collaboration, and market uptake of new technology. What utilities need to assist them with their efforts to innovate.

**5:00 PM**

**Bringing Source Water Protection into the Modern Era by Leveraging the Latest Web and Data Technologies**

Josh Coefer, Corona Environmental Consulting

Participants in this session with learn how West Virginia American Water has modernized source water protection in response to the chemical spill that impacted source water.

## Session 14 - Plant Operation Challenges and Training

**10:00 AM**

### Coagulant Options

Tom Coughlin, Chemtrade

Participants will learn to provide plant operators with a better understanding of the various options that are available to improve the performance of their coagulation program. It is hoped that providing this information will make it easier for plant

**11:00 AM**

### Development of a Comprehensive Operator Training Program

Michelle Berens, Helix Water District

Participants will learn in the face of looming retirements of highly experienced operators, it is critical to capture their knowledge and adequately train new operators to take their place. In answer to this challenge, a comprehensive operator training program was developed. The program covers all the basic knowledge needed to operate Helix Water District's state of the art conventional surface water treatment plant with intermediate ozone. Items covered in the program include plant hydraulics, flocculation and sedimentation, filtration, ozonation, chlorination, chemical feed, plant utility systems, and laboratory procedures among others. Written quizzes and hands-on skills demonstrations were developed for each section. In addition a set of scenario questions which require an operator in training to think about the plant and process as a whole were put together. This program allows for objective measurement of a trainee's progress and pinpoints areas for further study. How this program was developed and is being implemented will be covered in this session.

**11:30 AM**

### Using Laboratory Charge Measurement for Quickly Determining Optimum Coagulant Dose

John Clark, Chemtrac, Inc.

Participants in this session will learn how laboratory charge analysis is used to find an optimum coagulant dosage in under 5 minutes (typical); and help supplement, confirm, or replace their jar testing procedures. Newly developed testing methods to expand the application of this technology will be discussed.

## Session 15 – Operator

**1:30 PM**

### Operator Round Table

Russ Guilliams, City of Fresno and Colter Andersen, Zone 7 Water Agency

Participants in this session will interact with professionals in the Water Treatment Plant and Distribution System Operations. A wide variety of topics will be discussed. Bring your problems and solutions to the session and network with professionals in your field.

BREAK

**4:00 PM**

**Improved Jar Testing Optimization with Total Organic Carbon Analysis**

Dondra Biller

Participants in this session will better understand how to apply total organic carbon (TOC) analysis to optimize jar testing for surface water treatment. Laboratory and field test data from multiple utilities will be presented to support this testing.

## Session 16 - Keeping you Out of Trouble on Capital Projects--Part I

**8:00 AM**

**Allocating Risk to the Party Best Able to Manage It: The Story of the Carlsbad Desalination Pipeline.**

Steve Tedesco, Tetra Tech

Large pipeline projects oftentimes are complex and risky for owners. Using the Carlsbad Desalination Pipeline Project as an example, we will share how the design-build method may be used to assign risk to the party best able to manage it. Viewpoints from the owner, developer, design-builder and engineer will be presented.

BREAK

**10:00 AM**

**Making the Right Decision to Rehabilitate: An 1894 Vintage Reservoir.**

Carl A. Gowan, Marin Municipal Water District

Bringing an 1894 reservoir up to par with current standards is no small task. Come learn why the Marin Municipal Water District decided to rehabilitate a historic reservoir and what it took to bring it up to current AWWA and CA Drinking Water Standards.

**11:00 AM**

**Boom Without the Bust: Managing Demand Changes on Water Infrastructure Caused by San Francisco's Massive Development Boom**

Catherine McCrimmon, SFPUC

How do you plan for the unexpected? Come learn how San Francisco is responding to rapid changes in water infrastructure demands caused by the development boom and how they are creating clear communications with developers.

## Session 17 - Keeping you Out of Trouble on Capital Projects--Part II

**1:30 PM**

**Gaining Public Support on a High-Profile Construction Project before Breaking Ground: A Success Story from the Santa Clara Valley Water District.**

Mike Munson, Santa Clara Valley Water District

Constructing a $160M plant upgrade in a high value residential neighborhood is a daunting task. Come learn from the Santa Clara Valley Water District, CA how to get off on the right foot with a vocal public through an effective public outreach program that fostered public support, built long-term goodwill and smoothed the approvals process.

**2:30 PM**

**A Long and Winding Road to a Sustainable and Diversified Water System: the City of Davis Story.**

Tim Williams, Kennedy/Jenks Consultants

Over the last 15 years the City of Davis, CA has looked hard at ways to diversify its water system portfolio. This journey has culminated in developing the infrastructure and controls needed to meld the new surface water supply with existing groundwater supplies; a feat that provides reliable water quality in the distribution system.

## Session 18 - Engineering & Construction Challenges

**4:00 PM**

**Risky Business: What to Do When Three Essential Pipelines Cross an Earthquake Fault**

Darren Baune, Carollo Engineers

Participants will learn what do you do when you discover that three of your most critical pipelines are located in a landslide area and will move nine feet in an earthquake? Come learn how the Santa Clara Valley Water District enlisted a team of specialists and new technology to ensure that the pipelines would operate reliably after a major earthquake.

## Session 19 - Management Development and Leadership

**10:00 AM**

**Bridging the Gap between Engineers and Operators**

Doa Meade, Las Vegas Valley Water District

Participants will learn engineers try their best to design a functioning and efficient water distribution system but there are times when the operators shake their heads wondering what the engineers were thinking! This presentation will take you through several case studies where the engineering design has been changed and improved upon as a result of seeking and receiving feedback from the field. The construction inspectors and the distribution operators have an open line of communication with the engineers and those suggestions, comments and even frustrations are taken to heart and the designs are improved upon for future projects. Everything from how can a contractor construct the facilities to accessibility and how the operators and their equipment are going to maintain the facilities.

**10:30 AM**

**Effective Succession Planning Strategies for Large Water Agencies**

David Clark, Metropolitan Water District of Southern California and Jean Ha Kushi Metropolitan Water District of Southern California

This presentation presents an overview of MWD-Engineering Services' two-part approach to

succession planning: Workforce Development, which focuses on developing existing staff, and "Career Launch," which focuses on hiring and training new employees.

**11:00 AM**
**Solutions for Acceptance: Using Education to Reduce the Ick-Factor and Increase Understanding**

Liz Moody, Cannon

Participants will learn if education really can eliminate the "ick-factor." We used a series of surveys to identify acceptance levels and areas of concern about water reuse among different ages, both before and after an educational outreach experience.

**11:30 AM**
**Managing the Dark Side of Social Media**

Darcy M. Burke, Watermark Associates

Participants will learn the Best Management Practices in dealing with social media bullies, trolls and negative comments in general. These elements are usually the number one reason policymakers shy away from establishing social media presence for the utility/organization but here are tools and protocols available that make the management of the Dark Side, easier without damaging trust or credibility.

## Session 20 - Recycled Water

**1:30 PM**
**Potable Re-Use Membrane Research – A Full Scale Study at Scottsdale Water Campus**

Nathan Boyle, Hazen and Sawyer

Participants in this session will learn about reuse research completed at Scottsdale Water Campus in Arizona, examining the online monitoring response to the intentional integrity failures of ultrafiltration and reverse osmosis membranes.

**2:00 PM**
**Use of O3/DOC and UV/DOC Ratios as Dosing Parameters for Advanced Oxidation Processes in Potable Reuse Applications**

Daniel Gerrity, University of Nevada, Las Vegas

Participants in this session will learn how ozone- and UV-based AOPs can be employed in a variety of potable reuse treatment frameworks and how the systems can be operated to achieve consistent trace organic contaminant oxidation in diverse wastewater matrices.

**2:30 PM**
**Evaluation of Virus Removal Capabilities of MBR System in a Full-Scale Water Reclamation Facility In Nevada**

Julian Hoyle, CH2MHILL

Participants in this session will learn about the removal of viruses through a full-scale MBR process and how the City of Henderson gained state approval for the demonstrated removal.

**BREAK**

**4:00 PM**
**CyberSecurity – What do I Need to Do?**

Jeff M. Miller, Schneider Electric

Participants will learn the guidance from NIST and AWWA; tools provided by AWWA and DHS; and key industrial security standards. The

objective is to help utilities understand the steps necessary to evaluate and secure their cyber assets in accordance with the industry directive

**4:30 PM**
**Job Hazard Analysis for the Water Distribution System**

Tonya Howard-Taylor, LADWP

Participants in this session will learn how to perform a basic Job Hazard Analysis and receive information on Job Hazard Analysis that have already been performed in the Water industry for Distribution Systems.

**5:00 PM**
**Confined Space Entry: The Good, the Bad and the Ugly**

Gil Mata & Leo Ferns, Las Vegas Valley Water District

Participants in this session will learn about the Las Vegas Valley Water District's confined space program. The briefing will include program highlights, challenges and innovative concepts employed by the company.

## Session 21 - Environmental, Health & Safety

**8:00 AM**
**Utility Perspective of New Statewide NPDES Permit**

Brandy Hancocks, Golden State Water Company

Participants will learn what the new Statewide NPDES permit for drinking water discharges means for utilities across the state of California, including tips on submitting applications and areas of concern to watch out for while complying with the permit.

**10:00 AM**
**Local Climate Change and Drinking Water Quality: A Case Study in Southern California**

David Kimbrough, Pasadena Water & Power

Local Climate Change and Drinking Water Quality: A Case Study in Southern California

**10:30 AM**
**Stacking it Up: Combining Gravel Infiltration Basin and Constructed Treatment Wetland for Process and Storm Water Treatment in San Jose, CA**

Angela Liang Cutting, Roux Associates

Participants will learn about an approach that utilized constructed treatment wetlands to maximize evapotranspiration, treatment, and infiltration for storm water and blow-off water.

**11:00 AM**
**Environmental Performance Improvement through EMS Implementation**

Annalisa Helm, CHMM, Las Vegas Valley Water District

Participants in this session will learn about the challenges faced and lessons learned during the first four years of implementing and improving an ISO 14001 certified EMS as well as the environmental performance improvements that have resulted from doing so.

## Session 22 - Tanks, Reservoirs, & Structures

**2:30 PM**
**THM Reduction Using Spray Aeration**

P. Lyle Mariam, Las Vegas Valley Water District
Participants in this session will learn the basic theory and design of spray aeration system to reduce Trihalomethane (THM) growth in potable water using low cost spray techniques.

BREAK

**4:00 PM**
**Sources, Fate and Control of N-Nitrosodimethylamine Precursors**

Eric Dickenson, Southern Nevada Water Authority

Participants in this session will learn that NDMA can be formed due to ozone in potable reuse systems, potential sources of NDMA precursors in raw water, fate of precursors in surface waters and precursor sources within drinking water systems.

**4:30 PM**
**Pilot Testing and Evaluation of MF/UF Filtrations for a 30-MGD Water Treatment Plant**

Todd Reynolds, Kennedy-Jenks Consultants

**5:00 PM**
**Submerged Membranes to Replace Media Filters to Increase Capacity 4X for a Small Community**

Richard Stratton, HDR Engineering

Participants will learn how an existing conventional water treatment plant can be upgraded and expanded to four times the capacity in the footprint of the original plant using membranes.

## Session 23 - Meter

**7:30 AM**
**Flexible & Affordable Meter Reading Technology**

Michele Harvey, Badger Meter

Participants will learn advantages and Challenges of new metering technology and how new meter reading solutions allow mixing and matching of technology affordable via scalability and migratability

BREAK

**10:00 AM**
**San Jose Water Company's Meter Obsolescence Program**

Brian W. Dunbar, San Jose Water Company

Participants will learn to identify the pitfalls and challenges faced by San Jose Water Company during their large meter replacement program.

**10:30 AM**

**Protecting Existing Revenues for the City of Angels: The Devil in Effective Large Meter Maintenance Program Details**

Kenneth Molli, Veolia North America and Cree Horner, LADWP

Participants will learn to identify and implement best practices for large meter management.

**11:00 AM**

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

Rich Sanders, Zenner USA

Participants will learn Improving water system operations and customer service to the end user through use of an AMI deployment.

## Session 24 - Water Management & Efficiency

**1:30 PM**

**Large Electronic Meter Technologies**

Michele Harvey, Badger Meter

Participants will learn how Ultrasonic and Electromagnetic technology works in today's large meter offerings. Advantages and Disadvantages

**2:00 PM**

**Analysis of Water Losses**

Richard Relyea, MC Engineering & Rod Henmi, HKIT Architects

Participants will learn recognizing that losses are comprised of both Apparent Losses (losses due to meter inaccuracy) and Real Losses (losses due to actual leakage),

**2:30 PM**

**Analysis of Water Losses**

Mark Carey, MC Engineering & Larry Kraemer, Cannon

Participants will learn recognizing that losses are comprised of both Apparent Losses (losses due to meter inaccuracy) and Real Losses (losses due to actual leakage)

**BREAK**

**4:00 PM**

**Revenue Impacts of Water Conservation**

Ora Chaiken, WaterSmart Software

The presentation will benefit water utility managers who want greater confidence in demand management, financial forecasting, and investment horizons while simultaneously reducing capital costs for long-term infrastructure projects through improved customer communications and water-use education.

**4:30 PM**

### Using Hydraulic Modeling to Determine Viable Emergency Water Supply Options for the City of San Francisco's Largest Reservoir and Pressure Zone

Brian Barry, San Francisco Public Utilities

Participants in this session will learn how the SFPUC utilized the hydraulic model to evaluate viable operational scenarios to supply adequate hydraulic pressure and storage for San Francisco's largest reservoir and pressure zone while multiple segments of the primary transmission main and the pump station used to supply the zone are out-of-service.

**5:00 PM**

### Strategic Smart Metering to Achieve Water Conservation

Rachel Davis and Tai Tseng, Long Beach Water Department

Session 25 - Water Management & Efficiency

**10:00 AM**

### Conserving Water is a Culture: The Monterey Peninsula Story

Stephanie Locke, Monterey Peninsula Water Management District

Participants will learn details of a highly successful water efficiency program resulting in local water savings of over 43%. Attendees will be inspired with solid and proven techniques for successful water efficiency, conservation and rationing programs, leaving with a toolbox of effective ideas.

**11:00 AM**

### Davis Woodland Water Supply Project: One Sustainable Water Solution | Water – Wastewater – Groundwater

Lindsay Smith, West Yost Associates

Participants will learn how effective integrated water planning was used to solve the water supply and wastewater discharge compliance concerns of two northern California communities and how regional collaboration led to the successful implementation of a notable design-build-operate project.

Session 26 – Water Management & Efficiency

**1:30 PM**

### Proactive Pipeline Assessment Saves Millions of Gallons of Water and Prevents Catastrophic Pipeline Failures

Randall L. Payton, City of Dallas

Participants in this session will learn innovative ways to minimize water loss, raw and potable, through the detection and repair of leaks in the water distribution system.

**2:00 PM**

### SNWA Water Smart Contractor Program

Summer Ortiz, Southern Nevada Water Authority

Participants in this session will learn about the Southern Nevada Water Authority's Water Smart Contractor Program, which provides training on water efficient landscape practices, regulations, and incentive programs offered by the SNWA. They will also learn about our Smart Start process and how it helps these contractors and

our customers benefit when participating in our Water Smart Landscapes Program.

BREAK

**4:00 PM**

### Drought Demand Management: One Size Does Not Fit All

Drew Atwater, Moulton Niguel Water District

Participants in this session will learn about the economics of drought demand management, the policy options available to meet the supply constraints of drought, the effectiveness of some of those policy tools and case studies on the experiences of agencies throughout California in the current drought.

**5:00 PM**

### The Alchemy of Reducing Per Capita Water Consumption and Increasing Utility Revenue with Data

Jason Bethke, FATHOM

Participants will learn how improved data management, investment in advanced metering infrastructure and active customer engagement can result in "found revenue" of 5-15% for the utility while at the same time decreasing demand by 8-10%.

## Session 27 - Water Resources

**10:00 AM**

### Validating Water Audits for Water Loss Control - Level 1 Top Down Review

Sue Mosburg, Sweetwater Authority
Will Jernigan, Cavanaugh

Participants will learn desktop review of what is immediately available – supply reports, consumption reports, testing reports, etc. Brief interviews with pertinent utility staff members & documentation, focused on practices to make sure the data grades have been applied correctly and consistently. Through this discussion, anomalies are discussed and either confirmed, corrected, or noted for needing further investigation. Presentation will walk through this process using examples.

**10:30 AM**

### Validating Water Audits for Water Loss Control - Level 2 Top Down Data Mining

Steve Cavanaugh, Cavanaugh

Participants will learn analysis of available data, including production database and reports from SCADA system to identify gaps in the data chain. Data mining in the billing system to confirm and cleanse consumption volumes to remove redundancies from the data mining process which can come about from record duplications. Also validates exclusion of non-potable volumes in the totals. Validates that consumption volumes from low mid and high level detail extractions are corroborated. Presentation will walk through this process using examples.

**11:00 AM**

### Validating Water Audits for Water Loss Control - Level 3 - Bottom Up Field Investigation

Kate Gasner, WSO

Participants will learn field investigations and extensive data mining. Supply meter testing and in-field verification of meter-transmitter-SCADA data chain. In field customer meter testing. ICF

& Night flow testing & analysis for leakage. Pressure data collection & analysis. Presentation will walk through this process using examples.

**11:00 AM**

**Session Wrap-Up and Panel Discussion**

Sue Mosburg, Sweetwater Authority-Will Jernigan, Cavanaugh

Participants will learn the new California Water Loss Control Program timeline, resources, and opportunities for agency input and participation. Session wrap-up and Q&A

## Session 28A - Pipeline Rehabilitation

**1:30 PM**

**An Innovative Leak Detection Technology That May Bring a Paradigm Shift to Locating Leaks & Measuring Water Loss**

Chuck Hansen, ElectroScan Inc.

Participants will learn a new technology that may cause a paradigm shift in the way utilities accurately assess the condition of their water mains and prioritize repairs and rehabilitation. Representing a breakthrough in the accuracy of locating and measuring leaks, a new innovation finds and quantifies all cracks, fissures, fractures, openings, and leaking joints that have the slightest opening between the inside of a pressurized pipe and ground. Utilizing a patent-pending low voltage electric current dispersed in a focused array from the inside of a water main, a tethered probe is able to detect all openings through the wall of the pipe.

**2:30 PM**

**Condition Assessment of a 1920's vintage 42-inch Diameter Water Transmission Pipeline**

John Farley, Riverside Public Utilities Dept.

Participants in this session will learn about a project undertaken by the Riverside Public Utilities Department which involved the condition assessment of nearly 5-miles of 42-inch diameter water transmission pipeline, including the steps taken to determine the project approach, and what factors were considered in assessing the condition of the existing transmission pipeline. This project ultimately resulted in the deferral over $30M in pipeline replacement costs.

**BREAK**

**4:00 PM**

**Acoustic Leak Inspection of Bar-Wrapped Concrete Cylinder Pipe**

Drew McIntyre, North Marin Water District

## Session 28B – Recycled Water

**4:30 PM**

**FILL 'ER UP! Drought Relief through Recycled Water Fill Stations**

Rhodora Biagtan, Dublin San Ramon Services District Cheryl Munoz, San Francisco Public Utilities Commission

Participants in this session will learn about a resource available to the public about locations and logistics associated with recycled water fill stations in the San Francisco Bay Area. Participants will also learn about the implementation of a Residential Recycled Water

Fill Station Program, the first of its kind in the state of California, and public acceptance of the program.

**5:00 PM**

**Los Carneros Water District Implements Reuse Water System for Irrigation**

Anne Prudhel, PE, Carollo Engineers, Inc.

Participants in this session will learn how a water utility district with large agricultural irrigation demands is coping with limited groundwater volumes and water quality issues by effectively utilizing recycled water.

## Thursday, October 29, 2015

### Session 29 - Source Water Quality

**8:30: AM**
**Algal Toxins – What's on the Horizon?**

Andrew Eaton, Eurofins

Participants will learn about the various methods available for testing for algal toxins and the directions that EPA is thinking about with respect to future algal toxins monitoring.

**9:00 AM**
**Cyanotoxins - Occurrence and Analysis of Microcystin-LR in Drinking Water**

Rudy Pante, Metro Vancouver-SCFP

Participants in this session will learn how to analyze Microcystin-LR (MC-LR) using Enzyme-Linked Immunosorbent Assay (ELISA). Also the participant will learn how to determine Limit of Detection (LOD), Limit of Quantitation (LOQ), and validate the MC-LR method, and interpret the data.

**10:30 AM**
**Algal Toxin Removal at Ambient and high pH conditions**

Jeff Neemann, Black & Veatch

The audience will learn about the effectiveness of different treatment technologies in removing algal toxins from drinking water. The audience will be able to take practical guidance and apply it to other situations.

**11:00 AM**
**Cyanotoxin Treatment of South Bay Aqueduct Waters**

Issam Najm, WQTS

Attendees will learn of the effectivenss of preozonation, intermediate ozonation, chlorine, chloramine, and powdered activated carbon (PAC) addition at treating algal toxins on SF Bay Area South Bay Aqueduct water.

11:30 AM
**Microcystis/microcystin issues that have arisen in Lake Mead**

Todd Tietjen, SNWA

Attendees will learn about the Microcystis issues that have arisen in Lake Mead during 2015 despite few changes in the underlying water chemistry and no measurable increase in the nutrients needed to support these blooms. Problems of trying to track and assess these blooms without a pronounced change in nutrients is also discussed.

### Session 30 - New Technologies

**8:30 AM**
**Water Data Management during the Apocalypse or just another day at the office for a Water Data Manager**

Curt James, Mojave Water Agency

Participants in this session will learn about various issues regarding California's drought, the differences between the State Water Resources Control Board standards and the Department of Water Resources Form 38 reports, and learn how to determine Percentage of Residential Use.

**9:00 AM**

**Managing Groundwater Data Using Low Cost Cloud based GIS Solutions**

Behrooz Mortazavi, Water Resources Engineers

Participants in this session will learn how they can manage and monitor groundwater data including wells, pumping, water level, groundwater quality, and Geographic Information System using cloud based services.

**9:30 AM**

**Groundwater Management System at Santa Clara Valley Water District**

Masoud Hoseyni , DCSE inc.

Participants in this session will learn about Santa Clara Valley Water District's groundwater management module of Water Resources Information System (WRIS), and its components: water level, water quality, subsidence, groundwater modeling, and reporting and data export

BREAK

10:30 AM

**A Portfolio Approach to Drought Demand Management**

Drew Atwater , Moulton Niguel Water District

Participants will learn how Moulton Niguel Water District chose to comply with the State Water Resources regulations by demonstrating "superior" conservation savings through water use efficiency programs in conjunction with an allocation based rate structure. The District is also in the midst of a rate study to use its allocation based rate structure as a tool to ratchet down consumption as drought lowers supply. This portfolio of measures offers a comprehensive strategy to lower water use through sustainable, long-term water conservation without mandatory rationing.

**11:00 AM**

**What's Behind Your Key Accounts: Understanding Revenue Risks and Capacity Planning for Non-Residential Customers**

Christine Boyle, Valor Water Analytics

Participants will learn that studying customer behavior has become an essential financial management and research component for most commercial enterprises. The Urban Water Consortium (UWC) has funded research to collect, compile, and profile NON-residential water customers to better understand their demand, forecast their revenue, and compare their water use.

## Session 31 - Communications

**8:30 AM**

**Behind the Scenes of Locating a Storage Reservoir in a Developed Neighborhood**

Lacy Carothers, California American Water Company

Participants will learn best management practices for communication and public outreach to successfully construct a 1.5 million gallon water storage reservoir that impacts multiple stakeholders in a fully developed neighborhood.

**9:00 AM**

### Emergence of Software Technologies for Efficient Water Use and Distribution

Lance Brown, Smart Utility Systems

Participants will learn during this presentation we will discuss the upcoming Software and Data Analytics that water utilities can utilize to achieve water use efficiency on customer side and within the distribution system. We will discuss how combination of cloud software and metering has proven to deliver measurable results for California utilities.

BREAK

**10:30 AM**

### Improving Water Quality by Tank Mixing and Aeration for THM Control

David Summerfield,Medora Co.- SolarBee/ GridBee

Participants will learn the benefits of mixing and aeration to achieve a more consistent and higher quality of potable water for uniform residuals and THM control.

**11:00 AM**

### Saipan Water Systems Get Whacked by Typhoon Soudelor

Bruce Macler,USEPA Region 9

Participants will learn typhoon Soudelor hit the island of Saipan in the Commonwealth of the Northern Mariannas Islands on August 2, 2015. Winds and flying debris knocked out the power grid and caused substantial structural damage on the island. Because Saipan's drinking water primarily comes from wells lacking backup power sources, essentially all piped water was disrupted. Saipan's isolation far out in the Pacific meant long delays before resources could arrive. FEMA involved US Army Corps of Engineers, USEPA and US Marine Corps for on-island and mainland support. Initial response involved provision of generators and fuel supplies to several water bottling facilities, followed by gradual restoration of utility wells as additional generators became available. Recovery efforts required rebuilding the power grid, by replacing hundreds of downed poles and transformers.

## Session 32 - Desalination

**8:30 AM**

### Analytical Strategies for Desalination Projects

Rick Zimmer, Eurofins Eaton Analytical, Inc.

This presentation serves to create awareness for those are involved with desalination projects as to the potential matrix interferences and appropriate adjustments that can be made within the laboratory to ensure the production of correct, complete and timely analytical data in support of project objectives.

**9:00 AM**

### Is Your Facility Performing? A Look at the Richard A. Reynolds Groundwater Desalination Facility

Gabriela Handley, Separation Processes, Inc.

Participants will learn how to analyze normalized RO data, evaluate CIP effectiveness, and select a membrane preservation method for a long-term shutdown.

**9:30 AM**

### Carlsbad Desalination WTP: Design and Delivery

Tom Visosky, ARCADIS

Participants will learn use of the successful tactics of early engagement, effective team structure, focused design management, and continuous quality control has positioned the project for success. This presentation provides a technical overview of the desalination treatment process and explains team structure/management systems that lead to the excellent schedule performance.

BREAK

**10:30 AM**

### Lessons After the First Year- Silicon Valley Advanced Water Purification Center

Pam John & Sam Bogale, Santa Clara Valley Water District

Participants in this session will learn about our operating experiences during the first year of the eight-million-gallon per day advanced water purification center, the difference between planned design and actual operations, and moving forward, are there things we would have built differently.

**11:00 AM**

### West Basin's Ocean Water Desalination Subsurface Intake Study

Diane Gatza, West Basin Municipal Water District

Participants will learn about the seven types of ocean water desalination subsurface intakes and what technical criteria is required for ideal operation. Participants will also learn how to utilize a guidance manual that is being developed for the industry to utilize readily available site specific data to determine if subsurface intakes are feasible for a given site. West Basin will also be sharing the findings of the in-situ testing that will be performed as a part of this study and what the outcome is for the full scale ocean water desalination project.

**11:30 AM**

### Monterey Penninsula Water Supply

Dennis E. Williams, Ph.D., GEOSCIENCE Support Services, Inc.

Participants will learn latest advances in subsurface intake technology to SWRO desalination systems. Current status and result of long term testing of a 724 ft long 19 deg below horizontal test slant well which is the first phase of the 22 mgd Monterey Peninsula Water Supply Project

## Session 33 - Security Emergency and Planning

**8:30 AM**

### Resource Typing - An Innovative Approach

Christine Herndon, Herndon Solutions Group

Participants will learn after completing a comprehensive review of emergency preparedness and making significant improvements over the past couple of years, the Long Beach Water Department found that it was imperative to integrate resource typing into its overall preparedness plan. The Department has taken an innovate approach to developing a tool that reflects AWWA Resource Typing Manual standards when creating the various teams. Furthermore, the teams were developed to

ensure that deployment of would not impact day-to-day operations. Finally, all costs were captured for easy documentation through FEMA's Requisition-A. At this session, you will learn how your utility can also comply with industry resource typing directives and apply it for both deployment, as well as if your utility is the requesting authority.

**9:00 AM**

### Tunnel Vision: The Pros and Cons of Managing Infrastrucutre Inspection with Incident Command

Mary Ellen Carroll, SFPUC - Blake Rothfus, McMillen Jacobs Associates

Participants will learn how the San Francisco Public Utilities Commission (SFPUC) has committed to inspecting and assessing its aging water infrastructure. In January 2015, the SFPUC dewatered the Coast Range Tunnel. The tunnel remained out of service for 34 days while SFPUC contractors and consultants inspected the entire length of the tunnel for any necessary repairs. The SFPUC activated an Incident Command organizational structure in order to help coordinate and manage the tunnel inspection. Although the inspection was ultimately successful, there were several lessons learned from the event that can be applied to various infrastructure inspections.

**9:30 AM**

### Preparing for the Big One – Mitigating Seismic Risks to Water Infrastructure

David Clark, Metropolitan Water District

This session provides an overview of Metropolitan Water District's overall approach to earthquake preparedness and includes specific examples of actions Metropolitan has taken under each component of the program to strengthen overall system reliability. This includes a detailed study regarding the potential impacts to the CRA from a M 7.8 event on the San Andreas Fault and the mitigation measures that were identified through this study.

**10:30 AM**

### Fire and Water Working Together to Keep Thirst At Bay

Amy Sinclair, SFPUC - Josh Gale, SFPUC

Participants in this session will learn about collaboration between the San Francisco Public Utilities Commission and San Francico Fire Department to address public information, water quality, and alternate water delivery after a disaster. Learn about this innovated training and edulcation partnership that can be adpated in any community to support water operations and ensure water alternative when the water system is disrupted due to disaster.

**11:00 AM**

### Cyber Threats to Critical Infrastructure

Ronald T. Williams, Talon Companies

This presentation provides information on cyber attacks to Critical Infrastructure IT and SCADA systems. The information in this presentation will explain how cyber attacks are perpetrated and what Water Districts should do to detect, deter, and thwart cyber attacks with tiered and layer security.

**11:30 AM**
**Risk Mitigation for Aging Electrical Infrastructure**

Jeff Miller, Schneider Electric

This presentation will discuss aging electrical system threats, vulnerabilities, and risks using forensic investigation examples of failed electrical equipment. Evidence is provided to show how proper maintenance, inspections, and assessments can prolong the life of electrical equipment while ensuring reliability and safety throughout its life. Real world project examples will be given highlighting the challenges and successes of these types of improvements.

## Session 34 - Backflow

**8:30 AM**
**Backflow Prevention Products Beyond the Usual**

Rick Fields, Wilkins

Participants will learn and discuss many listed/approved backflow assmblies

**9:00 AM**
**Backflow Prevention Enclosures: What Do They Do?**

Jim Purzycki, BAVCO

Show different types of enclosures available and proper evaluation to ensure correct type used for application

**9:30 AM**
**Why Testers fail their performance examination**

Jeff Flynt, Palomar Backflow Inc.

Discuss reasons for possible failure of performance exam and how to avoid them

BREAK

**10:30 AM**
**Backflow Prevention for Residential Fire Sprinkler Systems**

Jim Tate, JG Tate Fire Protection Systems/AAA Tate Backflow

Participants will learn and discuss different backflow prevention requirements for residential fire sprinkler systems.

**11:00 AM**
**How To Identify Future Capital Improvement Projects**

Nick Lalonde, Encina Wastewater Plant

Participants will learn and discuss project to upgrade facility piping systems to become compliant with current backflow/cross connection requirements

Session 35 - Energy

**8:30 AM**

### In-Conduit, Small Hydropower: Generating Value from the Water-Energy Nexus

Matthew Swindle, Nline Energy

Participants will learn how to turn water distribution systems into sources of clean, renewable electricity through small hydropower. Participants will learn: A) Small hydropower site selection. B) Turbine technologies. C) Hydropower regulations. D) Funding mechanisms. And E) Project development steps.

**9:00 AM**

### Hydropower Within Water Systems - Recovering Energy One Control Valve at a Time

Nathan Smith, SOAR Technologies, Inc.

Participants will learn energy recovery utilizing conduit hydropower within water system infrastructure can offset operational costs through power sales. Hydropower applications include pressure drops found in transmission lines, distribution systems, treatment plants, reservoirs, industrial processes and irrigation. Site evaluation, equipment selection and case studies are covered.

**9:30 AM**

### Using Data Analytics to Monitor and Reduce Energy Consumption

Jeff Neeman, Black & Veatch

how data integration and data analytics to calculate or estimate energy use down to the asset level could improve the understanding of how much energy is being used and how it relates to the energy bill. Using real-time status and other sensor data on assets, data analytics can be used to estimate the energy use without installing many expensive energy meters and how to balance energy consumption and production with real-time energy market prices.

BREAK

**10:30 AM**

### The Limits of Water Conservation and the Real Water-Energy Nexus

William B. DeOreo, Aquacraft Inc., Water Engineering and Management

Attendees will lean what the practical limits are for water demand reduction by existing and new residential customers, and how municipal demands are certain to rise, even with the best water conservation measures. They will also learn how much energy is takes to treat water by conventional methods, coupled to co-generation of water by thermal desalination, and pumped to a point of use. Since use of traditional power supplies (coal, gas, wind and solar) is not a realistic option, given the enormity of the required power, they will be introduced to a nuclear power technology first developed in the 1970"s that might provide a way forward: the Molten Salt Thorium Breeder reactor.

## Session 36 - Water Treatment

**8:30 AM**

### Trihalomethanes Control Using A Simple Floating Spray Nozzle System

Mao Fang, Las Vegas Valley Water District

Participants in this session will learn a trihalomethanes (THMs) control alternative using a floating spray nozzle system commercially available for storage facilities. A full-scale case study will be presented to show its effectiveness, energy-efficiency, cost, and construction and operational simplicity.

**9:00 AM**

### Controlling Trihalomethanes and the Costs Associated with their Minimization using Automated On-Line Monitoring with the THM-RR system

Gary L. Emmert, Corona Environmental Consulting, LLC

Participants in this session will learn how automated on-site monitoring of individual and total trihalomethane concentrations can be used first to map DBPs control practices, and then improve water quality through optimizing minimization strategies and decreasing associated costs.

**9:30 AM**

### Reducing DBP Formation

Tom Coughlin, Chemtrade

Participants will learn why using coagulants is necessary.

BREAK

Time: 10:30:00 AM

### Innovative WTP Upgrades to Reduce Disinfection By-Products

Nick Lazarakis, Kennedy-Jenks Consultants

Participants in this session will learn about the Lessalt WTP performance in comparison to expected results, lessons learned during start up, and treatment processes to reduce TOC, iron, manganese, and disinfection by-products.

**11:00 AM**

### Controlling Trihalomethanes and the Costs Associated with their Minimization using Automated On-Line Monitoring with the THM-RR system

Gary L. Emmert, University of Memphis

Participants in this session will learn how automated on-site monitoring of individual and total trihalomethane concentrations can be used first to map DBPs control practices, and then improve water quality through optimizing minimization strategies and decreasing associated costs.

## Session 37 - Asset Management

**8:30 AM**

### Filter Media Asset Management: A New Sustainable Approach to Maintaining Filter Performance

Dawn Halpern, Utility Service Group

Participants will learn how a comprehensive Filter Asset Management Program can:

- Restore filter capacity and bed porosity
- Improve filtration ability
- Eliminate particle cohesion

- Reduce detrimental effects from biofilm and inorganic deposits
- Maintain regulatory compliance
- Fully recondition and extend system life
- Results in a cost-effective capital improvement

**9:00 AM**

### Protecting Existing Revenues for the City of Angels: The Devil in Effective Large Meter Maintenance Program Details

Kenneth Molli, Veolia North America

Participants will learn the basic tenets of an effective meter asset management system, the results of its application to assess LADWP's large meter maintenance operations, and the process LADWP used to identify initiatives that best serve its strategic vision.

BREAK

**10:30 AM**

### A New Approach to Water Leakage Using DYNAMIC SECTORIZATION

Dawn Halpern, Utility Service Group and Rebekah Oulton, PhD ,California Polytechnic State University

Participants will learn a novel approach to actively monitor night time flows in distribution systems has proven quite effective in identifying areas of water leakage for detection and repairs.

**11:00 AM**

### Utilizing Tablets To Improve Your Work Order Process

Kurtis Warne, SEMS Tecnologies

Participants in this session will learn how mobile devices such as smartphones and tablets can help improve work order processes. We are tasked everyday with completing: customer call-ins, preventative maintenance, and daily repairs. This time consuming process of documenting this paper trail is frustrating. This session shows how field technology your city or district probably already has can be used to eliminate the paper and go electronic, while having your staff embrace it.

# WEST COAST INFRASTRUCTURE EXCHANGE (WCX)
## Stanford, California
## October 28 – 29, 2015

**NAME:**_____

_____

ADVANCE REGISTRATION DEADLINE**:**_____

MEALS: ___YES ___NO SPOUSE: ___YES ___NO SPOUSES' TOUR: ___YES ___NO

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**DEPARTMENTAL TRAVEL BUDGET:**

REGISTRATION:_____ TRAVEL:_____
TOTAL REMAINING BALANCE:_____

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**PROPOSED EXPENSES:**
Registration: _____
Transportation: _____
Meals:* _____
Miscellaneous: _____
TOTAL: _____

*DIRECTORS: Expenses are outlined in Section 4.06.1 of the District's Rules and Regulations.
*FOR STAFF: Meal limitations are outlined on pages 30 and 31 of the District's Employee Manual.
Please review these limitations.

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**HOTEL ACCOMMODATIONS:** ___YES ___NO REGISTRATION DEADLINE:_____
ARRIVAL DATE/TIME:_____ DEPARTURE DATE/TIME:_____

TYPE OF ACCOMMODATIONS:
_____ SINGLE (1 PERSON)
_____ DOUBLE (2 PEOPLE)
_____ (2 PEOPLE/2 BEDS)

---

**AIRLINE RESERVATIONS:** ___YES ___NO

DEPART FROM _____ on _____ at _____ AM/PM
(airport) (date) (time)

RETURN FROM _____ on _____ at _____ AM/PM
(airport) (date) (time)

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SUPERVISOR APPROVAL:_____ DATE:_____

Confirmed Speakers DRAFT

# WCX-Stanford Water P3 Training 2015

## Day 1

8:00 – 9:00 Registration and Continental Breakfast

**MODULE 1:** *Introduction and the case for Public-Private Partnerships for US water infrastructure*

9:00 – 9:15 **Welcome: Introductions and Conference Logistics**
Mike Bennon and Jonathan Trutt, Participant Introductions

9:15 – 10:00 **Backdrop for US water and wastewater infrastructure (W/WW):** When were things built and how were they funded? What is the current funding situation compared to the need?

*Instructor:* Industry: EPA Representative TBD, Matt McKenna, USDA; Faculty: Water in the West Rep TBD

10:00– 10:45 **Basics of Public-Private Partnerships (Part 1):** What is a public-private partnership? How does it contrast with typical DBB or DB procurements?

*Instructor:* Faculty: Ray Levitt and Julie Kim, Jonathan Trutt

10:45- 11:00 Break

11:00– 12:00 **Basics of Public-Private Partnerships (Part 2)**

12:00 – 1:00 Lunch

**MODULE 2:** *Evaluating whether a P3 is Right for your Project*

1:00 – 2:00 **What is the international experience with W/WW P3s?:** What's similar to and different from the US context that we can learn from?

*Instructor:* Stanford: Bushra Bataineh (TBD). Industry: Larry Blain (currently at KMPG, formerly Chair of Partnerships BC)

2:00– 3:00 **P3 Options Analysis and Decision-Making: (Part 1)**: What different P3 options are available? What qualitative and quantitative factors should be considered in analyzing P3 options? How do different P3 options differ in terms of risks transferred to the private sector / retained by the public sector?

What are Value for Money (VFM) analyses and how does VFM factor into the decision-making process? How do VFM analyses incorporate the following key topics into the evaluation process: life-cycle costing, the value of risk transfer when comparing traditional procurement methods and public private partnerships, the comparative costs of public and private financing?

*Instructor:* Faculty: Mike Bennon. Industry: Representative for Rialto – Arup (TBD), Ed Crooks KPMG, Rob Court

3:00 – 3:15 **Break**

3:15 – 4:00 **Options Analysis Part 2**

**Confirmed Speakers** **DRAFT**

| | |
|---|---|
| 4:00 - 5:30 | **Project Introductions**: What is the project? What issue is it designed to address? What was your organization's decision-making process that led to a P3?<br><br>*Speakers:* Liz Kelley (Seattle), Rob Court (Regina), Robert Puente (SAWS), Adam Ortiz (Prince Georges County), Speaker from Bayonne or Rialto or Miami |

**MODULE 3:** *P3 Project Implementation*

## Day 2

| | |
|---|---|
| 7:00 – 8:00 | Continental Breakfast |
| 8:00 – 10:00 | **Key steps in the P3 procurement process:** What are the key roles? What advisors are needed and how should they be selected? What level of design is required throughout the process? What are the critical path items?<br><br>*Instructor:* Mike Houle, Partnerships BC; Corey Boocke, Nossaman; Rob Court, Regina |
| 10:00 – 10:15 | Break |
| 10:15 – 12:00 | **Key Elements of a successful P3 Agreement or concession contract:** What major risks are transferred and how is the contract structured? What are the typical payment structures and their impacts on the concession agreement?<br><br>*Instructor:* Eric Petersen from Hawkins Delafield, Liz Kelly |
| 12:00 – 1:00 | Lunch |
| 1:00 – 2:15 | **P3 Savings: Myth vs Reality**: What savings have been and can be achieved in W/WW P3s? What are the impacts on design and construction costs, operational costs, schedule advantages, and predictability? What is the impact of the cost of private capital vs muni-tax free debt?<br><br>*Instructor:* Industry: Jeff Hughes, UNC – Chapel Hill Environmental Finance Center |
| 2:15 – 4:45 | **Case Studies and Lessons Learned from recent US Water P3s:** How have the recent DBFOM water projects in the US been structured. What were the results? What are the lessons learned for future projects?<br><br>*Instructor:* Industry: Rob Court from Regina, Liz Kelly from Seattle, Robert Puente from San Antonio, Additional Representatives from Rialto, Bayonne, Prince George's County, Miami Faculty: GPC Moderator – Julie Kim or Mike Bennon<br><br>(15 minute break at 3:00) |
| 4:45 – 5:00 | Closing Comments |

# P A L M D A L E  W A T E R  D I S T R I C T

## *B O A R D  M E M O R A N D U M*

**DATE:** September 24, 2015 **September 28, 2015**

**TO:** BOARD OF DIRECTORS **Board Meeting**

**FROM:** Mr. Dennis D. LaMoreaux, General Manager

**RE:** ***AGENDA ITEM NO. 8.2 – REPORT OF GENERAL MANAGER***

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Information on this item will be provided at the Board meeting.