

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 2012

To Our Customers: This report contains important information about your drinking water. Translate it, speak with someone who understands it, or contact the District to receive a translated copy.

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.

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

To obtain specific water quality or watershed data contact Ken Fischer, Water Quality Technician at (530) 546-4212 ext. 5453, or kfischer@ntpud.org. Visit www.ntpud.org to find more information.

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 source). 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 453.79 million gallons of water to our customers in 2012.

How can I keep our drinking water safe and clean?

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 at 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.

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 **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 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, 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

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>

LEAK PREVENTION TIPS AND THE IMPORTANCE OF SHUT-OFF VALVES



Gate Valve

Don't wait for an emergency. Always know how to shut off the water supply to your entire house, or parts of it. Knowing the location of a your shut-off valve could save thousands of dollars in damage. Everyone in your house should know where your valves are located and the direction they need to be turned to stop the flow.

The main shut-off valve is usually found in the front or back of your house where the water comes in from the water meter. Commonly this would be in the garage, basement, or crawl space just inside the foundation, often near the front faucet. It's called a gate valve and most types look like a wheel. Putting a few drops of household oil on the handle threads annually will help keep it from corroding and to assure it will turn in case of an emergency.

In many of the condominiums the main shut-off valve for an individual unit may be located in a bathroom or pantry. The association's maintenance personnel should be able to show you your unit's location.

Most fixtures such as water heaters, dishwashers, sinks and toilets, have individual shut-off valves on the water lines leading to a fixture. If a problem occurs, you can turn the water supply off and still have water to the rest of the house. You'd be surprised to know how many people don't think of this.

Before a problem arises, be sure you have a main shut-off valve. Occasionally older homes have no way to shut off the water; it's rare, but possible. Contact a plumber to have a gate valve installed. They're easier to find, faster to use and require no tools. In an emergency these are all important features.

Water Quality Data

This system tables list all the drinking water contaminants that were tested for during the 2012 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, 20102 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 reverse for Terms and Abbreviations used in the report.

***About our Coliform Violation:**

The District routinely monitors for drinking water contaminants. In the Carnelian Woods system, a single routine sample collected on September 18, 2012, tested positive for total coliform bacteria. Three of four repeat samples collected on September 20, 2012, 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 September 21, 2012. After the District received results from four samples collected on September 24, 2012, indicating that coliform bacteria were no longer present in the system, the chlorination was discontinued. Five subsequent samples collected on October 30, 2012, 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)**.

Detected Compounds

Terms and Abbreviations on next page.

Contaminant (UNITS)

Primary Standards

Microbiological Monitoring

Total Coliforms (I / A / P)

E-Coli (I / A / P)

Radioactive

Radon 222 (pCi/L)

Radium 228 (pCi/L)

Gross Alpha (pCi/L)

Inorganic

Nitrate - As N (ppm)

Nitrite _ As NO3 (ppm)

Perchlorate (ppb)

Aluminum (ug/L)

Barium (ug/L)

Chromium (ug/L)

Disinfection By-Products

Chlorine (ppm)

Disinfection By-Products

Total Trihalomethanes (ppm)

Haloacetic Acids (ppm)

Secondary Standards

Clarity & Taste

Turbidity (NTU) - Treated Water

Turbidity (NTU) - Raw Source

Bicarbonate as HCO3 (ppm)

Calcium (ppm)

Chloride (ppm)

Copper (ug/L)

Iron (ppb)

Magnesium (ppm)

Manganese (ppm)

Methyl-tert-butyl-ether (ppm)

PH - Disired range:

Sodium (ppm)

Specific Conductance [EC] (uS)

Sulfate (ppm)

Total Alkalinity [as CaCO3] (ppm)

Total Dissolved Solids (ppm)

Total Hardness [as CaCO3] (ppm)

LEAD AND COPPER

LEAD (ug/L)

Copper (ug/L)

The State allows us to monitor contaminants less than once per year because the concentrations of these contaminates 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.

Identify your system >				Tahoe Main System System #33110001		Carnelian Woods System #3110023		Dollar Cove System #3110036		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	MLC	PHG (MCLG)	Lake Tahoe Nat'l Ave	Groundwater Park Well	Groundwater Park Well	Groundwater Tahoe City PUD	Groundwater Tahoe City PUD	Violation	Major Source in Drinking Water	
Microbiological Monitoring											
Total Coliforms (<u>I</u> / <u>A</u> / <u>P</u>)	2012	1	(0)	152 <u>I</u> / 152 <u>A</u> / 0 <u>P</u>		21 <u>I</u> / 17 <u>A</u> / 4P*		130 <u>I</u> / 130 <u>A</u> / 0 <u>P</u>	YES	Naturally Present in the environment (See Coliform violation)	
E-Coli (<u>I</u> / <u>A</u> / <u>P</u>)	2012	1	(0)	152 <u>I</u> / 152 <u>A</u> / 0 <u>P</u>		21 <u>I</u> / 21 <u>A</u> / 0 <u>P</u>		130 <u>I</u> / 130 <u>A</u> / 0 <u>P</u>	NO	Human and Animal Fecal Waste	
Radioactive											
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)	2008	15	(0)	ND	NR	NR		NR	NO	Erosion of natural deposits	
Inorganic											
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)	2012	45 (NO3)	45 (NO3)	ND	ND	NR		NR	NO	Runoff & leaching from fertilizers, septic tanks, sewage	
Perchlorate (ppb)	2010	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	
Disinfection By-Products											
Chlorine (ppm)	2012	[MRDL=4.0(as Cl2)]		0.68-0.89 Annual RAA = 0.81		NR		0.0-1.12 RAA = 0.47	NO	Drinking water disinfectant added for treatment	
				Tahoe Main System #311001		Site #1 Quarterly		Site #2 Annual			
Total Trihalomethanes (ppm)	2012	0.080	1000	5.1-9.9 Annual RAA = 8.9		25		0.83	NO	By products of drinking water disinfection	
Haloacetic Acids (ppm)	2012	0.060	1000	3.7-4.9 Annual RAA = 4.1		6.9		NR	NO	By products of drinking water disinfection	
Aesthetic Standards Established by the State of California, Department of Health Services											
Clarity & Taste											
Turbidity (NTU) - Treated Water	2012	<0.5 NTU	NS	AVG. .130-.236	NR	NR		2005 ND/ND/0.35/0.3/0.6	NO	Soil runoff (erosion)	
Turbidity (NTU) - Raw Source	2012	TT/5 95% None/	NS	AVG. .126-.227	NR	NR		NR	NO	Soil runoff (erosion)	
Bicarbonate as HCO3 (ppm)	2007	ppm	N/A	54.8	135	212		NR	NO	Erosion of natural deposits	
Calcium (ppm)	2007	N/A	N/A	7	18.3	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 (2008)	14	ND	ND		NR	NO	Erosion of natural deposits	
Iron (ppb)	2007	300	ND	ND	ND	42		(2011)ND/125/ND/ND/ND	NO	Erosion of natural deposits	
Magnesium (ppm)	2007	N/A	N/A	2.1	6.7	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 - Disired 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	5.9	12.1	5.3		(2005)14.7/10.5/4.7/4.6/4.9	NO	Erosion of natural deposits	
Specific Conductance [EC] (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	44.9	110	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	26	73	78		(2005)43/44/ND/53/74	NO	Erosion of natural deposits	
				Action Level		MCL					
				20 Samples 90th Percentile		10 Samples 90th Percentile		10 Samples 90th Percentile			
LEAD (ug/L)	2010	15	15	2.2		5.3		20		Internal corrosion-plumbing; erosion natural deposits.	
Copper (ug/L)	2010	1300	1300	70		295		51		Corrosion of household plumbing systems.	