

January 2023



BARSCREEN BEE

The Official Newsletter of the
Northern Sacramento Valley Section of the
California Water Environment Association



<http://nsvs.cwea.org/>

CWEA Northern Sacramento Valley Section Annual Awards Banquet

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The Barscreen Bee is a publication of the Northern Sacramento Valley Section of the California Water Environment Association.

Saturday, February 4, 2023
Red Lion Hotel
1830 Hilltop Drive,
Redding 5:00 –8:30 pm
Retro pricing! \$25.00 Per Person
RSVP now.
Pay cash or check at the door.
No-Host bar and Dinner

5:00	No-Host Cocktails	6:30	Award Presentations
5:30	Opening Program	7:00	Installation of Officers
6:00	Dinner	7:30	Door Prizes - Of Course, Additional Prizes Always Welcome



Please RSVP by Tuesday, Jan 31, 2023

Email or Call Josh Vandiver, City of Redding
jvandiver@cityofredding.org or (530) 224-6069

A special room rate is also available for \$98.00 + taxes and fees.
Call 530-221-8700 and mention the special CWEA banquet room rate,
Discount Code is CWEA0204.

Note: We are obligated to pay for every dinner reservation submitted.
Please inform us immediately if you need to change your reservations.

The Red Lion Hotel at 1830 Hilltop Drive is the site of the Annual Awards Banquet this year. Please RSVP by Tuesday, Jan 31, 2023
Email or Call Josh Vandiver, City of Redding
jvandiver@cityofredding.org or (530) 224-6069
Ticket payments will be collected at the event.



The Northern Sacramento Valley Section of CWEA combined forces with the Sacramento Chapter, Shasta Cascade Branch of the APWA (American Public Works Association) for a golf tournament at the Links at Rolling Hills, Corning CA on Friday September 16, 2022.

One of the sponsors of the event was Jacobs Engineering, represented by Kim Hein and John Schoonover. The event helped us raise \$1,300 to donate to the CWEA Kirt Brooks Scholarship!

Look for another tournament in 2023!



CWEA NSJ Section ELAP TNI Workshop by William (Bill) Ray



Workshop Location: Manteca Transit Center

220 Moffat Blvd. Manteca CA 95336

Date & Time: January 18th-19th 9:00am to 3:00pm each day

Check In & Breakfast: 8:00-9:00am each day

Reservation Deadline: Monday January 2nd

Event Organizer: Jacelyn Renwick, Phone: 209-456-8488

email: jrenwick@ci.manteca.ca.us

Cost: \$175.00 Member, \$225.00 Non-Member

Register Online: events.cwea.org

Breakfast and Lunch (with vegetarian option) are Included in fee

Earn up to 12.0 CWEA contact hours towards Lab and ECI certification

Presenter: William (Bill) Ray



With over 44 years of experience, Bill is currently the Owner/President of William Ray Consulting, LLC, a consulting firm specializing in technical and compliance assistance to the environmental laboratory community. He has developed training tools; conducted training, laboratory assessment, and provided assistance in reviewing regulatory compliance from the laboratory perspective. He is currently working on developing self-paced training programs for small laboratories.

Training Day Report from Redding August 2, 2022



Steve Cardwell from Asahi-America Corporation started off the morning with a presentation on Solutions for Chemical Piping systems. Chemical piping is specific for the chemical and the conditions. Hypochlorite attacks glue joints and eats away at the fillers of the solvent cement. It also needs to be in a UV stable pipe kept at 80 degrees or less. A lot of pipe failures are due to the glue joints. Threaded joints are also not ideal, because chemicals can crystallize in the joint. Fusing pipe sections together is a much better alternative for chemical piping than using glue joints. Pipe fusing creates a stronger seal at the joint than the original pipe strength.

Eventually, every piping system will fail. The initial cost of the piping is not the whole story. The total project cost should include the material, installation, life expectancy, loss of production and cost of a catastrophic failure. Mr. Cardwell demonstrated the equipment that creates a fused pipe seal during the training class.



Training Day Report from Redding August 2, 2022



Sami Kader from Waterworks Engineering discussed the City of Redding's Pyrolysis Sludge Treatment System design. The reasons pyrolysis was chosen as a long-term option for sludge treatment and disposal in Redding included the high cost to purchase land for sludge land application and the pyrolysis system destroys PFAS/PFOA contaminants.

Pyrolysis is not the same as incineration and has been approved by air quality. Once the pyrolysis process begins, the system is net zero energy except for the electricity needed for the bio-dryers and to move the sludge. The additional benefit of creating "Bio-Char" through the pyrolysis process is that the City has entered into a 30-year purchase agreement to sell the bio-char. The Bio-Char can be used in a variety of commercial products such as carbon black, activated carbon, a soil amendment, and an ingredient in concrete. The City of Redding is looking forward to implementing this innovative and long-term solution to wastewater biosolids disposal.

Angela Udovich, retired City of Redding Safety Specialist, trained the attendees on how to manage a Cal-OSHA inspection. The most important lessons are that the City needs to control who is involved with a Cal-OSHA inspection and what items are discussed or addressed during the inspection. These inspections are NOT friendly visits. OSHA inspectors are looking for violations that lead to significant financial fines. OSHA inspectors are allowed to inspect anything in "plain sight" during a walk-through of a facility. These inspections should NOT be treated as a facility tour. OSHA inspectors must identify the scope of the inspection and the City is required to take OSHA on an inspection once the "designated city team" arrives within a "reasonable amount of time" on site to interact with OSHA. The OSHA inspectors should be asked to wait until the designated city team arrives. Staff should NEVER engage in small talk or feel obligated to show the OSHA inspector anything until the inspection with the designated team actually begins. During an inspection, a representative of the city should take duplicate photographs of anything the OSHA inspector takes a picture of. Detailed notes need to be written during the inspection of anything the OSHA inspector says, any measurements taken, the time the inspection begins and ends, the locations that were inspected, and any findings that are discussed.



Training Day Report from Redding August 2, 2022



The last training session of the day occurred outdoors and included a detailed discussion of the equipment and operation of a MME Vac-Con truck. David Del Grande from MME described the features of a Vac Con truck, how the vacuum system needs to be maintained, and what the truck operators can do to extend the working life of the equipment. This is a single engine machine with a 3000 PSI water pump with 1500 gallons of fresh water. It has a positive displacement vacuum system and is equipped with a sludge pump that allows the truck to pump off material as it vacuums. It works well for high flow lines and spill situations.



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Photo of Bryce Newell (top) and David Del Grande (bottom)



Training Day Report from Redding August 2, 2022



After the training classes and lunch, a tour was held at the City of Redding's Stillwater Wastewater Treatment Plant, which earned the 2022 CWEA Small Treatment Plant of the Year Award!

Plant operator, Jordan Rossow, gave a tour to a large group of CWEA members and students from the Shasta College Water and Wastewater classes. Stillwater WWTP has an average dry weather design flow of 4 million gallons/day (MGD), with peak wet weather flow of 14.4 MGD. The treatment plant was opened in 1992, and a plant expansion was completed in 2014. Operators treat influent wastewater to high-quality standards, ensuring that stringent water quality criteria are met and that public health and the environment are protected. The Stillwater Wastewater Treatment Plant is safely operated and maintained in compliance with National Pollutant Discharge Elimination System (NPDES) permit limits and best management practices.



Pumps Ragging?

Problem Solved

Case Study: Half Moon Bay CA

Problem:

- Pumps clogging usually twice per week and took 1 hour to clean each pump.
- Risk to employees lifting pumps & exposed to waste, sharps etc.
- Excess energy consumption & high energy bills.

Solution:

- DeRagger+ and Keypad installed in control Panel.
- *Real Time Pump Protection* used to detect rags and run pump reversal via VFD.

Result:

- Energy Savings: 19% or \$500 per month in PG&E bills
- Near complete reduction in ragging.
- Big savings on manpower now effectively utilized rather than for cleaning pumps. Savings at \$735 per month.
- Reduced pump Run Time with clean pump

Total cost savings as projected by sewer authority: \$14,820 per year.

"We found that the energy usage has decreased to approximately 20% which shows a \$500 savings on our PG&E bill. This is besides the fact that we have been able to save manpower and utilize them for other activities instead of the constant cleaning."

- Kishen Prathivadi, P.E, PMP, Sewer Authority Mid-Coastside

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Training Day Report from Anderson December 7, 2022

John Dobson, Stillwater Wastewater Treatment Plant Working Supervisor, presented, “How we switched from Sulfur Dioxide to liquid Sodium Bisulfite and the challenges involved.”

Toward the end of June, 2022, rumors were circulating that the companies that supply 1-ton cylinders of SO₂ were having supply chain issues. The staff at Stillwater WWTP began



to plan for the worst-case scenario of missing deliveries of SO₂ gas. By July 6, 2022, Stillwater WWTP had indeed missed a delivery of 4 tons of SO₂, and was less than two weeks away from running out entirely. Many questions needed to be addressed. Where would we add liquid sodium bisulfite? How do we add it? Who sells it? How do we place an order? Where do we keep it? How do we control the dosing?

THINK TM WRK. We needed everyone’s ideas to fill in the vowels... All ideas were explored. Murphy’s Law also intervened and there were unexpected challenges. Equipment was installed and modified to accommodate the new liquid chemical.



Totes of 25-35% sodium bisulfite were ordered and stored in the blower building to control the temperature of the chemical. The working tote of chemical needed secondary containment and an specially made electric blanket to keep the chemical warmer than 46 degrees at all times. Equipment was modified to allow the use of SO₂ gas and/or liquid sodium bisulfite, for maximum flexibility. A wastewater treatment crisis was averted.



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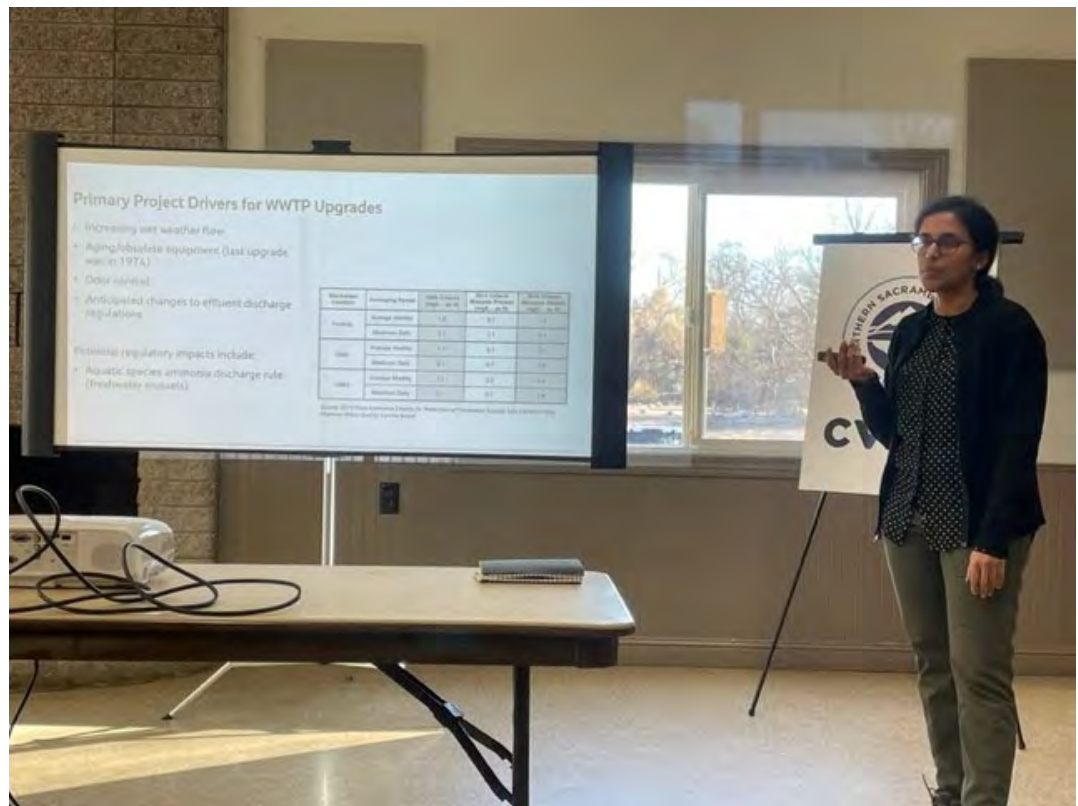
Beyond the science, beyond the engineering,
we see communities. We see families.
We see clean drinking water where none exists,
and solutions to issues that haven't arisen yet.
Our singular focus on water inspires us
to look beyond the surface of what's doable,
into the depth of what's possible.
The results are industry-changing innovations and
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ecosystems. It all comes at a critical time in
our industry because while many see uncertainty,
we see opportunity. It's all in how you look at it.

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Training Day Report from Anderson December 7, 2022

Pratyusha Reddy-Reddy, Wastewater Engineer with Jacobs, presented, “Aeration Basin Design”. Pratyusha discussed the Sewerage Commission – Oroville Region treatment plant plans to convert two aerobic sludge digesters into aeration basins. The upgrades were driven by increases in wet weather events and aging or obsolete 1974 equipment. Another concern was the



upcoming change to the ammonia discharge limit from 33 mg/L monthly average to less than 2 mg/L. The two aerobic digesters that are being converted into aeration basins will be replaced with rotating drum thickeners. An odor control biofilter is also being added at the WWTP. Each new aeration basin will be divided into four chambers to provide for anoxic and aeration zones with fine bubble diffusers for the MLE biological nutrient process.





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Training Day Report from Anderson December 7, 2022



After the classroom presentations, Nick Jones, Chief Wastewater Plant Operator for City of Anderson, led a tour of the Anderson Water Pollution Control Plant. The 2 MGD tertiary wastewater treatment plant is surrounded by the Anderson River Park, which has ball fields, river trail access, and BBQ and picnic areas for the community to

recreate and gather. I wonder how many people have attended outdoor concerts at this park without even realizing there is a wastewater treatment plant nearby.

Wastewater is conveyed to the plant by gravity and four pump stations through a system of pipes (38 miles) to the plant. The plant operates under strict waste discharge requirements permitted by the California State Water Resources Control Board. Operators working in the plant are required to be certified by the State Water Resources Control Board at level requirements pursuant to a Class IV plant to ensure competency in the field of wastewater treatment. The City of Anderson serves its customers by protecting public health and the environment through reliable and safe conveyance, treatment and disposal of wastewater in the most cost-effective manner possible.

Coincidentally, the Anderson WPCP also recently began using totes of liquid sodium bisulfite for wastewater de-chlorination due to similar supply chain issues described by the City of Redding in the presentation in the morning.





**P3S AND
COLLECTION
SYSTEMS
COMMITTEES**



1
Feb

2023 FOG WORKSHOP

EVENT INFO

DATE

WEDNESDAY,
FEBRUARY 1, 2023

TIME

8:30 a.m. to 4:40 p.m.

**REGISTER BY JANUARY 9TH FOR
THE EARLY BIRD DISCOUNT**

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1441 Canyon Del Rey Seaside,
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This workshop is co-located with
the 2023 P3S Conference.

REGISTER ONLINE

events.cwea.org

SPONSORED BY



Join CWEA at our Pretreatment, Pollution Prevention, and Stormwater Conference in beautiful Monterey for the annual California Fats, Oil, and Grease (FOG) Workshop. We're uniting pretreatment inspectors and collection system professionals to help fight FOG and continue driving down the number of sanitary sewer overflows (SSOs).

Workshop speakers are some of the nation's top FOG experts, and the sessions span topics such as grease interceptors, elements of a FOG program, sewer system management plans, and more.

New this year - we'll do a hands-on grease inspection at a nearby restaurant. Enjoy visiting our expo and networking with fellow wastewater professionals from across California.

Earn up to **6 CWEA contact hours** towards ECI and CSM certificate holders.

PRICING

Early Bird Rate

Deadline 1/9/2023

\$245 members
\$437 non-members

Regular rate

Starting 1/10/2023

\$280 members
\$472 non-members

Student Rate

Anytime

\$0 with proof of college enrollment of 9 units minimum.

WHO SHOULD ATTEND

- Collection System Managers
- Collection Systems Crews
- Engineers
- FOG Program Managers
- State Regulators
- Compliance Inspectors
- Vendors



2023 FOG WORKSHOP

Schedule at a glance

TIME	EVENT
8:00 - 8:30 a.m.	CONTINENTAL BREAKFAST Location: Embassy Suites Lobby
8:30 - 9:20 a.m.	How Do Various Grease Interceptor Designs Actually Work? Tony Cole, Endura
9:20 - 9:30 a.m.	BREAK
9:30 - 10:20 a.m.	LIVE OUTDOOR DEMONSTRATION How to Inspect a Grease Interceptor Juan Arreguin, Monterey One Water and Ken Loucks, IW Consulting Service
10:20 - 10:50 a.m.	COFFEE WITH THE EXHIBITORS
10:50 - 11:40 a.m.	Collection System Sanitary Sewer Management Plan and FOG Reduction Jim Fischer, Fischer Compliance
11:45 a.m. - 1:00 p.m.	LUNCH P3S GRANT RECIPIENTS ALINA CONSTANTINESCU, GRANTS LEAD
1:50 - 2:40 p.m.	Collection System Grease Issues and Elements of a F.O.G. Program Samuel Mcleod, FOG BMP Software
2:40 - 2:50 p.m.	BREAK
2:50 - 3:40 p.m.	Safety and Ergonomics for Collection System Workers and Inspections Don Freeman, Occumetric
3:40 - 3:50 p.m.	BREAK
3:50 - 4:40 p.m.	“Something is Strange Here” Things That Go Wrong with Grease Traps and Interceptors Paul Prange, City of San Jose Tracy Wyhlidko, City of Redding



[REGISTER ONLINE >](#)

COVID PROTOCOLS

- If you're not feeling well, please stay home.
- CDPH strongly recommends wearing a mask.

Workshop sponsored by





2023
Northern Sacramento Valley Section
Advertising

Advertisements in the bi-monthly Northern Sacramento Valley Section (NSVS) "Barscreen Bee" newsletter may be purchased for:

- \$75 per year for a business-card size advertisement,
- \$150 per year for a half page advertisement (8.5 x 5.5 inches), or
- \$300 per year for a full page advertisement (8.5 by 11 inches).

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