**2021 ANNUAL DRINKING WATER QUALITY REPORT APRIL 2022**

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 1,712 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 California Laboratory Services in Rancho Cordova, 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 2019/2020, 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.

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| **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.

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| **Primary Drinking Water Standards** | | | | | | | | | | |
| **Substance (units)** | **Year**  **Sampled** | **MCL** | **PHG PHG**  **PHG**  **(MCLG)** | **BLSMWC** | | | **CCWD** | | **Violation** | **Major Sources in Drinking Water** |
| **Average Amount Detected** | **Range** | | **Average Amount Detected** | **Range**  **Low-High** |
| **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) | 2020 | **TT** | NA | NA[[1]](#footnote-1) | N/A | | 1.14 | .7-1.5 | 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 |

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| **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) | 2021 | MRDL = **4.0** | 0.97 | 0.32 | 1.62 | 1.26 | 0.92-1.98 | No | Treatment chemical used to disinfect drinking water |
| Haloacetic Acids (ppb) | 2021 | **60** | 46 | 33 | 62 | 61 | 27-71 | No | Byproduct of drinking water disinfection |
| Total Trihalomethanes (TTHM)(ppb) | 2021 | **80** | 57 | 55 | 59 | 76 | 23-150 | No | Byproduct of drinking water disinfection |

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| **Secondary Drinking Water Standards** | | | | | | | | | |
| **Substance (units)** | **Year Sampled** | **SMCL** | **BLSMWC** | | | **CCWD** | | **Violation** | **Major Sources in Drinking Water** |
| **Average Amount Detected** | **Range** | | **Average Amount Detected** | **Range**  **Low-High** |
| **Low** | **High** |
| Chloride (ppm) | 2019/2020 | **500** | 2.0 | 1.6 | 2.2 | 3 | NA | No | Runoff/leaching from natural deposits; seawater influence |
| Color (units) | 2019/2020 | **15** | 8.3 | ND | 15 | ND | NA | No | Natural-occurring organic materials |
| Specific Conductance (µS/cm) | 2019/2020 | **1600** | 320 | 270 | 370 | 35 | NA | No | Substances that form ions in water |
| Sulfate (ppm) | 2019/2020 | **500** | 14.2 | 2.9 | 36 | 1 | NA | No | Leaching from natural deposits |
| Threshold Odor | 2019/2020 | **3** | 2.8 | 2 | 4 | 2 | ND-2 | No | Naturally-occurring organic materials |
| Total Dissolved Solids (TDS)(ppm) | 2019/2020 | **1000** | 200 | 160 | 230 | ND | NA | No | Runoff/leaching from natural deposits |
| Turbidity (NTU) | 2019/2020 | TT (BLSMWC)= 5.0  TT (CCWD)= 95% of all samples <0.3 | 6.37 | 0.41 | 9.5 | 0.09 | 0.06-0.2 | No | Soil runoff |
| Zinc | 2019/2020 | **5** | NA | NA | NA | 0.11 | NA | No | Runoff/leaching from natural deposits; industrial wastes |

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| **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) | 2021 | **1.3** | 0.3 | 20 | 0.54 | 0 | No | Internal corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| Lead (ppb) | 2021 | **15** | 0.2 | 20 | .0074 | 0 | No | Internal corrosion of household plumbing systems; Erosion of natural deposits; Discharges from industrial manufacturers |

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| **Additional Constituents** | | | | | | |
| **Substance (units)** | **Year Sampled** | **BLSMWC** | | | **CCWD** | |
| **Average Amount Detected** | **Range** | | **Average Amount Detected** | **Range**  **Low-High** |
| Low | High |
| Alkalinity as CaCO3 (ppm) | 2019/2020 | 163 | 140 | 180 | NA | NA |
| Calcium (ppm) | 2019/2020 | 46 | 40 | 52 | NA | NA |
| Corrosivity (units) | 2019/2020 | NA | NA | NA | -2.6 | NA |
| Magnesium (ppm) | 2019/2020 | 8.3 | 6.4 | 9.7 | ND | NA |
| Hardness (CaC03)[[2]](#footnote-2) (ppm) | 2019/2020 | 148 | 126 | 166 | 4.99 | NA |
| pH | 2021/2020 | 7.3 | 7.1 | 7.6 | NA | NA |
| Sodium[[3]](#footnote-3) (ppm) | 2019/2020 | 8.4 | 5.9 | 12.0 | 7 | NA |

1. Only surface water sources must comply with PDWS for Control of Disinfection By-Product Precursors. [↑](#footnote-ref-1)
2. “Hardness” is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring. [↑](#footnote-ref-2)
3. “Sodium” refers to the salt present in the water and is generally naturally occurring. [↑](#footnote-ref-3)