



Your Water is Safe and Pure **and Our Job is to Keep it that Way**

Chlorine Use in the Public Water System

Our customers can trust that TCPUD's water is clean, safe and meets or exceeds all State and Federal drinking water standards. One of the preventative measures TCPUD takes to ensure safe water is the use of small amounts of chlorine as a disinfectant.

Use of Chlorine is One of the Most Significant Public Health Advancements of the 20th Century

Use of chlorine in drinking water in the United States began in 1908 in Jersey City, New Jersey and since its introduction has saved millions of lives. Chlorine is a highly efficient disinfectant, and is added to public water supplies to kill disease-causing pathogens, such as bacteria, viruses, and protozoans. It is documented as one of the greatest advancements in public health, eliminating life threatening diseases such as cholera, typhoid fever, dysentery, hepatitis A, as well as many other infections and illnesses. In the U.S. over **87%** of water utilities that provide groundwater as a source, disinfect or chlorinate the supply to protect their customers. **100%** of surface water sources (including Lake Tahoe) are mandated by state and federal law to be disinfected.

TCPUD uses Very Low Levels of Liquid Chlorine (sodium hypochlorite) in its Water Systems

While Tahoe groundwater is very safe, TCPUD uses small amounts of chlorine to safeguard your water as it travels through miles of pipeline from the well, to the tank, to your tap. The maximum allowable chlorine residual level allowed in drinking water by the State and EPA is 4 parts per million (ppm). The District's target chlorine residual for groundwater is 0.3 – 0.5 ppm, or only one-tenth the maximum allowable amount.

The Most Likely Contamination of Your Water Comes from Aging Water Systems

Groundwater quality in the Lake Tahoe Basin is some of the very best in the world. Contamination typically comes after it leaves the ground. Considering the age of water systems in the Basin, events or circumstances out of the District's control can happen on a regular basis such as water main breaks, failed backflow units, and cracked or leaking pipes. These occurrences significantly increase the opportunities of contamination of the drinking water as it travels from the well to your tap. By regularly using small amounts of chlorine, the District is protecting the system against contamination from these and other unpredictable or preventable events.

Chlorine Levels are Closely Monitored

Chlorine itself, in the concentrations allowed by the State and EPA for drinking water is not considered hazardous to health. However, the unintentional disinfection byproducts created when chlorine or other disinfectants react with organic matter in the water can be. The State and EPA have set maximum limits in drinking water for these byproducts. Due to the fact that TCPUD uses significantly lower amounts of chlorine and has very high quality water with very low, if any, amounts of organic matter, our required ongoing testing has never shown any byproducts detected in our treated groundwater.

Chlorine is Easy and Inexpensive to Remove

While the small amount of residual chlorine in TCPUD's water systems is not detectable by many, certain people may be more sensitive to the chlorine odor. All newer model refrigerators with water dispensers have filters that remove 100% of the chlorine. If you don't have one of these, the next most effective way to remove residual chlorine is the use of a carbon block water filter such as a Britta or PUR filter. These remove 100% of the chlorine and are very inexpensive. Either a sink attachment or refillable pitcher work well. Chlorine will also evaporate off if left in an open wide mouth container in the refrigerator overnight.

There are many great references about chlorine in drinking water, here are a few:

1. http://www.waterandhealth.org/drinkingwater/chlorination_history.html
2. <http://www.cdc.gov/healthywater/drinking/history.html>
3. <http://www.cdc.gov/healthywater/drinking/public/chlorine-disinfection.html>
4. <http://www.cfour.org/wp-content/uploads/2012/03/Disinfection-Practices.pdf>