



Truckee Donner Public Utility District 2017 WATER QUALITY REPORT

Truckee Main System PWS# 2910003

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 or from the Deputy District Clerk's office, (530)582-3980.

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 our website or by calling (530) 587-3896.



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Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Water Quality

Truckee Donner Public Utility District is able to report that it has met all State and Federal drinking water standards. The data in this brochure is a snapshot of the quality of water provided to TDPUD customers for the 2017 calendar year. Included in this document are details about where your water comes from, what it contains, and how it compares to State and USEPA standards.

Truckee Donner Public Utility District is committed to providing you with 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.

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 individuals, 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 microbiological contaminants are available from the Safe Drinking Water Hotline at (800)426-4791 or <https://www.epa.gov/ground-water-and-drinking-water/safe-drinking-water-hotline>.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily derived from materials and components associated with service lines and home plumbing. TDPUD is responsible for providing high quality water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.

We conduct routine sampling for lead every three years. The last sampling was performed in 2016, where all sites tested below the Federal action level for lead. More information about lead in drinking water, testing methods, and steps you can take to minimize exposure can be found at www.epa.gov/lead.

Where Our Water Comes 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 water contamination, giving us a high quality of drinking water.

Cryptosporidium and Giardia

Since we source from deep wells, it is almost impossible to have microscopic organisms such as *Cryptosporidium* and *Giardia* in our water. If ingested, *Cryptosporidium* and *Giardia* can cause diarrhea, fever, and other gastrointestinal symptoms.



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: septic systems, drinking water treatment plants, and transportation corridors. A copy of the complete assessment may be viewed at the Truckee Donner Public Utility District office, located at 11570 Donner Pass Road, Truckee, California, or by calling Brian Wright at (530)582-3957.



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 May through September in 2017. The arsenic test results at the blending point ranged from a low of 4.7 ppb to a high of 7.5 ppb with an average of 5.9 ppb. The MCL for arsenic is 10 ppb.

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 USEPA Safe Drinking Water Hotline (1-800-426-4791), or the National Safety Council Radon Hotline (1-800-SOS-RADON).



Water Hardness

Occasionally, a water user will need to adjust an appliance, such as a dishwasher or water softener, to a particular setting based upon the hardness of the water served to their home or business.

Please use the information provided below to help with water hardness questions.

Water Softener / Appliance Setting

In 2016 testing, TDPUD had an average hardness result of 64.6 mg/L. That translates to an average of 3.8 grains per gallon. One grain per gallon equals 17.1 mg/L.

Degree of Hardness	Grains per Gallon (gpg)	ppm (or mg/L)
Soft	< 1.0	< 17.0
Slightly Hard	1.0 - 3.5	17.1 - 60
Moderately Hard	3.5 - 7.0	60 - 120
Hard	7.0 - 10.5	120 - 180
Very Hard	> 10.5	> 180

Substances That Could Be In Water

The sources of drinking water (both tap 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.

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

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 livestock operations, and wildlife;

Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can 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 agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

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

More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at (800) 426-4791.

Table Key

N/A: not applicable

N/D: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

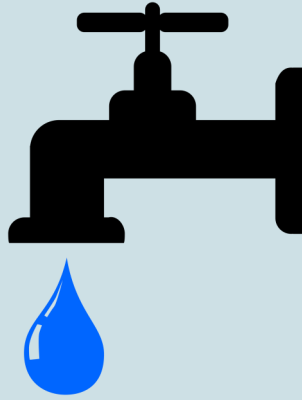
ppb: parts per billion or micrograms per liter (µg/l)

ppt: parts per trillion or nanograms per liter (ng/L)

pCi/L: picocuries per liter (a measure of radiation)

(µS/cm): micro Siemens per centimeter

(NTU): nephelometric turbidity unit (measures water cloudiness)



Definitions

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 (USEPA).

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

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 to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

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 that a water system must follow.



The data in the following tables is from the most recent monitoring done in compliance with Federal and California drinking water regulations. Some data may be more than one year old. Based upon Federal and State requirements, the monitoring interval for each constituent varies, and can be any one of the following: weekly, monthly, semi-annually, annually, biennially, or once every three, six, or nine years, or as deemed necessary by regulatory agencies.

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	0	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	0.38	0.02 - 0.48	4	4	Drinking water disinfectant added for treatment
Total Trihalomethanes (ppb)	2 on 8/23/17	8.0	7.9 - 8.1	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	Average 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	Average 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 <u>PRIMARY</u> DRINKING WATER STANDARD						
Chemical or Constituent (reporting units)	Date Last Sampled	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Inorganic Contaminants						
Arsenic (ppb)	2017	4.30	N/D - 10	10	0.004	Erosion of natural deposits
Barium (ppb)	2016	13.90	5.80 - 31	1000	2000	Erosion of natural deposits
Chromium, Total (ppb)	2016	0.30	N/D - 1.30	100	100	Erosion of natural deposits
Chromium, Hexavalent (ppb)	2017	0.70	0.10 - 1.20	10	10	Erosion of natural deposits
Fluoride (ppm)	2016	0.02	N/D - 0.06	2	1	Erosion of natural deposits
Nitrate as N (ppm)	2017	0.30	N/D - 0.70	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 <u>SECONDARY</u> 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