ANNUAL WATER QUALITY REPORT

Reporting Year 2021

Presented By

Calaveras County Water District

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

PWS ID#: 0510005

We've Come a Long Way

Once again, we are proud to present our annual water quality report covering the period between January 1 and December 31, 2021. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at all hours—to deliver the highest-quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

Where Does my Water Come From?

CCWD 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 of the Calaveras River. The source for our West Point system is Bear Creek, a tributary of 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.

> "When the well is dry, we know the worth of water."
>
> —*Benjamin Franklin*

All three river watersheds have been surveyed for potential contaminants, and the watersheds were determined to be pristine. No human-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 online, visit U.S. EPA's How's My Waterway at epa.gov/waterdata/hows-my-waterway.

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 or water.epa.gov/drink/hotline.

Water Treatment Process

The treatment process consists of a series of steps. First, raw water is drawn from our 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 polyaluminum chloride and soda ash are added. The addition of these substances causes small particles (called floc) to adhere to one another, 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 (to protect distribution system pipes) is added before the water is pumped to sanitized aboveground reservoirs and elevated tanks and into your home or business.

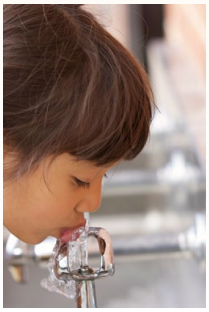
Community Participation

We 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 District (CCWD) headquarters, 120 Toma Court, San Andreas, and members of the public are welcome to attend. As Calaveras County starts to come into a drought year, 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 ccwd.org, like us on Facebook at facebook.com/calaveraswaterdistrict, email customerservice@ccwd.org, or call (209) 754-3543.

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 us online at ccwd.org.

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 SWAP for our water system had a rating of medium. If you would like to review the SWAP, please feel free to contact our office at (209) 754-3543.



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 two 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 epa.gov/safewater/lead.

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, 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.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show 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 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 maximum contaminant level (MCL) for haloacetic acids (HAAs) in July 2020. A notice to the public went out in February 2021. 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.

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)	2021	[4.0 (as Cl2)]	[4 (as Cl2)]	1.33	1.09–1.73	1.25	0.89–1.70	1.82	1.43–2.20	No	Drinking water disinfectant added for treatment
Control of DBP Precursors [TOC] (units)	2021	TT	NA	1.3	0.9–1.5	1.55	1.1–3.4	2.08	1.5–2.4	No	Various natural and human-made sources
Fluoride (ppm)	2021	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
HAA5 [sum of 5 haloacetic acids]–Stage 2 (ppb)	2021	60	NA	37	27–55	55.35	31.7–78	46.42	10–81	Yes[2]	By-product of drinking water disinfection
TTHMs [total trihalomethanes]–Stage 2[3] (ppb)	2021	80	NA	34.8	28–40	66	27–95	40.17	18–67	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)	2021	1.3	0.3	0.747	0/20	0.108[1]	0/30[1]	0.82[4]	0/30[4]	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2021	15	0.2	ND	0/20	ND[1]	0/30[1]	ND[4]	0/30[4]	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	Sheep Ranch AMOUNT DETECTED	Sheep Ranch RANGE LOW-HIGH	West Point–Bear Creek AMOUNT DETECTED	West Point–Bear Creek RANGE LOW-HIGH	Wallace Water Treatment Plant AMOUNT DETECTED	Wallace Water Treatment Plant RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2021	[4.0 (as Cl2)]	[4 (as Cl2)]	1.01	0.40–1.86	0.83	0.43–1.31	0.74	0.17–1.47	No	Drinking water disinfectant added for treatment
Control of DBP Precursors [TOC] (units)	2021	TT	NA	0.88	0.5–2	1.26	0.97–1.68	NA	NA	No	Various natural and human-made sources
Fluoride (ppm)	2021	2.0	1	ND	NA	ND	NA	0.2[1]	NA	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
HAA5 [sum of 5 haloacetic acids]–Stage 2 (ppb)	2021	60	NA	34	NA	36.48	27.3–53.8	ND	NA	Yes[2]	By-product of drinking water disinfection
TTHMs [total trihalomethanes]–Stage 2[3] (ppb)	2021	80	NA	30	NA	29.53	23.9–35.7	2	NA	No	By-product of drinking water disinfection

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)	Sheep Ranch AMOUNT DETECTED (90TH %ILE)	Sheep Ranch SITES ABOVE AL/ TOTAL SITES	West Point–Bear Creek AMOUNT DETECTED (90TH %ILE)	West Point–Bear Creek SITES ABOVE AL/ TOTAL SITES	Wallace Water Treatment Plant AMOUNT DETECTED (90TH %ILE)	Wallace Water Treatment Plant SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2021	1.3	0.3	0.0455	0/5	0.222	0/10	0.175	0/5	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2021	15	0.2	ND	0/5	11.9	0/10	0.00595	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)	2021	500	NS	3	NA	4	NA	5	NA	No	Runoff/leaching from natural deposits; seawater influence
Color (units)	2021	15	NS	ND	NA	ND	ND–5	ND	ND–5	No	Naturally occurring organic materials
Corrosivity (units)	2021	Non-corrosive	NS	-2.6	NA	6.7	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)	2021	300	NS	ND	NA	ND	NA	ND	NA	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2021	50	NS	ND	ND–20	ND	NA	ND	ND–20	No	Leaching from natural deposits
Odor, Threshold (units)	2021	3	NS	ND	ND–32	1.2	ND–8	ND	ND–2	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2021	1,600	NS	77	NA	37	NA	207	NA	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2021	500	NS	2.6	NA	0.6	NA	15.2	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2021	1,000	NS	50	NA	40	NA	130	NA	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2021	5	NS	0.032	0.023–0.049	0.088	0.060–0.16	0.049	0.03–0.087	No	Soil runoff
Zinc (ppm)	2021	5.0	NS	0.16	NA	0.16	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)	2021	500	NS	5	NA	-1.7	NA	7.5[1]	NA	No	Runoff/leaching from natural deposits; seawater influence
Color (units)	2021	15	NS	ND	ND–5	ND	NA	ND	NA	No	Naturally occurring organic materials
Corrosivity (units)	2021	Non-corrosive	NS	-1.9	NA	-2.2[4]	NA	-1.4[1]	NA	No	Natural or industrially influenced balance of hydrogen, carbon, and oxygen in the water affected by temperature and other factors
Iron (ppb)	2021	300	NS	ND	NA	ND	NA	40	ND–170	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2021	50	NS	ND	NA	ND	NA	14	ND–30	No	Leaching from natural deposits
Odor, Threshold (units)	2021	3	NS	1	ND–2	1	ND–2	ND	NA	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2021	1,600	NS	74	NA	83	NA	184[1]	NA	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2021	500	NS	1.2	NA	ND	NA	11.1[1]	9.2–13[1]	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2021	1,000	NS	60	NA	47.9	NA	205[1]	200–210[1]	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2021	5	NS	0.11	0.08–0.2	0.073	0.02–0.24	NA	NA	No	Soil runoff
Zinc (ppm)	2021	5.0	NS	ND	NA	0.313	NA	15[1]	ND–30[1]	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED SUBSTANCES [5]

		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	TYPICAL SOURCE
Chlorate (ppb)	2020	59	NA	247[1]	220–290[1]	260[7]	150–420[7]	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
Hardness, Total [as CaCO3] (ppm)	2021	27.3	NA	4.99	NA	85.3	NA	25.7	NA	23.2	NA	37.7[1]	36.4–38.9[1]	Naturally occurring calcium and magnesium
Magnesium (ppm)	2021	3	NA	ND	NA	8	NA	2	NA	1.99	NA	4[1]	NA	Naturally occurring
Sodium (ppm)	2021	4	NA	4	NA	6	NA	6	NA	6.18	NA	16.5[1]	16–17[1]	Naturally occurring
Strontium (ppb)	2014	NA	NA	35.1	29–38	130[8]	110–140[8]	NA	NA	NA	NA	NA	NA	NA

[1] Sampled in 2019.
[2] This is an 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 liver, kidneys, or central nervous system and may have an increased risk of getting cancer.
[4] Sampled in 2020.
[5] Unregulated contaminant monitoring helps U.S. EPA and the State Board determine where certain contaminants occur and whether the contaminants need to be regulated.
[6] Sampled in 2021.
[7] Sampled in 2014.
[8] Sampled in 2015.

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 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 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.