

South Tahoe Public Utility District CONSUMER CONFIDENCE REPORT 2019



IS MY WATER SAFE? Yes. Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. The South Tahoe Public Utility District vigilantly safeguards its water supplies and we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

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. EPA/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 USEPA's Safe Water Drinking Hotline (1-800-426-4791).

WHERE DOES MY WATER COME FROM? There are 11 active drinking water wells and 4 standby wells which supply more than 14,000 homes and businesses. All our drinking water is pumped from underground aquifers. No water is taken from Lake Tahoe or any other surface water source.

SOURCE WATER ASSESSMENT AND

PROTECTION The District's Groundwater Management Plan (California Water Code Section 10750) was adopted on December 4, 2014 and is on file with the California

Department of Public Health (CDPH). You may view the document by visiting the District's website at www.stpud.us or by requesting a copy by calling Customer Service at 530-544-6474.

The District has an ongoing drinking water source development program that seeks potential drinking water well locations. Due to the volume of the average annual Sierra snowpack and Lake Tahoe itself, our aquifer has a significant recharge capability. The District continues to work diligently to protect and maintain this precious natural resource.

WHY ARE THERE CONTAMINANTS IN MY 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 Environmental Protection Agency's (EPA) 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. Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. Inorganic contaminants, such as salts and metals, 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, 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, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems. Radioactive contaminants, 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 United States Environmental Protection Agency (USEPA) and the California Department of Public Health (DPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

HOW CAN I FIND OUT MORE? The information contained in the Consumer Confidence Report may not answer all the questions you may have about the quality of the South Tahoe Public Utility District's drinking water supply. The District welcomes public participation in developing water quality policy. If you would like more detailed information, please call the District Laboratory at 530-544-6474 extension 6231, or check our website at www.stpud.us.

The District is governed by an elected five-member Board of Directors. Board meetings are held on the first and third Thursday of each month at 2 p.m. at the Customer Service Facility located at 1275 Meadow Crest Drive. All meetings are open to the public and the District

encourages our customers to attend, ask questions, and provide feedback.

RESULTS OF RADON MONITORING Radon is a radioactive gas that cannot be seen, tasted or smelled. 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. Fix 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 aren't too costly. For additional information, call your state radon program or call EPA's Radon Hotline (800-SOS-RADON).

RESULTS OF VOLUNTARY MONITORING

See data sheets.

REGARDING ARSENIC Arsenic is a naturally occurring substance that is sometimes found at very low levels in drinking water, primarily groundwater. The South Tahoe Public Utility District has an active Arsenic monitoring program, as well as a pilot Arsenic removal system in one of its wells.

WATER QUALITY DATA TABLE The table below lists all of the drinking water contaminants which we detected which are applicable for the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data

presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

ADDITIONAL CONTAMINANTS In an effort to insure the safest water possible, the State has required us to monitor some contaminants not required by Federal regulations. Of those contaminants only the ones listed on the last page under "Additional Contaminants" were found in your water.

IMPORTANT DRINKING WATER DEFINITIONS

MCL Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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 allow for a margin of safety.

MPL Maximum Permissible Level: As determined by the state of California

MRDL Maximum Residual Disinfectant 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.

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.

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

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

	MCLG/PHG OR MRDLG	MCL OR MRDL	AVERAGE	MIN	MAX	SAMPLE DATE	VIOLATION	TYPICAL SOURCE
MICROBIOLOGY								
A total of 1,042 Coliform and E.coli bacteria samples taken throughout our distribution system, as part of our routine monitoring, in 2019.								
Total Coliforms (% Positive each month)	0	5	0	0	0	2019	No	Naturally present in environment
E.coli (% Positive)	0	0	0	0	0	2019	No	Human and animal fecal matter
Heterotrophic Plate Count or HPC (CFU)	200	NA	ND	ND	31	2019	No	Naturally present in environment
Temperature - System (°F)	NA		50	37	81	2019	No	
Turbidity (NTU) The Turbidity limit for the highest single measurement.	1	5	0.16	0.04	0.44	2019	No	Soil runoff
INORGANIC CONTAMINANTS								
Arsenic (ppb)	0.004	10	3.1	ND	8.0	2019	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Fluoride (ppm)	1	2	ND	0.08	0.16	2019	No	Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	0.20	0.03	0.61	2019	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (ppm)	NA	NA	12.0	5.0	29.0	2019	No	Erosion of natural deposits; Leaching
RADIONUCLIDES								
Gross Alpha (pCi/L), minus Uranium		15	1.7	ND	2.3	2019	No	Erosion of natural deposits
Uranium (pCi/L)	0.43	20	4.6	ND	15.1	2019	No	Erosion of natural deposits
Radium-226 (pCi/L)	0.05		ND	ND	0.9	2019	No	Erosion of natural deposits
Radium-228 (pCi/L)	0.019		ND	ND	ND	2019	No	Erosion of natural deposits
Radium-226 + Radium-228 (pCi/L)		5	ND	ND	0.9	2019	No	Erosion of natural deposits
Radon (pCi/L)	NA	4,000	1,200	280	3,300	2019	No	Erosion of natural deposits
VOLATILE ORGANIC CHEMICALS								
MTBE [Methyl Tert Butyl Ether] (ppb)	5	13	ND	ND	ND	2019	No	Leaking underground fuel storage tanks
Total Trihalomethanes (ppb)	NA	80	2.7	ND	10.0	2019	No	By-product of drinking water disinfection
HaloAcetic Acids (ppb)	NA	60	0.3	ND	1.9	2019	No	By-product of drinking water disinfection
1,2,3-TCP (ppb)	0.0007	0.005	ND	ND	ND	2019	No	By-product of drinking water disinfection

INORGANIC CONTAMINANTS	MCLG/PHG	AL	90TH PERCENTILE	SAMPLE DATE	# SAMPLES EXCEEDING AL	EXCEEDS AL	TYPICAL SOURCE
Lead - action level at consumer taps (ppb)	ND	15	1.9	2017	1	No	Corosion of household plumbing systems; Erosion of natural deposits
Copper - action level at consumer taps (ppb)	ND	1,300	144	2017	0	No	Internal corosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

ADDITIONAL CONTAMINANTS	UNITS	STATE MCL	AVERAGE	MAXIMUM	VIOLATION	SAMPLE DATE	COMMON SOURCE
Alkalinity - Total	ppm	NA	52.0	67.1	No	2019	Erosion of natural deposits
Aluminum	ppb	1,000	ND	ND	No	2019	Erosion of natural deposits
Asbestos (fibers exceeding 0.01mm)	MFL	7	ND	ND	No	2015	Erosion of nat deps/industrial discharge
Barium	ppb	1,000	12	45	No	2019	Erosion of natural deposits
Bromide	ppm	NA	0.01	0.02	No	2019	Erosion of natural deposits
Calcium	ppm	NA	13.1	20.2	No	2019	Erosion of natural deposits
Carbon Dioxide, Free	ppm	NA	10.9	37.9	No	2019	Naturally occuring
Chloride	ppm	500	10.6	66.7	No	2019	Erosion of natural deposits
Chlorine, Free	ppm	4	0.56	1.1	No	2019	By-product of disinfection process
Chromium	ppb	50	ND	1.1	No	2019	By-product of disinfection process
Chromium 6	ppb	NA	0.42	1.3	No	2015	Erosion of nat deps/industrial discharge
Color	Units	15	ND	ND	No	2019	Naturally occurring organic materials
Copper	ppb	1,000	2.3	3.7	No	2019	Old plumbing/erosion of natural deposits
Dissolved Solids, Total	ppm	1,000	97	214	No	2019	Erosion of natural deposits
Electrical Conductance	µS/cm	1,600	139	326	No	2019	Erosion of natural deposits
Hardness	ppm	NA	45	82	No	2019	Erosion of natural deposits
Iron	ppb	300	ND	27	No	2019	Erosion of natural deposits
Lead	ppb	15	ND	ND	No	2019	Old plumbing/erosion of natural deposits
Magnesium	ppm	NA	2.5	6.5	No	2019	Erosion of natural deposits
Manganese	ppb	50	ND	8.9	No	2019	Erosion of natural deposits
Mercury	ppb	2	ND	ND	No	2019	Erosion of natural deposits
Nickel	ppb	100	ND	ND	No	2019	Erosion of natural deposits
Odor-Threshold	Units	3	ND	ND	No	2019	Naturally occurring organic materials
Perchlorate	ppb	6	ND	ND	No	2019	Industrial discharge
ortho-Phosphate, as P	ppm	NA	0.04	0.15	No	2019	Erosion of natural deposits
Phosphorus - Total	ppm	NA	0.04	0.15	No	2019	Erosion of natural deposits
pH	Units	NA	7.6	6.4 and 9.2	No	2019	Erosion of natural deposits
Potassium	ppm	NA	1.5	4.6	No	2019	Erosion of natural deposits
Selenium	ppb	50	ND	ND	No	2019	Erosion of natural deposits
Silver	ppb	100	ND	ND	No	2019	Erosion of natural deposits
Sulfate	ppm	500	3.2	5.4	No	2019	Erosion of natural deposits
Thallium	ppb	2	ND	ND	No	2019	Erosion of natural deposits
Vanadium	ppb	NA	4.0	6.7	No	2019	Erosion of natural deposits
Zinc	ppb	5,000	ND	ND	No	2019	Runoff/leaching from natural deposits

UNIT DESCRIPTIONS

µg/L: Micrograms per Liter, or parts per billion

mg/L: Milligrams per liter or parts per million

ppm: Parts per million, or milligrams per Liter (mg/L)

ppb: Parts per billion, or micrograms per Liter (µg/L)

pCi/L: Picocuries per Liter (a measure of radioactivity)

MFL: Million Fibers per Liter, used to measure asbestos concentration

NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water.

CFU/ml: Colony Forming Units per milliliter

NA: Not Applicable

ND: Not Detected

SOCs (Synthetic Organic Compounds) are man-made carbon based chemicals. They are used as pesticides, defoliant, fuel additives and as ingredients in the manufacture of many other compounds. Some of the more well known ones include PCBs, Atrazine, Florene, Dioxins and Caffeine. SOC's health effects include damage to the nervous system and cancer risks. The District last tested for these chemicals in 2018.

SOC RESULTS	AVERAGE	MINIMUM	MAXIMUM	SAMPLE DATE
EPA 505 - Organochlorine Pesticides/PCBs	ND	ND	ND	11/2018
EPA 515.4 - Chlorophenoxy Herbicides	ND	ND	ND	11/2018
EPA 551.1 - EDB/DBCP/HAN	ND	ND	ND	11/2018
EPA 525.2 - Semivolatiles	ND	ND	1.3 ppb*	11/2018
EPA 548.1 - Endothall	ND	ND	ND	11/2018
EPA 1613B - 2,3,7,8-TCDD_Dioxin	ND	ND	ND	11/2018
EPA 547 - Glyphosate	ND	ND	ND	11/2018
EPA 531.2 - Aldicarbs	ND	ND	ND	11/2018
EPA 549.2 - Diquat and Paraquat	ND	ND	ND	11/2018
EPA 524M-TCP - 1,2,3-Trichloropropane	ND	ND	ND	11/2018

*1.3 parts per billion Di(2-Ethylhexyl)phthalate) MCL = 4 parts per billion

ADDITIONAL MONITORING As part of an on-going evaluation program called **UCMR** (Unregulated Contaminant Monitoring Rule), the EPA requires us to monitor a number of additional contaminants/chemicals. Information collected through this monitoring provides information for future decisions on drinking water standards.

UCMR-3 STPUD was required to monitor our source water for 28 chemical contaminants. The first round was completed in August 2014 and the second round in February 2015. In the absence of identifiable industrial sources, these contaminants are naturally occurring in our watershed. Chlorate is an exception and is a degradation product of the disinfectant used by the District for drinking water.

UCMR-3 RESULTS	UNITS	AVERAGE	MINIMUM	MAXIMUM	SAMPLE DATE
Chlorate	ppm	0.083	ND	0.440	2/2015
Chromium, Total	ppb	0.52	ND	1.30	2/2015
Chromium-6	ppb	0.43	0.09	1.10	2/2015
Cobalt	ppb	ND	ND	ND	2/2015
Molybdenum	ppb	13.8	ND	65	2/2015
Strontium	ppb	124	15	330	2/2015
Vanadium	ppb	3.6	ND	13	2/2015

UCMR-4 In this round of UCMR, STPUD was required to monitor for 18 chemical contaminants, as well as the Total Organic Carbon (TOC) content in our Source Water. The first round was completed in January 2019 and the second round in July 2019. These contaminants included metals like Germanium, volatile Pesticides and their byproducts such as alpha-HCH, volatile Alcohols like 1-Butanol and Tar/Oil byproducts like Quinoline.

We also tested our Distribution System for 9 Disinfection byproducts collectively known as Haloacetic Acids (HAA9).

UCMR-4 RESULTS	UNITS	AVERAGE	MINIMUM	MAXIMUM	SAMPLE DATE
Total Haloacetic Acids HAA9	ppb	0.5	ND	4.2	1/2019, 7/2019
TOC	ppm	0.3	ND	0.5	1/2019, 7/2019
Germanium	ppb	ND	ND	ND	1/2019, 7/2019
alpha-HCH	ppb	ND	ND	ND	1/2019, 7/2019
Quinoline	ppb	ND	ND	ND	1/2019, 7/2019
1-Butanol	ppb	ND	ND	ND	1/2019, 7/2019