



ANNUAL WATER  
QUALITY  
REPORT

*Water testing performed in 2006*

*Proudly Presented By:*

TUOLUMNE  
UTILITILES  
DISTRICT



*Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.*

## Substances That Might Be in Drinking Water

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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the California State Department of Health Services (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. 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.

Contaminants that may be present in source water include:

**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 can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

**Pesticides and Herbicides**, that 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, which are by-products of industrial processes and petroleum production, and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

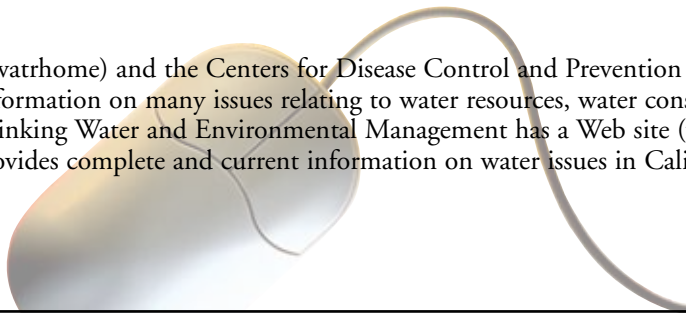
**Radioactive Contaminants**, that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.



## Information on the Internet

The U.S. EPA Office of Water ([www.epa.gov/watrhme](http://www.epa.gov/watrhme)) and the Centers for Disease Control and Prevention ([www.cdc.gov](http://www.cdc.gov)) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health. Also, the California Division of Drinking Water and Environmental Management has a Web site ([www.dhs.ca.gov/ps/ddwem/technical/dwp/dwpindex.htm](http://www.dhs.ca.gov/ps/ddwem/technical/dwp/dwpindex.htm)) that provides complete and current information on water issues in California, including valuable information about our watershed.



## About Our Violations

We are required to monitor your drinking water on a regular basis for specific contaminants. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards.

**Big Hill System:** On January 6, 2006, and again on January 9, 2006, the Big Hill Treatment Plant experienced equipment failure which caused a disinfection contact time performance failure. In each incident, repairs were made and additional bacteriological system samples were taken to ensure water quality.

The State of California Department of Health Services (DHS) sets drinking water standards and has determined the presence of microbiological contaminants are a health concern at certain levels of exposure. If water is inadequately treated, microbiological contaminants in that water may cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and any associated headaches and fatigue. These symptoms, however are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water. DHS has set enforceable requirements for treating drinking water to reduce the risk of these adverse health effects. Treatment such as filtering and disinfecting the water removes or destroys microbiological contaminants. Drinking water which is treated to meet DHS requirements is associated with little to none of this risk and should be considered safe.

The findings to-date indicate that no special precautions or actions are necessary on your part.

## Excellence in Water Service

We are pleased to present to you our annual Consumer Confidence Report. We look upon this document as our report card to the community. Although preparation and delivery of this report is required by state law, we see this information as an opportunity to not only inform you of the quality of water delivered throughout the year, but also as a way to communicate the continual improvements of programs, processes, and facilities funded with your water rates. In addition to water quality information, this report provides important information about the source of your drinking water, how it is treated, how you can become involved in decisions relating to your water system, and the planned future improvements to maintain and improve water quality and reliability.

State and federal drinking water regulations are constantly changing to require a higher quality of water that is delivered to your tap. The Tuolumne Utilities District (TUD) staff is continually researching and evaluating new drinking water treatment and delivery technologies in an effort to provide the most cost-effective, efficient processes and equipment to ensure consistent delivery of the highest quality water in compliance with all regulations.

At TUD, we value open and transparent processes in which important decisions about your water are made. All meetings of the Board of Directors and Board Committees are open to the public and you are encouraged to attend. Meeting agendas and information are posted on our Web site ([www.tudwater.com](http://www.tudwater.com)) and are available by contacting the office at (209) 532-5536.

We pride ourselves in service excellence. Your input and feedback is critical to our continued improvement. Please feel free to contact me, Peter J. Kampa, General Manager, directly at (209) 532-5536.

## Community Participation

You are invited to attend our regularly scheduled Board meetings held on the second and fourth Tuesday of each month, beginning at 7:00 p.m. in the Tuolumne Utilities District boardroom, at 18885 Nugget Boulevard, Sonora, California.

For more information about this report, or any questions relating to your drinking water, please call Brenda Seldon, Water Superintendent, at (209) 532-5536, extension 554.

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.



## What Causes the Pink Stain on Bathroom Fixtures?

The reddish-pink color frequently noted in bathrooms on shower stalls, tubs, tile, toilets, sinks, toothbrush holders, and on pets' water bowls is caused by the growth of the bacterium *Serratia marcescens*. *Serratia* is commonly isolated from soil, water, plants, insects, and vertebrates (including man). The bacteria can be introduced into the house through any of the above-mentioned sources. The bathroom provides a perfect environment (moist and warm) for bacteria to thrive.

The best solution to this problem is to continually clean and dry the involved surfaces to keep them free from bacteria. Chlorine-based compounds work best but keep in mind that abrasive cleaners may scratch fixtures making them more susceptible to bacterial growth. Chlorine bleach can be used periodically to disinfect the toilet and help to eliminate the occurrence of the pink residue. Keeping bathtubs and sinks wiped down using a solution that contains chlorine will also help to minimize its occurrence.

*Serratia* will not survive in chlorinated drinking water.

## Source Water Assessment

An assessment of the drinking water sources for all TUD water systems was completed during 2002-2003. A copy of the complete assessment of each system may be viewed at the Department of Health Services Water Field Operations Branch, Merced District Office, 1040 East Herndon Avenue, Suite 205, Fresno, California 93720. You may also request that a summary of the assessment be sent to you by contacting Mr. Carl L. Carlucci, District Engineer, at (599)447-3300.

## Where Does My Water Come From?

The most important factor in water quality is its source. There are two sources of supply from which the Tuolumne Utilities District (District, or TUD) receives its water: surface water that originates from rainfall and/or runoff from snowpack in the Sierra Nevada Mountains, and groundwater wells. The District is comprised of 17 water service areas, 14 surface water treatment plants, and 28 active wells.

Approximately 96% of TUD's annual water needs are met with surface water; the other 4% is met with groundwater either as a primary source or a backup source. East Sonora, Mono Village, and the Cuesta Center-Lambert Lakes Well Systems, receive supplemental surface water from the Sonora-Jamestown System.

To learn more about our watershed on the Internet, go to the U.S. EPA's Surf Your Watershed Web site at [www.epa.gov/surf](http://www.epa.gov/surf).

# Sampling Results

The Tuolumne Utilities District routinely monitors for contaminants in your drinking water in accordance with federal and state laws. Unless otherwise indicated, the results contained in this report are for the monitoring period of January 1, 2006, through December 31, 2006. The State requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

This report contains results from laboratory testing, excluding contaminants that were not detected, or that were detected at a level below the state's detection level for purposes of reporting (DLR). This information has been compiled in tables on the following pages to show what these contaminants were.

REGULATED SUBSTANCES												
				Apple Valley	Big Hill	Cedar Ridge	Columbia/Gibbs	Crystal Falls	Cuesta Center/ Lambert Lakes			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED (RANGE LOW-HIGH)	AMOUNT DETECTED (RANGE LOW-HIGH)	AMOUNT DETECTED (RANGE LOW-HIGH)	AMOUNT DETECTED (RANGE LOW-HIGH)	AMOUNT DETECTED (RANGE LOW-HIGH)	AMOUNT DETECTED (RANGE LOW-HIGH)	VIOLATION	TYPICAL SOURCE	
Aluminum (ppm)	2006	1	0.6	NA (NA)	NA (NA)	0.07 (ND-0.13)	NA (NA)	NA (NA)	NA (NA)	No	Erosion of natural deposits; residue from some surface water treatment processes	
Arsenic <sup>1</sup> (ppb)	2006	10	ND	NA (NA)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes	
Barium (ppm)	2006	1	2	NA (NA)	NA (NA)	NA (NA)	0.06 (ND-0.12)	NA (NA)	NA (NA)	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits	
Chlorine (ppm)	2006	[4.0 (as Cl <sub>2</sub> )]	[4 (as Cl <sub>2</sub> )]	0.59 (0.05-1.40)	1.64 (1.30-1.80)	1.23 (1.0-1.7)	1.49 (1.40-1.60)	1.53 (1.25-1.75)	0.65 (1.0-1.3)	No	Drinking water disinfectant added for treatment	
Control of DBP precursors [TOC] (ppm)	2006	TT	NA	NA (NA)	1.0 (0.7-1.7)	1.1 (0.7-2.0)	1.2 (0.9-1.7)	1.0 (0.8-1.6)	NA (NA)	No	Various natural and man-made sources	
Fluoride (ppm)	2006	2.0	1	NA (NA)	NA (NA)	0.1 (ND-0.1)	0.10 (ND-0.20)	NA (NA)	NA (NA)	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories	
Gross Alpha Particle Activity (pCi/L)	2005	15	(0)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	3.2 (0.22-13.4)	5.6 <sup>2</sup> (4.07-8.78 <sup>2</sup> )	No	Erosion of natural deposits	
Haloacetic Acids (ppb)	2004	60	NA	ND (NA)	40.8 <sup>2</sup> (28.0-67.0 <sup>2</sup> )	33.0 <sup>2</sup> (18.0-50.0 <sup>2</sup> )	47.1 <sup>2</sup> (25.0-70.0 <sup>2</sup> )	33.6 <sup>2</sup> (23.0-47.0 <sup>2</sup> )	43.8 <sup>2</sup> (37.0-520 <sup>2</sup> )	No	By-product of drinking water disinfection	
Nitrate [as nitrate] (ppm)	2006	45	45	NA (NA)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	13.5 (13.0-14.0)	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits	
TTHMs [Total Trihalomethanes] (ppb)	2004	80	NA	1.1 (NA)	39.8 <sup>2</sup> (28.0-51.0 <sup>2</sup> )	33.3 <sup>2</sup> (20.0-44.0 <sup>2</sup> )	51.0 <sup>2</sup> (41.0-61.0 <sup>2</sup> )	45.6 <sup>2</sup> (27.0-56.0 <sup>2</sup> )	56.5 <sup>2</sup> (49.0-68.0 <sup>2</sup> )	No	By-product of drinking water chlorination	
Turbidity <sup>4</sup> (NTU)	2006	TT	NA	NA (NA)	0.29 (0.10-0.29)	0.24 (0.07-0.24)	0.29 (0.13-0.29)	0.26 (0.09-0.26)	NA (NA)	No	Soil runoff	
Turbidity (Lowest monthly percent of samples meeting limit)	2006	TT	NA	NA (NA)	100 (NA)	100 (NA)	100 (NA)	100 (NA)	NA (NA)	No	Soil runoff	
<b>Tap water samples were collected from sample sites throughout the communities</b>			Apple Valley	Big Hill	Cedar Ridge	Columbia/Gibbs	Crystal Falls	Cuesta Center/ Lambert Lakes				
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED 90TH% TILE (SITES ABOVE AL/TOTAL)	AMOUNT DETECTED 90TH% TILE (SITES ABOVE AL/TOTAL)	AMOUNT DETECTED 90TH% TILE (SITES ABOVE AL/TOTAL)	AMOUNT DETECTED 90TH% TILE (SITES ABOVE AL/TOTAL)	AMOUNT DETECTED 90TH% TILE (SITES ABOVE AL/TOTAL)	AMOUNT DETECTED 90TH% TILE (SITES ABOVE AL/TOTAL)	VIOLATION	TYPICAL SOURCE	
Copper (ppm)	2005	1.3	0.17	0.27 (0/5)	0 (0/20)	0.065 (0/10)	0 (0/20)	0.025 <sup>3</sup> (0/22 <sup>3</sup> )	0.87 (0/5)	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	
Lead (ppb)	2005	15	2	0 (0/5)	0 (0/20)	6.7 (0/10)	0 (0/20)	6 <sup>3</sup> (0/22 <sup>3</sup> )	7.1 (0/5)	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits	

Regulated Substances											
				East Sonora	Mono Village	Monte Grande	Peaceful Pines	Phoenix Lake	Ponderosa		
Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	PHG (MCLG) [MRDLG]	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Violation	Typical Source
Aluminum (ppm)	2006	1	0.6	NA (NA)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic¹ (ppb)	2006	10	ND	NA (NA)	NA (NA)	NA (NA)	NA (NA)	2.9 (NA)	NA (NA)	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2006	1	2	NA (NA)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorine (ppm)	2006	[4.0 (as Cl2)]	[4 (as Cl2)]	1.42 (1.17–1.63)	1.53 (0.84–1.98)	1.63 (1.30–1.80)	1.04 (0.69–1.71)	1.14 (0.65–2.02)	1.62 (1.30–2.00)	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (ppm)	2006	TT	NA	NA (NA)	1.3 (1.2–1.4)	1.2 (0.8–2.0)	NA (NA)	NA (NA)	1.0 (0.8–1.5)	No	Various natural and man-made sources
Fluoride (ppm)	2006	2.0	1	NA (NA)	NA (NA)	NA (NA)	0.20 (NA)	NA (NA)	NA (NA)	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2005	15	(0)	3.4³ (1.6–3.7³)	10.6² (4.1–19.1²)	NA (NA)	NA²⁰ (NA–NA²)	NA (NA)	NA (NA)	No	Erosion of natural deposits
Haloacetic Acids (ppb)	2004	60	NA	42.3² (39.0–52.0²)	19.3² (7.5–43.0²)	45.5² (29.0–63.0²)	ND² (NA–NA²)	9.8² (NA–NA²)	43.5² (24.0–86.0²)	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2006	45	45	NA (NA)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2004	80	NA	43.3² (41.0–47.0²)	36.3² (27.0–61.0²)	56.0² (35.0–78.0²)	35.0² (NA–NA²)	2.9² (NA–NA²)	39.5² (22.0–68.0²)	No	By-product of drinking water chlorination
Turbidity⁴ (NTU)	2006	TT	NA	NA (NA)	0.30 (0.02–0.30)	0.35 (0.12–0.35)	NA (NA)	NA (NA)	0.29 (0.15–0.29)	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2006	TT	NA	NA (NA)	100 (NA)	99.3 (NA)	NA (NA)	NA (NA)	100 (NA)	No	Soil runoff
Tap water samples were collected from sample sites throughout the communities			East Sonora	Mono Village	Monte Grande	Peaceful Pines	Phoenix Lake	Ponderosa			
Substance (Unit of Measure)	Year Sampled	Action Level	MCLG	Amount Detected 90th% Tile (Sites Above Al/Total)	Amount Detected 90th% Tile (Sites Above Al/Total)	Amount Detected 90th% Tile (Sites Above Al/Total)	Amount Detected 90th% Tile (Sites Above Al/Total)	Amount Detected 90th% Tile (Sites Above Al/Total)	Amount Detected 90th% Tile (Sites Above Al/Total)	Violation	Typical Source
Copper (ppm)	2005	1.3	0.17	0.1 (0/5)	0.19³ (0/10³)	0 (0/10)	0 (0/5)	0.3 (0/5)	0.095² (0/20²)	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2005	15	2	0 (0/5)	2.5³ (0/10³)	0 (0/10)	0 (0/5)	0 (0/5)	2.5² (0/20²)	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Regulated Substances										
				Scenic View	Sonora/Jamestown	Tuolumne	Upper Basin	Willow Springs		
Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	PHG (MCLG) [MRDLG]	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Violation	Typical Source
Aluminum (ppm)	2006	1	0.6	NA (NA)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic¹ (ppb)	2006	10	ND	NA (NA)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2006	1	2	NA (NA)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorine (ppm)	2006	[4.0 (as Cl2)]	[4 (as Cl2)]	1.54 (1.20–1.90)	1.75 (1.35–2.2)	1.32 (1.10–1.50)	1.78 (1.70–1.90)	1.53 (1.25–1.75)	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (ppm)	2006	TT	NA	1.1 (0.0–1.5)	1.16 (0.8–1.8)	1.1 (0.8–1.6)	1.0 (0.7–1.6)	0.7 (0.5–1.0)	No	Various natural and man-made sources
Fluoride (ppm)	2006	2.0	1	NA (NA)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2005	15	(0)	9.1² (0.42–14.5²)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	No	Erosion of natural deposits
Haloacetic Acids (ppb)	2004	60	NA	57.5² (44.0–69.0²)	32.7² (16.0–47.0²)	23.3² (14.0–32.0²)	50.8² (28.0–90.0²)	33.6² (23.0–47.0²)	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2006	45	45	NA (NA)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2004	80	NA	61.5² (46.0–72.0²)	38.3² (23.0–55.0²)	36.5² (26.0–48.0²)	47.8² (32.0–69.0²)	45.6² (27.0–56.0²)	No	By-product of drinking water chlorination
Turbidity⁴ (NTU)	2006	TT	NA	0.20 (0.06–0.20)	0.24 (0.08–0.24)	0.30 (0.07–0.30)	0.17 (0.08–0.17)	0.24 (0.06–0.24)	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2006	TT	NA	100 (NA)	100 (NA)	100 (NA)	100 (NA)	100 (NA)	No	Soil runoff
Tap water samples were collected from sample sites throughout the communities			Scenic View	Sonora/Jamestown	Tuolumne	Upper Basin	Willow Springs			
Substance (Unit of Measure)	Year Sampled	Action Level	MCLG	Amount Detected 90th% Tile (Sites Above Al/Total)	Amount Detected 90th% Tile (Sites Above Al/Total)	Amount Detected 90th% Tile (Sites Above Al/Total)	Amount Detected 90th% Tile (Sites Above Al/Total)	Amount Detected 90th% Tile (Sites Above Al/Total)	Violation	Typical Source
Copper (ppm)	2005	1.3	0.17	0.4² (0/10²)	0.08³ (0/40³)	0.025² (0/10²)	0 (0/20)	0.025³ (0/22³)	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2005	15	2	2.5² (0/10²)	2.5³ (0/40³)	0² (0/10²)	0 (0/20)	6³ (0/22³)	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Secondary Substances				Apple Valley	Cedar Ridge	Columbia/Gibbs	Crystal Falls	Cuesta Center/Lambert Lakes	East Sonora	Peaceful Pines		
Substance (Unit of Measure)	Year Sampled	SMCL	PHG (MCLG)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Violation	Typical Source
Iron (ppb)	2006	300	NS	NA (NA)	600 (ND-1200)	250 (ND-490)	512 (ND-2000)	210 (190-230)	NA (NA)	NA (NA)	Yes <sup>5,6</sup>	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2006	50	NS	NA (NA)	80 (10-140)	10 (ND-30)	120 (ND-300.0)	20 (ND-30)	NA (NA)	60 (NA)	Yes <sup>5,6,7</sup>	Leaching from natural deposits
Sulfate (ppm)	2006	500	NS	8.0 (5.0-11.0)	3.50 (ND-7.0)	4.0 (ND-8.0)	8.6 (ND-21.0)	9.0 (5.0-13.0)	10.0 (NA)	4.0 (NA)	No	Runoff/leaching from natural deposits; industrial wastes
Zinc (ppm)	2006	5.0	NS	NA (NA)	NA (NA)	0.09 (ND-0.17)	0.10 (ND-0.29)	1.0 (ND-1.9)	NA (NA)	NA (NA)	No	Runoff/leaching from natural deposits; industrial wastes

Secondary Substances												
				Phoenix Lake	Scenic View	Sonora/Jamestown	Tuolumne	Upper Basin	Willow Springs			
Substance (Unit of Measure)	Year Sampled	SMCL	PHG (MCLG)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Amount Detected (Range Low-High)	Violation	Typical Source
Iron (ppb)	2006	300	NS	NA (NA)	NA (NA)	NA (NA)	NA (NA)	140.0 (ND-240.0)	350 (ND-350)	Yes <sup>5,6</sup>	Leaching from natural deposits; industrial wastes	
Manganese (ppb)	2006	50	NS	NA (NA)	NA (NA)	50 (NA-NA)	20.0 (NA-NA)	80.0 (10.0-230.0)	160.0 (ND-310.0)	Yes <sup>5,6,7</sup>	Leaching from natural deposits	
Sulfate (ppm)	2006	500	NS	4.0 (NA)	21.3 (ND-49.0)	NA (NA)	NA (NA)	6.3 (ND-14.0)	46.0 (ND-46.0)	No	Runoff/leaching from natural deposits; industrial wastes	
Zinc (ppm)	2006	5.0	NS	NA (NA)	0.42 (ND-1.6)	NA (NA)	NA (NA)	NA (NA)	NA (NA)	No	Runoff/leaching from natural deposits; industrial wastes	

Unregulated Substances		Apple Valley	Big Hill	Cedar Ridge	Columbia/Gibbs	Crystal Falls	Cuesta Center/Lambert Lakes	East Sonora	Mono Village		
Substance (Unit of Measure)	Year Sampled	Amount Detected Range Low-High	Amount Detected Range Low-High	Amount Detected Range Low-High	Amount Detected Range Low-High	Amount Detected Range Low-High	Amount Detected Range Low-High	Amount Detected Range Low-High	Amount Detected Range Low-High	Amount Detected Range Low-High	Typical Source
Hardness (ppm)	2006	140.0 (120.0-160.0)	7.50 (NA)	58.4 (6.7-110.0)	144 (7.50-280.0)	72.0 (7.1-160.0)	145.0 (130.0-160.0)	130.0 (NA)	14.0 (NA)	Hardness is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.  Sodium refers to the salt present in the water and is generally naturally occurring.	
Sodium (ppm)	2006	13.5 (13.0-14.0)	ND (NA)	3.6 (1.4-5.7)	3.2 (ND-6.3)	11.6 (ND-29.0)	14.0 (11.0-17.0)	12.0 (NA)	1.9 (NA)		

Unregulated Substances		Monte Grande	Peaceful Pines	Phoenix Lake	Ponderosa	Scenic View	Sonora/Jamestown	Tuolumne	Upper Basin	Willow Springs		
Substance (Unit of Measure)	Year Sampled	Amount Detected Range Low-High	Amount Detected Range Low-High	Amount Detected Range Low-High	Amount Detected Range Low-High	Amount Detected Range Low-High	Amount Detected Range Low-High	Amount Detected Range Low-High	Amount Detected Range Low-High	Amount Detected Range Low-High	Amount Detected Range Low-High	Typical Source
Hardness (ppm)	2006	9.30 (NA)	73.0 (NA)	260 (NA)	7.8 (NA)	163 (14.0-300.0)	14.0 (NA)	9.30 (NA)	50.0 (7.1-91.0)	74.3 (8.6-140.0)	Hardness is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.  Sodium refers to the salt present in the water and is generally naturally occurring.	
Sodium (ppm)	2006	1.10 (NA)	15.0 (NA)	16.0 (NA)	ND (ND-NA)	13.3 (6.1-21.0)	2.0 (NA)	NA (NA)	7.4 (1.10-9.9)	92.0 (1.8-34.0)		

<sup>1</sup> Effective January 23, 2006, the federal arsenic MCL is 10 ppb. A new state MCL has not yet been adopted and remains as 50 ppb. While your drinking water meets the current U.S. EPA standard for arsenic, it does contain low levels of arsenic. The standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The California Department of Health Services 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.

<sup>2</sup> Sampled in 2006.

<sup>3</sup> Sampled in 2004.

<sup>4</sup> Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our

filtration system.

<sup>5</sup> This is a Cedar Ridge, Crystal Falls, and Willow Springs violation only.

<sup>6</sup> Iron and manganese were found at levels that exceed the secondary MCLs (SMCLs) of 300 ppb and 50 ppb, respectively. These SMCLs were set to protect you against unpleasant aesthetic effects such as color; taste; odor; and the staining of plumbing fixtures, e.g., tubs and sinks, and clothing while washing. Since violating these SMCLs does not pose a risk to public health, the state allows the affected community to decide whether or not to treat to remove it. The high iron and manganese levels come from our wells that are mainly used as back-up sources normally used during the annual ditch outage which is approximately seven days a year.

<sup>7</sup> This is a Peaceful Pines and Upper Basin violation only.

## Table Definitions

**Action Level (Regulatory Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste and appearance of drinking water.

**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 are set by the U.S. EPA.

**MRDL (Maximum Residual Disinfectant Level):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

**MRDLG (Maximum Residual Disinfectant Level Goal):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. EPA.

**NA:** Not applicable.

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NS:** No standard.

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**PDWS (Primary Drinking Water Standard):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**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 EPA.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

**TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.