



Tahoe City Public Utility District

Annual Water Quality Consumer Confidence Report

2009

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 of 2009. The Tahoe City Public Utility District (TCPUD) wishes to provide you, the customer, with as much information about your water, as we possibly can. On page two you will find a table containing all detected contaminants in the water. Page three consists of general information on water quality, lead and copper sampling results, system identification, and different health effect language for various contaminants. The final page consists of a general map showing sources and basic system locations.

While TCPUD water is classified as either treated surface water or groundwater which comes from wells and springs deep within the earth, 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 doesn't necessarily indicate that water possesses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791). Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 sewer plants, septic systems and wildlife.
- Inorganic contaminants such as salts and metals that can be naturally occurring or result from stormwater runoff.
- Pesticides and Herbicides, which may come from a variety of sources such as stormwater runoff and residential use.
- Organic chemical contaminants including synthetic and volatile organic chemicals that may be byproducts of industrial processes, gas stations, stormwater 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 California Department of Public Health (DPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for possible contaminants in bottled water that must provide the same protection for public health.

Should you have any questions or for any additional information please call the Doug Olsen, at (530) 583-3796, ext. 35 or the USEPA Safe Drinking Water Hotline at (800) 426-4791. For general district information, expressing your views, or participating in the decision making process of the TCPUD you are welcome to attend any or all of our Board meetings. The District Board of Directors meeting schedule is available on our website www.tahoecitypud.com. Agendas for upcoming meetings may be requested from the District Clerk's office. For agendas or meeting information please contact Ginger Charlton at (530) 583-3796, ext. 15.

2009 Tahoe City Public Utility District Water Quality Analysis Report

Identify your system >							Tahoe City Main					Alpine Peaks	Quail Lake/McKinney Shores		Rubicon System		
Contaminant	Required Cycle	Sample Year	Samples Per Cycle	MCL	Units	PHG (MCLG)	Highlands Well # 1	Highlands Well # 2	T.C. # 2 Well	T.C. # 3 Well	Tahoe Tavern Well	Riley's Springs	Lake Tahoe Intake	Crystal Way Well	Rubicon Well #1	Rubicon Well #2	Rubicon Well #3
Primary Standards																	
Arsenic	9 yrs.	2005	1	10	PPB	4	5.2 (1)	2.5 (1)	ND	3.1(1)	ND	ND	ND	ND	ND	ND	ND
Nitrate	1 yr.	2009	1	45	PPM	45	ND	ND	ND	ND	0.27	ND	ND	ND	ND	ND	ND
Violation Yes / No							No	No	No	No	No	No	No	No	No	No	No
Secondary Standards																	
Calcium	9 yrs.	2005	1	N/A	PPM	N/A	7.6	8.1	ND	ND	17	11	8.5	11.3	9.6	12.5	7.3
Chloride	9 yrs.	2005	1	500	PPM	N/A	0.5	0.5	0.4	0.3	3.5	0.2	1.8	0.2	0.2	7.6	0.6
Iron	9 yrs.	2005	1	300	PPB	N/A	142 (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND	ND	11	ND	ND	38 (1)
Manganese	9 yrs.	2005	1	50	PPB	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13
Specific Conductance (E.C.)	9 yrs.	2005	1	1600	uS	N/A	173	173	140	138	96.5	104	93.3	112	96.5	93.1	67.8
Sulfate	9 yrs.	2005	1	500	PPM	N/A	1.4	1	1.9	2.6	0.3	ND	1.8	ND	ND	0.3	ND
Total Alkalinity (as CaCO3)	9 yrs.	2005	1	NA	PPM	N/A	91.4	81.7	75.4	68.8	88.5	53.5	44	56.4	49.5	49.8	32.4
Total Dissolved Solids	9 yrs.	2005	1	1000	PPM	N/A	139	139	98	96	77	85	54	86	77	54	59
Total Hardness (as CaCO3)	9 yrs.	2005	1	N/A	PPM	N/A	43	44	ND	53	74	41	30	44	32	41	21
Treatment Plant Turbidity (2)	Continuous	2009	TT = 95% of samples ≤ 0.5 NTU				N/A	N/A	N/A	N/A	N/A	N/A	100% ≤ 0.5 NTU	N/A	N/A	N/A	N/A
Turbidity	9 yrs.	2005	1	5	NTU	N/A	ND	ND	0.35	0.3	0.6	0.3	ND	0.25	0.15	ND	2.3
Violation Yes / No							No	No	No	No	No	No	No	No	No	No	No
Disinfection Byproducts and Disinfectant Residuals																	
Total Trihalomethanes (TTHM)	3 yrs.	2007	1	80	PPB	N/A	ND					N/R	(1) RAA: 1.9, Range: ND-7.5		ND		
Haloacetic Acids (HAA5)	3 yrs.	2007	1	60	PPB	N/A	ND					N/R	(1) RAA: 1.5, Range: ND-5.8		ND		
Chlorine	Monthly	2009	1-10	4(MRDL)	PPM	4(MRDLG)	RAA: 0.46, Range: 0.35-0.53					N/A	RAA: 0.49, Range: 0.25-0.90		RAA: 0.45, Range: 0.15-0.63		
Violation Yes / No							No					N/A	No		No		
Microbiological Monitoring																	
Total Coliform	Monthly	2009	1-10	1	P	(0)	104T / 104A / 0P					12T/12A/0P	24T/24A/0P		24T/24A/0P		
E-Coli	Monthly	2009	1-10	1	P	(0)	104T / 104A / 0P					12T/12A/0P	24T/24A/0P		24T/24A/0P		
Violation Yes / No							No					No	No		No		

Terms And Abbreviations Used In This Report

<p>(1) : Samples with this notation were taken in 2008 or 2009 and are required every one to three years for that source only</p> <p>(2) : Treatment Plant Turbidity results are for the McKinney/Quail Water Treatment Plant only</p> <p>MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. The MCL is set as close to the MCLG as feasible using best available treatment technology</p> <p>MCLG: 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 allow for a margin of safety.</p> <p>MRDL: 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.</p> <p>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</p> <p>PPB: Parts Per Billion: Parts contaminant for every 1 billion parts of water</p> <p>PPM: Parts Per Million: Parts contaminant for every 1 million parts of water</p>	<p>T: Number of tests for bacteria (Laboratory analysis)</p> <p>A: Number of tests absent of bacteria</p> <p>P: Number of tests detecting presence of bacteria</p> <p>RAA Running Annual Average</p> <p>N/A Not applicable</p> <p>ND Not Detected: Indicates contaminant was not detected in the source water</p> <p>N/R Not Regulated or Not Required</p> <p>MRDLG: 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.</p> <p>NTU Nephelometric Turbidity Unit: Measure of water clarity using light scattering</p> <p>TT Treatment Technique: A required process intended to reduce the level of a contaminant</p> <p>Units Number of units measured</p> <p>uS Microsiemens: Measure of electrical current flow through a solution</p>
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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 sampled.

"Este informado contiene informacion sobre su agua beber. Traduzcalo o hable con alguien que lo entienda bien. "

Information relating directly to our analysis for your clarity and understanding

<u>Contaminant</u>	<u>Major Sources in Drinking Water</u>
Arsenic	Erosion of natural deposits
Chlorine	Drinking water disinfectant added for treatment
Coliform Bacteria	Naturally present in the environment
Copper	Erosion of natural deposits; internal corrosion of household plumbing
Fecal Coliform and E. coli Bact.	Human and Animal Fecal Waste
Haloacetic Acids	Byproduct of drinking water chlorination
Iron	Erosion of natural deposits; leaching from pipes
Lead	Erosion of natural deposits; internal corrosion of household plumbing
Manganese	Erosion of natural deposits
Nitrate	Runoff and leaching from fertilizer use, septic tanks and sewage; erosion of natural deposits
Sulfate	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	Erosion of natural deposits
Total Trihalomethanes	Byproduct of drinking water chlorination
Turbidity	Movement of sediments and minute deposits

Lead and Copper Sampling Results							
Water System	Constituent	Year Sampled	# of Sites Sampled	90th % Results (PPB)	# of Sites Exceeding Action Level	Action Level (PPB)	PHG (PPB)
Tahoe City Main System	Lead	2007	20	2.7	0	15	2
	Copper		20	92	0	1300	170
Alpine Peaks System	Lead	2008	5	1.35	0	15	2
	Copper		5	61.5	0	1300	170
McKinney Quail System	Lead	2008	10	7	1	15	2
	Copper		10	382	0	1300	170
Rubicon System	Lead	2009	10	10.5	0	15	2
	Copper		10	774	0	1300	170

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 Shores System serves the areas of Chamberlands, Chambers Landing, McKinney Shores, and Moana Circle. 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 January, March and May of 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 source is still considered vulnerable to 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) 583-3796 ext. 35.

Health Effects and General Information

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.

Lead: Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the USEPA Safe Drinking Water Hotline (1-800-426-4791). 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. 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. 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>.