



## NORTH TAHOE PUBLIC UTILITY DISTRICT ANNUAL WATER QUALITY CONSUMER CONFIDENCE REPORT FOR 2016

**To Our Customers:** This report contains important information about your drinking water.

Este informe contiene información muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuníquese con alguien que pueda traducir la información.

### Where does my water come from?

The North Tahoe Public Utility District services nearly 3,927 connections. These connections include single family dwellings and business establishments, as well as separate irrigation and fire systems. The District operates three separate and independent water systems: Dollar Cove, Carnelian Bay, and the Tahoe Main system, comprised of Tahoe Vista, Kings Beach, and Brockway to the Nevada State Line. Dollar Cove is currently being supplied through the Tahoe City Public Utility District's Tahoe City system, by agreement of a joint well drilling project of the two Districts that is comprised of five separate wells (groundwater sources). Carnelian Bay draws its water from a single well (groundwater source). The Tahoe main water system draws water from Lake Tahoe (surface water source) through an intake at the end of National Avenue in Tahoe Vista, as well as a single well (groundwater source) located in the North Tahoe Regional Park at the top of Donner Road. These combined sources supplied just under 375 million gallons of water to our customers in 2016.

### How can I keep our drinking water safe and clean?

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 (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 in the environment it dissolves naturally occurring minerals, pick up substances from the presence of animals or human activity, and even radioactive material, in some cases. **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 result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming. **Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; **Organic chemical contaminants**, including synthetic and **Volatile Organic chemicals**, that are byproducts of industrial process and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; **Radioactive contaminants**, which 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, EPA and the Calif. Dept. of Public Health, Division of Drinking Water and Environmental Management (Department), prescribe regulations that limit the amount of certain

contaminants in water provided by public water systems. We treat our water according to their regulations. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

### **Why are there contaminants in my drinking water?**

The drinking water that the District treats and provides for its customers comes from wells as well as the open water of Lake Tahoe. Many people don't see the link between the water you drink and the items that are put into the sewer system, but when people dispose of their waste incorrectly it threatens the safety of our drinking water as well.

In the Tahoe basin, our storm drain system does not put runoff into the sewer system like so many other communities in this country. Most of the storm drains actually drain directly into the Lake! In addition to protecting our sewers, it is also extremely important that under no circumstances may substances be put directly into the storm drain.

Most liquid and automotive waste (oil, old gasoline) can be disposed of during one of the hazardous waste disposal days provided by Placer County and Tahoe Truckee Sierra Disposal at the Eastern Regional Landfill on Cabin Creek Road off Highway 89.

### **About our Coliform Violations: Carnelian Bay System**

\* About our Coliform / E-Coli False Test: A routine sample collected on September 20, 2016, tested positive for total coliform bacteria but absent for E. coli. The lab notified the North Tahoe Public Utilities District (District) of this results on September 21, 2016, following the completion of the test, and the District collected four repeat samples on September 22, 2016, including a sample from our active well source. Two repeat samples tested positive for total coliform bacteria, and the District began chlorinating the water and flushing the water mains. On September 23, 2016, five additional samples were collected. The District was notified by the lab that all five samples tested absent for total coliform bacteria, indicating that the problem had been corrected.

### **For Your Information**

**Our Board of Directors** meets on the second Tuesday of each month at the North Tahoe Event Center. We encourage participation in these meetings. For meeting times and agendas please contact the District's main office, (530) 546-4212, or visit our website [www.ntpud.org](http://www.ntpud.org)

**To obtain specific water quality or watershed data** contact Michael Warren, Water Quality Technician at (530) 546-4212 ext. 5452, or [mwarren@ntpud.org](mailto:mwarren@ntpud.org). Visit [www.ntpud.org](http://www.ntpud.org) to find more information.

### **Source water assessment and its availability**

Our most recent watershed sanitary survey (Lake Tahoe) update is 2009. Although the North Tahoe Basin sewage flows to Truckee and is treated, domestic sewage and wastewater disposal and collection are potentially contaminating activities (PCA) of key concern. Summer recreation on the lake is another PCA of key concern. The District does not have direct regulatory control or enforcement over the Lake Tahoe watershed. We rely on the regulatory powers of the Tahoe Regional Planning Agency (TRPA) and Lahontan Regional Water Quality Control Board (RWQCB).

## Water Quality Data

These system tables list all the drinking water contaminants that were tested for during the 2016 calendar year. The presence of these 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 January 1—December 31, 2016. 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. See the last page for Terms and Abbreviations used in the report.

## 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 **Safe Drinking Water Hotline (800-426-4791)**.

## Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The North Tahoe Public Utility District 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 running your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Capture and use this water for household or garden plants. If you are concerned about lead in your water, you may wish to have your water tested. 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/safewater/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 on most cases would be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can cause 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).

## Voluntary Water Conservation Measures in Effect

In order to meet the State's water waste prevention requirements and to help the District achieve the State's 20% by 2020 mandate, the North Tahoe Public Utility District is continuing its water conservation program. This program includes rebates for low water use irrigation controllers, appliances, faucets and shower heads; free water conservation supplies; as well as tips on how to conserve. To find out more about any of these programs, visit our website at [www.ntpud.org/conservation](http://www.ntpud.org/conservation).

We encourage residents to check the website regularly, sign up to receive email updates to keep you up to date on water conservation and other items of interest and follow us on social media!

Voluntary recommendations for our customers include:

- Avoid Use of potable water on outdoor landscapes during and within 48 hours after measurable snow and/or rainfall
- Avoid Serving drinking water other than upon request in eating and drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars or other public places where food or drink are served and/or purchased
- Hotels and motels shall provide guests with the option of choosing not to have towels and linens laundered daily.
- Avoid Application of potable water to driveways and sidewalks.
- Avoid Application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots or structures.
- Avoid Use of a hose that dispenses potable water to wash a motor vehicle, except where the hose, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use.
- Avoid Use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculating system.



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**Detected Compounds**

The State allows us to monitor 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 limit or not required to be sampled.

Contaminant (UNITS)	Sample Year	Identify your system >		Tahoe Main System #33110001		Carnelian Woods System #3110023 Groundwater Park Well	Dollar Cove System #3110036 Groundwater Tahoe City PUD	Tahoe City PUD water supply to NTPUD consists of Highlands Well #1 #2, T.C. Well #2 #3, Tahoe Tavern Well	
		MLC	PHG (MCLG)	Lake Tahoe Ave	Nat'l Groundwater Park Well			Violation	Major Source in Drinking Water
<b>Primary Standards</b>									
Arsenic (ppb)	2016	10	0.004	ND	NR	NR	(2014)4.7/2.9/ND/3.1/ND	NO	Erosion of natural deposits
Nickel (ppb)	2016	100	10	ND	ND	ND	(2014)20/20/20/21/20	NO	Erosion of natural deposits
<b>Microbiological Monitoring</b>									
Total Coliforms ( T / A / P )	2016	1	( 0 )	159T / 159A / OP		21T / 21A / 3P*	156T / 156A / OP	NO	Naturally Present in the environment
E-Coli ( T / A / P )	2016	1	( 0 )	159T / 159A / OP		21T / 21A / OP	156T / 156A / OP	NO	Human and Animal Fecal Waste
<b>Radioactive</b>									
Radon 222 (pCi/L)	2003	N/A	N/A	NR	NR	NR	547/1190/NS/1230/1120	N/A	Erosion of natural deposits
Radium 228 (pCi/L)	2012	5	0.019	ND/0.000	NR	NR	NR	NO	Erosion of natural deposits
Gross Alpha (pCi/L)	2013	15	(0)	ND	ND	ND	NR	NO	Erosion of natural deposits
<b>Inorganic</b>									
Nitrate - As N (ppm)	2016	1(AS-N)	1(AS-N)	ND	ND	ND	NR	NO	Runoff & leaching from fertilizers, septic tanks, sewage
Nitrite - As NO3 (ppm)	2016	45 (NO3)	45 (NO3)	ND	ND	ND	NR	NO	Runoff & leaching from fertilizers, septic tanks, sewage
Perchlorate (ppb)	2016	0.006	6	ND	ND	ND	NR	NO	Production of matches, flares, explosives, pyrotechnics
Aluminum (ug/L)	2016	1000	600	ND	ND	ND	NR	NO	Erosion of natural deposits
Antimony	2016	6	1					NO	Discharge from petroleum refineries, fire retardants
Barium (ug/L)	2016	1000	(2) mg/L	17.6	44.2	22.6	NR	NO	Oil drilling wastes, Erosion of natural deposits
Beryllium	2016	4	N/A	ND	ND	ND	NR	NO	Discharge from metal refineries, coal burning factories
Cadmium	2016	5	N/A	ND	ND	ND	NR	NO	Internal corrosion of galvanized pipes, runoff
Chromium (ug/L)	2016	50	(100)	ND	NR	ND	NR	NO	Discharge from steel & pulp mills, chrome plating
Fluoride (F) Natural Source	2016	2	N/A	ND	ND	ND	NR	NO	Erosion of natural deposits
Mercury	2016	2	N/A	ND	ND	ND	NR	NO	Erosion of natural deposits, discharge from refineries
Selenium	2016	50	5	ND	ND	ND	NR	NO	Discharge from petroleum, glass & metal refineries
Thallium	2016	2	1	ND	ND	ND	NR	NO	Leaching from ore processing, discharge from glass
<b>Disinfection By-Products</b>									
Chlorine (ppm)	2016	[MRDL=4.0(as Cl2)]		0.65-0.91 Annual RAA = 0.84		NR	Range 0.12 - 0.55 RAA = 0.39	NO	Drinking water disinfectant added for treatment
<b>Disinfection By-Products Tahoe Main System #311001</b>									
Total Trihalomethanes (ppm)	2016	0.080	1000	Site #1 / #2 Annual 13 / 36		NR	Site #3 Every Three Years (2016) ND	NO	By products of drinking water disinfection
Haloacetic Acids (ppm)	2016	0.060	1000	6.8 / 15		NR	(2016) ND	NO	By products of drinking water disinfection
<b>Secondary Standards Aesthetic Standards Established by the State of California, Department of Health Services</b>									
<b>Clarity &amp; Taste</b>									
Turbidity (NTU) - Treated Water	2016	<0.5 NTU	NS	AVG. .125-.221	NR	NR	2014 0.25/0.45/0.17/0.23/0.19	NO	Soil runoff (erosion)
Turbidity (NTU) - Raw Source	2016	TT/5 95%	NS	AVG. .132-.231	0.25	0.2	NR	NO	Soil runoff (erosion)
Bicarbonate as HCO3 (ppm)	2016	None/ppm	N/A	50.3	124	126	NR	NO	Erosion of natural deposits
Calcium (ppm)	2016	N/A	N/A	1.8	16.1	17.1	(2014) 7.6/7.5/12.3/10.2/16.7	NO	Erosion of natural deposits
Carbonates CO3 (ppm)	2016	N/A	N/A	ND	ND	ND	NR	NO	Erosion of natural deposits
Chloride (ppm)	2016	500	N/A	1.8	0.6	0.4	(2014)0.5/0.6/0.5/0.3/ND	NO	Erosion of natural deposits



Color	2016	15 Units	N/A	NR	ND	3	NR	NO	Erosion of natural deposits
Ordor (TON)	2016	1	3	N/A	ND	ND	(2014) ND/ND/ND/2/ND	NO	Naturally-occurring organic materials
Copper (ug/L)	2016	1000	160	ND	ND	ND	NR	NO	Erosion of natural deposits
Foaming Agents (MBAS)	2016	0.5	N/A	ND	ND	ND	NR	NO	Erosion of natural deposits
Hydroxide as OH	2016	N/A	N/A	ND	ND	ND	NR	NO	Erosion of natural deposits
Iron (ppb)	2016	300	N/A	ND	ND	ND	(2005)ND(1)/ND(125)/ND(1)/ND(1)/ND(1)	NO	Erosion of natural deposits
Magnesium (ppm)	2016	N/A	N/A	2.6	6.0	8.6	NR	NO	Erosion of natural deposits
Manganese (ppm)	2016	50	N/A	ND	ND	ND	(2005) ND	NO	Erosion of natural deposits
Methyl-tert-butyl-ether (ppm)	2007	0.0005	5ug/L	ND	ND	ND	NR	NO	Leaking underground fuel tanks
PH - Disired range:	2016	6.5-8.5	N/A	8.2	8.2	7.7	NR	NO	Erosion of natural deposits, Some water treatment
Silver	2016	100	N/A	ND	ND	ND	NR	NO	Erosion of natural deposits
Sodium (ppm)	2016	N/A	N/A	6.3	11.9	5.9	(2014)14.6/11.6/5.0/5.2/5.3	NO	Erosion of natural deposits
SpecificConductance [E.C.] (uS)	2016	1600	N/A	101	192	185	(2014)215/189/164/160/217	NO	Substances that form ions when in water
Sulfate (ppm)	2016	500	N/A	1.7	0.3	0.3	(2014)1.3/0.9/1.7/3.6/0.8	NO	Erosion of natural deposits
Total Alkalinity [as CaCO3] (ppm)	2016	N/A	N/A	41.2	102	103	(2014)93.5/87.3/69.3/66.7/93.7	NO	Erosion of natural deposits
Total Dissolved Solids (ppm)	2016	1000	N/A	20	112	97	(2014)72/80/83/98/125	NO	Erosion of natural deposits
Total Hardness [as CaCO3] (ppm)	2016	N/A	N/A	32	65	78	(2014)44/41/59/51/74	NO	Erosion of natural deposits
Zinc (ppm)	2016	5	N/A	ND	ND	ND	(2014) ND	NO	Erosion of natural deposits
<b>LEAD AND COPPER</b>		<b>Action Level</b>	<b>MCL</b>	20 Samples	90th Percentile	10 Samples 90th Percentile	10 Samples 90th Percentile		
LEAD (ug/L)	2016	15	15	ND	ND	2.6	34		Internal corrosion-plumbing; erosion nat'rl deposits.
Copper (ug/L)	2016	1300	1300	110	110	289	20 Samples 0.11		Corrosion of household plumbing systems.

#### Terms and Abbreviations Used in this Report

<b>MCL</b>	Maximim Contaminant Level: The highest level of a contaminant that is allowed in drinking water . Primary MLCs are set as close to the PHGs(orMCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.
<b>MCLG</b>	Maximum Contaminant Level Goal: The “Goal”(MCLG) is 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. Enviromental Protection Agency.
<b>MRDL</b>	Maximun Residual 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.
<b>PHG</b>	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.
<b>PPB</b>	Parts Per Billion: Parts contaminant for every 1 billion parts of water.
<b>PPM</b>	Parts Per Million: Parts contaminant for every 1 million parts of water.
<b>I</b>	Number of tests for bacteria (Laboratory analysis)
<b>A</b>	Number of tests absent of bacteria
<b>P</b>	Number of tests detecting presence of bacteria
<b>&lt;</b>	= Less Than
<b>&gt;</b>	= Greater Than
<b>TON</b>	Threshold Odor Number

<b>RAA</b>	Running Annual Average
<b>N/A</b>	Not Applicable
<b>ND</b>	Not Detected: Indicates contaminant was not detected in the water source.
<b>N/R</b>	Not Regulated or Not Required
<b>MRDLG</b>	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 of microbial contaminants.
<b>PDWS</b>	Primary Drinking Water Standards: MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment.
<b>ug/L</b>	Micro grams Per Liter (Parts Per Million)
<b>pCi/L</b>	Piocuries Per Liter: Measures of radioactivity per 1 light scattering.
<b>TT</b>	Treatment Technique: A required process intended to reduce the level of contaminant.
<b>Units</b>	Number of units measured
<b>uS</b>	Microsiemens: Measure of electrical currenrnt through a solution.
<b>NTU</b>	Nephelometric Turbudity Unit: Measure of water clarity using light scattering.