



Dec 2018

# BARSCREEN BEE

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



www.nsvs.cwea.org

## CWEA Northern Sacramento Valley Section 2019 Annual Awards Banquet

Saturday, January 19, 2019

Sierra Nevada Brewery

Big Room

1075 East 20th Street

Chico, CA 95928

5:00 –8:30 pm

**\$35.00 Per Person**

5:00 No-Host Cocktails

5:30 Opening Program

6:00 Dinner

6:30 Award Presentations

7:00 Installation of Officers

7:30 Door Prizes - Of Course, Additional Prizes Always Welcome



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#### WWW.NSVS.CWEA.ORG

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

**Please RSVP by Wednesday, January 9th, 2018**

Email or Call Ryan Bailey, City of Redding  
rbailey@cityofredding.org or (530) 224-6030

Note: We are obligated to pay for every dinner reservation submitted by January  
9th. Please inform us immediately if you need to change your reservations.

**Welcome to Sierra Nevada Brewery, Saturday, January 19, 2019 5:00 pm**  
1075 East 20th Street, Chico, CA 95928 Big Room: (530) 896-2198  
Park in west parking lot please.



If you want to add a brewery tour to your schedule before the banquet, there are a variety of tour options available, with limited space. Sign up soon on the website below to get your spot! (530) 899-4776 <https://www.sierranevada.com/brewery/california/brewery-tour>

## Brewery Tour - Chico, CA

Duration: 45 minutes | Ages 12+ | Complimentary | **Reservation recommended**

On this 45-minute tour of our production facility, we will navigate the entire beer-making process in our Westside production brewhouse.

You will rub our aromatic, **whole-cone hops** in your palms, gaze in the window of our whirling mash tun and stand under our 800 barrel fermentation tanks. We will finish with an educational tasting of a few **Sierra Nevada beers**.

**BOOK BREWERY TOUR**

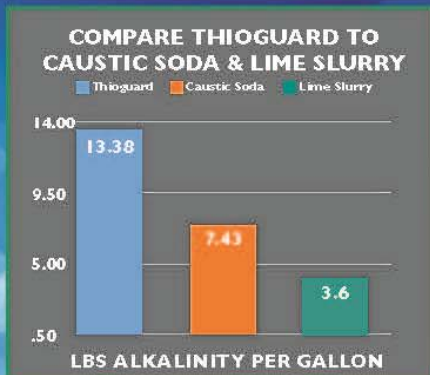
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# Training Day Report, Redding, CA, Sept 18, 2018

By Tracy Wyhlidko

We would like to thank the McConnell Foundation for providing a beautiful change of venue for CWEA training in Redding. The banquet staff was top notch in helping us prepare and serve the food and beverages during the day. The room was filled with 46 attendees.

The morning began with Nick Visconti, City of Redding Assistant Engineer presenting “Pipe Bursting for Sewer Collection Systems.” Nick explained the history of pipe bursting technology beginning in the U.K. in 1981 for gas lines and how the technology has changed to accommodate installing sewer lines. Pipe bursting is a good way to up-size sewer lines. There are pneumatic pipe bursting techniques which involve the loud percussive noise that irritate residents and there are static pipe bursting techniques which are relatively quiet. Site preparation and geo-technical reports are critical to ensure that the “heave” of the soil during the project does not disrupt any nearby utilities like water and gas lines. The most interesting part of the presentation was the way that HDPE pipe sections are “welded” together using high temperature and pressure to provide a seamless connection as strong as the original pipe.



Jessica Chandler, P.E. PACE Engineering and wastewater professor at Shasta College provided the class with “Wastewater Operator Exam Survival Tips.” Many of the tips she gave us would apply for other exams such as collection system and laboratory. She discussed the path that she took to become a certified wastewater operator and some of the “loopholes” that can reduce the time needed to achieve different grades of certification. Typical exam questions can be multiple choice, true/false, and essay. Topics can include chlorine handling, trickling filters, activated sludge, pond treatment, removal efficiencies, safety, nitrification, chlorine demand, disinfection, sludge dewatering, belt filter presses, chlorine leak response, and neutralizing a sour digester. Ms. Chandler also discussed math techniques used to calculate the F/M (food/microbe) ratio, the SVI (sludge volume index), and the MCRT (Mean Cell Residence Time), which she insisted was the most difficult problem on the test. Her tips for exam day include, “Don’t freak out; bring lots of #2 pencils; bring your exam ID letter; leave your cell phone at home or in the car; and bring a spare calculator.”



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Brian Crane and Ryan Bailey, City of Redding Public Works discussed, "When a Wildfire Comes to Town: Public Works Lessons Learned Regarding Response, Recovery, DTSC, OES, and FEMA." This presentation was valuable because the Carr Fire had burned through Redding less than two months prior to the training day. Mr. Crane summarized the fire incident as beginning on July 23<sup>rd</sup> when a vehicle trailer overheated near Whiskeytown Lake's Carr Powerhouse. The fire "blew up" three days later and burned its way across the Sacramento River and into the City of Redding, as well as devastating the towns of Old Shasta, Keswick and several other smaller communities.



Estimated fire damage at the time of the training was over \$54 million, expected to increase to over \$100 million. During the fire incident, the wildfire burned up to the fence line of the Buckeye Water Treatment plant, which lost power and ran on emergency generators for 3-4 weeks. It was difficult to get fuel to the generator during that time due to ongoing fire-fighting efforts. Luckily, the Redding Electric Utility kept the power going at the City's Pump house #1 and the Foothill Water Treatment Plant. The fire damage could have been so much worse if the City's water treatment plants had burned. The biggest damage to city utilities was the downed power lines, water meters, air relief valves that burned, and some melted



storm drain pipes. FEMA requires that the local government matches approximately 6% of the fire recovery costs, which could cost the City an unexpected \$6 million out of the anticipated \$100 million in recovery. FEMA also does not pay for any subsequent damage that might occur after the fire during the winter due to mudslides or erosion. Future municipal needs will include watershed management, erosion control, and reforestation.

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Lastly, Mark Humberstone from Misco Water introduced the group to “Ultraviolet Wastewater Disinfection Systems.” UV disinfection is not new, but its use in the area of wastewater reuse is expanding rapidly. UV disinfection has to be preceded by suspended solids treatment or filtration to ensure that the light transmittance is adequate to disinfect the wastewater. UV can be used on secondary or tertiary treated wastewater and can also treat stormwater. The heart of the system design is the UV transmittance (UVT). Drinking water has 85-90% transmittance, whereas secondary treated wastewater only has 50% UVT and tertiary wastewater has 60-70% UVT. The benefits of UV disinfection are that there are no disinfection byproducts, no corrosivity, a short 5-second contact time, and UV is highly efficient disinfecting protozoans. The drawbacks are that the UV systems are expensive and the lights have to be changed out at the end of their lifespan. The new Wedeco, Duron system has UV lights mounted at a 45° angle so they are easy to pull out for replacement and the electrical connections to the lamps are out of the water. Upstream and downstream weirs are installed to maintain the water level in the disinfection channel. Technology in ultraviolet disinfection is rapidly changing.



After the training sessions and a wonderful lunch catered by Mary’s Pizza Shack, several members attended a tour of the Stillwater Wastewater Treatment Plant. Brian Bailey led the tour for the group and introduced us to the smaller of the two WWTP’s in the City of Redding. Stillwater averages about 2 MGD and serves the eastern side of Redding.



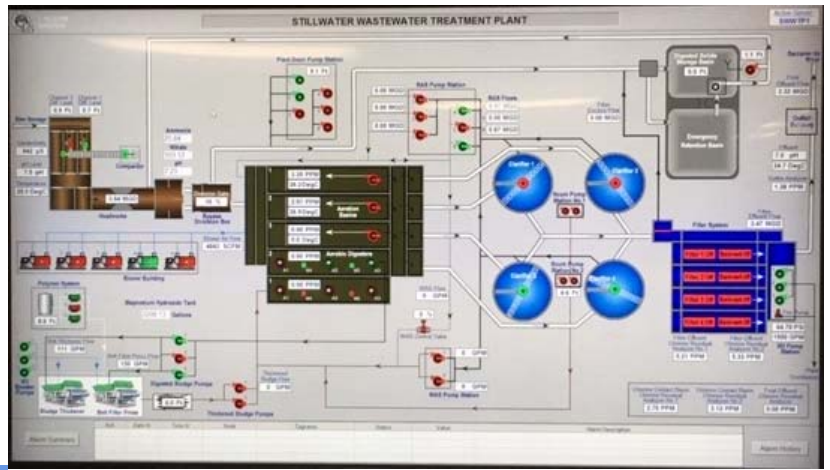
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Photos from Sept 18, 2018  
tour of the City of Redding  
Stillwater Wastewater  
Treatment Plant.



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\*Per *Engineering News-Record*, April 25/May 2, 2016, "Top 500 Design Firms" ranking.

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# NSVS Calendar of Events

- Saturday Jan 19, 2019 Dinner Banquet at Sierra Nevada Brewery, Chico, CA 5-8 pm
- Wed, Feb 13, 2019 Board Meeting
- Wed, Mar 27, Training
- Tue, Apr 16, Board Meeting
- Wed, May 22 Training
- Wed, June 19, Board Meeting
- Wed, July 17, Training
- Wed, Aug 14, Board Meeting
- Wed, Sep 11, Training
- Wed, Oct 9, Board Meeting
- Wed, Nov 13, To be determined
- Wed Dec 11, Board Meeting

Board meetings held at 11:00-1:00 p.m., Various locations. Contact [twyhliko@cityofredding.com](mailto:twyhliko@cityofredding.com) for location information. Members always welcome

See page 1 for banquet information.  
Reservations due Jan 9th





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info@basiclab.com

Posted December 10, 2018

## Wastewater Electrical/Mechanical Worker I/II

**County of Nevada, CA**

Nevada City, CA, USA Full Time

Compensation: \$50,044 to \$67,496 Annually



Posted October 24, 2018

## Deputy Safety Security Officer Lab Assistant

**El Dorado Irrigation District**

Placerville, CA, USA Full Time

Compensation: \$6,371.73 to \$7,746.27 Monthly

Posted December 12, 2018

**City of Yuba City**

Yuba City, CA, USA Full Time

Compensation: \$16.59 to \$20.17 Hourly

Posted December 19, 2018

## Operator II

**City of Colfax**

Colfax, CA, USA Full Time

Compensation: \$24.86 to \$30.20 Hourly

CalPERS Retirement, Health Benefits



Wastewater

Posted December 18, 2018

## Wastewater Treatment Lead Operator

**City of Davis**

Davis, CA, USA Full Time

Compensation: \$5,250 to \$6,382 Monthly



Posted December 17, 2018

## Environmental Specialist I/II/III (Pollution Prevention/Pretreatment Program)

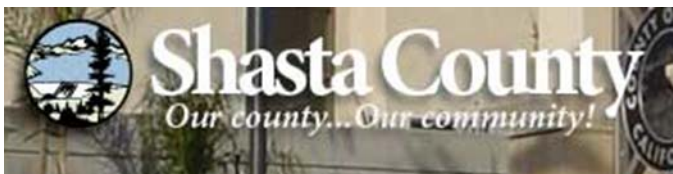
**City of American Canyon**

American Canyon, CA, USA Full Time



## MORE JOB ANNOUNCEMENTS

Shasta County Personnel Department Job Listings found at [www.co.shasta.ca.us](http://www.co.shasta.ca.us)



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<b>NEW!</b> Air Pollution Inspector I/II	Resource Management Department	Full-Time Regular	\$3,769.00 - \$5,569.00 Monthly	01/04/19
<b>NEW!</b> Road Maintenance Worker I - Extra Help	Public Works Department	Extra Help	\$2,854.00 - \$3,642.00 Monthly	12/21/18
Road Maintenance Worker II	Public Works Department	Full-Time Regular	\$3,146.00 - \$4,016.00 Monthly	12/21/18

City of Redding's Personnel Department website at [www.cityofredding.org](http://www.cityofredding.org)

### Public Works Supervisor - Water

<b>Salary</b> ⓘ	\$71,256.00 - \$100,260.00 Annually	<b>Location</b> ⓘ	Redding, CA
<b>Job Type</b>	Full-Time	<b>Department</b>	Public Works
<b>Job Number</b>	183E 864 122018		
<b>Closing</b>	1/15/2019 11:59 PM Pacific		



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