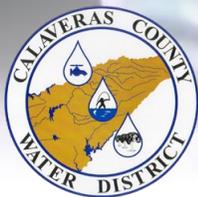


ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2020



Presented By
Calaveras County Water District



Quality First

Once again, we are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2020. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Where Does My Water Come From?

Calaveras County Water District customers are fortunate to enjoy an abundant water supply from four sources. CCWD has rights to the water on the three major rivers that flow through our county: Calaveras, Mokelumne, and Stanislaus. Five of our water systems draw from 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 New 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 Bear Creek, a tributary to the Middle Fork of the Mokelumne River. Our sixth water system in Wallace draws water from two groundwater wells in the South San Joaquin Groundwater Basin.

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, go to U.S. EPA's Surf Your Watershed at www.epa.gov/surf.

Source Water Assessment

A Source Water Assessment Plan (SWAP) is now available at our office. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. The Source Water Assessment Plan for our water system had a rating of "medium." If you would like to review the Source Water Assessment Plan, please feel free to contact our office at (209) 754-3543.

Community Participation

We'd like to invite you to get involved with our water district. Our Board of Directors meets the second Wednesday of each month at the Calaveras County Water Department (CCWD) Headquarters, 120 Toma Ct., San Andreas, and members of the public are welcome to attend. As Calaveras County emerges from an unprecedented drought, we continue to be your source of information for water efficiency guidelines. We appreciate your help in using water efficiently to meet local and state requirements and reporting any water waste that you see in your neighborhood. For more information about CCWD, visit us online at www.ccwd.org, "like" us on Facebook at www.facebook.com/calaveraswaterdistrict, send email to customerservice@ccwd.org, or call (209) 754-3543.

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We remain vigilant in
delivering the best-quality
drinking water
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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>.



QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Jesse Hampton, Plant Operations Manager, at (209) 754-3316 or visit www.ccwd.org.

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. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that 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 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.



Naturally Occurring Bacteria

The simple fact is, bacteria and other microorganisms inhabit our world. They can be found all around us: in our food, on our skin, in our bodies, and in the air, soil, and water. Some are harmful to us and some are not. Coliform bacteria are common in the environment and are generally not harmful themselves. The presence of this bacterial form in drinking water is a concern, however, because it indicates that the water may be contaminated with other organisms that can cause disease. Throughout the year, we tested many water samples for coliform bacteria. In that time, none of the samples came back positive for the bacteria.

Federal regulations require that public water that tests positive for coliform bacteria must be further analyzed for fecal coliform bacteria. Fecal coliform are present only in human and animal waste. Because these bacteria can cause illness, it is unacceptable for fecal coliform to be present in water at any concentration. Our tests indicate no fecal coliform is present in our water.

Water Treatment Process

The treatment process for each water source consists of a series of steps. First, raw water is drawn from the water source and sent to an aeration tank, which allows for oxidation of the high iron levels that are present in the water. The water then goes to a mixing tank where polyaluminumchloride and soda ash are added. The addition of these substances causes small particles to adhere to one another (called "floc"), making them heavy enough to settle into a basin from which sediment is removed. Chlorine is then added for disinfection. At this point, the water is filtered through layers of fine coal and silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges.

Chlorine is added again as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, a corrosion inhibitor (used to protect distribution system pipes) is added before the water is pumped to sanitized, above-ground reservoirs, elevated tanks, and into your home or business.



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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

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.



Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

AL (Regulatory Action Level): The concentration of a contaminant that, 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 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.

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.

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

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. Also, the water we deliver must meet specific health standards. Here, we show only those substances that were detected in our water. (A complete list of all our analytical results is available upon request.) Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The State recommends monitoring 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.

Ebbetts Pass exceeded the HAAs MCL in July 2020. Notice to the public went out in February of this year. The Ebbetts Pass Water System is under an exceedance order. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

We participated in the 4th stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling 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. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES											
				Copper Cove		Ebbetts Pass		Jenny Lind			
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)	2020	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	1.82	1.25–3.1	1.26	0.92–1.98	1.91	1.50–2.20	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (Units)	2020	TT	NA	1.20	1.00–1.40	1.14 ¹	0.70–1.5 ¹	1.98 ¹	1.7–2.4 ¹	No	Various natural and man-made sources
Fluoride (ppm)	2020	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
Haloacetic Acids (ppb)	2020	60	NA	42	23–51	61	27–71	49	32–58	Yes ²	By-product of drinking water disinfection
Nitrate [as nitrogen] (ppm)	2020	10	10	ND	NA	0.2	NA	0.2	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes]³ (ppb)	2020	80	NA	42	34–51	76	23–150	44	23–54	No	By-product of drinking water disinfection

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

				Copper Cove		Ebbetts Pass		Jenny Lind			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2018	1.3	0.3	1.26	0/20	0.108 ¹	0/30	0.82 ⁴	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2018	15	0.2	ND	0/20	ND ¹	0/30	ND ⁴	0/30	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

REGULATED SUBSTANCES

				Sheep Ranch		West Point-Bear Creek		Wallace Water Treatment Plant			
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)	2020	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.58	0.30–0.90	1.28	0.70–2.25	0.58	0.10–1.05	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (Units)	2020	TT	NA	0.67 ¹	0.4–1.2 ¹	0.73	0.40–1.45	NA	NA	No	Various natural and man-made sources
Fluoride (ppm)	2020	2.0	1	ND	NA	ND	NA	0.2 ¹	NA ¹	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids (ppb)	2020	60	NA	31	NA	23.55	19.6–30.6	ND	NA	Yes ²	By-product of drinking water disinfection
Nitrate [as nitrogen] (ppm)	2020	10	10	ND	NA	ND	NA	ND ¹	NA ¹	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes]³ (ppb)	2020	80	NA	28	NA	26	16.2–38.2	ND	NA	No	By-product of drinking water disinfection

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

				Sheep Ranch		West Point-Bear Creek		Wallace Water Treatment Plant			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2018	1.3	0.3	ND	0/5	0.056	0/10	0.21	0/5	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2018	15	0.2	ND	0/5	0.25	0/10	ND	0/5	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES											
				Copper Cove		Ebbetts Pass		Jenny Lind			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2020	500	NS	4	NA	3	NA	6	NA	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2020	15	NS	5	ND–5	ND	NA	ND	ND–5	No	Naturally-occurring organic materials
Corrosivity (Units)	2020	Non-corrosive	NS	-1.8	NA	-2.6	NA	-0.5	NA	No	Natural or industrially influenced balance of hydrogen, carbon, and oxygen in the water; affected by temperature and other factors
Iron (ppb)	2020	300	NS	ND	NA	ND	NA	ND	NA	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2020	50	NS	40	ND–40	ND	NA	ND	ND–20	No	Leaching from natural deposits
Odor–Threshold (Units)	2020	3	NS	2	ND–2	2 ¹	ND–2 ¹	ND	ND–1	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2020	1,600	NS	92	NA	35	NA	224	NA	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2020	500	NS	4.1	NA	1	NA	18.4	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2020	1,000	NS	60	NA	ND	NA	140	NA	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2020	5	NS	0.031	0.024–0.052	0.090	0.060–0.200	0.045	0.026–0.081	No	Soil runoff
Zinc (ppm)	2020	5.0	NS	0.130	NA	0.110	NA	ND	NA	No	Runoff/leaching from natural deposits; industrial wastes

SECONDARY SUBSTANCES											
				Sheep Ranch		West Point–Bear Creek		Wallace Water Treatment Plant			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2020	500	NS	5	NA	4.58	NA	7.5 ¹	NA ¹	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2020	15	NS	ND	ND–15	ND	NA	ND	ND–5	No	Naturally-occurring organic materials
Corrosivity (Units)	2020	Non-corrosive	NS	-1.3	NA	-2.2	NA	-1.4 ¹	NA ¹	No	Natural or industrially influenced balance of hydrogen, carbon, and oxygen in the water; affected by temperature and other factors
Iron (ppb)	2020	300	NS	ND	NA	ND	NA	74	30–220	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2020	50	NS	ND	NA	ND	NA	14	ND–30	No	Leaching from natural deposits
Odor–Threshold (Units)	2020	3	NS	2	ND–2	2	ND–8	ND	ND–1	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2020	1,600	NS	75	NA	78.2	NA	184 ¹	NA ¹	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2020	500	NS	1.5	NA	0.56	NA	11.1 ¹	9.2–13 ¹	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2020	1,000	NS	50	NA	54.8	NA	205 ¹	200–210 ¹	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2020	5	NS	0.094	0.06–0.14	0.052	0.03–0.10	NA	NA	No	Soil runoff
Zinc (ppm)	2020	5.0	NS	ND	NA	0.135	NA	15 ¹	ND–30 ¹	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED SUBSTANCES ⁷

	Copper Cove		Ebbetts Pass		Jenny Lind		Sheep Ranch		West Point-Bear Creek		Wallace Water Treatment Plant			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE						
Hardness, Total [as CaCO₃] (ppm)	2020	33.9	NA	4.99	NA	89.4	NA	23.2	NA	22.3	NA	37.7 ¹	36.4–38.9 ¹	Caused by naturally occurring substances: calcium and magnesium
Sodium (ppm)	2020	10	NA	7	NA	8	NA	10	NA	10.1	NA	16.5 ¹	16–17 ¹	Refers to the naturally occurring salt present in the water

OTHER UNREGULATED SUBSTANCES ⁷

	Copper Cove		Ebbetts Pass		Jenny Lind		Sheep Ranch		West Point-Bear Creek		Wallace Water Treatment Plant			
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	
Chlorate (ppb)	2020	59	NA	247 ⁵	220–290 ⁵	260 ⁶	150–420 ⁶	NA	NA	NA	NA	NA	NA	NA
Chromium-6 (ppb)	2015	NA	NA	NA	NA	0.068	0.056–0.092	NA	NA	NA	NA	NA	NA	NA
Magnesium (ppm)	2020	4	NA	ND	NA	9	NA	2	NA	2.06	NA	4	NA	NA
Strontium (ppb)	2014	NA	NA	35.1	29–38	130 ⁶	110–140 ⁶	NA	NA	NA	NA	NA	NA	NA

¹ Sampled in 2019.

² This is a Ebbetts Pass violation only.

³ Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their livers, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

⁴ Sampled in 2020.

⁵ Sampled in 2014.

⁶ Sampled in 2015.

⁷ Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.