

# ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2018



*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

## Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2018. 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 you. 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 our water users.

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

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



## 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 <http://water.epa.gov/drink/hotline>.



## 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.

## 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.ccw.org](http://www.ccw.org).

## 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](http://www.epa.gov/safewater/lead).

## 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](http://www.epa.gov/surf).

## Testing for *Cryptosporidium*

Monitoring of our West Point raw water source indicates the presence of *Cryptosporidium* at levels of 1 oocyst/L. *Cryptosporidium* is a microbial pathogen found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100-percent removal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

## 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.

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
<b>Barium</b> (ppm)	2018	1	2	0.013	NA	0.0093	NA	ND	NA	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
<b>Bromate</b> (ppb)	2018	10	0.1	0.0004	ND–0.0017	NA	NA	ND	NA	No	By-product of drinking water disinfection
<b>Chlorine</b> (ppm)	2018	[4.0 (as Cl <sub>2</sub> )]	[4 (as Cl <sub>2</sub> )]	1.5	1.15–2.32	1.2	0.63–1.79	1.82	1.49–2.2	No	Drinking water disinfectant added for treatment
<b>Control of DBP precursors [TOC]</b> (Units)	2018	TT	NA	1.4	0.9–2	1.37	1–1.7	1.9	1.6–2.4	No	Various natural and man-made sources
<b>Cryptosporidium</b> (Units)	2018	Surface water treatment = TT	HPC = NA; Others = (0)	ND	NA	31	ND–31	ND	NA	No	Naturally present in the environment
<b>Fluoride</b> (ppm)	2018	2.0	1	ND	NA	ND	NA	0.077	NA	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Haloacetic Acids</b> (ppb)	2018	60	NA	39	15–44	50	17–62	47	13–67	No	By-product of drinking water disinfection
<b>Nitrate [as nitrogen]</b> (ppm)	2018	10	10	ND	NA	ND	NA	0.18	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
<b>Nitrite [as nitrogen]</b> (ppm)	2018	1	1	ND	NA	ND	NA	ND	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
<b>Strontium-90</b> (ppb)	2014	8	0.35	NA	NA	35.1	29–38	130	110–140	No	Decay of natural and man-made deposits
<b>TTHMs [Total Trihalomethanes]<sup>1</sup></b> (ppb)	2018	80	NA	56.5	34–78	59	22–97	44	20–54	No	By-product of drinking water disinfection

**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
Barium (ppm)	2018	1	2	0.019	NA	0.0151	NA	0.002 <sup>2</sup>	NA <sup>2</sup>	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Bromate (ppb)	2018	10	0.1	NA	NA	NA	NA	NA	NA	No	By-product of drinking water disinfection
Chlorine (ppm)	2018	[4.0 (as Cl <sub>2</sub> )]	[4 (as Cl <sub>2</sub> )]	1.14	0.67–1.46	1.25	0.94–1.52	1.07	0.32–1.4	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (Units)	2018	TT	NA	0.71	0.4–1.2	1.15	0.6–1.8	NA	NA	No	Various natural and man-made sources
<i>Cryptosporidium</i> (Units)	2018	Surface water treatment = TT	HPC = NA; Others = (0)	ND	NA	1	ND–1	NA	NA	No	Naturally present in the environment
Fluoride (ppm)	2018	2.0	1	ND	NA	ND	NA	0.165 <sup>2</sup>	0.15–0.18 <sup>2</sup>	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids (ppb)	2018	60	NA	24	NA	45	21–45	1	NA	No	By-product of drinking water disinfection
Nitrate [as nitrogen] (ppm)	2018	10	10	ND	NA	ND	NA	ND	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrite [as nitrogen] (ppm)	2018	1	1	ND	NA	ND	NA	ND	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Strontium-90 (ppb)	2014	8	0.35	NA	NA	NA	NA	NA	NA	No	Decay of natural and man-made deposits
TTHMs [Total Trihalomethanes] <sup>1</sup> (ppb)	2018	80	NA	25	NA	48	27–48	3	NA	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	0.24 <sup>2</sup>	0/30 <sup>2</sup>	0.93 <sup>2</sup>	0/30 <sup>2</sup>	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2018	15	0.2	ND	0/20	1.4 <sup>2</sup>	1/30 <sup>2</sup>	2.6 <sup>2</sup>	0/30 <sup>2</sup>	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**

				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)	2018	500	NS	5.3	NA	2.2	NA	5.9	NA	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2018	15	NS	ND	NA	ND	NA	ND	NA	No	Naturally occurring organic materials
Corrosivity (Units)	2018	Non-corrosive	NS	-1.2	NA	-2.6	NA	-0.3	NA	No	Natural or industrially influenced balance of hydrogen, carbon, and oxygen in the water; affected by temperature and other factors
Iron (ppb)	2018	300	NS	ND	NA	ND	NA	ND	NA	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2018	50	NS	19	NA	4.2	NA	ND	NA	No	Leaching from natural deposits
Odor-Threshold (Units)	2018	3	NS	ND	NA	ND	NA	ND	NA	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2018	1,600	NS	120	NA	34	NA	200	NA	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2018	500	NS	7	NA	ND	NA	17	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2018	1,000	NS	74	NA	31	NA	130	NA	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2018	5	NS	0.04	0.027–0.113	0.09	0.06–0.14	0.051	0.036–0.107	No	Soil runoff
Zinc (ppm)	2018	5.0	NS	0.061	NA	0.17	NA	0.036	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)	2018	500	NS	3.6	NA	5	NA	6.85 <sup>2</sup>	6.4–7.3 <sup>2</sup>	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2018	15	NS	ND	NA	ND	NA	NA	NA	No	Naturally occurring organic materials
Corrosivity (Units)	2018	Non-corrosive	NS	-1.8	NA	-1.8	NA	-1 <sup>2</sup>	NA <sup>2</sup>	No	Natural or industrially influenced balance of hydrogen, carbon, and oxygen in the water; affected by temperature and other factors
Iron (ppb)	2018	300	NS	ND	NA	ND	NA	78	30–110	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2018	50	NS	ND	NA	ND	NA	20	9.5–35	No	Leaching from natural deposits
Odor-Threshold (Units)	2018	3	NS	ND	NA	1	NA	NA	NA	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2018	1,600	NS	61	NA	73	NA	180 <sup>3</sup>	NA <sup>3</sup>	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2018	500	NS	0.89	NA	ND	NA	12 <sup>3</sup>	11–13 <sup>3</sup>	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2018	1,000	NS	46	NA	60	NA	160 <sup>2</sup>	NA <sup>2</sup>	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2018	5	NS	0.14	0.09–0.28	0.06	0.04–0.09	NA	NA	No	Soil runoff
Zinc (ppm)	2018	5.0	NS	0.046	NA	0.11	NA	NA	NA	No	Runoff/leaching from natural deposits; industrial wastes

## UNREGULATED SUBSTANCES <sup>4</sup>

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Copper Cove		Ebbetts Pass		Jenny Lind		Sheep Ranch		West Point-Bear Creek		Wallace Water Treatment Plant		TYPICAL SOURCE
		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	
<b>Hardness, Total [as CaCO<sub>3</sub>] (ppm)</b>	2018	42	NA	8.8	NA	80	NA	18	NA	23.2	NA	42 <sup>2</sup>	41–43 <sup>2</sup>	Naturally occurring calcium and magnesium
<b>Magnesium (ppm)</b>	2018	5.2	NA	0.61	NA	7.4	NA	1.4	NA	2	NA	NA	NA	Naturally occurring
<b>Sodium (ppm)</b>	2018	7.1	NA	3.2	NA	80	NA	4.7	NA	7	NA	18.5	18–19	Naturally occurring
<b>Vanadium (ppb)</b>	2015	NA	NA	NA	NA	0.62	0.41–0.81	NA	NA	NA	NA	NA	NA	NA

<sup>1</sup> 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.

<sup>2</sup> Sampled in 2016.

<sup>3</sup> Sampled in 2017.

<sup>4</sup> 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.

## 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.

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

**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 the highest 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.