



Zone 7 treats raw surface water imported from outside of Tri Valley via the South Bay Aqueduct at one of two water treatment plants. Our imported surface water supply originates as Sierra Nevada snowmelt and is conveyed by the State Water Project. The larger of our two treatment plants, the Del Valle Water Treatment Plant, has served the Tri Valley community since it was built in the 1970s. The plant can produce about 40 million gallons of drinking water per day. It is strategically located in the southern portion of the valley to take advantage of the higher elevation, where gravity helps distribute the water to customers without high pumping costs. The plant can also receive raw water from the nearby Lake Del Valle. The Lake is a local watershed reservoir and can also receive water from the State Water Project.

The Del Valle Water Treatment Plant was recently upgraded to install an ozone treatment process facility. The Ozonation Project, which was part of Zone 7's Capital Improvement Plan, brings best-in-class technology for disinfection to our water treatment and represents a capital investment of \$49 million, funded by bonds.

Ozone will replace chlorine as the main disinfectant at the Del Valle Water Treatment Plant, resulting in higher quality finished water provided to our customers. This investment in ozonation will improve our water by treating taste and odor impacts from algae growth, reducing chlorine-related byproducts, and destroying pathogens and other emerging contaminants of concern. It will make our water cleaner, safer and better tasting – straight from the tap.



Del Valle Water Treatment Plant

Location: Southern Livermore

Treatment Capacity: 40 million gallons per day

Treatment Processes:Ozonation,
Dual-media filtration

HOW IN THE WORLD DOES OZONE DISINFECT WATER?



Adding an electric spark to Oxygen (O_2) creates supercharged Ozone (O_3) molecules.



Contaminants in water may include bacteria, viruses, and algal byproducts that impact taste and odor.



Ozone is injected into the water as a gas at our new ozonation site in the Del Valle Water Treatment Plant.

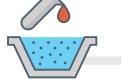
The Ozone seeks out and destroys contaminants in the water.



Ozonation leaves behind pure, high-quality water, without the byproducts left behind by other disinfectants.

The Del Valle Water Treatment Plant also uses a conventional dual-media filtration system to physically remove contaminants from surface water.

WHAT IN THE WORLD IS DUAL-MEDIA FILTRATION?





Iron or aluminum salts called coagulants are added to water containing unwanted particles.



COAGULATION

The particles then bind together or coagulate.



FLOCCULATION

Gentle mixing helps create larger particle groups called flocs.



SEDIMENTATION

The heavy flocs settle, leaving clarified water.



FILTRATION

Clarified water is pushed through sand and gravel to remove remaining sediment.



These treatment processes remove at least 90% of viruses and at least 99.7% of larger pathogens.

Zone 7 Water Quality Lab

Our state-of-the-art water quality lab is housed at the Del Valle Water Treatment Plant and run by expert water quality chemists and technicians, willing to carry the weight of the world on their shoulders – or at least the weight of Tri Valley's water. The lab is certified by the California Environmental Laboratory Accreditation Program, which includes independently verifying the lab's performance and evaluating the lab's procedures and processes through on-site audits. Our in-house monitoring frequency far exceeds regulatory requirements and typically includes testing water samples daily, weekly, monthly and quarterly. This testing process ensures we are delivering safe, high quality water to our community.





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WATER QUALITY LAB BY THE NUMBERS

5 Laboratory staff

28 Different analytical methods

113 Different contaminants tested

11.954 Water tests in 2019

- 11,203 tests by Zone 7 Water Quality Lab
- 751 tests by outside labs