BLUE LAKE SPRINGS
MUTUAL WATER COMPANY

2020 ANNUAL DRINKING WATER QUALITY REPORT APRIL 2021

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 Blue Lake Springs Subdivision. The CCWD Water Quality Report can be viewed on their website ccwd.org, and their water quality data can also be seen in the tables below.

WATER TREATMENT

The goal of BLSMWC is to provide the highest quality water to the 1,710 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. 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 (1-800-426-4791) 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 Tyler Mayo, General Manager, Blue Lake Springs Mutual Water Company at 209-795-7025.

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.

- ✓ **Year Sampled** is 2017 or later.
- ✓ **PH** a measurement of acidity.
- ✓ **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).
- ✓ **MRDL** is the highest level of disinfectant allowed in drinking water.
- ✓ **SMCL (Secondary MCL)** is set to protect odor, taste, and appearance of drinking water.
- ✓ **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.
- ✓ **N/A:** No data available, **ND:** Not detected, **NR:** Not required, **NS:** No standard
- ✓ **Treatment Technique (TT)** A required process intended to reduce the level of a contaminants

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 Tyler Mayo. If you would like additional information about monthly board meetings, please call the office at 209-795-7025 to contact Tyler Mayo.

Primary Drinking Water Standards

Substance (units)	Year Sampled	MCL	PHG (MCLG)	BLSMWC			CCWD		Violation	Major Sources in Drinking Water
				Average Amount Detected	Range Low	Range High	Average Amount Detected	Range Low-High		
Arsenic (ppb)	2019	**10**	0.004	1	ND	3.1	NA	ND	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Control of DBP Precursors [TOC] (units)	2019	**TT**	NA	NA[1]	N/A		1.24	1-1.5	No	Various natural and man-made sources
Gross Alpha Particle Activity (pCi/L)	2017	**15**	0	ND	ND	3.0	NA	ND	No	Erosion of natural deposits

[1] Only surface water sources must comply with PDWS for Control of Disinfection By-Product Precursors.

Distribution System Monitoring

Substance (units)	Year Sampled	MCL	BLSMWC Average Amount Detected	BLSMWC Range Low	BLSMWC Range High	CCWD Average Amount Detected	CCWD Range Low-High	Violation	Major Sources in Drinking Water
Chlorine (ppm)	2019	MRDL = **4.0**	0.74	0.45	0.93	1.34	0.7-1.55	No	Treatment chemical used to disinfect drinking water
Haloacetic Acids (ppb)	2019	**60**	39	29	56	22	18-28	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)(ppb)	2019	**80**	51	40	75	27	23-33	No	Byproduct of drinking water disinfection

Secondary Drinking Water Standards

Substance (units)	Year Sampled	SMCL	BLSMWC Average Amount Detected	BLSMWC Range Low	BLSMWC Range High	CCWD Average Amount Detected	CCWD Range Low-High	Violation	Major Sources in Drinking Water
Chloride (ppm)	2019	**500**	2.0	1.6	2.2	3	NA	No	Runoff/leaching from natural deposits; seawater influence
Color (units)	2019	**15**	8.3	ND	15	NA	ND	No	Natural-occurring organic materials
Specific Conductance (µS/cm)	2019	**1600**	320	270	370	35	NA	No	Substances that form ions in water
Sulfate (ppm)	2019	**500**	14.2	2.9	36	0.7	NA	No	Leaching from natural deposits
Threshold Odor	2019	**3**	2.8	2	4	ND	ND-8	No	Naturally-occurring organic materials
Total Dissolved Solids (TDS)(ppm)	2019	**1000**	200	160	230	30	NA	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2019	TT (BLSMWC)= 5.0 TT (CCWD)= 95% of all samples <0.3	6.37	0.41	9.5	0.1	0.07-0.24	No	Soil runoff
Zinc	2019	**5**	NA	NA	NA	0.1	NA	No	Runoff/leaching from natural deposits; industrial wastes

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 90th 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

Additional Constituents

Substance (units)	Year Sampled	BLSMWC Average Amount Detected	BLSMWC Range Low	BLSMWC Range High	CCWD Average Amount Detected	CCWD Range Low-High
Alkalinity as $CaCO_3$ (ppm)	2019	163	140	180	NA	NA
Calcium (ppm)	2019	46	40	52	NA	NA
Corrosivity (units)	2019	NA	NA	NA	-2.1	NA
Magnesium (ppm)	2019	8.3	6.4	9.7	NA	NA
Hardness ($CaC0_3$)[2] (ppm)	2019	148	126	166	7.49	NA
pH	2019	7.2	7.1	7.3	NA	NA
Sodium[3] (ppm)	2019	8.4	5.9	12.0	3	NA

[2] "Hardness" is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.
[3] "Sodium" refers to the salt present in the water and is generally naturally occurring.