ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2015

Presented By

Tuolumne Utilities District

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

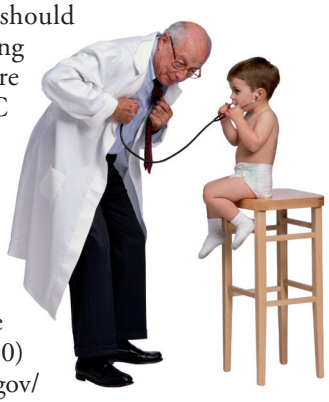
Meeting the Challenge

Once again we are proud to present our annual drinking water report, covering all drinking water testing performed between January 1 and December 31, 2015. Over the years, we have dedicated ourselves to producing drinking water that meets all State and Federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to your homes and businesses. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

Please remember that we are always available to assist you should you ever have any questions or concerns about your water.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those 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 or http://water.epa.gov/drink/hotline.



Community Participation

You are invited to attend our regularly scheduled Board meetings held on the second Tuesday of each month, beginning at 2:00 p.m., and the fourth Tuesday of each month, beginning at 5:30 p.m. in the Tuolumne Utilities District boardroom, at 18885 Nugget Boulevard, Sonora, California. Current information is available on our Web site www.tudwater.com. The Board meetings can be viewed live on our Web site and in our meeting archives.

Substances That Could Be in 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 State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board 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, that are by-products of industrial processes and petroleum production and that 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.

What Are PPCPs?

When cleaning out your medicine cabinet, what do you do with your expired pills? Many people flush them down the toilet or toss them into the trash. Although this seems convenient, these actions could threaten our water supply.

Recent studies are generating a growing concern over pharmaceuticals and personal care products (PPCPs) entering water supplies. PPCPs include human and veterinary drugs (prescription or over-the-counter) and consumer products, such as cosmetics, fragrances, lotions, sunscreens, and house cleaning products. From 2006 to 2010, the number of U.S. prescriptions increased 12 percent to a record 3.7 billion, while nonprescription drug purchases held steady around 3.3 billion. Many of these drugs and personal care products do not biodegrade and may persist in the environment for years.

The best and most cost-effective way to ensure safe water at the tap is to keep our source waters clean. Never flush unused medications down the toilet or sink. Instead, check to see if the pharmacy where you made your purchase accepts medications for disposal, or contact your local health department for information on proper disposal methods and drop-off locations. You can also go on the Web (http://goo.gl/YkPMkg) to find more information about disposal locations in your area.

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 marcesens*. 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.

Where Does My Water Come From?

The most important factor in water quality is its source. There are two sources of supply from which Tuolumne Utilities District (District, or TUD) receives its water: surface water that originates from rainfall and runoff from snowpack in the Sierra Nevada Mountains and groundwater wells. The District comprises 11 water service areas, 11 surface water treatment plants, and 21 active wells.

Approximately 96 percent of TUD's annual water needs are met with surface water; the other 4 percent is met with groundwater as either a primary source or a backup source. In 2015 the Sonora-Jamestown System became the permanent supply of water to the East Sonora, Mono Village, and Cuesta/Lambert areas. The Columbia area was inter-tied with the Big Hill system. The Upper Basin System comprises Lakewood, Sugar Pine, Confidence, Crystal Falls, Willow Springs, Soulsbyville, and Monte Grande.

To learn more about our watershed on the Internet, go to the U.S. EPA's Surf Your Watershed at www.epa.gov/surf.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering 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 www.epa.gov/lead.

QUESTIONS?

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

Source Water Assessment

An assessment of the drinking water sources for all TUD water systems was completed in 2002-2003. The vulnerability summary for each system is included. 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, 265 W Bullard Ave Suite 101, Fresno, California 93704.

VULNERABILITY	APPLE VALLEY	PEACEFUL PINES	PHOENIX LAKE	SONORA	PONDEROSA	TUOLUMNE	UPPER BASIN	COLUMBIA	CEDAR RIDGE	SCENIC VIEW
Sewer Collection	X			X		X	X	X		
Septic System Low Density				X		X		X		
Septic System High Density		X	X	X	X		X		X	X
Grazing	X						X			
Other Animal Operations	X						X			
Lumber Processing/ Manufacturing	X			X						
Wood/Pulp/Mills								X		
Recreational/Surface water source				X	X	X	X	X	X	X
Historic waste dumps/ landfills				X			X			
Auto/Machine Shop				X						
Car Washing				X						
Dry Cleaners				X						
Highways/Transportation Corridor				X						

Tip Top Tap

The most common signs that your faucet or sink is affecting the quality of your drinking water are discolored water, sink or faucet stains, a buildup of particles, unusual odors or tastes, and a reduced flow of water. The solutions to these problems may be in your hands.

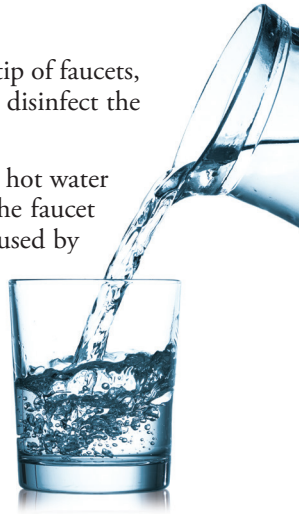
Kitchen Sink and Drain

Hand washing, soap scum buildup, and the handling of raw meats and vegetables can contaminate your sink. Clogged drains can lead to unclean sinks and backed up water in which bacteria (i.e., pink and black colored slime growth) can grow and contaminate the sink area and faucet, causing a rotten egg odor. Disinfect and clean the sink and drain area regularly. Also, flush regularly with hot water.

Faucets, Screens, and Aerators

Chemicals and bacteria can splash and accumulate on the faucet screen and aerator, which are located on the tip of faucets, and can collect particles like sediment and minerals resulting in a decreased flow from the faucet. Clean and disinfect the aerators or screens on a regular basis.

Check with your plumber if you find particles in the faucet screen as they could be pieces of plastic from the hot water heater dip tube. Faucet gaskets can break down and cause black, oily slime. If you find this slime, replace the faucet gasket with a higher-quality product. White scaling or hard deposits on faucets and shower heads may be caused by hard water or water with high levels of calcium carbonate. Clean these fixtures with vinegar or use water softening to reduce the calcium carbonate levels for the hot water system.



Water Filtration/Treatment Devices

A smell of rotten eggs can be a sign of bacteria on the filters or in the treatment system. The system can also become clogged over time so regular filter replacement is important. (Remember to replace your refrigerator filter!)

Benefits of Chlorination

Disinfection, a chemical process used to control disease-causing microorganisms by killing or inactivating them, is unquestionably the most important step in drinking water treatment. By far, the most common method of disinfection in North America is chlorination.

Before communities began routinely treating drinking water with chlorine (starting with Chicago and Jersey City in 1908), cholera, typhoid fever, dysentery, and hepatitis A killed thousands of U.S. residents annually. Drinking water chlorination and filtration have helped to virtually eliminate these diseases in the U.S. Significant strides in public health are directly linked to the adoption of drinking water chlorination. In fact, the filtration of drinking water plus the use of chlorine is probably the most significant public health advancement in human history.

How chlorination works:

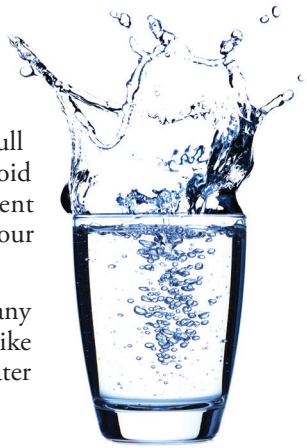
- Potent Germicide Reduction in the level of many disease-causing microorganisms in drinking water to almost immeasurable levels.
- Taste and Odor Reduction of many disagreeable tastes and odors like foul-smelling algae secretions, sulfides, and odors from decaying vegetation.
- Biological Growth Elimination of slime bacteria, molds, and algae that commonly grow in water supply reservoirs, on the walls of water mains, and in storage tanks.
- Chemical Removal of hydrogen sulfide (which has a rotten egg odor), ammonia, and other nitrogenous compounds that have unpleasant tastes and hinder disinfection. It also helps to remove iron and manganese from raw water.

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen, disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at that time. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use and avoid using hot water, to prevent sediment accumulation in your hot water tank.



Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The State requires us to monitor for certain substances less often 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.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Any UCMR3 detections are shown in the data tables in this report. Contact us for more information on this program.

REGULATED SUBSTANCES

				Apple Valley		Cedar Ridge		Columbia/Big Hill		Peaceful Pines		Phoenix Lake			
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
Chlorine (ppm)	2015	[4.0 (as Cl2)]	[4 (as Cl2)]	0.61	0.11–1.14	1.4	1.3–1.6	1.7	1.4–1.9	0.82	0.2–1.6	0.89	0.68–1.1	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (ppm)	2015	TT	NA	NA	NA	1.2	1.0–1.4	NA	NA	NA	NA	NA	NA	No	Various natural and man-made sources
Fluoride (ppm)	2015	2.0	1	0.1	ND–0.14	0.8	ND–0.16	ND	NA	0.18	NA	ND	NA	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2015	15	(0)	ND	NA	0.7[1]	ND–1.4[1]	ND[1]	NA[1]	ND	NA	3.6	NA	No	Erosion of natural deposits
Haloacetic Acids [HAAs] (ppb)	2014	60	NA	ND	NA	37[4]	34–40[4]	55[4]	41–67[4]	2.1	NA	11[4]	NA[4]	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2015	45	45	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2014	80	NA	ND	NA	38[4]	35–41[4]	58[4]	44–74[4]	1.8	NA	39[4]	NA[4]	No	By-product of drinking water disinfection
Turbidity[5] (NTU)	2015	TT	NA	NA	NA	0.29	0.1–0.29	0.2	0.06–0.2	NA	NA	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2015	TT = 95% of samples < 0.3 NTU	NA	NA	NA	100	NA	100	NA	NA	NA	NA	NA	No	Soil runoff

REGULATED SUBSTANCES

				Ponderosa		Scenic View		Sonora			
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	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2015	[4.0 (as Cl2)]	[4 (as Cl2)]	1.6	1.4–1.8	1.5	1.4–1.7	1.7	1.5–1.9	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (ppm)	2015	TT	NA	1.4	1.1–2.1	1.3	0.7–1.8	1.4	1–2.5	No	Various natural and man-made sources
Fluoride (ppm)	2015	2.0	1	ND	NA	ND	NA	ND	NA	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2015	15	(0)	ND[1]	NA[1]	9[2]	ND–24[2]	ND[1]	NA[1]	No	Erosion of natural deposits
Haloacetic Acids [HAAs] (ppb)	2014	60	NA	35[4]	25–49[4]	22[4]	8.4–28[4]	47[4]	23–58[4]	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2015	45	45	ND	NA	ND	NA	ND	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2014	80	NA	53[4]	44–62[4]	45[4]	18–61[4]	56[4]	41–68[4]	No	By-product of drinking water disinfection
Turbidity[5] (NTU)	2015	TT	NA	0.15	0.03–0.15	0.18	0.07–0.18	0.32	0.06–0.32	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2015	TT = 95% of samples < 0.3 NTU	NA	100	NA	100	NA	100	NA	No	Soil runoff

REGULATED SUBSTANCES

				Tuolumne		Upper Basin		Wards Ferry			
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	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2015	[4.0 (as Cl2)]	[4 (as Cl2)]	1.5	1.4–1.6	1.8	1.6–1.9	0.38	0.08–0.84	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (ppm)	2015	TT	NA	1.3	1.0–1.6	1.3	0.8–1.8	NA	NA	No	Various natural and man-made sources
Fluoride (ppm)	2015	2.0	1	ND	NA	0.07	ND–0.16	ND	NA	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2015	15	(0)	ND[1]	NA[1]	0.3[1]	ND–1.5[1]	ND[3]	NA[3]	No	Erosion of natural deposits
Haloacetic Acids [HAAs] (ppb)	2014	60	NA	36[4]	28–45[4]	57[4]	24–68[4]	ND	NA	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2015	45	45	ND	NA	0.12	ND–0.97	2.8	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2014	80	NA	49[4]	33–62[4]	54[4]	24–63[4]	5.4	NA	No	By-product of drinking water disinfection
Turbidity[5] (NTU)	2015	TT	NA	0.26	0.03–0.26	0.28	0.04–0.28	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2015	TT = 95% of samples < 0.3 NTU	NA	100	NA	100	NA	NA	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	Apple Valley AMOUNT DETECTED (90TH%TILE)	Apple Valley SITES ABOVE AL/ TOTAL SITES	Cedar Ridge AMOUNT DETECTED (90TH%TILE)	Cedar Ridge SITES ABOVE AL/ TOTAL SITES	Columbia/Big Hill AMOUNT DETECTED (90TH%TILE)	Columbia/Big Hill SITES ABOVE AL/ TOTAL SITES	Peaceful Pines AMOUNT DETECTED (90TH%TILE)	Peaceful Pines SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2014	1.3	0.3	0.18	0/5	0.15	0/11	0.08	0/31	ND	0/5	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2014	15	0.2	ND	0/5	ND	1/11	6.8	1/31	ND	0/5	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	Phoenix Lake AMOUNT DETECTED (90TH%TILE)	Phoenix Lake SITES ABOVE AL/ TOTAL SITES	Ponderosa AMOUNT DETECTED (90TH%TILE)	Ponderosa SITES ABOVE AL/ TOTAL SITES	Scenic View AMOUNT DETECTED (90TH%TILE)	Scenic View SITES ABOVE AL/ TOTAL SITES	Sonora AMOUNT DETECTED (90TH%TILE)	Sonora SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2014	1.3	0.3	0.2	0/5	0.16[4]	0/10[4]	0.068[4]	0/10[4]	0.21[6,7]	0/31[6,7]	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2014	15	0.2	ND	0/5	10[4]	1/10[4]	ND[4]	0/10[4]	ND[7,8]	1/31[7,8]	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	Tuolumne AMOUNT DETECTED (90TH%TILE)	Tuolumne SITES ABOVE AL/ TOTAL SITES	Upper Basin AMOUNT DETECTED (90TH%TILE)	Upper Basin SITES ABOVE AL/ TOTAL SITES	Wards Ferry AMOUNT DETECTED (90TH%TILE)	Wards Ferry SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2014	1.3	0.3	0.086[4]	0/10[4]	0.15[7]	0/40[7]	1.07[4]	1/5[4]	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2014	15	0.2	ND[4]	1/10[4]	3[7]	2/40[7]	ND[4]	0/5[4]	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	Apple Valley AMOUNT DETECTED	Apple Valley RANGE LOW-HIGH	Cedar Ridge AMOUNT DETECTED	Cedar Ridge RANGE LOW-HIGH	Columbia/Big Hill AMOUNT DETECTED	Columbia/Big Hill RANGE LOW-HIGH	Peaceful Pines AMOUNT DETECTED	Peaceful Pines RANGE LOW-HIGH	Phoenix Lake AMOUNT DETECTED	Phoenix Lake RANGE LOW-HIGH	EXCEEDANCE	TYPICAL SOURCE
Iron (ppb)	2015	300	NS	307	ND–920	600	ND–1200	ND	NA	ND	NA	ND	NA	Yes[9]	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2015	50	NS	37	ND–58	81	12–150	ND	NA	64	NA	ND	NA	Yes[10]	Leaching from natural deposits
Sulfate (ppm)	2015	500	NS	9	4–14	3	ND–5.8	<1	<1–<1	3.4	NA	2.8	NA	No	Runoff/leaching from natural deposits; industrial wastes
Zinc (ppm)	2015	5.0	NS	ND	NA	0.034	ND–0.068	ND	NA	ND	NA	ND	NA	No	Runoff/leaching from natural deposits; industrial wastes

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	Ponderosa AMOUNT DETECTED	Ponderosa RANGE LOW-HIGH	Scenic View AMOUNT DETECTED	Scenic View RANGE LOW-HIGH	Sonora AMOUNT DETECTED	Sonora RANGE LOW-HIGH	Tuolumne AMOUNT DETECTED	Tuolumne RANGE LOW-HIGH	Upper Basin AMOUNT DETECTED	Upper Basin RANGE LOW-HIGH	Wards Ferry AMOUNT DETECTED	Wards Ferry RANGE LOW-HIGH	EXCEEDANCE	TYPICAL SOURCE
Iron (ppb)	2015	300	NS	ND	NA	ND	NA	ND	NA	ND	NA	569	ND–3000	ND	NA	Yes[9]	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2015	50	NS	ND	NA	21	NA	ND	NA	ND	NA	97	ND–310	ND	NA	Yes[10]	Leaching from natural deposits
Sulfate (ppm)	2015	500	NS	<1	NA	<1	NA	1.2	NA	<1	NA	5	ND–14	3.4	NA	No	Runoff/leaching from natural deposits; industrial wastes
Zinc (ppm)	2015	5.0	NS	ND	NA	ND	NA	ND	NA	ND	NA	0.084	ND–0.34	ND	NA	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED AND OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Apple Valley AMOUNT DETECTED	Apple Valley RANGE LOW-HIGH	Cedar Ridge AMOUNT DETECTED	Cedar Ridge RANGE LOW-HIGH	Columbia/Big Hill AMOUNT DETECTED	Columbia/Big Hill RANGE LOW-HIGH	Peaceful Pines AMOUNT DETECTED	Peaceful Pines RANGE LOW-HIGH	Phoenix Lake AMOUNT DETECTED	Phoenix Lake RANGE LOW-HIGH	Ponderosa AMOUNT DETECTED	Ponderosa RANGE LOW-HIGH
Hardness (ppm)	2015	177	130–220	70	10–130	12	11–12	81	NA	300	NA	12	NA
Sodium (ppm)	2015	12	12–12	5	4.3–5.6	6.7	6.5–6.8	15	NA	16	NA	6	NA

UNREGULATED AND OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Scenic View AMOUNT DETECTED	Scenic View RANGE LOW-HIGH	Sonora AMOUNT DETECTED	Sonora RANGE LOW-HIGH	Tuolumne AMOUNT DETECTED	Tuolumne RANGE LOW-HIGH	Upper Basin AMOUNT DETECTED	Upper Basin RANGE LOW-HIGH	Wards Ferry AMOUNT DETECTED	Wards Ferry RANGE LOW-HIGH
Hardness (ppm)	2015	12	NA	18	NA	12	NA	54	14–77	150	NA
Sodium (ppm)	2015	11	NA	5.8	NA	8.5	NA	9	6.6–11	9.5	NA

UNREGULATED CONTAMINANT MONITORING RULE PART 3 (UCMR3) - MONO VILLAGE

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Chlorate (ppb)	2014	425[13]	ND–670
Chromium VI [Hexavalent Chromium] (ppb)	2014	0.04895[11]	0.038–0.09
Molybdenum (ppb)	2014	0.04	ND–3.9
Strontium (ppb)	2014	53[14]	30–99
Vanadium (ppb)	2014	0.2651[12]	ND–1.3

[1] Sampled in 2014.
[2] Sampled in 2009.
[3] Sampled in 2010.
[4] Sampled in 2015.
[5] 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.
[6] Mono Village 90th-percentile = 0.092, 0 sites above AL/10 total sites; East Sonora 90th-percentile (2014) = 0.545, 0 sites above AL/5 total sites; Cuesta/Lambert 90th-percentile (2014) = 0.515, 0 sites above AL/10 total sites.
[7] Sampled in 2013.
[8] Mono Village 90th-percentile = ND, 0 sites above AL/10 total sites; East Sonora 90th-percentile (2014) = ND, 0 sites above AL/5 total sites; Cuesta/Lambert 90th-percentile (2014) = 11.5, 1 site above AL/5 total sites.
[9] This is an Apple Valley, Cedar Ridge, and Upper Basin exceedance only.
[10] This is a Cedar Ridge, Peaceful Pines, and Upper Basin exceedance only.
[11] Sonora Amount Detected = 0.0404.
[12] Sonora Amount Detected = 0.545.
[13] Sonora Amount Detected = 199.
[14] Sonora Amount Detected = 44.

Definitions

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as LRAAs.

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 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.

MRDLG (Maximum Residual Disinfectant 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 microbial contaminants.

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.