

# 2018 Annual Consumer Confidence Report

Blue Lakes Springs Mutual Water Company

PWS ID: CA0510009



BLUE LAKE SPRINGS  
MUTUAL WATER COMPANY



## **2018 ANNUAL DRINKING WATER QUALITY REPORT**

**APRIL 2019**

The following information is provided in compliance with those requirements established by the U.S. Environmental Protection Agency (USEPA) and the State Water Resource Control Board (SWRCB), Division of Drinking Water. It is the policy of Blue Lake Springs Mutual Water Company (BLSMWC) to inform shareholders and water users of water quality standards and typical concentrations of constituents found in the water. Our goal is, and always has been, to provide you with a safe and dependable supply of water.

### **WATER SOURCE**

Our primary source of water comes from 3 wells located in White Pines. Emergency generators are used to maintain distribution system pressure during emergencies and power outages. Additionally, Interconnections between Blue Lake Springs Mutual Water Company and Calaveras County Water District (CCWD) are used to maintain an adequate supply of water throughout all seasons. As part of a mutual benefit agreement, BLSMWC purchases water from CCWD. Purchased water accounts for roughly 50% of the water supply in the Blue Lake Springs Subdivision. The CCWD Water Quality Report can be viewed on their website [ccwd.org](http://ccwd.org), and their water quality data can also be seen in the tables below.

### **WATER TREATMENT**

The goal of the BLSMWC is to provide the highest quality water to the 1,708 connections our service area. Raw well water is treated for the removal of hydrogen sulfide, iron, and manganese. Potassium permanganate and chlorine are used to oxidize the water before filtration. pH is adjusted with caustic soda to reduce the potential for corrosion. Finally, water is disinfected with sodium hypochlorite to maintain a free-chlorine residual. Finished water is then pumped to storage tanks and is ready for consumption. The BLSMWC does not use fluoridation.

### **WATER REGULATIONS**

There are two categories of standards that regulate drinking water – primary and secondary standards. Primary standards aim to protect public health from substances that may be harmful to humans if consumed. Secondary standards, on the other hand, refer to the aesthetic qualities of water, such as taste and odor.

### **MONITORING**

Monitoring is conducted daily by certified water treatment operators. Samples collected from water sources, treatment facilities, and the distribution system are analyzed using state-of-the-art laboratory equipment. Analysis, other than for treatment, is done by Alpha Analytical Laboratories Inc., in Elk Grove, California. Samples are collected in accordance with the USEPA & SWRCB monitoring schedule.

### **QUALITY**

The quality of BLSMWC water meets or exceeds the current standards set by the USEPA and the SWRCB. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

### **IMPORTANT THINGS ABOUT YOUR WATER**

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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

## IS THE WATER SAFE FOR EVERYONE?

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 can be at risk from infections. These people should seek advice about drinking water from their health providers. For USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants call the Safe Drinking Water Hotline (1-800-426-4791).

## DRINKING WATER CONTAMINANTS

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 materials and can pick up substances resulting from the presence of animals or from human activity. 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 result from urban storm-water 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 storm-water runoff
- Organic chemical contaminants, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm-water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring, or which can be the result of oil and gas production and mining activities.

## Lead

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. BLSMWC is responsible for providing high quality drinking water but 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 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 (1-800-426-4701) or at <http://www.epa.gov/lead>.

## WATER SOURCE ASSESSMENT

An assessment of the drinking water sources for BLSMWC was completed in October 2001. The sources are considered most vulnerable to the following activities: septic systems and nearby recreational surface water. A copy of the complete assessment is available at the State Water Resources Control Board, Division of Drinking Water, 31 E. Channel Street, Room 270, Stockton, CA 95202 or at Blue Lake Springs Mutual Water Company, P.O. Box 6015, Arnold, CA 95223. You may request a summary of the assessment be sent to you by contacting the Division of Drinking Water at 209-948-7696 or Dave Hicks, General Manager, Blue Lake Springs Mutual Water Company at 209-795-7025.

## Definitions

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

**DDW:** Division of Drinking Water

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. Secondary MCLs (SMCL) are set to protect the odor, taste, and appearance of drinking water.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** 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.

**Micromhos per centimeter ( $\mu\text{mhos/cm}$ ):** A measure of electrical conductance.

**NA:** Not Applicable

**N/A:** No data available

**ND:** Not Detected

**NR:** Not Required

**NS:** No Standard

**Nephelometric Turbidity Units (NTU):** Measurement of the clarity, or turbidity, of the water.

**Notification Level (NL):** The concentration of a contaminant, which, if exceeded, requires notification to DDW and the consumer. Not an enforceable standard.

**pH:** A measurement of acidity, 7.0 being neutral.

**Picocuries per liter (pCi/L):** Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).

**Parts per billion (ppb):** One part substance per billion parts water, or micrograms per liter.

**Parts per million (ppm):** One part substance per million parts water, or milligrams per liter.

**Parts per trillion (ppt):** One part substance per trillion parts water, or nanograms per liter.

**Primary Drinking Water Standard (PDWS):** MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

**Public Health Goal (PHG):** 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.

**RAA:** Running Annual Average

**Secondary Maximum Contaminant Level (SMCL):** Secondary MCLs are set to protect the odor, taste, and appearance of drinking water

**SWRCB:** State Water Resources Control Board

**TON:** Threshold Odor Number

**Total Dissolved Solids (TDS):** An overall indicator of the amount of minerals in water.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**Variances and Exemptions:** State or USEPA permission not to meet an MCL or utilize a treatment technique under certain conditions.

**%:** Percent

## HOW TO READ THIS TABLE

Blue Lake Springs Mutual Water Company conducts extensive monitoring to ensure that your water meets all water quality standards. The results of our monitoring are reported in the following tables. While most monitoring was conducted in 2018, certain substances are monitored less than once per year because the levels do not change frequently.

- ✓ Look at the column named **Substance** and read across.
- ✓ **Year Sampled** is 2018 or prior.
- ✓ **MCL** is the highest concentration of a substance allowed per State and federal regulations.
- ✓ **MCLG** is the goal for that substance's concentration in drinking water (usually lower than the MCL).
- ✓ **Average Amount Detected** represents the average of all samples taken for the substance.
- ✓ **Range** tells the highest and lowest concentrations measured.
- ✓ **Violation** indicates whether State and federal requirements were met
- ✓ **Major Sources in Drinking Water** tells where the substance usually originates.

Below is a table that shows the measurement of concentration in terms of time to render a better understanding of water quality results.

Units		Equivalence
mg/L – milligrams per liter	ppm – parts per million	1 second in 11.5 days
µg/L – micrograms per liter	ppb – parts per billion	1 second in nearly 32 years
ng/L – nanograms per liter	ppt – parts per trillion	1 second in nearly 32,000 years
pg/L – picograms per liter	ppq – parts per quadrillion	1 second in nearly 32,000,000 years

## FOR MORE INFORMATION

The table below lists drinking water standards and typical concentrations of constituents found in your water. If you would like additional information or have concerns about the quality of your water, please call the office at 209-795-7025 and contact Dave Hicks. If you would like additional information about monthly board meetings, please call the office at 209-795-7025 to contact Dave Hicks.

This report contains important information about your drinking water. Translate it or speak with someone who understands it at 209-795-7075.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien al 209-795-7075.

## Primary Drinking Water Standards

Substance (units)	Year Sampled	MCL	PHG (MCLG)	BLSMWC			CCWD		Violation	Major Sources in Drinking Water
				Average Amount Detected	Range		Average Amount Detected	Range Low-High		
					Low	High				
Fluoride (ppm)	2016,2018	2	1	ND	ND	0.11	ND	N/A	No	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Barium (ppm)	2018	1	2	ND	NA		0.0093	N/A	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Control of DBP Precursors [TOC] (units)	2018	TT	NA	NA <sup>1</sup>	N/A		1.37	1-1.7	No	Various natural and man-made sources
Gross Alpha Particle Activity (pCi/L)	2017	15	0	ND	ND	3.0	ND	N/A	No	Erosion of natural deposits

## Distribution System Monitoring

Substance (units)	Year Sampled	MCL	BLSMWC			CCWD		Violation	Major Sources in Drinking Water
			Average Amount Detected	Range		Average Amount Detected	Range Low-High		
				Low	High				
Chlorine (ppm)	2018	MRDL = 4.0	0.77	0.7	1.7	0.7	0.6-0.8	No	Treatment chemical used to disinfect drinking water
Haloacetic Acids (ppb)	2018	60	37	28	53	50	17-62	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)(ppb)	2018	80	49	37	63	59	22-97	No	Byproduct of drinking water disinfection
Total Coliform Bacteria (% positive)	2018	5%	0%	N/A		0%	N/A	No	Naturally present in the environment

## Secondary Drinking Water Standards

Substance (units)	Year Sampled	SMCL	BSMWC			CCWD		Violation	Major Sources in Drinking Water
			Average Amount Detected	Range		Average Amount Detected	Range Low-High		
				Low	High				
Aluminum (ppb)	2016	200	58	N/A		ND	N/A	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2016	500	2.7	2.4	3.2	2.2	N/A	No	Runoff/leaching from natural deposits; seawater influence
Color (units)	2016	15	9	ND	15	ND	N/A	No	Natural-occurring organic materials
Manganese (ppb)	2018	50	ND	N/A		4.2	N/A	No	Leaching from natural deposits
Specific Conductance (µS/cm)	2016	1600	346	240	460	34	N/A	No	Substances that form ions in water
Sulfate (ppm)	2016	500	40	7.6	91	ND	N/A	No	Leaching from natural deposits
Total Dissolved Solids (TDS)(ppm)	2016	1000	226	140	310	31	N/A	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2016,2018	TT (BSMWC)= 5.0 TT (CCWD)= 95% of all samples <0.3	10.8	0.54	18	0.09	0.06-0.14	No	Soil runoff
Zinc (ppb)	2016	5	0.1	ND	0.31	0.17	N/A	No	Runoff/leaching from natural deposits; industrial wastes

<sup>1</sup> Only surface water sources must comply with PDWS for Control of Disinfection By-Product Precursors.

## Lead and Copper (Tap Water Samples from the Blue Lake Springs Water System)

Substance (units)	Year Sampled	Action Level	PHG (MCLG)	Number of Samples	Amount Detected at 90 <sup>th</sup> Percentile	Homes above Action Level	Violation	Major Sources in Drinking Water
Copper (ppm)	2018	1.3	0.3	20	0.31	0	No	Internal corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2018	15	0.2	20	7	1	No	Internal corrosion of household plumbing systems; Erosion of natural deposits; Discharges from industrial manufacturers

## Cryptosporidium (CCWD data)

Substance (units)	Year Sampled	MCL/SMCL	PHG (MCLG)	CCWD		Violation	Major Sources in Drinking Water
				Average Amount Detected	Range Low-High		
Cryptosporidium <sup>2</sup> (Units)	2018	TT	HPC = NA, Others = 0	31	ND - 31	No	Naturally present in the environment

## Additional Constituents

Substance (units)	Year Sampled	BLSMWC			CCWD	
		Average Amount Detected	Range		Average Amount Detected	Range Low-High
Alkalinity as CaCO <sub>3</sub> (ppm)	2016	132.3	Low	High	N/A	N/A
Calcium (ppm)	2016	44	87	160	N/A	N/A
Magnesium (ppm)	2016	7.7	3.6	10.0	0.61	NA
Hardness (CaCO <sub>3</sub> ) <sup>3</sup> (ppm)	2016	141	67	199	8.8	NA
pH	2016	7.0	6.9	7.1	N/A	N/A
Sodium <sup>4</sup> (ppm)	2016	7.4	6.3	8.4	3.2	NA

<sup>2</sup> Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. 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. CCWD's monitoring indicates the presence of these organisms in CCWD's source water and/or finished water. 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, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised 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.

<sup>3</sup> "Hardness" is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.

<sup>4</sup> "Sodium" refers to the salt present in the water and is generally naturally occurring.