

Water Quality Lab

Water quality - the prime concern

As the primary wholesale water supplier for Santa Clara County, the Santa Clara Valley Water District is dedicated to assuring a reliable supply of safe, clean drinking water.

In support of this mission, the Santa Clara Valley Water District is home to one of the most sophisticated labs dedicated to the safety of our tap water, source water and groundwater. In 2008, the water district opened a new, state-of-the-art lab, designed to house the specialized test equipment used to meet increased water-quality testing needs and respond to emerging contaminants and more stringent water quality standards.

A state-of-the-art lab

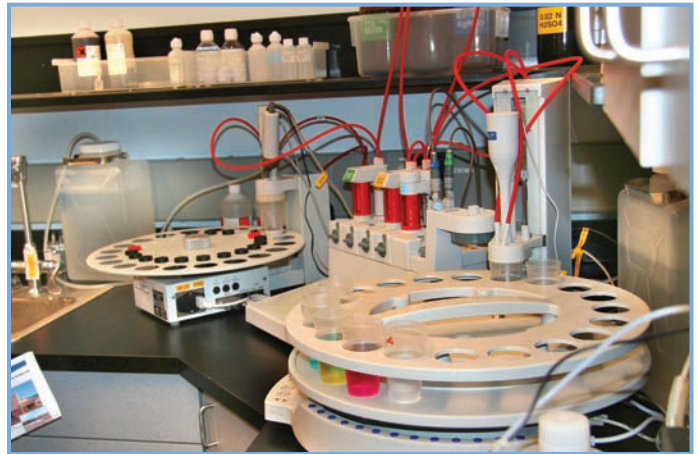
The water district is nationally recognized as a leader in water quality analysis and holds one of the highest levels of certification available from the California Department of Public Health. This state-of-the-art laboratory tests and quantifies the quality of Santa Clara County's drinking water.

The laboratory tests over 138,000 samples per-year for over 353 regulated and unregulated contaminants, including inorganic, organic and microbiological contaminants. The lab is staffed by chemists, microbiologists and support personnel to handle and analyze water samples from throughout Santa Clara County.

Overseeing safe drinking water

To ensure safe drinking water, the water quality lab tests the imported source water and local reservoir water before it arrives at the district's water treatment plants for purification. The water district upholds stringent testing standards to meet all state and federal regulations for drinking water safety. The water district is able to maintain high quality water deliveries to local water retailers by operating its own laboratory to enable technicians to quickly respond to changes in the raw source water.

The water district also has a new program to supplement the regular testing recommended for



Specialized automated testing equipment is used in the water quality lab.

all private well owners. The 2012 budget contains funding for a pilot program to provide basic water quality testing for up to approximately 1,000 South County residences served by private wells. Testing will begin in fall 2011, more specific information on this program will be available at www.valleywater.org.

Safe water in creeks and groundwater basins

The lab is also responsible for monitoring the water quality in our creeks, reservoirs and groundwater basins. Water quality tests for watershed tributaries and reservoirs include: temperature, pH, dissolved oxygen levels, bacteria, ammonia levels, nitrate levels, nitrite levels, phosphate levels, turbidity, and pesticides. The district laboratory also leads the effort to monitor other potential contaminants that could effect our treated water such as zebra mussels.

Regulatory

The district's water quality lab is accredited by the California Department of Public Health, Environmental Accreditation Lab Program and is audited every two years. Annual performance testing features a battery of blind samples that are analyzed for the identity and concentration of several hundred contaminants in each study. The district lab passes these tests with impeccable accuracy.

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The water district laboratory also teams with other agencies to provide support through the California Mutual Aid Laboratory Network and also the Federal Water Lab Alliance. These agency alliances provide a network to respond to intentional or unintentional threats to our water supply.

A "purpose-built" building

The water district's lab has been designed around state-of-the-art ventilation and isolation equipment. The \$17.5 million building is constructed as an "essential facility," with an upgraded design standard similar to hospitals, police and fire stations. The building is constructed to withstand a major earthquake, ensuring uninterrupted water quality support during an emergency situation.

Water quality by the numbers:

390,000 - The dollar cost of a new state-of-the-art mass spectrometer to detect emerging contaminants to the parts per trillion level. *

(* one part per trillion is comparable to three seconds out of one hundred thousand years, 1×10^{-12})

138,000 - The number of tests performed by the lab each year (and rising . . .).

3 - The number of water district operated drinking water treatment plants served by the water quality lab.

1 - 17 foot Boston Whaler boat used to collect samples (rain or shine) from water district reservoirs.

Monitoring recycled water

The water district lab also helps to monitor the quality of recycled water in Santa Clara County. The increased use and new standards for maintaining the quality of recycled water have added to the workload at the district lab. The new Advanced Recycled Water Treatment Plant (a joint project with the City of San José, currently under construction near Alviso) will have all of its operational and compliance testing done here at the water district.



An early photo of the water quality lab under construction showing the steel beams and concrete slab.



Specialized vent tubes (air extractors) above each work station keep fumes and odors away from water quality staff.

Contact us

For more information, contact **Jim Scott** at **(408) 265-2607, ext. 3228**, or visit our website at www.valleywater.org and use our **Access Valley Water** customer request and information system. With three easy steps, you can use this service to submit questions, complaints or compliments directly to a district staff person.

