

## Terms and Abbreviations Used in this Report

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

**MCLG:** Maximum Contaminant Level Goal is the level of a contaminant in drinking water below which there is not known or expected risk to health. MCLGs allow for a margin of safety.

**MRDL:** Maximum Residual Disinfection Level Goal is 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.

**PHG:** Public Health Goal is 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.

**PPB:** Parts Per Billion, parts contaminant for every 1 billion parts of water.

**PPM:** Parts Per Million, parts contaminant for every 1 million parts of water.

**T:** Number of tests for bacteria (Laboratory analysis)

**A:** Number of tests absent of bacteria

**P:** Number of tests detecting presence of bacteria

**<:** Less Than

**>:** Greater Than

**RAA:** Running Annual Average

**N/A:** Not Applicable

**ND:** Not Detected, indicates contaminant was not detected in the water source.

**N/R:** Not Regulated or Not Required

**MRDLG:** Maximum Residual Disinfection Level Goal is 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.

**ug/L:** Micro grams Per Liter (Parts Per Million)

**pCi/L:** Picouries Per Liter: Measures of radioactivity per 1 light scattering.

**TT:** Treatment Technique: A required process intended to reduce the level of contaminant.

**Units:** Number of units measured

**uS:** Microsiemens are the measure of electrical current through a solution.



# NORTH TAHOE PUBLIC UTILITY DISTRICT ANNUAL WATER QUALITY CONSUMER CONFIDENCE REPORT FOR 2013

**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 3,888 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 over 449.6 million gallons of water to our customers in 2013.

**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 stormwater 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 stormwater 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 stormwater 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 of Highway 89.

**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 Ken Fischer, Water Quality Technician at (530) 546-4212 ext. 5453, or [kfischer@ntpud.org](mailto:kfischer@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).

**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>

## Drought Declared: Stage 1 Water Conservation Measures in Effect

The Stage 1 Water Shortage Emergency Plan is voluntary, however these steps can also save you money, and help the District meet the State mandate. Following are some easy ways that you can contribute:

Non-Essential Uses of Water/Water Waste Prohibitions	Ways you can Help
Washing sidewalks, driveways and other hard surfaces.	Use a broom!
Excessive plumbing leaks not repaired.	Watch the usage on your bill for slow increases. Listen for running water.
Excessive irrigation run-off.	<ul style="list-style-type: none"> <li>Reduce irrigation cycle.</li> <li>Adjust spray direction to prevent runoff or overspray to pavement.</li> </ul>
Washing cars without a shutoff valve on hose.	Pick up a free hose nozzle from the District offices.
Irrigation during the hottest part of the day, when evaporation rates are at their highest.	Apply irrigation water only during the evening or early morning hours.
Utilize water conservation incentives and rebates to replace plumbing fixtures and appliances.	The District currently has a low flow toilet rebate program available. Contact us or visit our website for more info.
Utilize District information for water efficient landscaping.	Visit <a href="http://www.ntpud.org">www.ntpud.org</a> go to Resources and then Water Conservation to view articles from the Tahoe Resource Conservation District on water conservation in your yard.

## Water Quality Data

These system tables list all the drinking water contaminants that were tested for during the 2013 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, 2013. 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.

### About our Coliform Violations:

\*\* About our Coliform / E-Coli False Test: The District routinely monitors for drinking water contaminants. In the Tahoe Main system a single routine sample collected on June 25, 2013, tested positive for total coliform bacteria and e-coli. Four repeat samples were collected June 26, 2013 and on June 28, 2013 all four repeat samples came back ABSENT for coliform / e-coli.

\*About our Coliform Violation: The District routinely monitors for drinking water contaminants. In the Carnelian Woods system, a single routine sample collected on August 20, 2013, tested positive for total coliform bacteria. Three of four repeat samples collected on August 21, 2013, also tested positive for total coliform bacteria. This constituted a failure of the total coliform standards. Following the failure of the total coliform standards, the water system was disinfected and flushed beginning August 22, 2013. After the District received results from four samples collected on August 24, 2013, indicating that coliform bacteria were no longer present in the system, the chlorination was discontinued. A regular sample was collected on September 17, 2013, also tested absent for total coliform bacteria, indicating that the source of the contamination had been eliminated.

### 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)**.

<b>Detected Compounds</b>				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 sampled.				Tahoe City PUD water supply to NTPUD consists of Highlands Well #1 #2, T.C. Well #2 #3, Tahoe Tavern Well	
Contaminant (UNITS)	Sample Year	Identify your system >		Tahoe Main System System #33110001		Carnelian Woods System #3110023	Dollar Cove System #3110036	Tahoe City PUD	
		MLC	PHG (MCLG)	Lake Tahoe Nat'l Ave	Groundwater Park Well	Groundwater Park Well	Groundwater Tahoe City PUD	Violation	Major Source in Drinking Water
<b>Primary Standards</b>									
Arsenic (ppb)		10	4				(*2005)(2011)4.1/2.8/*ND/ND/*ND	NO	Erosion of natural deposits
<b>Microbiological Monitoring</b>									
Total Coliforms ( <u>T</u> / <u>A</u> / <u>P</u> )	2013	1	( 0 )	163 <u>T</u> / 162 <u>A</u> / 1 <u>P</u> **		21 <u>T</u> / 17 <u>A</u> / 4 <u>P</u> *	191 <u>T</u> / 191 <u>A</u> / 0 <u>P</u>	YES	Naturally Present in the environment
E-Coli ( <u>T</u> / <u>A</u> / <u>P</u> )	2013	1	( 0 )	163 <u>T</u> / 162 <u>A</u> / 1 <u>P</u> **		21 <u>T</u> / 21 <u>A</u> / 0 <u>P</u>	191 <u>T</u> / 191 <u>A</u> / 0 <u>P</u>	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)	2012	1(AS-N)	1(AS-N)	0.07	0.12	ND	NR	NO	Runoff & leaching from fertilizers, septic tanks, sewage
Nitrite _ As NO3 (ppm)	2013	45 (NO3)	45 (NO3)	ND	ND	NR	NR	NO	Runoff & leaching from fertilizers, septic tanks, sewage
Perchlorate (ppb)	2013	0.006	6	ND	ND	ND	NR	NO	Production of matches, flares, explosives, pyrotechnics
Aluminum (ug/L)	2007	1000	600	363	ND	ND	NR	NO	Erosion of natural deposits
Barium (ug/L)	2007	1000	(2) mg/L	13.1	45.8	22.7	NR	NO	Oil drilling wastes, Erosion of natural deposits
Chromium (ug/L)	2007	50	(100)	ND	NR	ND	NR	NO	Discharge from steel & pulp mills, chrome plating
<b>Disinfection By-Products</b>									
Chlorine (ppm)	2012	[MRDL=4.0(as Cl2)]		0.68-0.89 Annual RAA = 0.81		NR	Range 0.07 - 0.87 RAA = 0.41	NO	Drinking water disinfectant added for treatment
<b>Disinfection By-Products</b>									
Total Trihalomethanes (ppm)	2013	0.080	1000	4.9-8.9 Annual RAA = 8.9		22	(2012) 0.83	NO	By products of drinking water disinfection
Haloacetic Acids (ppm)	2013	0.060	1000	2.4-4.3 Annual RAA = 2.7		3.2	(2012) ND	NO	By products of drinking water disinfection
<b>Secondary Standards</b>				<b>Aesthetic Standards Established by the State of California, Department of Health Services</b>					
<b>Clarity &amp; Taste</b>							2005		
Turbidity (NTU) - Treated Water	2012	<0.5 NTU	NS	AVG. .130-.236	NR	NR	ND/ND/0.35/0.3/0.6	NO	Soil runoff (erosion)
Turbidity (NTU) - Raw Source	2012	TT/5 95%	NS	AVG. .126-.227	NR	NR	NR	NO	Soil runoff (erosion)
Bicarbonate as HCO3 (ppm)	2007	None/	N/A	(2007)54.8	(2013)121	212	NR	NO	Erosion of natural deposits
Calcium (ppm)	2007	N/A	N/A	(2007)7	(2013)14.5	17.2	(2005) 7.6/8.1/ND/ND/17	NO	Erosion of natural deposits
Chloride (ppm)	2007	500	N/A	1.8	0.7	0.7	(2005)0.5/0.5/0.4/0.3/3.5	NO	Erosion of natural deposits
Copper (ug/L)	2007	1000	160	14	ND	ND	NR	NO	Erosion of natural deposits
Iron (ppb)	2007	300	(2008)ND	ND	ND	42	(2011)ND/125/ND/ND/ND	NO	Erosion of natural deposits
Magnesium (ppm)	2007	N/A	N/A	(2007)2.1	(2013)5.1	8.6	NR	NO	Erosion of natural deposits
Manganese (ppm)	2007	50	N/A	13	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 - Desired range:	2007	6.5-8.5	N/A	8.2	8.9	7.3	NR	NO	Erosion of natural deposits, Some water treatment
Sodium (ppm)	2007	N/A	N/a	(2007)5.9	(2013)10.2	5.3	(2005)14.7/10.5/4.7/4.6/4.9	NO	Erosion of natural deposits
Specific Conductance [E.C.] (uS)	2007	1600	N/A	93.8	198	184	(2011)170/170/140/140/180	NO	Substances that form ions when in water
Sulfate (ppm)	2007	500	N/A	1.8	0.3	0.3	(2005)1.4/1/1.9/2.6/0.3	NO	Erosion of natural deposits
Total Alkalinity [as CaCO3] (ppm)	2007	N/A	N/A	(2007)44.9	(2013)99	99.3	(2005)91.4/81.7/75.4/68.8/88.5	NO	Erosion of natural deposits
Total Dissolved Solids (ppm)	2007	1000	N/A	30	141	108	(2005)139/139/98/96/77	NO	Erosion of natural deposits
Total Hardness [as CaCO3] (ppm)	2007	N/A	N/A	(2007)26	(2013)57	78	(2005)43/44/ND/53/74	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)	2013	15	15	ND		4.6	ND		Internal corrosion-plumbing; erosion natural
Copper (ug/L)	2013	1300	1300	69		393	82		Corrosion of household plumbing systems.