Technical Tours

Tours fill up fast. Sign up today for these fascinating site tours!

- Register early! See Registration Form on page 34.
- Buses leave from Convention Center entrance promptly at the departure time indicated.
- Tour registration may only be purchased along with either a one-day or full-conference registration.

Tours At-A-Glance

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Tour T1

City of Santa Cruz – Wastewater Treatment Facility

8:00 AM – 12:00 PM • Wednesday, April 30

The City of Santa Cruz Wastewater Treatment Facility (WWTF) treats up to 17 mgd of average dry weather flow and up to 81 mgd of wet weather flow from the City as well as from Capitola, Live Oak, Soquel, Aptos, and the University of California Santa Cruz. The treatment process includes aerated grit separation, primary clarification, trickling filters, solids contact/aeration, secondary clarification, and UV disinfection. Solids are thickened and then anaerobically digested. The WWTF’s cogeneration system burns methane gas produced by the digesters blended with purchased natural gas. The City recently completed a cogeneration system upgrade project to increase the system’s capacity and can now generate up to 1,300 kW. In combination with its 50-kW photovoltaic system, the WWTF generates approximately 58% of its annual power consumption needs.

The facility tour will include a visit to the County of Santa Cruz’s wastewater pumping station, which delivers wastewater from the County Sanitation District’s system to the WWTF. In addition to the facility tour, you will learn about the Facility Staff’s current efforts to optimize the carbon adsorption odor control system, increase plant energy efficiency, implement a new maintenance work order system, and evaluate additional options for biosolids processing and disposal. Learn why this treatment facility and its staff earned the Monterey Bay Section’s 2012 Overall Plant of the Year award and how they are continuing to look for ways to improve delivery of their services to the community.

Committee Chairs

John Mukhar, City of San Jose
Phone: 408-635-2014 • john.mukhar@sanjoseca.gov

Joe Ziemann, Water Works Engineers
Phone: 916.780.2888 • joez@wwengineers.com
Tour T2
Santa Clara Valley Water District and City of San Jose – Silicon Valley Advanced Water Purification Center
1:00 PM – 5:00 PM • Wednesday, April 30
Earn 4.8 contact hours

The Advanced Water Purification Center is an 8-mgd treatment plant that began construction in 2010; operations are expected to commence in the spring of 2014. The facility represents a partnership between the Santa Clara Valley Water District and the City of San Jose. The Advanced Water Purification Center further treats tertiary effluent from the San Jose-Santa Clara Regional Wastewater Facility via microfiltration, reverse osmosis, and ultraviolet light. The resultant purified water is expected to match California primary drinking water standards and will be blended with the existing recycled water supply produced at the neighboring San Jose-Santa Clara Regional Wastewater Facility to enhance non-potable recycled water quality and expand its usage.

The City of San Jose and the Santa Clara Valley Water District saw a huge opportunity to expand recycled water use with improved water quality and have the goal of providing a more secure and dependable water supply to the region. The enhanced blend of recycled water will help industrial users reduce operating costs, and it can be used on a wider variety of landscapes, due to a much lower level of salinity. As a result, it is expected that more customers will tap into the recycled water system. The Water District is also investigating the possibility of using purified recycled water for replenishment of groundwater basins to meet future potable water demands. Additionally, a high-tech data center in Santa Clara will soon begin using recycled water for cooling, the first data center to do so in the Bay Area. Come see the cutting edge of recycled water development in northern California.

Tour T3
Gordon Biersch Brewery – Wastewater Pre-Treatment System
9:00 AM – 12:00 PM • Thursday, May 1
Earn 3.6 contact hours

In 1997, Gordon Biersch opened a state-of-the-art brewery and bottling facility in San Jose, California, to begin bottling and distributing its famed German-style beers. The microbrew trend continues to grow, and the company is actively expanding its distribution nationwide. Since 1998, Gordon Biersch Brewing Company’s 114,000-square-foot facility with a 25,000-square-foot warehouse has more than doubled its production, increasing its capacity to 3.1 million gallons of beer annually, making Gordon Biersch Brewing Company the largest brewery in the San Francisco Bay Area.

This technical tour will include an overview of both the brewing and bottling process.

The Gordon Biersch Brewery is fully automated and is run by WinBrew, a special software program developed by Nerb Engineering in Freising, Germany. The technology allows brewers to better control the brewing environment and monitor the brewing process to ensure consistent high quality. The tour will highlight the on-site wastewater pre-treatment process and how it is integrated with the brewing process. Facility operators will discuss the facility’s interaction with the City of San Jose and its industrial wastewater pretreatment program.
**Tour T5**

**City of San Jose & City of Santa Clara – San Jose/Santa Clara Regional Wastewater Facility**

8:00 AM – 12:00 PM • Friday, May 2
Earn 4.8 contact hours

The San Jose-Santa Clara Regional Wastewater Facility is the largest advanced wastewater treatment facility in the western United States, treating an average of 110 mgd with a capacity of up to 167 mgd and serving eight cities with over 1.4 million residents. The facility’s treatment process includes screening, primary sedimentation, aeration (BNR), secondary clarification, filtration, disinfection, dechlorination, anaerobic digestion, sludge drying, and cogeneration. Wastewater is discharged to the San Francisco Bay, but efforts are being made continuously to expand the delivery and use of recycled water in the region. An overview of the South Bay Water Recycling infrastructure and operations will be given in addition to the treatment facility tour. The City of San Jose has set a goal to recycle or beneficially reuse 100% of its wastewater by 2022. The City’s vision for further developing recycled water use to meet this goal will be discussed.

Tour attendees will also learn about the facility’s upcoming rehabilitation projects. The plant was initially constructed in 1956. The cities of San Jose and Santa Clara approved a Facility Master Plan in 2011 that outlines extensive improvements needed to keep pace with population growth in the area and improve water quality in the San Francisco Bay. Tour attendees will gain insight into the multi-year master planning process and the next steps that are being taken as the transition to improvement project design and construction is being made.

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**Tour T4**

**Union Sanitary District – Collection System Operations and Maintenance**

1:00 PM – 5:00 PM • Thursday, May 1
Earn 4.8 contact hours

The Union Sanitary District (USD) provides sewer collection and treatment services to over 330,000 residents in the cities of Fremont, Newark, and Union City. This technical tour will focus on USD’s sewer collection system operation and maintenance programs and includes a visit to the District’s state-of-the-art O&M training facility. USD staff will delve into the details and strategies of their preventive maintenance programs, computerized maintenance management system, capital improvement program development process, FOG control program, and much more. Some of USD’s recent and ongoing collection system rehabilitation and replacement projects will be discussed in detail, sharing lessons learned.

Attendees of this tour will get a chance to see what one of the industry-leading agencies is doing to continuously improve the effectiveness and efficiency of its sewer collection system operations. Additionally, USD staff will discuss their recent efforts and experiences conducting Sewer System Management Plan Audits and how they have been able to effectively analyze key metrics of their operations to guide ongoing optimization of their work flow. This technical tour will facilitate attendee discussion and feedback to allow for the sharing of ideas and recent experiences around the latest developments in collection systems operations and maintenance.