

Tahoe City Public Utility District 2016 Annual Water Quality Consumer Confidence Report

Terms and Abbreviations Used in This Report

(1)	Treatment Plant Turbidity results are for the McKinney Quail Water Treatment Plant only	P	Number of tests detecting presence of bacteria
A	Number of tests absent of bacteria	pCi/L	Picocuries Per Liter: Measure of radioactivity per 1 liter of water.
MCL	Maximum Contaminant Level: 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.	PDWS	Primary Drinking Water Standards. MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
MCLG	Maximum Contaminant Level Goal: 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.	PHG	Public Health Goal: 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.
MRDL	Maximum Residual Disinfection Level: 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.	PPB	Parts Per Billion: Parts contaminant for every 1 billion parts of water.
MRDLG	Maximum Residual Disinfection Level Goal: 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.	PPM	Parts Per Million: Parts contaminant for every 1 million parts of water.
NA	Not Applicable	RAA	Running Annual Average
ND	Not Detected: Indicates contaminant was not detected in the source water.	SDWS	Secondary Drinking Water Standards. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
N/R	Not Regulated or Not Required	T	Number of tests for bacteria (Laboratory analysis)
NTU	Nephelometric Turbidity Unit: Measure of water clarity using light scattering	TON	Threshold Odor Number
*	Tahoe City Well #4 sampled year is 2015	TT	Treatment Technique: A required process intended to reduce the level of contaminant in drinking water.
		Units	Number of units measured
		uS	Microsiemens: Measure of electrical current flow through a solution

To Our Valued Customers:

The enclosed information is a report of the quality and laboratory analysis of the drinking water that we delivered to you over the calendar year 2016. The Tahoe City Public Utility District (TCPUD) is pleased to report that all systems, with the exception of Alpine Peaks, met all USEPA and State drinking water health standards. Alpine Peaks customers can refer to Page two for information on the temporary exceedance of Total Coliform, for which they have already been notified. On pages two and three you will find a table containing all detected contaminants in the water as well as general information on water quality, lead and copper sampling results, and different health effect language for various contaminants. Page four has a map showing sources and basic system locations as well as system identification information. This report can also be viewed at our website at: www.tahoecitypud.com/ccr/current.pdf.

While TCPUD water is classified as either treated surface water or groundwater, it is important for you to understand all potential sources of drinking water. 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 (1-800-426-4791). 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, persons 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 (1-800-426-4791).

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:

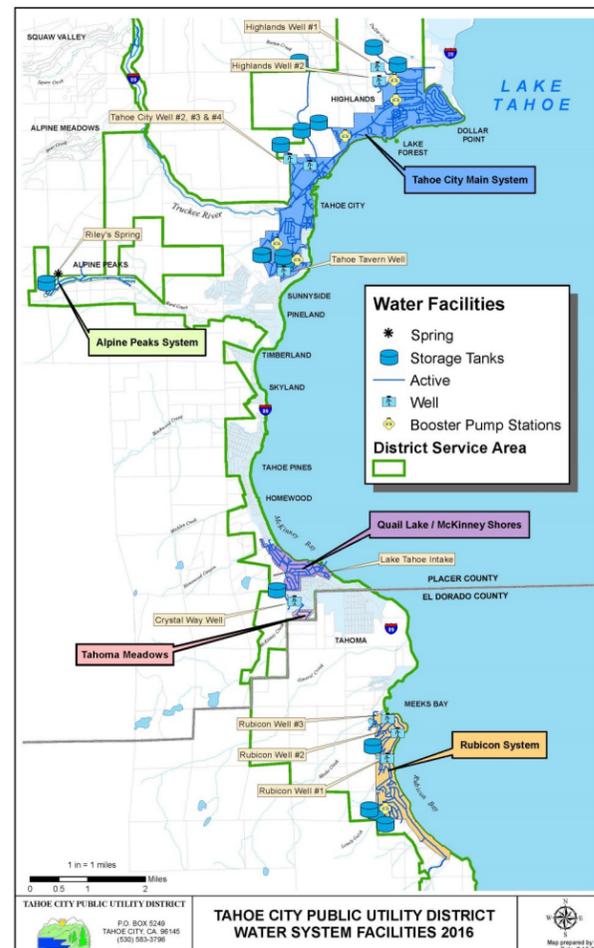
- Microbial contaminants such as viruses and bacteria that may come from sewage treatment plants, septic systems and wildlife.
- Inorganic contaminants such as salts and metals that can be naturally occurring or result from storm water runoff.
- Pesticides and Herbicides which may come from a variety of sources such as storm water runoff and residential use.
- Organic chemical contaminants including synthetic and volatile organic chemicals that may be byproducts of industrial processes, gas stations, storm water runoff, and septic systems.
- Radioactive contaminants which can be naturally occurring or be the result of mining activities.

In order to insure that tap water is safe to drink, USEPA and the State Water Resource 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 possible contaminants in bottled water that provide the same protection for public health. This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2016. All water systems are required to comply with the state Total Coliform Rule. Beginning April 1, 2016, all water systems are also required to comply with the federal Revised Total Coliform Rule. The new federal rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbes (i.e., total coliform and E. coli bacteria). The U.S. EPA anticipates greater public health protection as the new rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system.

Should you have any questions on this report please call the Utilities Superintendent, Dan Lewis, at (530) 580-6330 or the Safe Drinking Water Hotline at (800) 426-4791 or on their website <http://water.epa.gov/drink/standards/hascience.cfm>. For general district info, expressing your views, or participating in the decision making process of the TCPUD please attend any or all of our Board of Directors meetings. The District Board of Directors meeting schedule and agendas are available on our website www.tcpud.org or may be requested from the District Clerk's office at (530) 580-6052.

Where does your water come from?

All of the drinking water supplied to each water system, with the exception of the Quail Lake/McKinney Shores system, is classified as groundwater. Sources include wells and springs drilled deep into the ground, providing clean, high quality water that consistently meets all standards without significant treatment. The Quail Lake/McKinney Shores water system is comprised of both a treated surface water source and a groundwater source. The Tahoe City Main system serves all residents from Dollar Point south to the Tahoe Tavern area. The Alpine Peaks system serves the area of Alpine Peaks only. The Quail Lake/McKinney Shore system serves the area of Chamberland, Chambers Landing, McKinney Shores, Moana Circle, and Tahoma Meadows area. Lastly, the Rubicon system serves the areas of Meeks Bay south to Bliss State Park. A Source Water Assessment for each active source was completed in 2003. The source(s) are considered most vulnerable to the following activities not associated with any detected contaminants: Sewer Collection Systems, Surface Water, Above Ground Storage Tanks, Transportation Corridors, Historic Gas Stations, and Water Supply Wells. There have been no contaminants detected in the water supply, however the sources are still considered vulnerable to the activities located near the drinking water source. Well construction and security measures should provide protection from most contaminating activities. Copies of all source water assessments are available for review at the TCPUD offices during regular business hours. Upon request, copies can be sent to individuals by contacting the Utilities Superintendent at (530) 580-6330.



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

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. If a substance or contaminant is not listed, it is either not detected above the detection limit in our sources or not required to be reported or sampled.																			
Identify your system >				Tahoe City Main						Alpine Peaks	Quail Lake / McKinney Shores		Rubicon System			Violation	Major Origins in Drinking Water		
Contaminant (Units)	Sample Year	MCL	PHG (MCLG)	Highlands Well #1	Highlands Well #2	T.C. #2 Well	T.C. #3 Well	T.C. #4 Well*	Tahoe Tavern Well	Riley's Springs	Lake Tahoe Intake	Crystal Way Well	Rubicon Well #1	Rubicon Well #2	Rubicon Well #3				
Primary Drinking Water Standards (PDWS)																			
Arsenic (ppb)	2014	10	4	4.7	2.9	ND	3.1	9.9	ND	ND	ND	ND	ND	ND	ND	NO	Erosion of natural deposits		
Nickel (ppb)	2014	100	12	20	20	20	21	ND	20	20	ND	ND	ND	ND	ND	NO	Erosion of natural deposits		
Secondary Drinking Water Standards (SDWS)																			
Calcium (ppm)	2014	N/A	N/A	7.6	7.5	12.3	10.2	N/A	16.7	10.1	7.9	11	8.8	10.2	8.1	N/A	Leaching from natural deposits		
Chloride (ppm)	2014	500	N/A	0.5	0.6	0.5	0.3	ND	ND	0.2	1.8	0.3	0.3	3.0	1.1	NO			
Odor (TON)	2014	1	3	ND	ND	ND	2	0	ND	ND	ND	ND	ND	ND	ND	NO	Naturally-occurring organic materials		
Sodium (ppm)	2014	N/R	N/R	14.6	11.6	5.0	5.2	6.2	5.3	2.9	6.0	4.4	6.6	6.7	5.4	N/A	Leaching from natural deposits		
Specific Conductance [E.C.] (uS)	2014	1600	N/A	215	189	164	160	120	217	115	99.2	119	111	127	78.8	NO	Substances that form ions when in water		
Sulfate (ppm)	2014	500	N/A	1.3	0.9	1.7	3.6	4.8	0.8	ND	1.7	0.5	ND	ND	5.4	NO	Runoff/leaching from natural deposits		
Total Alkalinity [as CaCO3] (ppm)	2014	N/A	N/A	93.5	87.3	69.3	66.7	N/A	93.7	53.0	45.3	54.6	44.8	47.6	38.9	NO	Leaching from natural deposits		
Total Dissolved Solids (ppm)	2014	1000	N/A	72	80	83	98	88	125	84	65	96	38	92	16	NO	Erosion of natural deposits		
Total Hardness [as CaCO3] (ppm)	2014	N/A	N/A	44	41	59	51	N/A	74	39	29	43	30	35	23	N/A	Leaching from natural deposits		
Treatment Plant Turbidity (1)	2016	TT=95% of samples ≤ 0.5 NTU		N/A	N/A	N/A	N/A	N/A	N/A	N/A	100% ≤ 0.5 NTU		N/A	N/A	N/A	NO	Movement of sediments and minute deposits		
Turbidity (NTU)	2014	5	N/A	0.25	0.45	0.17	0.23	N/A	0.19	0.16	0.19	0.13	0.15	0.55	0.15	NO			
Zinc (ppm)	2014	5	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.15	NO	Runoff/leaching from natural deposits		
Radiological Monitoring																			
Radon 222 (pCi/L)	2003	N/A	N/A	547	1190	NS	1230	N/A	1120	613	3360	465	613	513	422	N/A	Erosion of natural deposits		
Disinfection Byproducts and Disinfectant Residuals																			
Total Trihalomethanes [TTHM] (ppb)	2016	80	N/A	ND						N/R	7.51		ND			NO	Byproduct of drinking water chlorination		
Haloacetic Acids [HAA5] (ppb)	2016	60	N/A	ND						N/R	9		ND			NO			
Chlorine (ppm)	2016	4(MRDL)		4(MRDLG)		RAA: 0.39, RANGE: 0.12-0.55						N/A	RAA: 0.43 RANGE: 0.13-0.96		RAA: 0.37, RANGE: 0.04-0.60			NO	Drinking water disinfectant added for treatment
Microbiological Monitoring																			
Total Coliform (P / A)	2016	1	(0)	156T / 156A / 0P						45T / 41A / 4P		36T / 36A / 0P			24T / 24A / 0P		Yes (B)	Naturally present in the environment	
E-Coli (P / A)	2016	1	(0)	156T / 156A / 0P						45T / 45A / 0P		36T / 36A / 0P			24T / 24A / 0P		NO	Human and Animal Fecal Waste	

Lead and Copper Sampling Results							
Water System	Constituent	Year Sampled	# of Sites Sampled	90th % Results	# of Sites Exceeding Action Level	Action Level	PHG
Tahoe City Main	Lead (ppb)	2016	20	1.20	0	15	0.2
	Copper (ppm)		20	0.11	0	1.3	0.3
Alpine Peaks	Lead (ppb)	2014	5	1.1	0	15	0.2
	Copper (ppm)		5	0.07	0	1.3	0.3
McKinney Quail	Lead (ppb)	2015	11	5.7	0	15	0.2
	Copper (ppm)		11	1.2	0	1.3	0.3
Rubicon	Lead (ppb)	2015	10	6.9	0	15	0.2
	Copper (ppm)		10	0.74	0	1.3	0.3
Typical Sources:	Lead: Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits						
	Copper: Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives						

B. **Note for Alpine Peaks System:** Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments. During the past year we were required to conduct one Level 1 assessment which was completed which did not identify any definitive cause and corrective actions. However, the District did perform several preventative corrective actions based on potential causes for the presence of total coliforms.

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Health Effects and General Information

Lead: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and your children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. TCPUD is responsible for providing high quality drinking 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. If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. Information on lead 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/lead>.

Radon: Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the U.S. 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 on Radon Hotline (1-800-767-7236).

Arsenic: While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency 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.