Maximum Contaminant Level (MCL): 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 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 are set by the U.S. Environmental Protection Agency (USEPA).

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 Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): 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.

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.

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

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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

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

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

ppt: parts per trillion or nanograms per liter (ng/L)

pCi/L: picocuries per liter (a measure of radiation)

In order to ensure that tap water is safe to drink, the USEPA and the State Water Resources Control Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

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.

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 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 that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants* can be naturally-occurring or be the result of oil and gas production and mining activities.

Tables 1, 2, 3, 4, 5, 6, and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows LAWC to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

Lake Alpine Water Company

2017 Water Quality Report

Since 1964

This report shows the results of water monitoring for the period of January 1 - December 31, 2017.

PO Box 5013 Bear Valley, CA 95223

Office: 209-753-2409

Email: info@lakealpinewater.com

Plant: 209-753-6241

If you have questions about your water quality, service or the information in this report, please call us at 209-753-2409 Mon-Thurs from 9 am to 2 pm.

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. Lake Alpine Water Company 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. [Optional: 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 (1-800-426-4701) or at http://www.epa.gov/lead.

How are your payments distributed?

In addition to the fees we collect to keep the plant operating and the water flowing, there are fees that we collect and pass on to other entities.

CPUC fees are based on 1.40% of the service and metered water fees. These fees were established by the California State Legislature in 1982 to fund the regulation of public utilities by the California Public Utilities Commission. 100% of these surcharges collected by LAWC are paid to the CPUC.

SDWSRF fees are collected to retire the Safe Drinking Water State Loan. This low interest loan was issued to LAWC in 2004 to pay for the new treatment plant and building. 100% of these surcharges collected by LAWC are paid to the fiscal agent for the State Water Resources Control Board.

The service fees and metered water charges are used to pay for all operations and capital improvements to the treatment and distribution system. Here is a breakdown of how the fees are used:

20%	System operators
16%	Capital improvements
13%	Customer service & office management
13%	Contractors, Accountant & Attorney
7%	Government Fees and Taxes
7%	Electricity, fuel and vehicles
6%	Insurance, Dues, Interest
5%	Treatment chemicals and lab testing
3%	General Supplies
0.5%	Directors fees

Projects at the Lake Alpine Water System

- *Bear Lake* Graded and resurfaced the top of Reba Dam to reduce erosion. Removed woody vegetation from both seams of the dam to reduce root intrusion.
- *Distribution System* Repaired two leaking service laterals on Bloods Ridge Road and Schimke Road
- *Meters* Repaired the meter box for BaseCamp Lodge. Installed a new lead-free meter at the BV School.
- *Water Conservation* Performed a leak detection audit of all mains and hydrants. Tagged 3 spots for repair in 2018.
- *Water Quality* Installed a granular activated carbon filter to remove organics and reduce the formation of disinfection byproducts. Reactivated the limestone contact tank to stabilize the water and decrease lead and copper leaching.
- *Customer Service* Assisted four customers with chronic leak alerts. Enrolled 13 more customers in the ACH payment plan and e-bills.
- *Looking forward* During 2018, LAWC staff will upgrade the granulated carbon filter installation to further reduce disinfection byproducts. In the field, we will do a point to point leak detection survey and repair 3 leaking service laterals.

Additional General Information on Drinking 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791). Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

The water source for LAWC is the Bear Lake Reservoir contained by an earthen dam in the town of Bear Valley. A source assessment was completed in October 2000 and is available at the LAWC office for review.

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

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	**Highest No. of Detections**	**No. of Months in Violation**	*MCL*	**MCLG**	**Typical Source of Bacteria**
Total Coliform Bacteria (state Total Coliform Rule)	(In a mo.) 1	0	1 positive monthly sample	0	Naturally present in the environment
Fecal Coliform or *E. coli* (state Total Coliform Rule)	(In the year) 0	0	One routine or repeat sample is also fecal coliform or *E. coli* positive		Human and animal fecal waste
E. coli (federal Revised Total Coliform Rule)	(In the year) 0	0	(a)	0	Human and animal fecal waste

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper **(complete if lead or copper detected in the last sample set)**	**Sample Date**	**No. of Samples Collected**	**90th Percentile Level Detected**	**No. Sites Exceeding AL**	**AL**	**PHG**	**No. of Schools Requesting Lead Sampling**	**Typical Source of Contaminant**
Lead (ppb)	Aug 2017	20	ND	0	15	0.2	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	Aug 2017	20	0.098	0	1.3	0.3	Not applicable	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Sodium (ppm)	July 2017	1.5	NA	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	July 2017	11	NA	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Aluminum (ppb)	July 2017	110	NA	1000	600	Erosion of natural deposits; residue from some surface water treatment processes
Chlorine (ppm)	2017	0.57	0.76-0.36	4	4	Drinking water disinfectant added for treatment
*Haloacetic Acids (HAA) (ppb)	2017	75.8	24.7-148.0	60	NA	Byproduct of drinking water disinfection
Trihalomethane (TTHM) (ppb)	2017	52.3	16.6-99.5	80	NA	Byproduct of drinking water disinfection

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	*Typical Source of Contaminant*
Color (units)	2017	8	15-5	15	15	Naturally-occurring organic materials
Manganese (ppm)	2017	.031	.054-.020	.050	.050	Leaching from natural deposits
Total Dissolved Solids (ppm)	Aug 2017	35	NA	1000	1000	Runoff and leaching from natural deposits
Specific Conductance (uS/cm)	Aug 2017	32	NA	1600	1600	Substances that form ions when in water; seawater influence

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS-NONE

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT

Violation	**Explanation**	**Duration**	**Actions Taken to Correct the Violation**	**Health Effects Language**
*Exceeded MCL for Running Annual Average (RAA) of Haloacetic Acids	The RAA for HAA5 was exceeded for all quarters of 2017 but the samples for the last 2 quarters were below the MCL.	4 quarters of 2017	A granular activated carbon filter was installed in May 2017 to remove organic carbons which are the precursors of disinfection by products like HAA	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES

Treatment Technique [(a)]	Membrane microfiltration
Turbidity Performance Standards [(b)] (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to __0.1___ NTU in 95% of measurements in a month. 2 – Not exceed ___1.0__ NTU for more than eight consecutive hours. 3 – Not exceed _1.0___ NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	98.31%
Highest single turbidity measurement during the year	.097 NTU
Number of violations of any surface water treatment requirements	0

(a) A required process intended to reduce the level of a contaminant in drinking water.
(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.