

# CLEAN WATER

THE OFFICIAL PUBLICATION OF THE CALIFORNIA WATER ENVIRONMENT ASSOCIATION

AC23 CONFERENCE AND EXPO

ONE COMMUNITY  
ONE PURPOSE

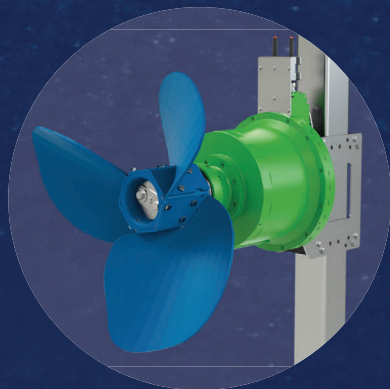
APRIL 18-21, 2023  
SAN DIEGO

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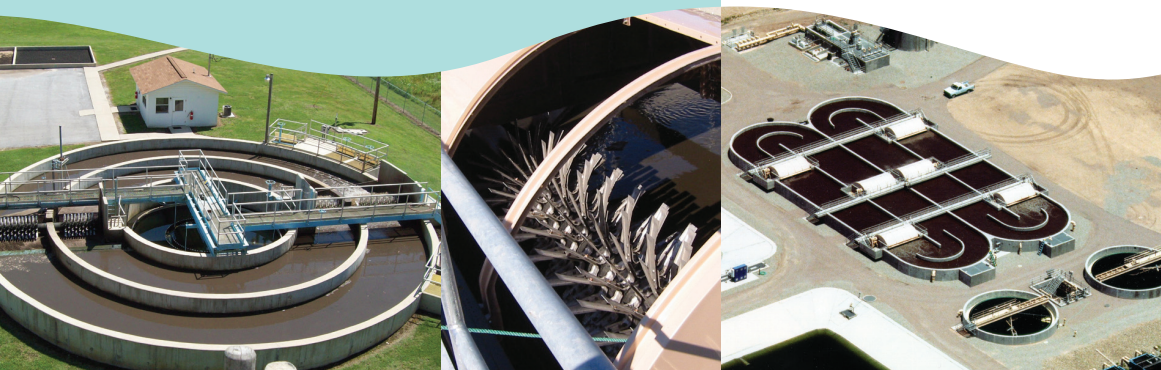


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## CLEAN WATER STAFF

Roni Gehlke, Editor  
Alec Mackie,  
Director of Communications and Marketing  
Megan Barillo, Communications Manager

## CWEA OFFICE

7677 Oakport Street, Suite 1030  
Oakland, CA 94621  
P: 510.382.7800  
F: 510.382.7810

**ON THE COVER:** AC22 Attendees, photo by Taras Garcia. The Lystek and Goleta Sanitary District project team with demonstration equipment in background.

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P: 866.985.9780  
info@kelman.ca  
www.kelmanonline.com

**MANAGING EDITOR** Julia Waterer  
**DESIGN/LAYOUT** Kiersten Drysdale  
**MARKETING MANAGER** Al Whalen  
**ADVERTISING COORDINATOR**  
Stefanie Hagidiakow

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## PRESIDENT'S MESSAGE

# THE VALUE OF IN-PERSON CONNECTION

JEFF TUCKER, VALLEJO FLOOD AND WASTEWATER DISTRICT ● CWEA PRESIDENT

**T**hese last few years in the pandemic, we have all learned how to interact with each other differently, from conducting weekly staff meetings over Zoom, working in 'pods' to reduce the potential for community spread, helping children cope with online learning, and the impacts of limited social interactions. We have worked from home, gone without potluck meals, and postponed celebrating major life milestones.

While we are going through this, we are aware something is missing. We still had our meetings. We still got our work done. We still took classes. Yet the experiences were not as fulfilling as they could have been. The work wasn't as innovative, nor as enjoyable. What was missing, of course, was the ability to interact in meaningful ways and connect with others. A Zoom social hour can never feel the same as an *actual* happy hour.

As we come back together in person for CWEA events, it's important that we capitalize on what makes being in person so great. The online learning platform OWEN is wonderful for providing technical information and obtaining the contact hours members need. But in-person learning allows for an intimacy and connection to the educational material, the teacher, and other students that is otherwise unavailable.

In-person training allows us the chance to stop multi-tasking, focus on what's being presented, ask meaningful

questions, talk with fellow attendees about what you just saw or heard, and think about how those ideas can apply to you or your work.

As we were designing the CWEA 2023 Annual Conference and Expo, we continually asked ourselves, "What makes this event different from an online experience?" In doing so, we identified those elements that you can only get at an in-person event, and we are amplifying those experiences to make them even more effective. By design, we are doing things differently to achieve different and better results.

When you come to AC23 in San Diego, you'll find more of what you love about CWEA. We "bought out"

the facility. Meaning, we completely booked all of the facilities at the newly renovated Town and Country Resort. Everyone there will be part of the CWEA family.

The conference theme, "**One Community, One Purpose**" highlights the diversity of our industry as a strength. We all come together with different skills and talents to work as one community toward the same goals of protecting public health and the environment. The key words here: come together.

I hope you take advantage of the opportunities at AC23 to share knowledge and experience as we tackle our industries greatest challenges.

## THANK YOU CONFERENCE VOLUNTEERS

Tom Falk, the AC23 Education Program Chair and his committee, are bringing forward the best ideas and speakers to share relevant and timely information. Elmer Alex and Amy Lai, the AC23 Co-Chairs, have structured the conference to help support our goals.

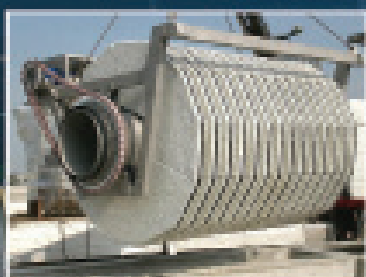
Colette Carlson, our keynote speaker, will entertain as she validates and reinforces the value of working together towards a common goal. Our work is harder than ever, but we have what we need to succeed right here within our CWEA community.

Finally, I would be remiss if I didn't thank the numerous volunteers who come together to make AC23 possible. This includes everyone from speakers, moderators, and room monitors, to committee members curating programs and those folks who work behind the scenes on logistics and support. A special shout out to the San Diego Section Board volunteers working hard on local tours and events.

This Annual Conference is expected to be the biggest conference we've ever had, and why shouldn't it be? We know coming together as a community makes us better by building our social networks and interacting as One Community, One Purpose.



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# ONE COMMUNITY. ONE PURPOSE.

SAN DIEGO IS THE ONE PLACE TO BE APRIL 18-21

## FROM THE AC23 CO-CHAIRS



**Elmer Alex**  
Coachella Valley Water District



**Amy J. Lai**  
CWEA

**T**ogether, we are one community of professionals serving the public with one purpose: protecting clean water, California's most critical resource. Our community is growing, and we have welcomed with open arms the areas of resource recovery of biosolids, potable reuse, and biogas.

We know CWEA's diverse and welcoming community fosters a positive, forward-thinking dialogue to solve complex challenges. **The BEST way to experience this is to join fellow wastewater professionals in San Diego, and bring rising-star team members with you.**

This April, the Annual Conference comes to the newly renovated Town & Country Resort where you can develop connections and relationships in person with professionals who share our community purpose.

The Annual Conference provides you the tools you need to lead your team and support colleagues by learning *what* our community is facing and how our community is tackling them.

We're especially appreciative of the AC23 Planning Committee for developing an exciting program. Highlights include:

- State Water Board updates
- Keynote speaker who will help you learn about human behavior with

the presentation *Many Communicate, Few Connect*

- A tour of San Diego county's first potable reuse facilities in Oceanside
- Leadership development sessions
- Valuable networking events, including Students and Young Professional events and the Women Impacting Water breakfast
- SeaWorld Water Treatment Plant Tour with optional park admission afterwards

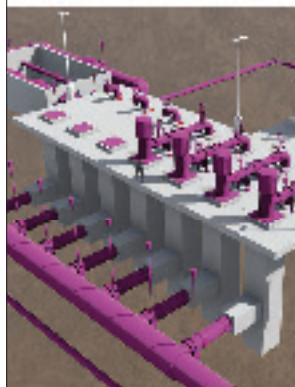
- Deep dives with national leaders discussing PFAS, nutrients, biogas, and so much more!

**Remember to register by February 25 for the early bird savings.** We look forward to hearing your thoughts after reviewing the unique AC23 program.

**We are excited to see you and your team in sunny San Diego at the beautiful Town & Country Resort.**



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# AC23 CONFERENCE COMMITTEE

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**Amy Lai**, CWEA

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## SCHEDULE AT A GLANCE

### TUESDAY, APRIL 18

6:30 a.m. – 3:00 p.m.	<b>San Diego Section Golf Tournament</b>
8:30 a.m. – 4:00 p.m.	<b>Registration Open (Pre-Conference Workshop Registration Only)</b>
9:30 a.m. – 3:30 p.m.	<b>Pre-Conference Workshops*</b>
8:30 a.m. – 12:30 p.m.	<b>San Elijo Joint Powers Authority &amp; Pure Water Oceanside Tour*</b>
12:30 p.m. – 1:15 p.m.	<b>Box Lunch (Included with Pre-Conference Workshop Registration)</b>
4:00 p.m. – 5:00 p.m.	<b>NRC/SRC Committee Meeting</b>
5:00 p.m. – 5:30 p.m.	<b>New Member Orientation and 5S Ceremony</b>
5:30 p.m. – 7:00 p.m.	<b>Icebreaker Reception</b>

### WEDNESDAY, APRIL 19

7:00 a.m. – 8:15 a.m.	<b>Women Impacting Water Breakfast*</b>
7:00 a.m. – 5:00 p.m.	<b>Registration Open</b>
8:30 a.m. – 12:00 p.m.	<b>Education Sessions</b>
12:15 p.m. – 12:45 p.m.	<b>CWEA Annual Business Meeting</b>
12:45 p.m. – 2:00 p.m.	<b>Awards Ceremony Luncheon*</b>
2:15 p.m. – 4:30 p.m.	<b>Education Sessions</b>
4:30 p.m. – 6:30 p.m.	<b>Reception and Expo</b>
6:30 p.m. – 8:00 p.m.	<b>Students and Young Professionals Networking Mixer*</b>

\* Fee associated with this event

Schedule is subject to change. Please visit [ac.cwea.org](http://ac.cwea.org) for the most up to date information.

### THURSDAY, APRIL 20

7:30 a.m. – 5:00 p.m.	<b>Registration Open</b>
8:00 a.m. – 9:00 a.m.	<b>Keynote Presentation</b>
9:15 a.m. – 11:30 a.m.	<b>Education Sessions</b>
11:30 a.m. – 1:00 p.m.	<b>Expo with lunch options in hall</b>
12:00 p.m. – 1:00 p.m.	<b>Collection System Award Lunch*</b>
1:15 p.m. – 4:45 p.m.	<b>Education Sessions</b>
4:45 p.m. – 6:45 p.m.	<b>Reception and Expo</b>
5:00 p.m. – 6:00 p.m.	<b>Speed Career Coaching</b>

### FRIDAY, APRIL 21

7:00 a.m. – 8:30 a.m.	<b>Committee Meeting Breakfasts*</b>
7:00 a.m. – 12:00 p.m.	<b>SeaWorld Wake up to Wastewater Tour *</b>
7:15 a.m. – 12:00 p.m.	<b>Registration Open</b>
8:45 a.m. – 12:15 p.m.	<b>Education Sessions</b>
12:15 p.m.	<b>Conference Adjourns</b>



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## ONE COMMUNITY. ONE PURPOSE.



WEA is excited to be back in sunny southern California this April for the 2023 Annual Conference

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Join us to:

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- **Gain the knowledge** and skills you need to excel
- **Discover** the latest trends and technology solutions

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- **Relax and have some fun** under the San Diego sun at the beautiful Town & Country Resort

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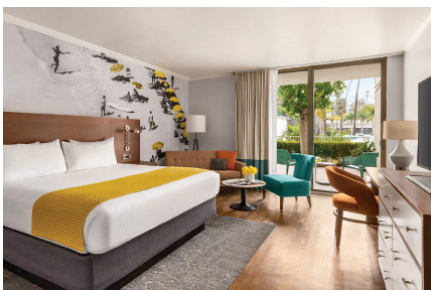


## TOWN AND COUNTRY RESORT GETS AN UPGRADE

**T**he Town and Country Resort is the spectacular setting for the CWEA Annual Conference & Expo. **If you've been here before, you will be amazed by the upgrades.** In 2019, the Resort underwent a major renovation, including remodeling guestrooms, adding stylish outdoor spaces, a new pool, a 4-story waterslide, and new restaurants.

Bring the family! From the kids pool to the waterslide, volleyball courts, and firepits, the whole family will find fun from sun up to sun down.

Town and Country will feel like it was built just for us. The spaces are perfect to reconnect CWEA members.







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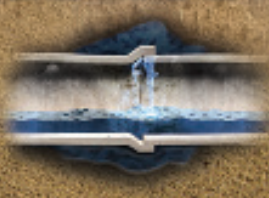





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# KEYNOTE PRESENTATION

COLETTE CARLSON • THURSDAY, APRIL 20 • 8:00 – 9:00 A.M.

## MANY COMMUNICATE, FEW CONNECT



**T**he common denominators of the most successful individuals are their ability to effectively communicate and connect, regardless of situation, location, or audience. With numerous communication channels and daily digital distractions, getting your message heard has never been more challenging.

Our keynote speaker, Colette Carlson, will share the reasons clear, concise communication is no longer enough. Connection must be part of the equation.

**Amplify your impact and form crucial relationships that drive productivity, engagement, and collaboration. Learn how to:**

- Up your emotional quotient to increase credibility and gain support
- Foster healthy communication through focused, dedicated behaviors
- Align your thoughts, words, and actions to build trust
- Communicate with candor and clarity while maintaining a respectful, human connection
- Be a human highlighter who champions the accomplishments and strengths of others

**Colette Carlson** is a human behavior expert who teaches audiences how to transform relationships through the power of connected conversations. Colette's presentations weave together powerful life lessons, research-backed strategies, and the call to action for personal and professional success. Audiences connect with Colette through her inspiring content, laugh-out-loud humor, and extensive customization.

With a Master's Degree in Human Behavior and more than 20 years of experience helping individuals change behaviors that impact their success, Colette understands the psychology, mindset, and skills required to make positive, long-lasting change.

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# PRE-CONFERENCE WORKSHOPS

## TUESDAY, APRIL 18

Take a deeper dive into wastewater topics and get to know fellow wastewater professionals during these one-day workshops. They'll be held at the Town and Country Resort from 9:30 a.m. – 3:30 p.m. and include lunch.

Workshops are eligible for CWEA contact hours; check [ac.cwea.org](http://ac.cwea.org) for updates.

### ● PREW1 LABORATORY ELAP TNI COMPLIANCE\*

Speaker: William (Bill) Ray



Build on your existing knowledge of the TNI 2016 Standard, Rev 2.1. Speaker Bill Ray will provide individual clause training with an emphasis on troublesome requirements for small laboratories during the implementation phase. Best practices for aligning with the Standard in a small laboratory will be presented. Tools and resources for efficient implementation, budget considerations, scope of work, and corrective action plans will also be discussed. Bring a copy of the TNI 2016 Standard, Rev 2.1, to follow along and take notes.

### ● PREW2 NEW CHALLENGES IN STORMWATER\*



Details coming soon. Visit [ac.cwea.org](http://ac.cwea.org) to learn more about this workshop.

### ● PREW3 THE CRITICAL ROLE OF EI&C STAFF IN MEETING AGENCY RESILIENCE AND ENERGY GOALS\*

Speakers:

Jamie Ferro, West Yost Associates  
Wyatt Troxel, West Yost Associates  
Gerald Fejarang, Kennedy Jenks



Water resource recovery facilities are facing a rapidly evolving energy landscape that will change the way they're designed, built, operated, and maintained. Energy is no longer a reliable and affordable commodity, but is now a source of risk, escalating costs, and game-changing energy market opportunities. Planning for our new energy future requires collaboration between operators and Electrical, Instrumentation and Control (EI&C) staff to ensure wastewater organizations are ready for distributed energy resources, enhanced process control operating strategies, battery storage systems, and two-way grid communication. This workshop will explore these critical areas and provide EI&C staff with the tools needed to help their organization move toward a resilient energy future.

### ● PREW4 FUNDAMENTALS OF ACTIVATED SLUDGE BIOLOGICAL NITROGEN REMOVAL AND OPERATION TROUBLESHOOTING USING PROCESS SIMULATORS\*

Speaker:

Paul Dombrowski, Woodard & Curran



LIMITED  
SPACE

Ready to run a treatment plant completely on your own, all within the safety of a computer simulation? This workshop covers the fundamental concepts of operating an activated sludge plant to achieve nitrogen removal via a combination of lecture material and a hands-on process simulator. Attendees will be led through the simulations to demonstrate how the concept is applied to a plant layout using state-of-the-art SimuWorks™ software based on Hatch's GPS-X program. Laptops will be provided. This is the same simulator used in the WEFTEC Ops Challenge.

*\*this event has an associated fee*



# PRE-CONFERENCE WORKSHOPS

● **PREW5**  
**COLLECTION SYSTEM**  
**EFFECTIVENESS: PEOPLE.**  
**PROCESS. TOOLS.\***

Speakers:  
 Lani Good, Black and Veatch  
 James Fischer, Fischer Compliance



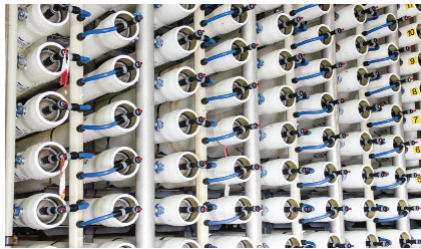
Photo by Taras Garcia

There's no silver bullet for making collection systems more effective. In order to raise the bar and enact sustained change, it takes strategy, and culture eats strategy for breakfast. In this workshop, we'll focus on the three pillars of organizational culture: People, Process, and Tools. The speakers will highlight ways to improve collection system effectiveness and ensure compliance with the Sanitary Sewer System WDRs to reduce violations, enforcement, and negative attention. Share your system's challenges with

industry experts and peers – and take home an action plan. **BONUS:** Bring your Sanitary Sewer Management Plan (SSMP) for improvement recommendations during the workshop.

● **PREW6**  
**PREPARING OPERATORS FOR**  
**DIRECT POTABLE REUSE.\***

Speaker:  
 Dr. Aleks Pisarenko,  
 Trussell Technologies



On-going pressure from droughts and population growth on traditional water supplies are the reasons several municipalities are implementing potable reuse to provide a local and sustainable source. Direct potable reuse (DPR) is one such option that carries a potential higher risk to public health and requires

increased protection strategies. This workshop will provide an overview of potable reuse regulations, a hypothetical DPR treatment train, and delve into five-unit processes. This includes: ozone; biological activated carbon; membrane filtration; reverse osmosis; and ultraviolet light advanced oxidation process.  
 Attending multiple classes, such as this one, can help Grade III water and wastewater operators prepare for the Advanced Water Treatment Operator (AWTO\*) certification exam. **Visit [awtoperator.org](http://awtoperator.org) to learn more.**

**“I LIKED GETTING TO SEE EVERYONE AGAIN AND LEARNING INFO ABOUT AREAS I USUALLY DO NOT GET TO SPEND TIME LEARNING ABOUT.”**

**- AC22 ATTENDEE**

*\*this event has an associated fee*

**BE FEATURED AS AN EMERGING LEADER**

Applications close **April 1**

[awards.cwea.org](http://awards.cwea.org)





## AC23 GOLF TOURNAMENT HOSTED BY THE SAN DIEGO SECTION

**J**oin the San Diego Section at the beautiful Twin Oaks Golf Course on Tuesday, April 18 in San Marcos. Start your AC23 networking with your fellow CWEA members while having fun!



The Twin Oaks Golf Course offers a fine balance between beauty and challenge. Fairways at this San Marcos, CA golf course can be narrow and test golfers' accuracy off the tee. Keep your drives out of the rough, and you'll be rewarded with ample opportunities to hit the green in regulation. You'll also find the greens to be quick and true: read your putt correctly and your ball will find the hole.

Visit: [bit.ly/AC23Golf](http://bit.ly/AC23Golf) or [sds.cwea.org](http://sds.cwea.org) for more details.

Transportation is on your own.  
Located at 1425 N Twin Oaks Valley Road, San Marcos.



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# ACTIVITIES, NETWORKING, AND MEALS

## TUESDAY, APRIL 18

### ● NORTHERN/SOUTHERN REGIONAL COMMITTEE MEETING (FREE/RSVP)

4:00 – 5:00 p.m.

The Northern and Southern Regional Committees join together once per year to discuss Local Section activities and future events. This is a great time to hear section updates and what's being planned for the future. All members are welcome.

#### Session Leaders:

**Chathu Abeyrathna**, NRC Chair, Silicon Valley Clean Water  
**Howard Brewen**, SRC Chair, Jacobs



### ● NEW MEMBER ORIENTATION (FREE/RSVP)

5:00 – 5:30 p.m.

This is a great opportunity to meet CWEA's President Jeff Tucker and President-Elect Chuck Greely for an informal and quick introduction to the association. Bring your questions, get tips on the conference, learn how to get involved in CWEA, and meet new friends. We're looking forward to meeting you!

#### Session Leaders:

**Jeff Tucker**, CWEA President, Vallejo Flood & Wastewater District  
**Chuck Greely**, CWEA President-Elect

### ● 5S CEREMONY (FREE/RSVP)

5:00 – 5:30 p.m.

The 5S Committee will welcome the incoming class of Sanitary Sludge Shovelers in this exciting and friendly event. Calling all 5S members – don't miss the annual event and don't forget to wear your pin!

Nominate your peers with five years or more helping CWEA! Go to *awards.cwea.org*. **Applications due by March 1.**



### ● ICEBREAKER RECEPTION (FREE/RSVP)

5:30 – 7:00 p.m.

Let's get the AC23 fun started at the Icebreaker Reception. It's time to reunite the wastewater community and start the week off with our first networking event. Enjoy a frosty beverage, meet fellow members, and get to know CWEA leaders during this relaxed networking event.



## WEDNESDAY, APRIL 19

### ● WOMEN IMPACTING WATER BREAKFAST (FEE)

7:00 – 8:15 a.m.

This year's networking event for women in water will focus on finding your path and helping others find theirs. Our guest speaker, **Joone Kim-Lopez**, will share her personal story and insights for fitting in, helping others tell their stories, and championing leadership. Attendees will then have interactive discussions with one action item at each table. This event is open to everyone; people of any gender or position can do small things to make a big impact.

#### Session Leader:

**Roya Yousefelahiye**, Black and Veatch



**“THE BEST THING ABOUT THE ANNUAL CONFERENCE IS THAT YOU GET TO MEET PEOPLE FROM ALL OVER THE WORLD THAT ARE KNOWLEDGEABLE AND PROFESSIONAL IN WHAT THEY DO IN WASTEWATER.”**

– AC22 ATTENDEE



## WEDNESDAY, APRIL 19

CONT'D

### ● ANNUAL BUSINESS MEETING (FREE) AND AWARDS CEREMONY LUNCHEON (FEE)

12:15 – 2:00 p.m.

All CWEA members are invited to attend the Annual CWEA Business Meeting. Meet the newly sworn-in CWEA Board of Directors, learn about the achievements of our local sections and committees, and find out what's coming up for CWEA members.

Each year, CWEA members and agencies are recognized for their achievements in the wastewater sector at the annual awards ceremony. Come celebrate and honor your peers for their significant contributions to our industry. Your ticket includes a delicious plated lunch.

NEW DATE



### ● STUDENTS AND YOUNG PROFESSIONALS NETWORKING MIXER (FEE)

6:30 – 8:00 p.m.

All attendees are welcome to join a casual night of networking and connecting with the students and young professionals of CWEA. What better way to network amongst your peers from different parts of the state over great food and drinks! The Networking Mixer includes appetizers, one drink ticket, and one door prize ticket per person. **Door prizes may include an Apple Watch for one lucky winner!** All ages are welcome.



### ● FILM FESTIVAL

Held every three years, the Community Engagement and Outreach Committee Film Festival showcases training and public education videos that individuals and agencies produced relating to wastewater treatment in California. Awards are given in three categories during the Awards luncheon: amateur, semi-professional, and professional. Watch the films now streaming on [ac.cwea.org](http://ac.cwea.org).

## THURSDAY, APRIL 20

### ● KEYNOTE PRESENTATION (FREE) MANY COMMUNICATE, FEW CONNECT

COLETTE CARLSON

8:00 – 9:00 a.m.

We've moved the Annual Conference keynote presentation to Thursday morning this year. See page 19 for details.



### ● COLLECTION SYSTEMS AWARDS LUNCHEON (FEE)

12:00 – 1:00 p.m.

Join the Collection System Committee in celebrating outstanding collection system winners including PICK, Gimmicks and Gadgets, Golden Manhole, Person of the Year, and Collection Systems of the Year.



### ● SPEED CAREER COACHING

Hosted by the Students and Young Professionals Committee **5:00 – 6:00 p.m.**

Looking for advice on getting into the water sector or moving up? This fast paced, relaxed, and fun event is just for you. Experienced professionals will review your resume and listen to your career goals and provide a bit of friendly coaching on things to consider, where to apply, and how you can get ahead. After 10 minutes we'll switch people so you'll get to meet at least six new people in a short amount of time. Visit [ac.cwea.org](http://ac.cwea.org) to sign-up.

NEW

## FRIDAY, APRIL 21

### ● STUDENTS AND YOUNG PROFESSIONALS AND OPERATIONS & MAINTENANCE COMMITTEES BREAKFAST (FEE)

7:00 – 8:30 a.m.

Hear from leaders of both committees and participate in an interactive networking exercise with **Michele Rodriguez-Flores** from Ridgecresta Learning & Development.

### ● ENGINEERING AND RESEARCH COMMITTEE BREAKFAST (FEE)

7:00 – 8:30 a.m.

Check [ac.cwea.org](http://ac.cwea.org) for the latest info about the breakfast speaker.

### ● LABORATORY COMMITTEE BREAKFAST (FEE)

7:00 – 8:30 a.m.

Leveraging Technologies to Meet the New ELAP Certification Requirements **Yun Shang, EBMUD**

Understand the benefit of a new LIMS for meeting TNI standards, how to procure, design, configure and implement one if they decide to do so.

Find out how a document management software can help in meeting TNI standards and how to procure, design, and implement one if you decide to go that route.

Photos by Taras Garcia



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- 10 new or updated methods across Part 7000 Radioactivity
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## TECHNICAL TOURS

### SAN ELIJO JOINT POWERS AUTHORITY & PURE WATER OCEANSIDE\*

**Tuesday, April 18, 8:30 a.m.**

Bus transportation and lunch are included

Tour two of north San Diego County's coastal wastewater treatment and reclamation programs: San Elijo Joint Powers Authority's upgraded San Elijo Water Campus and the recently commissioned City of Oceanside's Pure Water Oceanside.

San Elijo Joint Powers Authority (SEJPA) was recognized as CWEA's 2021 Plant of the Year (medium). The SEJPA plants treats 3 million gallons per day of wastewater, captures and treats local stormwater, and produces 2,000 acre-feet per year of recycled water through conventional and advanced treatment processes. The recently completed San Elijo Water Campus program features a new administration and operations center and campus-wide improvements that promote community engagement, water quality, sustainability, and safety.



Pure Water Oceanside uses advanced water purification (nutrient removal, microfiltration, reverse osmosis, and advanced oxidation) to treat up to 5 mg/d of wastewater and provides approximately 30% of the City's potable water demand. The potable reuse facility produces purified water that is injected into the local groundwater basin which is then extracted and treated again at the City's groundwater purification facility.

Bus transportation and lunch is included.



### SEAWORLD 'WAKE UP TO WASTEWATER' TOUR

**Friday, April 21, 7:00 a.m. – 12:00 p.m.**

**Transportation is on your own**, free parking at Adventure Camp, meet in the SeaWorld® Board Room

7:00 – 8:00 a.m.: Omelet station, breakfast buffet and networking

8:00 – 9:00 a.m.: Classroom lecture

9:00 a.m. – 12:00 p.m.: Guided tour of the Sea World Facilities

Representatives with the Water Quality Department of Sea World San Diego will be providing a behind-the-scenes tour of Sea World. The tour will cover general park information, a look at their East or West Water Treatment Facilities and an up-close look at their filtration process. The tour will include a behind-the-scenes learning session and Q&A as guests will visit the Main Plant Intake system, Animal Care Holding facility, JTA Ray Exhibit, Wild Arctic Exhibit, Penguin Encounter, and the Orca Encounter.

**PARK ADMISSION CAN BE PURCHASED FOR ADDITIONAL COST**

Visit [ac.cwea.org](http://ac.cwea.org) for driving directions to the site.



*\*a fee is associated with this event*



San Diego Section at the SeaWorld Tour in December 2022





# TECHNICAL PROGRAM

Wednesday, April 19, 2023

	1	2	3
Track Name	Sanitary Sewer System General Order	Statewide Regulatory Issues	PFAS and CECs
8:30 - 9:30 a.m.	<b>Sanitary Sewer Systems General Order Reissuance Update</b> <i>Afroz Farsimadan, State Water Board</i>	<b>Potable Reuse Regulatory Update</b> <i>Jennifer West, WateReuse CA</i>	<b>PFAS and Pyrolysis: What Does it Take to Destroy PFAS in Biosolids?</b> <i>Mary Lou Romero, Brown and Caldwell</i>
9:45 - 10:45 a.m.	<b>What's New with Sanitary Sewer Compliance with the WDR?</b> <i>Paul Causey, Causey Consulting</i>	<b>Updates on SB 1383 Implementation: Biosolids and Biogas Opportunities</b> <i>Greg Kester, CASA</i>	<b>PFAS in Wastewater: Environmental Detection and Removal via Pyrolysis</b> <i>Patrick McNamara, Black and Veatch</i>
11:00 a.m. - 12:00 p.m.	<b>Reducing Enforcement Exposure for Spills, SSMPs, and SSMP Audits</b> <i>James Fischer, Fischer Compliance</i>	Session info available at <a href="https://ac.cwea.org">ac.cwea.org</a>	<b>Supercritical Water Oxidation to Eliminate PFAS in Sludge</b> <i>Sudhakar Viswanathan, 374Water</i>
			<b>State of the Science for Fate and Transformation of Micro and Nanoplastics in WRRFs</b> <i>Cayla Cook, Hazen and Sawyer</i>
Track Name	Collection System Maintenance	Innovative Treatment Plant Operational Strategies	Climate Resiliency
2:15 - 3:15 p.m.	<b>Municipal Wastewater Department Evaluation and Recommendations</b> <i>Malvin (Rusty) Nezat, Nezat Training and Consulting</i>	<b>Utilization and Practical Approach of Ammonia-Based Aeration Control at Bonnybrook WWTP</b> <i>Mehran Andalib, Stantec</i>	<b>Disasters, Crises, and Climate Change: Shifting the Wastewater Paradigm</b> <i>Ryan Smith, City of Watsonville</i>
		<b>Partial Nitrification for Clear Secondary Effluent</b> <i>Allen Balser, City of San Clemente</i>	
3:30 - 4:30 p.m.	<b>Data Driven Gravity Main Cleaning Optimization</b> <i>Lars Stenstedt, V&amp;A Consulting Engineers</i>	<b>Biological Sensing as a Real-Time Monitor to Facilitate Timely Wastewater Treatment Decision-Making</b> <i>Kishen Prathivadi, Sewer Authority Mid-Coastside</i>	<b>Arcata WWTF Phase 1 Project Sea Level Rise Planning</b> <i>Douglas Wing, Carollo Engineers</i>

“THERE WERE LOTS OF OPTIONS AND TRACKS TO TAKE TO GET A VARIETY OF DIFFERENT INFORMATION TO EXPAND YOUR KNOWLEDGE.”

– AC22 ATTENDEE



## TECHNICAL PROGRAM

Speakers are subject to change. Find session descriptions, speaker bios and the latest program at [ac.cwea.org](http://ac.cwea.org).

4	5	6	7
San Diego Regional Updates	Pathways to SF Bay Nutrient Compliance		
Session info available at <a href="http://ac.cwea.org">ac.cwea.org</a>	<b>Update on the Nutrients Watershed Permit</b> <i>Lorien Fono, BACWA</i>		
<b>City of San Diego Pure Water</b>	<b>Commissioning the First Microvi MNE Sidestream Treatment Facility</b> <i>Jimmy Dang, Oro Loma SD and Mike Falk, HDR</i>		
<b>East County Advanced Water Purification</b>	Session info available at <a href="http://ac.cwea.org">ac.cwea.org</a>		
Management of Quaternary Ammonium Compounds	Water Conservation Impacts	New Tools for Effective Asset Management	Electrical & Instrumentation Best Practices
<b>How COVID-19 Consumer Habits Can Impact Biological Treatment at WWTPs</b> <i>Chris Lehman, City of San Luis Obispo</i>	<b>Effect of Climate Change and Water Conservation on WWRF Capacity</b> <i>Akram Botrous, Stantec</i>	<b>Improving Reliability Through Asset Condition Monitoring</b> <i>Francis Concemino, Inland Empire Utilities Agency</i>	<b>How To Use NFPA 70B To Maintain Your Plant Electrical System</b> <i>Ralph Stevens, Facilitation Unlimited</i>
	<b>Rethinking Capacity - Updating EDU Criteria in an Era of Drought</b> <i>Phil Giori, Dudek</i>		
<b>Where's My Capacity? How One WRRF Mitigated the Toxic Effect of the Drought and Pandemic</b> <i>Steve Wagner, Goleta Sanitary District</i>	<b>Assessment of Water Conservation Impacts on Treatment Capacity of a Brand New Facility</b> <i>Kathryn Gies, West Yost Associates</i>	<b>The Story of an Innovative Approach to Asset Management Planning</b> <i>Sean Pour, Hazen and Sawyer</i>	<b>Electrical Commissioning: It's All Good Until It Doesn't Turn On</b> <i>Lindsey Rafter, MWH Constructors</i>





# TECHNICAL PROGRAM

Thursday, April 20, 2023

	1	2	3
Track Name	Advancements in Solids Separation	Collection System Innovations	Biosolids Drying Strategies
9:15 - 10:15 a.m.	<b>Performance of Advanced Primary Treatment Technologies</b> <i>Onder Caliskaner, Caliskaner Water Technologies</i>	<b>Overview of New Advancements in Trenchless Pipeline Technologies</b> <i>David Badgley, Performance Pipeline Technologies</i> <i>Badgley &amp; Associates</i>	<b>Optimizing BioDrying and Pyrolysis Treatment Design</b> <i>Anthony Tartaglione, Hazen and Sawyer</i>
10:30 - 11:30 a.m.	<b>Model it Before You Build It-Best Approach For Optimal Design</b> <i>Arthur Xu, HDR Engineering</i>	<b>Optimizing Odor Control and Cleaning in the Sewer: OC San Reduces the Carbon Footprint</b> <i>Eric Van Cleave, SmartCover</i>	<b>Integrated Steam-Drying and Pyrolysis of Biosolids - the World's First Full Scale Implementation in Denmark</b> <i>Christian Wieth, AquaGreen ApS</i>
	<b>Combination of Field Testing and CFD Modeling for Clarifier Capacity Evaluation and Design Optimization</b> <i>Hallie Thornburrow, Hazen and Sawyer</i>		<b>Evaluating the Regional Drying Approach for Biosolids Management</b> <i>Sebastien Rossouw, Hazen and Sawyer</i>
Track Name	Facing the Nutrient Challenge	Collection System Best Practices	Co-digestion and Biogas Management
1:15 - 2:15 p.m.	<b>Sustainable Nutrient Management: Balancing Nutrient Removal with Energy Reduction Opportunities</b> <i>Sandeep Sathyamoorthy, Black &amp; Veatch</i>	<b>Going Deep: Lessons Learned from 30 Years of Sewer Analysis</b> <i>Jay Boyd, ADS Environmental Services</i>	<b>Using Bench-Scale Testing to Determine if Food Waste Co-digestion is Right for You</b> <i>Christine Polo, Carollo Engineers</i>
2:30 - 3:30 p.m.	<b>Doing More with Less: Nutrient Removal Process Intensification</b> <i>Linda Sawyer, Brown and Caldwell</i>	<b>Nozzle Capacity Cleaning</b> <i>Malvin (Rusty) Nezat, Nezat Training and Consulting</i>	<b>Digesters, Solids, and Biogas: How to Readily Incorporate Recent Information to Create Value and Resiliency</b> <i>Greg Chung, West Yost Associates</i>
		<b>Dynamic Pump Sequencing - Optimizing Energy Efficiency</b> <i>Mauritz Botha, XiO</i>	
3:45 - 4:45 p.m.	<b>High Rate Activated Sludge Fermentation as a Carbon Source for Sidestream BioP and Denitrification</b> <i>Anand H. Patel, HDR</i>	<b>Effective Bypass Pumping Planning for Sewer Overflow Mitigation</b> <i>Nate Warren, Sunbelt Rentals Pump Solutions</i>	<b>Haulin' Gas: Evaluating and Optimizing Santa Rosa's Organics-to-Energy Program</b> <i>Max Armenta, Brown and Caldwell</i>
	<b>Is Digital Cloning a Reality: Future of Nutrient Removal Management in WRRFs</b> <i>Raj Chavan, Atkins North America</i>		



## TECHNICAL PROGRAM

Speakers are subject to change. Find session descriptions, speaker bios and the latest program at [ac.cwea.org](http://ac.cwea.org).

4	5	6	7
ELAP	Novel Reuse Concepts	Equipment Maintenance Strategies	Managing Staff in the New Hybrid Working World
<b>CA ELAP Updates – MUR and TNI</b> <i>Christopher Hand, State Water Board</i>	<b>Reliable Wastewater Treatment for Reliable Water Supply</b> <i>Vince Ines, City of Ventura</i>	<b>Defect Elimination: One Agency's Implementation On Their AM/RCM Journey</b> <i>Glenn Edwards, Inland Empire Utilities Agency</i>	<b>Remote Connection the Sequel: Continued Strategies for Hybrid Work</b> <i>Charles Hardy, West Yost</i>
			<b>Nothing Says Hands-on Learning Like Shoveling Class A Biosolids</b> <i>Amanda Aldrow, Northeastern University</i>
<b>Surviving Your ELAP On-site Assessment</b> <i>Olivia Woolery, Monterey Bay Analytical Services</i>	<b>Quenching Big Data's Thirst: A Novel Water Recycling Strategy for Datacenter Cooling and Community Reuse</b> <i>Jon Liberzon, Tomorrow Water (BKT)</i>	<b>Value of a Lubrication Program Assessment</b> <i>Michael Gauthier, Trico Corporation</i>	<b>Department Operations Center Leadership Using Microsoft Teams</b> <i>Don Rawson, Don Rawson Associates</i>
Laboratory	Potable Reuse	Condition Assessment	Strateiges for EI&C Teams
<b>Using Microsoft Excel as a LIMS for Small Laboratories</b> <i>Jeff Jones, City of Fortuna</i>	<b>Direct Potable Reuse (DPR) Demo Plant With Organics Monitoring</b> <i>Anik Chowdhury, SUEZ Water Treatment Solutions</i>	<b>Looking in Hard to Reach Places: San Jose-Santa Clara RWF Yard Piping Condition Assessments</b> <i>Clinton McAdams, Black &amp; Veatch</i>	<b>Ultrasonic vs. Radar vs. Laser in Pumping Stations</b> <i>Addison Himes, ABB</i>
<b>From Tap to Lab: Microbiology</b> <i>Olivia Woolery, Monterey Bay Analytical Services</i>	<b>Monitoring Membrane Integrity for Potable Reuse: Correlating Surrogate Organisms with Pathogen Removal</b> <i>Larry Morris, Kubota Membrane USA Corporation</i>	<b>When My New Pump Shakes</b> <i>John Koch, HDR</i>	<b>Why Put a Ford Motor in a Chevy Truck?! "Off the Shelf" Equipment Packages</b> <i>Hillary Holmes, MWH Constructors</i>
	<b>Better Living Thru Electricity: Ozone and UV Make Sparks Fly in Reuse Processes</b> <i>Bruce Stevens, SUEZ Water Treatment Solutions</i>		<b>Reducing Energy and Operating Costs with Advanced Machine Condition Monitoring and Predictive Maintenance</b> <i>Steve Frangione, Grundfos</i>
<b>I Will Study for the Laboratory Analyst Grades 3 and 4 and PASS</b> <i>Jerry Tamura, City of Stockton</i>	<b>Benefits and Challenges Associated with Raw Water Augmentation for DPR</b> <i>Giridhar Upadhyaya, Carollo Engineers</i>	<b>Maintenance Headaches Caused by Design, Construction, and Commissioning Failures</b> <i>Ralph Stevens, Facilitation Unlimited</i>	<b>Data-Driven Operations: Hands-on Insights from Victorville</b> <i>Daniel Peralta, Woodard &amp; Curran</i>
			<b>Improving SCADA Reliability and Performance for a Major Utility</b> <i>Joe Hurley, Woodard &amp; Curran</i>





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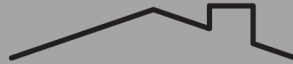
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# TECHNICAL PROGRAM

**Friday, April 21, 2023**

Speakers are subject to change. Find session descriptions, speaker bios and the latest program at [ac.cwea.org](http://ac.cwea.org).

	1	2	3	4
Track Name	WRRF Optimization Strategies	Biosolids Intensification	Headworks	Build Your Leadership Skills
8:45 - 9:45 a.m.	<b>Smart Applications of Innovative Technologies to Address Regulatory Requirements While Reducing Emissions and Energy Requirements</b> <i>Bryce Danker, Hazen and Sawyer</i>	<b>How to Soup Up Your Anaerobic Digestion: A Suite of Intensification Strategies and Technologies</b> <i>Engin Guven, Black and Veatch</i>	<b>Do I Need Grit Removal?</b> <i>Eric Tobin, Hydro International</i>	<b>Are They Ready? Developing Frontline Supervisors for Success</b> <i>Michele Rodriguez-Flores, Ridgecresta</i>
	<b>Startup and Commissioning for Nutrient Removal: from Mechanical Mixers to Fine-Bubble Diffusers and Hyperboloid Mixers</b> <i>Arashdeep Singh, HDR Engineering</i>	<b>THP Case Studies from Piloting to Full-scale Design and Life Cycle Costs Analysis</b> <i>Nicole Stephens, Stantec</i>		
10:00 - 11:00 a.m.	<b>A Tribute to the Floc Doc</b> <i>Paul Pitt, Hazen and Sawyer</i>	<b>The Power of Proactive: How Pre-Planning Set the Stage for THP Commissioning Success</b> <i>Kiersten Lee, MWH Constructors</i>	<b>Moving and Removing Mountains of Grit at SFPUC's New 250 MGD Headworks</b> <i>Teri Raasch, Carollo Engineers</i>	<b>Leading with Resilience and Well-Being Through Mindful Self-Compassion</b> <i>Susan Hiestand, Silicon Valley Clean Water</i>
11:15 a.m - 12:15 p.m.	<b>A Proactive Approach for Continuous Plant Performance Improvement</b> <i>Kaitlin McGovern, Hazen and Sawyer</i>	<b>The Great Bug Migration: Thermal Hydrolysis Anaerobic Digester Seeding with Re-hydrated Cake</b> <i>Esther Nadarajan, MWH Constructors</i>	<b>How Design Impacts Headworks Screening Systems - Design Considerations and Their Effects on O&amp;M</b> <i>Dave Barkey, JWC Environmental</i>	<b>Career Management and Interviewing 101</b> <i>Chris Castaing, San Diego County Water Authority</i>
	<b>Lake Tahoe Utility Approach to Efficiency and Improved Operations: How Two Utilities Optimized Plant Performance</b> <i>Brian Villacorta, Coombs Hopkins</i>			



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## AC23 EXPO



e're proud to assemble one of the largest displays of wastewater technologies and exhibitors in California. Enjoy a frosty beverage, some tasty snacks, and catch-up with friends and vendors as you browse the endless aisles of interesting new technologies, machinery, and ideas.

- Learn about new technology
- Experience hands-on equipment demos
- Network with over 300 exhibitors
- **Enter to win fantastic door prizes**



### WEDNESDAY, APRIL 19

**4:30 – 6:30 p.m.**

Reception in Expo

Enjoy a frosty beverage and tasty snacks while catching up with friends and vendors.

### THURSDAY, APRIL 20

**4:45 – 6:45 p.m.**

Reception in Expo

Please note the schedule is subject to change. Visit [ac.cwea.org](http://ac.cwea.org) for the latest info.

### WANT TO EXHIBIT?

**RESERVE YOUR BOOTH TODAY!**

[ac.cwea.org](http://ac.cwea.org)

**“I ENJOYED THE EXPO HALL THE MOST. IT WAS A GREAT OPPORTUNITY TO CHAT AND MEET NEW PEOPLE IN THE INDUSTRY.”**

**– AC22 ATTENDEE**



## SPONSORING AC23



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### NEW SPONSORSHIP OPPORTUNITIES

- Headshots sponsor – provide attendees with a headshot, sponsor info will be on all email correspondence
- Conference coffee sleeve
- Registration area with company's logo on each of the kick panels
- Reduce, Reuse, Recycle Sponsor – Company name and logo on all session, directional, and special event signage throughout the conference.

Visit [ac.cwea.org](http://ac.cwea.org) to learn more.

Packages are designed to fit any budget and help you surpass your company's marketing goals. For all inquiries, please contact **Nicole Agnone** at [exhibit@cwea.org](mailto:exhibit@cwea.org) or 510.382.7800 x115 for questions about booking your package.



*Photos by Taras Garcia*



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# CWEA ANNUAL CONFERENCE PHOTO CONTEST

**C**WEA invites all amateur photographers to enter the CWEA Annual Conference Photo Contest. Photos may



2022 First Place winner David Wylie, Victor Valley WRA

depict anything related to the clean water profession, with special attention to the conference theme: *One Community. One Purpose.*

Cash prizes will be awarded to first, second, and third place winners. The contest is open to all CWEA members.

Entries will be displayed in the conference gathering areas throughout the conference event.

- Judging will be based on originality, educational value, and relevance to the AC23 conference theme: *One Community. One Purpose.*
- Entry forms are online at [ac.cwea.org](http://ac.cwea.org) and due April 1, 2023.



2022 Third Place winner Joe Zumbo, Central San: Water Quality Heroes

**We see water differently.**

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Ryan Spanton - 801-558-6805  
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# REGISTRATION INSTRUCTIONS

**B**efore you register one or more persons online, please read all instructions and ensure you know the participant's chosen activities. Have your online CWEA password ready for all those you are registering.

Discrepancies may result in delays at registration onsite. All conference attendees, including speakers and exhibitors, are required to register for the Annual Conference. For information on our Group Discounts for ten or more registrants, please contact Member Services at [memberservices@cwea.org](mailto:memberservices@cwea.org).

## ● EARLY BIRD REGISTRATION

Registering by February 25 entitles you to a discounted rate, and your registration materials will be ready for you upon arrival at the CWEA Registration Desk.

Register early to save time onsite and to take advantage of the lower conference rates.

## ● MEMBER-DISCOUNTED RATES

Only CWEA, WEF, or CA-NV AWWA membership qualifies for member-discounted rates and memberships will be verified. The additional cost of a non-member registration rate will be applied toward one year of CWEA membership.

## ● RETIRED MEMBERS

Retired members are eligible for a special registration rate. CWEA Bylaws state that a retired member is any person retired from and not currently affiliated professionally or technically with the water quality field.

## ● STUDENT REGISTRATION

Full-time students are eligible for free registration. This does not include extra fee-based meals, technical tours, and other activities which can be purchased separately. This registration type is not available online since students must provide verification of current enrollment (nine or more units per semester). Students can submit a registration form by mail, fax, or email.

## ● SPOUSE/GUEST REGISTRATION

Spouses/guests can participate in the Icebreaker Reception, access the Expo, and receive a drink ticket for each Expo reception. Since you must be registered for the conference as an attendee to earn contact hours, spouses/guests are not eligible for contact hours.

## ● EXHIBITOR BADGES

Please reference your exhibitor profile where you reserved your booth space for badge allocation and instructions. If you have questions, please contact Nicole Agnone at [exhibit@cwea.org](mailto:exhibit@cwea.org).

## ● ACADEMICS REGISTRATION

Full-time employees of academic institutions are eligible for our discounted Academics registration fee.

## ● CONFERENCE MEAL EVENTS

Please indicate which conference meal events you will be attending by checking the appropriate box online or on the AC23 Registration Form. Note the number attending plus the cost in the space provided.

## ● REFUND POLICY

Written cancellation notice must be received at least 30 days prior to the conference date. A 25 percent service fee shall be retained on all cancellations. No refunds will be given for cancellations made less than 30 days prior to the conference. Please consider sending a substitution if you are unable to attend.

## ● HOTEL REGISTRATION

To reserve hotel rooms, please go to [ac.cwea.org](http://ac.cwea.org).

**Rooms will sell out at the Town and Country Resort before the cutoff date of March 26, 2023, so book early.**



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### ● REGISTRATION PAYMENT

Payment can be made by check or money order payable to: CWEA 2023 Annual Conference. Credit card payments are also accepted using the enclosed registration form or through CWEA's secure website ([ac.cwea.org](http://ac.cwea.org)). Early Bird Registration MUST be post-marked by February 25, 2023.

Those who submit payments with an Early Bird Registration fee after February 25, 2023, will be billed for the difference. All fees for conference registration shall be paid in full at the time of registration. Full payment may be made by credit card, money order or check in order to complete your registration. Purchase orders are also acceptable. You must be registered for the conference as an attendee to receive CWEA contact hours.

### ● REGISTRATION QUESTIONS

Registration questions may be directed to Member Services at

[memberservices@cwea.org](mailto:memberservices@cwea.org) or 510.382.7800 x4.

### ● SPEAKER QUESTIONS

Speaker questions may be directed to Melanie Guillen, Education & Events Manager, at [mguillen@cwea.org](mailto:mguillen@cwea.org).

### ● HOSPITALITY SUITES

While CWEA welcomes hospitality suites for our members, the hours must not conflict with any conference event. Hospitality suites may be available at the conference hotels. All hospitality events (both on-site and off-site) must be arranged/approved through the Conference Co-Chairs, Elmer Alex and Amy Lai. Please send an email request to [alai@cwea.org](mailto:alai@cwea.org) with your organization, details of proposed event, preferred evening, and contact information.

### ● GROUP DISCOUNTS

Purchase 10 full conference registrations (or equivalent) and

receive 1 free registration. Purchase 20 and receive 2 and so on. Contact Member Services at [memberservices@cwea.org](mailto:memberservices@cwea.org) for assistance.

### ● DISCLAIMER

CWEA and its Board members and volunteers are not responsible for the actions of speakers or the content of their sessions. No endorsement is implied or given of any persons or their philosophies, ideas, or statements, nor of any products or processes, nor of any organizations or companies who volunteer to serve as speakers at the conference or exhibitors who purchase display space in the Expo.

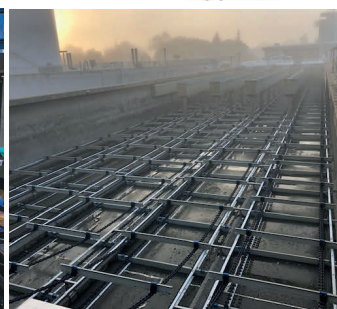
### ● AC23 COVID PROTOCOLS

- If you're not feeling well, please stay home.
- We're actively monitoring local and state health advisories, stay tuned for updates.

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The logo features the letters 'MME' in a bold, white, sans-serif font. The 'M' is stylized with a blue diamond shape in the center. The entire logo is set against a blue background that is part of a larger graphic element.

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# REGISTRATION FORM

EARLY BIRD DEADLINE IS FEBRUARY 25

(PLEASE PRINT OR TYPE)

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Name For Badge: \_\_\_\_\_ Job Title: \_\_\_\_\_

Agency/Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Email: \_\_\_\_\_

Emergency Contact: \_\_\_\_\_ Emergency Phone: \_\_\_\_\_

☐ CWEA MEMBER      ☐ WEF MEMBER      ☐ CA-NV AWWA MEMBER # \_\_\_\_\_

Non-member rates includes one year membership in CWEA. Please check here if you do not wish to take advantage of CWEA membership: ☐

**Required:** ☐ I will comply with any CWEA health and safety requirements in place at AC23.

**Special Accommodations:** ☐ Provide a description of your special needs to participate: \_\_\_\_\_

**Dietary Restrictions:** ☐ Please check here to include any dietary restrictions: \_\_\_\_\_

**Group Registration:** Please contact Member Services for assistance with registering your group. [memberservices@cwea.org](mailto:memberservices@cwea.org)

**Tell us a bit about you. Please select one response for each question.**

1. WHAT IS YOUR CAREER STAGE?		2. WHAT IS YOUR PRIMARY PRACTICE AREA?	
<input type="checkbox"/> Student	<input type="checkbox"/> Job Seeker	<input type="checkbox"/> Collection Systems	<input type="checkbox"/> Electrical/Instrumentation
<input type="checkbox"/> Entry-level	<input type="checkbox"/> Journey-level	<input type="checkbox"/> Engineering	<input type="checkbox"/> Laboratory <input type="checkbox"/> Plant Maintenance
<input type="checkbox"/> Supervisor	<input type="checkbox"/> Management	<input type="checkbox"/> Plant Operations	<input type="checkbox"/> Pretreatment <input type="checkbox"/> Public Outreach <input type="checkbox"/> Safety
<input type="checkbox"/> Executive	<input type="checkbox"/> Retiree <input type="checkbox"/> Other	<input type="checkbox"/> Stormwater	<input type="checkbox"/> Utility Executive <input type="checkbox"/> Other
3. WHAT TYPE OF ORGANIZATION DO YOU WORK FOR?			
<input type="checkbox"/> Municipal - Large (400K+ customers)		<input type="checkbox"/> Non-municipal - Manufacturer or sales representative	
<input type="checkbox"/> Municipal - Medium (50K-400K customers)		<input type="checkbox"/> Non-municipal - Regulator, State or Federal	
<input type="checkbox"/> Municipal - Small (< 50K customers)		<input type="checkbox"/> Non-municipal - Consulting Firm <input type="checkbox"/> Other	

FULL CONFERENCE ATTENDANCE TUESDAY, APRIL 18 – FRIDAY, APRIL 21	(By Feb 25) Early Bird	(After Feb 25) Saver	(After March 25) Regular
<input type="checkbox"/> Member – Discounted	\$702	\$822	\$906
<input type="checkbox"/> Non-Member	\$904	\$1,024	\$1,108
<input type="checkbox"/> Retired Member	\$444	\$444	\$444
<input type="checkbox"/> Regulators and Academics	\$156	\$156	\$156
<input type="checkbox"/> Speaker	\$596.70	\$698.70	\$770.10
<input type="checkbox"/> Student (must provide proof of attendance at a college or university with a minimum of nine units)	\$0	\$0	\$0
Fee Subtotal \$			





## ONE-DAY CONFERENCE ATTENDANCE (WEDNESDAY *or* THURSDAY)

	(By Feb 25) Early Bird	(After Feb 25) Saver	(After March 25) Regular
Please check the day you would like to attend: <input type="checkbox"/> WEDNESDAY, APRIL 19 <input type="checkbox"/> THURSDAY, APRIL 20			
<input type="checkbox"/> Member – Discounted	\$450	\$480	\$510
<input type="checkbox"/> Non-Member	\$652	\$682	\$712
<input type="checkbox"/> Speaker	\$382.50	\$408	\$433.50
<input type="checkbox"/> Full-Time Student (must provide proof of attendance at a college or university with a minimum of nine units)	\$0	\$0	\$0
<b>Fee Subtotal</b>	<b>\$</b>		

## ONE-DAY CONFERENCE ATTENDANCE (FRIDAY, APRIL 21)

	(By Feb 25) Early Bird	(After Feb 25) Saver	(After March 24) Regular
<input type="checkbox"/> Member – Discounted	\$174	\$204	\$234
<input type="checkbox"/> Non-Member	\$376	\$406	\$436
<input type="checkbox"/> Speaker	\$147.90	\$173.40	\$198.90
<input type="checkbox"/> Full-Time Student (must provide proof of attendance at a college or university with a minimum of nine units)	\$0	\$0	\$0
<b>Fee Subtotal</b>	<b>\$</b>		

## SPOUSE/GUEST REGISTRATION

See page 38 for details on what is included.

<input type="checkbox"/> Name:	\$120
<b>Fee Subtotal</b>	<b>\$</b>

## CONFERENCE WORKSHOPS AND TOURS

See descriptions on pages 20 and 27 for what is included.

	(By March 25) Early Bird/Saver	(After March 25) Regular
<b>TUESDAY, APRIL 18</b>		
<input type="checkbox"/> PREW1: ELAP TNI Compliance	\$200	\$250
<input type="checkbox"/> PREW2: New Challenges in Stormwater	\$200	\$250
<input type="checkbox"/> PREW3: The Critical Role of EI&C Staff in Meeting Agency Resilience and Energy Goals	\$200	\$250
<input type="checkbox"/> PREW4: Fundamentals of Activated Sludge: Biological Nitrogen Removal Operations and Troubleshooting Using Process Simulators	\$200	\$250
<input type="checkbox"/> PREW5: Collection System Effectiveness: People. Process. Tools.	\$200	\$250
<input type="checkbox"/> PREW6: Preparing Operators for Direct Potable Reuse	\$200	\$250
<input type="checkbox"/> T1: San Elijo Joint Powers Authority & Pure Water Oceanside	\$90	\$100
<input type="checkbox"/> T2: SeaWorld ‘Wake Up to Wastewater’ Tour (Friday, April 21)	\$70	\$80
<b>Fee Subtotal</b>	<b>\$</b>	



CONFERENCE MEAL EVENTS	(By March 25)	(After March 25)
	Early Bird/Saver	Regular
<input type="checkbox"/> Women Impacting Water Breakfast (Wednesday, April 19, 7:00 – 8:15 a.m.)	\$75	\$85
<input type="checkbox"/> Awards Ceremony Lunch (Wednesday, April 19, 12:45 – 2:00 p.m.)	\$85	\$95
<input type="checkbox"/> Collection System Awards Lunch (Thursday, April 20, 12:00 – 1:00 p.m.)	\$85	\$95
<input type="checkbox"/> Committee Breakfast (Friday, April 21, 7:00 – 8:30 a.m.)	\$75	\$85
<input type="checkbox"/> E&R Committee <input type="checkbox"/> SYP/O&M Committees <input type="checkbox"/> Lab Committee		
<b>Fee Subtotal</b>	<b>\$</b>	

ACTIVITIES AND NETWORKING	(By March 25)	(After March 25)
	Early Bird/Saver	Regular
<input type="checkbox"/> Northern/Southern Regional Committee Meeting (Tuesday, April 18, 4:00 – 5:00 p.m.)	FREE	FREE
<input type="checkbox"/> CWEA New Member Orientation (Tuesday, April 18, 5:00 – 5:30 p.m.)	FREE	FREE
<input type="checkbox"/> 5S Ceremony (Tuesday, April 18, 5:00 – 5:30 p.m.)	FREE	FREE
<input type="checkbox"/> Icebreaker Reception (Tuesday, April 18, 5:30 – 7:00 p.m.)	FREE	FREE
<input type="checkbox"/> Students & Young Professionals Networking Mixer (Wednesday, April 19, 6:30 – 8:00 p.m.)	\$40	\$50
<input type="checkbox"/> Keynote Presentation: <i>Many Communicate, Few Connect</i> (Thursday, April 20, 8:00 – 9:00 a.m.)	FREE	FREE
<b>Fee Subtotal</b>	<b>\$</b>	

Hosted by San Diego Section	
<input type="checkbox"/> Golf Tournament (Tuesday, April 18)	Visit <a href="http://www.cwea.org/sds">www.cwea.org/sds</a> for registration information

## PAYMENT INFORMATION

Please make your check or money order payable to : **CWEA AC23**. For payments by credit card, please print clearly.

Credit card: ☐ VISA   ☐ MASTERCARD   ☐ DISCOVER   ☐ AMEX   Signature: \_\_\_\_\_

Credit card number: \_\_\_\_\_ Expiration date: \_\_\_\_\_

Name of account holder: \_\_\_\_\_ Billing zip code: \_\_\_\_\_

*Disclaimer: CWEA is not responsible for theft of or damage to personal or agency/company property whether intended to be used for CWEA purposes or not.*

Mail registration payment and form to:

**CWEA**  
**7677 Oakport St, Suite 1030**  
**Oakland, CA 94621-1935**

Need assistance?

**Contact Member Services**  
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**[memberservices@cwea.org](mailto:memberservices@cwea.org)**



# Trenton offers three Wax-Tape® brand anticorrosion wrap systems.

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*Belowground applications*

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A very durable wrap that uses a thick, non-stitch bonded synthetic fabric and has no clay fillers, so it stays conformed to irregular profiles. The wrap requires no abrasion blasting, can be backfilled immediately and is compatible with cathodic protection.



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## **Wax-Tape® #2**

### **Self-Firming Anticorrosion Wrap:**

A unique, microcrystalline-wax-saturated wrap that slowly firms up to provide excellent aboveground and belowground protection. Comes in a variety of colors and usually requires no outerwrap.



*High-temperature applications*

## **Wax-Tape® HT-3000**

### **High-Temperature Anticorrosion Wrap:**

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ANTICORROSION MATERIALS

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## HOTEL INFORMATION

### ● HOW TO BOOK YOUR ROOM

**Book your room online:** [ac.cwea.org](http://ac.cwea.org)  
Hotel reservations are on a first come, first-serve basis and will likely sell out. Make reservations as soon as possible.

**Deadline to book rooms within the CWEA room block: March 26, 2023**



### ● TOWN AND COUNTRY RESORT

500 Hotel Circle North  
San Diego, CA 92108  
800.772.8527

#### **Rates:**

\$189 single/double plus taxes and fees.

Reservations are subject to 48-hour cancellation policy (3:00 p.m. PST day before scheduled arrival) unless stated otherwise. Late cancellation fee is one night's room and tax.

**Check In:** 3:00 p.m.

**Check Out:** 11:00 a.m.

**Parking Fees:** \$10/night

### PLEASE DON'T FALL FOR HOUSING SCAMS!

Beware of companies contacting you to book rooms. These companies may not be legitimate.

There are benefits to being in the conference block.

- Discounted rates at the official meeting hotel
- Stay at the headquarters hotel with all the conference attendees
- Be steps away from session rooms and the expo

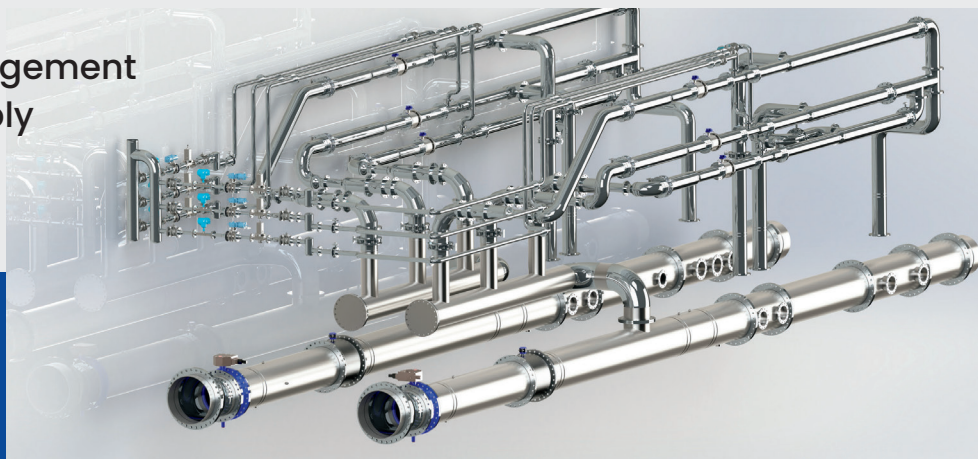


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# SANITARY SEWER SYSTEM GENERAL ORDER



Cucamonga Valley Water District crew working at a sewer lift station. Photo by Evette Ounanian, Cucamonga Valley Water District



In December 6, 2022, the State Water Resources Control Board unanimously adopted the Statewide Sanitary Sewer Systems General Waste Discharge Requirements Order

Reissuance (SSS WDR). The new regulations are set to go into effect on June 5, 2023.

The Water Board explained that the SSS WDR order reissuance will regulate sanitary sewer systems designed to convey sewage longer than one mile in length and addresses reporting and other requirements in response to sanitary sewer overflows. In this case, a sanitary sewer overflow is any overflow, spill, release, discharge, or diversion of untreated or partially treated wastewater from a sanitary sewer system.

More information on the new reissued SSS WDRs can be found at [waterboards.ca.gov](https://waterboards.ca.gov).

During this Featured Session at CWEA's AC23, three separate sessions will include subject matter that will update participants on some of the new regulations and profiles of the speakers.

## REDUCING ENFORCEMENT EXPOSURE FOR SPILLS, SSMPs, AND SSMP AUDITS

**James E. Fischer, Jr.**, Fischer Compliance, Principal  
**Jed Beyer**, West Bay Sanitary District, Water Quality Manager

During this morning session, Fischer and Beyer will update participants on the latest practices on avoiding being a target for inspections, violations, and fines by the SWRCB and

preparing for audits of Sewer System Management Plan. The speakers will also give insightful advice on how to prepare regulatory scrutiny from inspectors, and non-governmental organizations (NGOs).



James E. Fischer, Jr.,



Jed Beyer



It's been over 16 years since the initial adoption of California's Sanitary Sewer Systems Waste Discharge Requirements (SSS WDR). Fischer and Beyer have over 50 years of combined experience as Legally Responsible Officials (LROs), data submitters, leads, supervisors, and managers with specific case studies and strategies for managing your collection system "like your mission statement says."

James E. Fischer, Jr. has over 33 years of professional regulatory experience in both the public and private sectors. He retired from the State Water Resources Control Board as statewide lead for collection system compliance and enforcement, and started Fischer Compliance, LLC in September of 2020. Through his company, he serves municipalities with best practice support for reducing risks, enforcement risks, and optimizing compliance. Fischer's expert consulting services include Sewer System Management Plan (SSMP) audits, SSMP updates, and 'simulated' regulatory inspections to help agencies meet and exceed the requirements of the WDRs.

Jed Beyer has more than 20 years of service with West Bay Sanitary District, beginning his career as a maintenance technician and working his way up to the position of Water Quality Manager. Beyer's field of work requires meticulous attention to detail, as laws and regulations are continuously changing, which necessitates frequent updates to policies, protocols, and procedures. He engages a strategic approach to managing a wide spectrum of issues and regularly collaborates with industrial, commercial, and residential customers to conceptualize, design, and review complex plans for wastewater flow, storage, discharge, and treatment to meet strict environmental regulations.

Currently, Beyer's scope of experience includes OSHA regulation, safety training, regulatory compliance, wastewater collection systems, EPA regulations, risk management, reporting and documentation, SMART Goals, pretreatment facility inspections, and emergency response.

## WHAT'S NEW WITH SANITARY SEWER COMPLIANCE WITH THE WDR?

**Paul H. Causey**, Causey Consulting, Principal

During this mid-morning session, Paul Causey from Causey Consulting will speak on what's new with SSS WDR after more than three years of California State Water Resources Control Board and stakeholder collaborations regarding the waste discharge requirements for sanitary sewer systems impacting 1200 public collection systems across California.



Paul H. Causey

During the collaboration, Causey chaired a group of stakeholders that includes six professional executive officers and many of the enrolled agency representatives negotiating

directly with the SWRCB SSO office staff. His group submitted extensive comments and redlines, as well as attended all Staff WDR workshops on the indirect and draft SSS WDR documents circulated by the SWRCB staff.

Mr. Causey will discuss the Dec. 6, 2022 adopted SSS WDR and the important changes and implementation timing that an enrolled agency will be required to comply with its sanitary sewer programs with the new SSS WDR. Some of the important changes that will be covered during this session include:

- Re-enrollment requirements for currently enrolled agencies;
- Timing for compliance with the new requirements - adoption vs. effective dates; changes that must be made in the agency Sewer System Management Plan;
- Changes to the overflow emergency response plans and sampling requirements;
- Changes to the certification requirements for LROs and CWEA-certified operators;
- Discussion of new requirements for operations like:
  - Resiliency to Asset Management
  - Blockage Control Plans
  - Internal Audit reporting/submittals
  - Annual Service Area Mapping
  - Expanded Historical Performance Reporting and graphing
  - SSMP and Internal Audit certification and submittal requirements
  - Financial Planning and Budgeting
  - CIWQS revised reporting requirements

## MUNICIPAL WASTEWATER DEPARTMENT EVALUATION AND RECOMMENDATIONS

**Rusty Nezat**, Nezat Training and Consulting

The afternoon session will begin with a discussion on how wastewater collection system cleaning maintenance departments can improve their daily production rates and lower equipment downtime. Rusty Nezat provides this information from more than 20 years of evaluations, formal reports, and recommendations provided to numerous municipal wastewater collection departments across the United States.

Issues that cause the greatest reductions in performance will be highlighted and will feature ways to improve areas of concern. Nezat will include in his presentation multiple videos, animations, graphics, and charts that will help to support the different factors influencing a department's ability to improve service to the taxpayer base.

Nezat is a second-generation sewer cleaner, who began cleaning sewers at the young age of thirteen and is still in the field more than forty years later. Working in the private sector



Rusty Nezat

for Texas-based Insituform Technology Group, Nezat was responsible for a massive fleet of sewer cleaning equipment and associated personnel.

In January 1991, Nezat opened his own consulting firm called Nezat Training and Consulting. Now 32 years later, his company's main objective is to reduce sewer cleaning equipment downtime, increase daily sewer cleaning production rates, improve the quality of sewer cleaning work and increase safety awareness. As Director, Nezat has completed extensive evaluation and testing of sewer cleaning nozzles and the methodology associated with sewer cleaning procedures.

#### DATA DRIVEN GRAVITY MAIN CLEANING OPTIMIZATION

**Lars Stenstedt**, V&A Consulting Engineers  
**Rick Pina**, Town of Hillsborough,  
Assistant Superintendent of Public Works

Data science and machine learning can be leveraged by small and medium-sized collection systems for gravity main cleaning optimization. This mid-afternoon presentation will introduce and overview data science processes and best practices for collection systems. The presentation will feature a case study from the Town of Hillsborough, Calif.



Lars Stenstedt

The presentation will detail the three phases of V&A Consulting Engineer's data science process and their application by the Town of Hillsborough. Information provided includes gathering, cleaning, and joining all available collection system data, including, but not limited to GIS, CCTV, SmartCovers, and Cleaning Condition Data.

Speaker Lars Stenstedt, from V&A Consulting Engineers, explains that Cleaning Condition Data includes cleaning condition assessment data gathered during the cleaning process by observing flow and caught material at the access manhole. Because gravity mains are cleaned before CCTV inspection, CCTV data has very limited use for the assessment of FOG, roots, or debris, rags, and grit in gravity mains.

V&A, the Town of Hillsborough, and Padre Dam Municipal Water District collaborated on a standard index for Cleaning Condition data. V&A adds external data to improve data, quality or provide variables supporting plausible theories of causation. The result is analytics-ready data set for all gravity main segments in the collection system.

The discussion moves to the creation of sophisticated analytical models using machine learning, which delivers a unique cleaning Condition Assessment prediction for each gravity main segment in the collection system.

The case study discussion will focus on the data science process where the Town of Hillsborough is adopting the analytical outputs for continuous, incremental improvements in its gravity main cleaning efficiencies.

Lars Stenstedt has over 30 years of experience in high-technology business development. He has a BS degree in Mechanical Engineering from Stanford University and an MBA from the UC Berkeley Haas School of Business with an emphasis in the Management of Technology.

His most recent experience includes working in Data Science Services for V&A Consulting Engineers, Inc, in business development for ELSys, Inc., and he was the co-founder and CIO of Fracta, which he company through two strategic pivots: from a pipe inspection robot provider to oil/gas markets, into the potable water condition assessment space, and finally to being an independent company focused on SaaS-based, machine learning condition assessment solutions for water and other capital intensive infrastructure. A majority interest in Fracta was acquired by Kurita Water in 2018.

Rick Pina is the Town of Hillsborough, Assistant Superintendent of Public Works. The Town of Hillsborough is located in San Mateo County, Calif., in the San Francisco Bay Area, with a population of 11,387 in 2020. Hillsborough's sanitary sewer system is comprised of 98 miles of collection system mainlines, 2,477 manholes, 247 cleanouts, and four sewer pump stations. ●

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# NEW SIDESTREAM TECH KEEPS NUTRIENTS OUT OF THE SAN FRANCISCO BAY

By Jim Force, correspondent

**M**ike Falk, PE, and Jimmy Dang, PE, will present a paper at the Annual Conference on an innovative sidestream process demonstrated at the Oro Loma Sanitary District, where Dang is the General Manager.

The process removes ammonia using Microvi's MNE technology, a new process that employs synthetic composites called "biocatalysts," which contain a high density of specific organisms capable – in this case – of oxidizing high levels of ammonia and converting it to nitrite/nitrate. It is the first implementation of the technology in the Western U.S.

Falk says the demonstration project is a "low-hanging fruit" approach to nutrient management since the sidestream is warm and concentrated (about 20% of the effluent nitrogen load), resulting in favorable kinetics. Furthermore, the treatment system is relatively easy to construct and sequence as a stand-alone process. Since its start up in April 2021, the process has performed well.

## DR. MIKE FALK

Falk is a Senior Professional Associate at HDR, where he has worked since 2008.



He received BS and MS degrees in Civil and Environmental Engineering from Virginia Tech and U-Mass Amherst, respectively, followed by a Ph.D. from UC Davis.

As an undergraduate, Falk says, he was inspired by Professor Marc Edwards, the academic who cracked the Flint, MI, drinking water crisis. "Marc understood the mechanics behind

the issue," says Falk. "He pointed me toward U-Mass Amherst, as he knew I was interested in biological treatment."

After that, Falk decided to head west and learn about the application of molecular biology to wastewater treatment at Davis. Following graduate school, he met another mentor, J.B. Neethling of HDR, who had led research efforts in nutrient management and convinced him to give consulting a try.

Falk says he is most proud of the Bay Area nutrient strategy led by the Bay Area Clean Water Agencies (BACWA). "It's by far the most impactful effort that I have worked on," he says. His firm is involved, along with treatment plants, scientists, regulators, NGOs, and others – all striving to develop a framework for making informed decisions about how to best navigate nutrient management.

"The EPA routinely references the Bay Area nutrient management program as the blueprint for how to develop a collaborative nutrient strategy," Falk says.



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He says the most enjoyable aspect of his work is navigating the prioritization of projects. "Our clients face so many competing interests with limited funding," he says. "In order to prioritize such funds, collaborative workshops are essential for making informed and defensible decisions. Rolling up our sleeves during such a process with our clients is the most enjoyable part of the job."

### JIMMY DANG

As GM, Dang is responsible for a staff of 46 highly trained professionals and a facility rated at 20 mg/d, serving more than 180,000 customers.

He is a licensed Civil Engineer in the state of California. He holds a BS degree in Civil Engineering from Cal Poly San Luis Obispo and an MS degree in Public Administration from CSU Dominguez Hills.

Of his 18 years of experience in both public and private sectors, he says he is most proud of the people he works with. "The staff here at the district are extremely talented and just know how to get the job done," he says. "When we all put our minds to the task at hand, I have no doubt that we will figure it out and make it happen."

Dang says he enjoys the challenge of solving problems. "As an engineer at heart, it is a passion of mine to try to help resolve issues that we all face," he says. "Whether it is technical, personnel, or project related, it excites me to know that I can be of value when someone approaches me with an issue they need help resolving."

In his view, industry-wide challenges include reducing nutrients sent to the Bay, a long-term solution for biosolids handling, and becoming an overall energy producer rather than a consumer.

Regarding the sidestream project, he believes the work at Oro Loma has helped inform the industry on what technology can do when you simply try it out.

"We took a fairly conservative approach by starting at a very small bench scale level, then converting to a medium-sized pilot, and now a full-scale demonstration," he said. "Partnering with technology companies not only helps further research, but with funding help from the EPA and the support from our

Board of Directors, we were happy to help Microvi with performing research and operating their technology.

"It makes me feel great about contributing to science in a very economical way."

### TECHNOLOGY SUMMARY

In their "Hot Topic" presentation, Falk and Dang will discuss the operation of the sidestream technology since April 2021 and will include data through 2022 – more than a year.

"The MNE biocatalysts acclimated to the feed water (OLSD's dewatering filtrate) as evidenced by signs of nitrification within the first week of start-up," they report.

"The commissioning process and initial months of operation found that the technology was robust and able to achieve treatment objectives under steady-state conditions.

"The audience will leave this presentation with an understanding of



1) what is the side stream and why is it attractive for nutrient management, 2) what is an MNE biocatalyst and why it might be attractive for nutrient management, and 3) actual data to support the technology claims," they summarized.

To view a video of the process, go to [bit.ly/3PnurhT](https://bit.ly/3PnurhT). ●

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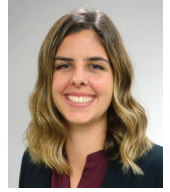
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# CITY OF VENTURA WATER REUSE PROGRAM

By Vince Ines and Madison Rasmus



Unique to its Southern California neighbors, the City of Ventura is one of the largest regional cities to rely solely on local water supplies. Currently, the city receives water from three sources – Lake Casitas, Ventura River, and groundwater basins. However, like most of California, local water sources have been impacted by decades of drought and changing regulatory conditions.

Adding to drought issues was a lawsuit brought against the city in 2010 by local environmental organizations, which argued that the effluent from the city's water reclamation facility was causing harm to the local wildlife in the Santa Clara River Estuary (SCRE), creating an artificial environment by adding water to the estuary. After years of planning and trying various ideas, the city finally landed on a plan that met the needs of both parties. In 2019, officials agreed to pursue VenturaWaterPure, a potable reuse project that will recover, treat, and reuse water currently discharged into the estuary.

"The project will divert tertiary treated wastewater effluent from Ventura's Water Reclamation Facility to a new Advanced

Water Purification Facility (AWPF), where the water will be treated to drinking water standards and then injected into a local groundwater basin for storage and later extracted and delivered to customers," said Vince Ines, the city's wastewater utility manager.

Ines and Carollo Engineers' Madison Rasmus will present the VenturaWaterPure project as a part of their technical session during the CWEA annual conference. The session is entitled "Reliable Wastewater Treatment for Reliable Water Supply."

The annual conference session will talk directly about the upgrades to the wastewater treatment plant and the plans to construct an AWPF to provide a drought-resilient water source for the city.

"The City and Carollo recently completed a wastewater facility master plan to inform the City's future capacity demands, asset replacements, and treatment improvements to meet regulatory requirements," Rasmus said via email. "The project resulted in a comprehensive roadmap for the



City to ensure the longevity of their existing wastewater system and seamless integration into the future AWPf.”

Rasmus said that the presentation will inform attendees of the specific issues quantified from the holistic planning efforts, including a consent decree the city must comply with, which stipulates discharge volume and water quality to the adjacent estuary.

They will also go into detail with a comprehensive techno-feasibility comparison included in the master plan. Rehabilitation of the existing secondary and tertiary wastewater treatment processes with added nutrient removal upgrades were compared against a membrane bioreactor (MBR) and ultraviolet (UV) disinfection.

And lastly, they plan to discuss meeting Reuse Regulations currently in development by the State of California. The MBR alternative at the wastewater treatment plant will be the foundation for the future AWPf. The MBR filtrate will be UV disinfected, complying with Title 22 unrestricted non-potable reuse, and be suitable for direct application onto reverse-osmosis membranes. A portion of this flow can be further treated at the future AWPf with reverse-osmosis and UV advanced oxidation and produce a water compliant with indirect potable reuse requirements.

“The presentation will demonstrate how a wastewater facility plan can not only include a thorough evaluation of



wastewater treatment plant assets but can also look forward to considering projects to be implemented to help achieve a resilient future water supply,” Rasmus said.

Rasmus and Ines are working on upgrading the Ventura Water Reclamation Facility project. The MBR and UV treatment upgrades recommended in the master plan has moved forward to design. The construction of these elements is slated to be completed in 2027.

“Once these projects are completed, it will be like having two new facilities,” Ines said.

Ines began his wastewater career as an OIT for the City of Oxnard wastewater plant. For 17 years, he worked his way up to a Grade 5 Wastewater Operator and Treatment Operator 2, emphasizing potable water. During this tenure, he was the Operations Manager/Chief Plant Operator for both the wastewater treatment plant and the advanced water purification facility.

During his time at Oxnard, Ines was instrumental in the startup of the city’s AWPf. In Oxnard, the water undergoes purification using microfiltration, reverse osmosis, and advanced oxidation with ultraviolet light and hydrogen peroxide.

“We basically taught ourselves how to run the Oxnard AWPf after it was built,” he said. “It was a big learning curve.”

When the job was announced in Ventura three and a half years ago, Ines decided to apply. The acting general manager at the time asked why he would want to work there.

“I wanted to help with the knowledge I had learned from Oxnard to build the AWPf in Ventura. I thought it would be a great experience,” he said.

Carollo Engineers has been involved in the planning and design of many central coast reuse projects, including the AWPf in Oxnard. Rasmus began working at Carollo three and a half years ago as an environmental engineer and has been involved in a series of wastewater, water reuse, and water supply planning studies throughout California.

Before coming to Carollo, she attended the University of Texas at Austin, receiving her master’s degree in Environmental Engineering. Rasmus completed her undergraduate work at the University of California, Davis, where she received her bachelor’s degree in Civil Engineering.

Before finishing school in Texas, she worked at Black & Veatch as a staff engineer for two years in the greater San Diego area, providing engineering support for water, wastewater, and recycled water projects throughout Southern California. ●

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Street/Location	Your Street	Diameter	24"	TV'd Ftg	70'
Upstream MH	Inlet	Material	CMP	Total Ftg	70'
Downstream MH	Outlet	Direction	DS		

Pre Repair	Grout	Post Repair
<b>10'</b>		
<b>40'</b>		
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## THE GUIDES BY YOUR SIDE

By Dr. Susan Weinberger

**CWEA** MENTORING PROGRAM

**M**ore than 40 years ago, the Harvard Business Review exclaimed in a front-page article that *everyone who makes it has a mentor*. Jack Welch wrote during his tenure as CEO of GE that a strong mentor-mentee relationship is the basis for forging tomorrow's leaders.

How has mentoring emerged as an important and powerful strategy for building relationships at the workplace?

It began with Homer and the *Odyssey*. In Greek Mythology, a man named Mentor was friends with the famous Odysseus. When Odysseus went to war against Troy, he entrusted his house to the care of Mentor. In time, Mentor became a guide to Odysseus's son, Telemachus, offering him advice and counsel. That generous act didn't go unnoticed; today, we refer to these trusted advisers as mentors.

Mentoring has been at the heart of apprenticeship programs. The experienced craftsman takes the younger student under his wing and shows him the ropes. In Western cultures, a mentor is a guide, supporter, and friend. In many Native American communities, elders have served as mentors to both youth and adults.

History tells us the origin of the word and provides countless examples. Take a moment and think back to those individuals who cared about you, supported you, believed in you, and were always there for you during your youth. Who were your mentors?

Maybe they continued with you as you grew up, attended school,

and landed your first job. I imagine you may even be able to identify multiple mentors. Where would you be without them?

Many famous people have identified their mentors. For Oprah Winfrey, it was her fourth-grade teacher, Mrs. Duncan. General Colin Powell was mentored by his father, Luther Powell. Henry David Thoreau identified Ralph Waldo Emerson as his mentor. Mine was my Nana, and why I am Nana to our five grandchildren. She cared for me without judgment and gave me advice, guidance, and unconditional love.

From ancient times until today, mentoring has influenced people's lives from all walks of life.

California water and wastewater agencies and firms are striving for retention, job satisfaction, improved morale, increased productivity, and cultivating successful leaders. Mentoring facilitates these goals.

It is a reciprocal and collaborative relationship that supports the mentee's growth, learning, and career development. There is an emphasis on career goals and sound advice.

Unlike coaching, which usually focuses on improving job performance and may not be voluntary, mentors help their mentee navigate the speed bumps in their careers, providing

support and encouragement. They are trustworthy and empathetic.

The good news is mentoring is two-directional. Mentors benefit just as much from the relationship as the mentees do! **What questions do you have about mentoring? Let us know at [ebulletin@cwea.org](mailto:ebulletin@cwea.org).**

---

*Dr. Susan G. Weinberger, aka Dr. Mentor, is President, Mentor Consulting Group (MCG) in Norwalk, CT. MCG is assisting CWEA in designing and implementing a high-quality, effective, and sustainable mentoring program for its members. ●*

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**Sean Coholan**  
925-200-7453  
[scoholan@miscowater.com](mailto:scoholan@miscowater.com)

**Ryan Siewak**  
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[rsiewak@miscowater.com](mailto:rsiewak@miscowater.com)

[www.miscowater.com](http://www.miscowater.com)



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# Life Free of Water Challenges

## WEF Strategic Plan

### Our Mission

Inspiring the water community in pursuit of human and environmental well-being

### Our Vision

Life free of water challenges

### Our Three-Year Outcome Statement

Amplify the stories of water to grow, strengthen, and diversify the water community



### Our Strategic Goals

#### Goal 1

Attract and develop a diverse and passionate water workforce

##### Goal 1 Strategies

1. Raise public awareness about the importance of water and the water workforce
2. Reduce barriers to workforce entry and retention
3. Provide extraordinary opportunities for connection, growth, and education
4. Cultivate strategic partnerships

#### Goal 2

Cultivate a purpose-driven community to sustainably solve water challenges for all

##### Goal 2 Strategies

1. Drive connection and collaboration for the development of innovative solutions
2. Deliver best-in-class member experience
3. Creatively develop and deliver content and programming

#### Goal 3

Lead the transformation to the Circular Water Economy

##### Goal 3 Strategies

1. Convene stakeholders to craft WEF's Circular Water Economy framework and best practices
2. Proliferate WEF's Circular Water Economy framework and best practices
3. Champion adoption of Circular Water Economy
4. Eliminate barriers to Circular Water Economy adoption

### Our Core Values



Lead boldly with purpose and agility



Focus on our customers through empathy and service



Collaborate for collective impact



Integrate Diversity, Equity, and Inclusion in all we do



*Experience  
You Can Trust*

*Support  
You Can Rely On*



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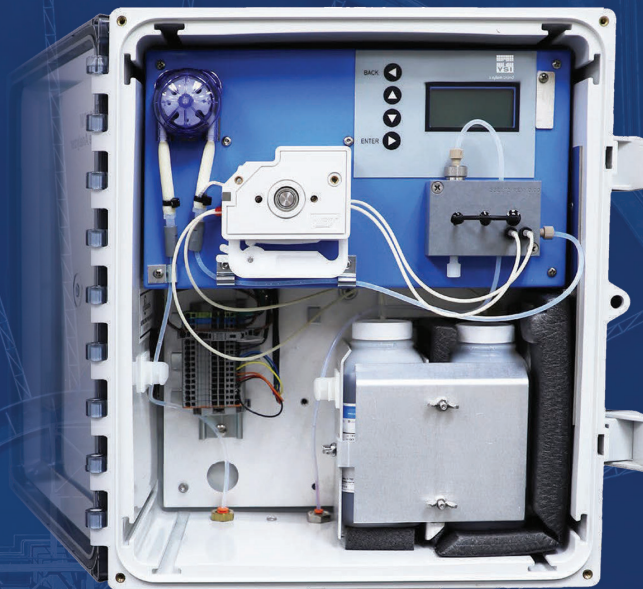
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