

ANNUAL WATER QUALITY REPORT

Water testing performed in 2007



Meeting the Challenge

We are once again proud to present to you our annual water quality report. This edition covers all testing completed from January 1 to December 31, 2007. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal drinking water standards. We continually strive to adopt new and better methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please share with us your thoughts about the information in this report. After all, well-informed customers are our best allies.

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.

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 Department of Public Health (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, 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, 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, which 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.

Where Does My Water Come From?

Calaveras County Water District customers are fortunate because they enjoy an abundant water supply from three sources. CCWD has rights to the water on the three major rivers that flow through our county – Calaveras, Mokelumne and Stanislaus. Our five water systems draw from one of these surface water sources. The source for our Copper Cove system is the Stanislaus River at Lake Tulloch. The source for the Ebbetts Pass system is the Stanislaus River at McKay's Reservoir. The source for our Jenny Lind system is the Calaveras River below Hogan Dam. The source for our Sheep Ranch system is San Antonio Creek below White Pines Reservoir – a tributary to the Calaveras River. The source for our West Point system is the Bear Creek tributary to the Middle Fork of the Mokelumne River.

All three river watersheds have been surveyed for potential contaminants, and the watersheds were determined to be pristine. No man-made organic constituents have ever been detected. These survey reports are available for viewing at the district office in San Andreas. To learn more about our watershed on the Internet, go to U.S. EPA's Surf Your Watershed at www.epa.gov/surf.

Questions?

For more information about this report, or for any questions relating to your drinking water, please call Teresa Tanaka, Deputy Director of Utilities/Operations, at (209) 754-3543, ext. 35.

Lead in Drinking Water

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 to flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the U.S. EPA Safe Drinking Water Hotline (800-426-4791).

Summary of Source Water Assessments

An assessment of the drinking water sources for all CCWD water systems was completed in 2002-2003. The sources are considered most vulnerable to the following activities:

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|---------------------------------------------------------------------------------------------------------------------------|--------------------|
| • Gas stations (present and historic) | JL, CC, EP, SR, WP |
| • Chemical/petroleum processing/storage | JL, CC, SR |
| • Dry cleaners | JL, CC, EP |
| • Metal plating/finishing/fabrication | JL, CC |
| • Airports—maintenance/fueling areas | JL, CC |
| • Septic tanks—high density (>1/acre) | JL, CC, SR |
| • Septic tanks—low density (<1/acre) | WP |
| • Wastewater treatment plants | JL, CC, SR |
| • Managed forests | JL, CC, WP |
| • Historic dumps/landfills and mining operation | JL, CC, SR, WP |
| • Automotive repair/body shops/machine shops | SR |
| • Recreation area—(off-road vehicle trails) | SR, WP |
| • Grazing (>5 large animals or equivalent per acre) | SR |
| • Sewer collection systems | SR |
| • Managed and clearcut harvested forests (<30 years) | SR |
| • NPDES/WDR permitted discharges (high turbidity, microbiological contaminants and chemicals in the permitted discharges) | SR |
| • Recent (<10 years) burn areas | SR, WP |

KEY

JL: Jenny Lind
 CC: Copper Cove
 EP: Ebbetts Pass
 SR: Sheep Ranch
 WP: West Point

A copy of the complete assessment of each system may be viewed at the Department of Health Services Water Field Operations Branch, Stockton District Office, 31 E. Channel Street, Room 270, Stockton, California 95202. You may also request that a summary of the assessment be sent to you by contacting Mr. Joseph O. Spano, District Engineer, at (209) 948-7696.

Community Participation

You are invited to participate in our public forum and to voice your concerns about your drinking water. We meet the second Wednesday of each month beginning at 9 a.m. at the Calaveras County Water District (CCWD) Board Room, 423 East St. Charles Street, San Andreas, CA. You may also visit the CCWD on the Internet at www.ccwd.org, or contact CCWD staff directly by phone at (209) 754-3543.

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 table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

The state allows 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.

Footnotes:

¹ 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.

² Sampled in 2007.

³ Sampled in 2005.

REGULATED SUBSTANCES				Copper Cove		Ebbetts Pass		Jenny Lind		Sheep Ranch		West Point-Bear Creek		VIOLATION	TYPICAL SOURCE
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		
Aluminum (ppm)	2007	1	0.6	0.07	NA	ND	NA	ND	NA	ND	NA	ND	NA	No	Erosion of natural deposits; residue from some surface water treatment processes
Chlorine (ppm)	2007	[4.0 (as Cl ₂)]	[4.0 (as Cl ₂)]	1.56	1.09–1.90	1.24	0.93–1.45	1.85	1.45–3.10	1.09	0.77–1.64	0.90	0.70–1.08	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (Units)	2007	TT	NA	1.2	1.0–1.9	1.1	1.0–1.2	1.8	1.6–2.0	0.72	0.45–1.20	1.08	0.6–1.7	No	Various natural and man-made sources
Fluoride (ppm)	2007	2.0	1	ND	NA	ND	NA	0.13	NA	ND	NA	ND	NA	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids (ppb)	2007	60	NA	20	9.3–32	29	18–45	31	12–53	24	NA	19	18–20	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2007	45	45	0.12	NA	ND	NA	0.19	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)	2007	80	NA	22	9.8–35	30	19–52	37	17–66	26	NA	20	15–24	No	By-product of drinking water chlorination
Turbidity ¹ (NTU)	2007	TT	NA	0.06	0.03–0.06	0.18	0.05–0.18	0.18	0.03–0.18	0.09	0.05–0.09	0.11	0.03–0.11	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2007	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																
				Copper Cove		Ebbetts Pass		Jenny Lind		Sheep Ranch		West Point-Bear Creek				
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE	
Copper (ppm)	2006	1.3	0.17	0.86	0/20	0.22 ²	0/30 ²	0.68	0/20	0.63 ³	0/5 ²	0.2 ³	0/10 ³	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	
Lead (ppb)	2006	15	2	ND	0/20	8.6 ²	3/30 ²	ND	0/20	6.2 ²	0/5 ²	ND ³	0/10 ³	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits	
SECONDARY SUBSTANCES					Copper Cove		Ebbetts Pass		Jenny Lind		Sheep Ranch		West Point-Bear Creek			
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	VIOLATION	TYPICAL SOURCE	
Chloride (ppm)	2007	500	NS	2.8	NA	2.6	NA	6.0	NA	4.7	NA	5	NA	No	Runoff/leaching from natural deposits; seawater influence	
Color (Units)	2007	15	NS	<3	<3–15	<3	<3–4	<3	<3–5	<3	<3–7	<3	<3–5	No	Naturally occurring organic materials	
Corrosivity (Units)	2007	Non-corrosive	NS	-2.18	NA	-2.59	NA	-0.92	NA	-1.73	NA	-1.91	NA	No	Natural or industrially influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors	
Odor-Threshold (Units)	2007	3	NS	1	1–1	1	1–1.4	1	1–1	1.0	1–1	1.0	1–1	No	Naturally occurring organic materials	
Specific Conductance (µS/cm)	2007	1,600	NS	76	NA	36	NA	177	NA	69	NA	77	NA	No	Substances that form ions when in water; seawater influence	
Sulfate (ppm)	2007	500	NS	2.5	NA	0.51	NA	9.7	NA	1.0	NA	ND	NA	No	Runoff/leaching from natural deposits; industrial wastes	
Total Dissolved Solids (ppm)	2007	1,000	NS	59	NA	32	NA	114	NA	66	NA	80	NA	No	Runoff/leaching from natural deposits	
Zinc (ppm)	2007	5.0	NS	0.038	NA	0.120	NA	0.172	NA	0.058	NA	0.211	NA	No	Runoff/leaching from natural deposits; industrial wastes	

UNREGULATED AND OTHER SUBSTANCES		Copper Cove		Ebbetts Pass		Jenny Lind		Sheep Ranch		West Point-Bear Creek		TYPICAL SOURCE
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	
Bromodichloromethane (ppb)	2007	1.5	0.9–2.4	1.2	0.9–1.9	5.3	3.1–8.1	2.7	NA	1.9	1.6–2.4	By-product of drinking water disinfection
Calcium (ppm)	2007	7.7	NA	4.0	NA	19	NA	6.0	NA	7.2	NA	Naturally occurring
Chloroform (ppb)	2007	20	8.9–33	29	18–50	30	13–57	23	NA	17	13–22	By-product of drinking water disinfection
Dibromochloromethane (ppb)	2007	ND	NA	ND	NA	1.1	0.7–1.4	ND	NA	ND	NA	By-product of drinking water disinfection
Hardness (ppm)	2007	28	NA	16	NA	80	NA	20	NA	28	NA	Hardness in drinking water is caused by two naturally occurring chemicals, calcium and magnesium
Magnesium (ppm)	2007	2.1	NA	ND	NA	7.9	NA	ND	NA	2.4	NA	Naturally occurring
Sodium (ppm)	2007	4.0	NA	3.0	NA	6.7	NA	5.1	NA	5.9	NA	Sodium refers to the naturally occurring salt present in the water

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.

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

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.

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.