



Carpinteria Valley Water District

# H<sub>2</sub>KNOW

## Is Our Tap Water Safe to Drink?

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When answering the question, "Is our tap water safe to drink?" the answer would most logically be either a yes or a no. Upon further research however, there is no easy one-word answer. There are many standards of safety to consider when thinking about drinking water because the water running through our taps must stand up to different critics. There are the standards set by our government, the federal EPA more specifically; oversight by the operators of the William B. Cater Water Treatment Plant in Santa Barbara; oversight by the water treatment operators at the Carpinteria Valley Water District; and then there are the standards that consumers have when it comes to the water they drink.

The chemistry of water makes it a great solvent meaning it naturally likes to dissolve things it comes into contact with. As our groundwater travels through our watershed it can pick up substances it flows through or over. This means that the longer it travels and the more polluted our watershed is, the more contaminants will be in our source water. The basic classes of water contaminants are inorganic contaminants, organic chemicals, biological contaminants, radioactive contaminants, and contaminants that arise after using disinfectants.

These facts may be cause for concern but there are ways that your water district handles contaminants that then ensure you stay safe. One of these ways is looking to the laws and regulations for drinking water. The US EPA guidelines for contaminants are the first standards to think about when it comes to water treatment. This means water districts must abide by a set of standards promulgated by the EPA. The EPA tests numerous possible water contaminants and then determines a safe level for continuous human consumption. This list of regulated contaminants and legal levels can be found at <http://water.epa.gov/drink/contaminants/index.cfm>

Since we have three types of water sources in our district we have to think about how each source is handled before we can determine the safety and drinkability of our water. These sources are the Santa Ynez River, the State Water Project, and our Carpinteria groundwater harvested through wells in our district. All of these sources are utilized to meet our water needs and are important and necessary to our district. The State Water Project water travels to us from Northern California, where precipitation is more abundant, to Lake Cachuma. This water gets treated at a water treatment plant before it arrives into the lake. Water from the Santa Ynez River is also stored in Lake Cachuma. Water travels from Lake Cachuma for approximately 30 miles to the Cater Water Treatment Plant to serve Santa Barbara, Montecito, and Carpinteria. Our water undergoes standard water treatment meaning the water is subject to a five step process to rid it of contaminants. This process includes coagulation, flocculation, and oxidation to make particles large enough to settle or precipitate out of water, sedimentation to remove these large particles using gravity, filtration to remove even smaller particles, and disinfection to kill microbes using chlorine. The finished product accounts for 50-70% of our district's water, the other 30-50% comes directly from our groundwater.

We are fortunate in that we have little industry in our watershed to pollute our groundwater. Since our contaminant levels are so low our well water is treated for secondary contaminants: iron and manganese. Chlorine is added in small amounts to prevent any microbial (bacterial or viral) contamination. Secondary contaminants are not harmful in the levels we naturally find them in some ground or surface water, ours included, but with the consumer in mind they are dealt with as they typically cause the water to have an off taste or color. In the case of iron, for example, it may cause stains on fixtures and in laundry while remaining at levels safe for drinking; for this reason our water district removes it from your water. The EPA mentions some secondary contaminants and gives suggestions of safe levels; the state of California then adopted these guidelines into state law. Secondary contaminants are important to the water district because even if water is safe the undesirable quality can deter the consumer from using it or be a cause for complaint.

Our water district provides us with information about our water in yearly reports that contain contaminant averages throughout the district, the suggested levels, and even the range of levels that were found throughout the year. This report is now called the Consumer Confidence Report and can be found in the water quality information section of <http://cvwd.net/>.

From the research I have done I can say that the Carpinteria Valley Water District takes all legal precautions to ensure low contaminants and water that is free and clear of off tastes and colors. So now the question is yours to answer, do you think your tap water is safe to drink?



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