

Truckee Donner Public Utility District

2016 WATER QUALITY REPORT

Truckee Main Water System #2910003

Truckee Donner Public Utility District (TDPUD) vigilantly safeguards its mountain groundwater supplies

Last year, your tap water met all EPA and State drinking water health standards. This document is a snapshot of the quality of water provided to customers for the 2016 calendar year. Included are details about where your water comes from, what it contains, and how it compares to State and USEPA Standards.

TDPUD is committed to providing you with the information about your water supply because customers who are well informed are the District's best allies in supporting improvements that are necessary to maintain the highest drinking water standards.

For More Information:

- About this report or the water treatment process, contact Truckee Donner Public Utility District's Senior Water Quality Technician, Julie Nelson, at (530) 582-3926.
- About water conservation and efficiency, the TDPUD has water conservation programs that will help customers save water and save money. Information can be found on the TDPUD website at www.tdpud.org, or by calling (530) 587-3896.

Customer Views Are Welcome

If you are interested in participating in the decision-making process of the Truckee Donner Public Utility District, you are welcome to attend Board meetings. The Board of Directors meets at 6:00 PM on the first and third Wednesday of each month in the TDPUD Board room located at 11570 Donner Pass Road, Truckee, California. Agendas for upcoming meetings may be obtained on our website at www.tdpud.org or from the Deputy District Clerk's office, (530) 582-3980.

*Este informe
contiene
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Tradúzcalo ó
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Where Does Our Water Come From?

Drinking water served to Truckee Donner Public Utility District customers in the Truckee system is groundwater that comes from 12 deep wells.

Each week the system is sampled for microbial quality. Because of natural filtration, the groundwater aquifer is protected from surface contamination. This gives us high quality water.

Lead and Copper

The Lead and Copper Monitoring Rule (LCMR) was established by the U.S. Environmental Protection Agency (EPA) in 1991 with the goal of reducing exposures to harmful levels of lead (Pb) and copper (Cu). According to the EPA, lead has been known to cause damage to the brain, red blood cells and the kidney, especially in children and pregnant women. Copper has been known to cause stomach and intestinal distress, liver and kidney damage, and complications of Wilson's disease in genetically predisposed individuals. The current MCL for lead (Pb) is .015 mg/L, and for copper is 1.3 mg/L. Sources of lead and copper contamination in public drinking water systems can be traced back to lead service lateral pipe materials, as well as residential plumbing that contains copper with lead based solder. Leaching of lead and copper from residential plumbing into drinking water is enhanced by the corrosive properties of the water, if not properly managed. The TDPUD water distribution system contains no lead water service laterals of which the District's staff is aware.

The LCMR initial sampling requirements call for lead and copper testing to be completed every six months. Once compliance has been established, the sampling requirements are reduced to every three years. The last sampling period for the Truckee Main System was in 2016, where all 30 of the District's sampling locations tested below the Federal Action Level for lead and copper. The next round of sampling will take place in the Summer of 2019.

Recent reports and news stories related to the lead exposures within the Flint, Michigan public water system may have generated questions or concerns regarding risks associated with local water supplies. It is important to understand that the conditions faced by Flint, Michigan and other regions are significantly different than those faced locally with respect to water chemistry and plumbing infrastructure.

If you are concerned about lead in your water, you may wish to have your water tested. Information on lead and copper in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/>.

TERMS USED IN THIS REPORT

Detected Compounds: The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. Not listed are the hundreds of other compounds for which we tested that were not detected.

Regulated Contaminants with Secondary MCLs (a): There are no PHGs, MCLGs, or mandatory standard health effects language for these constituents because secondary MCLs are set on the basis of aesthetics.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

Public Health Goal (PHG): The level of a contaminate in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk of health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Regulatory Action Level (AL) : The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Radiochemical Parameters—Compounds found in drinking water which emit radiation.

Microbial Parameters—Disease-causing organisms that, at certain levels, may be harmful. Additional information about Cryptosporidium and Giardia is supplied in this report.

Unregulated Compounds Analyzed—Unregulated Compounds Analyzed— Unregulated compounds that the Truckee Donner Public Utility District has tested for. These compounds are not known to be associated with adverse health effects.

TABLE KEY

N/D— not detectable at testing limit

ppb—Parts per billion, or micrograms per liter (ug/L) > - Greater than

N/T— not tested

ACU (Apparent Color Unit) - A measure of color in drinking water.

ppm—Parts per million, or milligrams per liter (mg/L) **µS/**

cm—Micro Siemens per centimeter

pCi/L (Picocuries per Liter) - A measure of radioactivity.

N/A—Not Applicable

Radon

Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the United States. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. You should pursue radon removal for your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call your State radon program (1-800-745-7236), the EPA Safe Drinking Water Hotline (1-800-426-4791), or the National Safety Council Radon Hotline (1-800-SOS-RADON).

No Cryptosporidium or Giardia in District Water

You may have seen or heard news reports about Cryptosporidium and Giardia, microscopic organisms that can enter surface waters from run-off containing animal wastes. If ingested, Cryptosporidium and Giardia can cause diarrhea, fever and other gastrointestinal symptoms. Because the Truckee Donner Public Utility District's water comes from deep wells rather than surface water, it is almost impossible to have these contaminants in the District's water supply.

Arsenic : While your drinking water meets the current Federal and State standards for arsenic, it does contain low levels of arsenic. The standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The USEPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Glenshire Drive Well: The Glenshire Drive Well water is blended with the Prosser Village Well and the Old Greenwood Well prior to any connection to the consumer. The well was in use from June through October in 2016. The arsenic test results at the blending point ranged from a low of 5.6 ppb to a high of 9.0 ppb with an average of 6.7 ppb. The MCL for arsenic is 10 ppb.

Source Water Assessment

A source water assessment was prepared in 2002 for the wells serving the Truckee area. The wells are considered most vulnerable to the following activities not associated with any detected contaminants: sewer collection systems, utility stations, railroads, and herbicide use. A copy of the complete assessment may be viewed at the Truckee Donner Public Utility District office located at 11570 Donner Pass Road, Truckee, CA or by calling Brian Wright at (530) 582-3957.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/ Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at 1-800-426-4791 or at <http://water.epa.gov/drink/>

GENERAL INFORMATION

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural live-stock operations and wildlife.

Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, that may come from a variety of sources such as agricultural, urban storm-water runoff and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm-water runoff, agricultural application, and septic systems.

Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	1	0	More than 2 samples in a month with a detection	0	Naturally present in the environment

TABLE 2 – DISINFECTION BYPRODUCTS

Contaminant	# Samples, Frequency	Average Level	Range	MCL (MDRL)	MCLG (MDRLG)	Typical Source of Contaminant
Chlorine Residual (ppm)	40-50 per month	0.37	0.36 - 0.38	4	4	Drinking water disinfectant added for treatment
Total Trihalomethanes (ppb)	2 on 8/10/16	6.0	4.2 - 7.8	80	N/A	By-product of drinking water disinfection

TABLE 3 – DISTRIBUTION SYSTEM CUSTOMER TAP SAMPLING FOR LEAD AND COPPER

Lead and Copper	Date Last Sampled	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	August 2016	30	3.0	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	August 2016	30	0.083	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 4 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (reporting units)	Date Last Sampled	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2016	11.9	4.4 - 29.0	N/A	N/A	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2016	64.6	37.0 - 98.0	N/A	N/A	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally-occurring

TABLE 5- UNREGULATED COMPOUNDS

Chemical or Constituent (reporting units)	Date Last Sampled	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Alkalinity (as CaCO ₃) (ppm)	2016	69	54 - 90	N/A	N/A	Naturally present in water
Bicarbonate Alkalinity (as HCO ₃) (ppm)	2016	92	66 - 110	N/A	N/A	Naturally present in water
Calcium (ppm)	2016	14	10 - 30	N/A	N/A	Naturally occurring
Magnesium (ppm)	2016	7.5	3 - 10	N/A	N/A	Leaching of natural deposits
Potassium (ppm)	2016	3.4	2 - 8.5	N/A	N/A	Leaching of natural deposits

TABLE 6 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (reporting units)	Date Last Sampled	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Inorganic Contaminants						
Arsenic (ppb)	2016	4.30	N/D - 10	10	0.004	Erosion of natural deposits
Barium (ppb)	2016	13.90	5.8 - 31	1000	2000	Erosion of natural deposits
Chromium (ppb)	2016	0.30	N/D - 1.3	100	100	Erosion of natural deposits
Fluoride (ppm)	2016	0.02	N/D - 0.06	2	1	Erosion of natural deposits
Nitrate as N (ppm)	2016	0.20	N/D-1.2	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Turbidity (NTU)	2016	0.10	N/D - 0.56	5	5	Soil runoff
Radioactive Contaminants						
Gross Alpha Particle Activity (pCi/L)	2007-2016	0.7	N/D - 4.6	15	0	Erosion of natural deposits
Radon (pCi/L)	2004	90.8	N/D -560	N/A*	N/A*	Erosion of natural deposits
*Note	The State of California does not have an MCL for Radon. The EPA has an advisory MCL of 4000 pCi/L for Radon.					

TABLE 7 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (reporting units)	Date Last Sampled	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	2016	9.8	N/D - 60	250	N/A	Leaching of natural deposits
Odor-Threshold (TON)	2016	0.8	N/D - 2	3	N/A	Naturally-occurring organic materials
pH	2016	8.1	7.8 -8.4	6.5 - 8.5	6.5 - 8.5	Leaching of natural deposits
Specific Conductance (µS/cm)	2016	191	110 - 380	1600	N/A	Substances that form ions when in water.
Sulfate (ppm)	2016	3.7	N/D - 18	250	N/A	Leaching of natural deposits
Total Dissolved Solids (ppm)	2016	133	110 - 230	500	N/A	Leaching of natural deposits