Consumer Confidence Report

2023

Bass Lake Water Company

Po Box 113, Bass Lake, California 93604
559-642-2494
BassLakeWaterCompany.com *email: Water@Basslakerealty.Com*

General Information

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our main water source is surface water from Willow Creek, and secondarily from wells that draw from hard rock fractures deep in the earth. This report shows our water quality and what it means.

A Drinking Water Source Assessment was completed for the water sources in January 2020. It indicated that the surface water supply is most vulnerable to contamination from recreational activities in the watershed. The well sources are most vulnerable to the sewage collection system, utility stations and wastewater facilities. The assessment is available by contacting the Water Company.

If you have any questions about this report or concerning your water utility, please contact Shawn Roope at (559) 642-2494. We want our valued customers to be informed about their water utility.

The sources of drinking water (both tap 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 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, 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 storm water runoff, and septic systems

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, USEPA and the California Department of Water Resources, Division of Drinking Water prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

All 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).

Water Sources

Willow Creek	325 GPM	Pines Well #1	40 GPM
North Shore Well #4	20 GPM	School Road Well	125 GPM
Standby or Emergency Water Sources			
North Shore Well #1	30 GPM		

From Page 1

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 microbiological contaminants are available from the Safe Drinking Water Hotline at (1-800-426-4791).

In our continuing efforts to maintain a safe and dependable water supply, it may be necessary to make improvements in your water system. Construction is now underway on a new micro-filtration surface water treatment plant with completion expected late summer or early fall 2023. It will be a state of the art advanced filtration system and will have the capability for higher volume than our current treatment facility. This cost will be reflected in the rate structure by the addition of a surcharge to fund the payments on the State Revolving Fund (SRF) loan that is financing the improvements

Glossary

In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

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.

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.

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

Secondary Drinking Water Standard (SDWS): Means standards that specify maximum contaminant levels that, in the judgment of the department, are necessary to protect the public welfare. Secondary drinking water standards may apply to any contaminant in drinking water that may adversely affect the odor or appearance of the water and may cause a substantial number of persons served by the public water system to discontinue its use, or that may otherwise adversely affect the public welfare. Regulations establishing secondary drinking water standards may vary according to geographic and other circumstances and may apply to any contaminant in drinking water that adversely affects the taste, odor, or appearance of the water when the standards are necessary to assure a supply of pure, wholesome, and potable water.

Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

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

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

NOTE: All Sources are not required to be tested for all constituents or contaminants yearly as dictated by Department of Water Resources, Division of Drinking Water. The most current results are provided in this report, which are from years 2006-2021.

Table I - Health-Based Primary Drinking Water Standards

Standby well North Shore #1 was used four days in 2021.

Contaminants Detected in Treated Water

Contaminants		Unit	MCL	MCLG/ PHG	Groundwater Wells			Treated Sources		Meet Primary Standard ?	Typical Source of Contaminant
					Pines 1	North Shore 1	North Shore 4	School Road Well	Willow Creek		
Radioactive					Range	Range	Range	Range	Result		
Gross Alpha Particle	Range	pCi/L	15	15	1.1	*36*	14	5.9	ND	All sources, excluding *North Shore 1*	Erosion of natural deposits
	Average	pCi/L	15	20	n/a	*n/a*	n/a	n/a	n/a	All sources, excluding *North Shore 1*	
Uranium	Range	pCi/L	20	20	ND-1.05	*14.7-30.1*	ND-14.3	0.13	0.59	All sources, excluding *North Shore 1*	Erosion of natural deposits
	Average	pCi/L	20	20	0.35	*23.24*	6.5	0.13	n/a	All sources, excluding *North Shore 1*	
Uranium	Range	ug/L	30	30	n/a	*34-45*	14-37	ND-1.1	n/a	All sources, excluding *North Shore 1*	Erosion of natural deposits
	Average	ug/L	30	30	n/a	*39.5*	20.3	0.18	n/a	All sources, excluding *North Shore 1*	

Radioactive Health Effects:

Gross Alpha: Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Uranium: Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer.

Contaminants	Unit	MCL	MCLG/ PHG	Groundwater Wells			Treated Sources		Meet Primary Standard ?	Typical Source of Contaminant
				Pines 1	North Shore 1	North Shore 4	School Road Well	Willow Creek		
Inorganic										
Aluminum	ug/L	1000	1000	ND	96	9.4	ND	44	Yes	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic	ug/L	10	10	ND	2.3	2.2	6.6	ND	Yes	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Asbestos	MFL	7	7	ND	ND	ND	ND	ND	Yes	Internal corrosion of asbestos cement water mains; erosion of natural deposits
Barium	ug/L	1000	1000	10	2.4	4.2	1	13	Yes	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Copper	mg/L	1.3	2	0.0079	ND	ND	ND	ND	Yes	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	mg/L	2	2	0.14	ND	ND	0.45	ND	Yes	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	ug/L	15	0.17	ND	ND	ND	ND	ND	Yes	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Table I - Health-Based Primary Drinking Water Standards Continued

Contaminants	Unit	MCL	MCLG/ PHG	Groundwater Wells			Treated Sources		Meet Primary Standard ?	Typical Source of Contaminant
				Pines 1	North Shore 1	North Shore 4	School Road Well	Willow Creek		
Inorganic Continued										
Nickel	ug/L	100	100	ND	1.0	ND	ND	ND	Yes	Erosion of natural deposits; discharge from metal factories
Nitrate (as N)	mg/L	45	45	ND	ND	ND	ND	ND	Yes	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

Inorganic Health Effects:

Aluminum: Some people who drink water containing aluminum in excess of the MCL over many years may experience short-term gastrointestinal tract effects.

Arsenic: Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer.

Barium: Some people who drink water containing barium in excess of the MCL over many years may experience an increase in blood pressure.

Copper: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Fluoride: Some people who drink water containing fluoride in excess of the federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L may get mottled teeth.

Lead: Infants and children who drink water containing lead in excess of the action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure.

Nickel: Some people who drink water containing nickel in excess of the MCL over many years may experience liver and heart effects.

Nitrate: Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women.

Health-Based Primary Drinking Water Standards

Contaminants Detected in Distribution System and Reported on a System-Wide Basis

Contaminants	Unit	Average	Range	MCL	MCLG/ MRDL	Meet Primary Standard ?	Typical Source of Contaminant
Copper	mg/L	90th Percentile Value =.154	No. of Samples exceeding AL = 0 out of 10	1.3 AL	2	Yes	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	ug/L	90th Percentile Value =6.14	No. of Samples exceeding AL = 0 out of 10	15 AL	0.17	Yes	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Total Chlorine Residual	mg/L	0.75	.34-1.16	4	4	Yes	Disinfectant added to drinking water
Total Coliform Bacteria	#*	0	n/a	>1/Month	n/a	Yes	Naturally present in the environment
Total Halocetic Acids	ug/L	34	n/a	60	n/a	Yes	By-product of drinking water chlorination
Total Trihalomethanes	ug/L	25	n/a	80	n/a	Yes	By-product of drinking water chlorination

* Total Coliform Bacteria is reported for compliance as the number of positive per month

Table II - Aesthetic-Based Secondary Drinking Water Standards
Constituents-Contaminants Detected in Treated Water

Contaminants	Unit	MCL	MCLG/ PHG	Groundwater Wells			Treated Sources		Meet Secondary Standard ?	Typical Source of Contaminant
				Pines 1	North Shore 1	North Shore 4	School Road Well	Willow Creek		
Chloride	mg/L	250	n/a	ND	2.3	2.7	2.1	3.5	Yes	Runoff/leaching from natural deposits; sea water influence
Iron	mg/L	300	n/a	0.27	0.35	0.73	ND	ND	Yes	Leaching from natural deposits
Manganese	mg/L	50	n/a	0.005	0.015	0.011	0.015	ND	Yes	Leaching from natural deposits
Magnesium	mg/L	n/a	n/a	0.69	6.1	6.4	2.7	0.65	Yes	Erosion of natural deposits
Specific Conductance	Us/cm	900	n/a	70	360	300	220	45	Yes	Substances that form ions when in water; sea water influence
Turbidity	Units	5	n/a	0.55	1.5	1.5-7.0	0.14	see below	**	Soil runoff
Zinc	mg/L	5	n/a	0.02	0.11	0.065	ND	ND	Yes	Erosion of natural deposits; industrial wastes

** North Shore 4 average turbidity from 2015-2021 is 4.0

Table III - Unregulated Constituents-Contaminants Detected in Treated Water

Contaminants	Unit	Groundwater Wells			Treated Sources		Typical Source of Contaminant
		Pines Well 1	North Shore 1	North Shore 4	School Road	Willow Creek	
Calcium	mg/L	5.4	46	33	22	3.7	Naturally occurring organic materials
Hardness (as $CaCO_3$)	mg/L	41	180	140	110	21	Erosion of natural deposits
Sodium	mg/L	7.2	16	14	19	4.2	Erosion of natural deposits

Table IV - Willow Creek Surface Water Treatment Plant Turbidity

Turbidity Performance Standards	Meets Standard?	Highest single turbidity measurement during 2021	The number of violations of any surface water treatment requirements
1- Must be less than or equal to 0.146 NTU in 95% of measurements in a month	Yes	0.385	0
2- Not exceed 1.0 NTU for more than two consecutive measurements 15 minutes apart	Yes		
3- Not exceed 5.0 NTU at any time.	Yes		

Abbreviations

mg/L : milligrams per liter (equivalent to ppm)
n/a: not applicable
ND: none detected
pCi/L; picoCuries per liter
ppm: parts per million
ppb: parts per billion
ug/L: micrograms per liter (equivalent to ppb)
uS/cm: micro Siemens per centimeter

Bass Lake Water Company has five sources of drinking water, two of which receive treatment. Willow Creek is our major source of water; water is diverted from Willow Creek at Angel Falls to the treatment plant and then onto the distribution system. We supplement Willow Creek Treatment Plant water with water from three wells during the summer months or when turbidity levels are high in the creek due to storms or high run-off periods. North Shore Well #1 is a standby source which was used 4 days in August 2014 due to low flow conditions in Willow Creek; 75 days during the period August through October in 2015 when the creek dried up; and 2 days in July and 2 days in August 2021 when the treatment plant was temporarily unable to meet system demand. The previous time this well was used was in 2007. Each source of water can flow to any portion of the interconnected distribution system. The School Road Well has a uranium treatment system. There is a total of approximately 1.5 million gallons of water storage in 7 storage tanks interconnected throughout the system.

Important Information from Water Remediation Technology (WRT)

WRT has reviewed and examined the Bass Lake Water Co. uranium treatment system performance in terms of uranium removal and treated water quality. The uranium treatment system is currently performing satisfactorily, exceeding uranium removal to levels well below State of California Department of Public Health regulations and has done so consistently from the time of initial commissioning in June of 2007. The Bass Lake Water Co. uranium treatment system consists of a two-stage semi-packed bed media vessels operated in series. Each vessel houses uranium specific removal media designed to capture and retain uranium compounds until such time of media replacement. The primary stage of uranium removal media has consistently retained 95 to 99 percent of the entering raw water uranium. The second stage of uranium removal media is designed to provide final uranium removal 'polishing' of the treated water and act as a treatment buffer should the primary stage reach a point of near full capacity and significant uranium discharge. Uranium loading on the second treatment vessel based on the primary treatment vessel discharge is very low. Final treated water uranium values have occasionally tested in the low single digits and are typically "non-detect" in micrograms per liter. The regulated allowable uranium concentration in drinking water is 20 picocuries per liter or 30 micrograms per liter equivalent.

WRT has continually monitored Bass Lake Water Company test results and performs analyses to assess the status of the uranium removal media. This data is regularly reviewed by the State Division of Drinking Water. Due to rising levels in the primary vessel in early 2015, even though they were still below the maximum contaminant limits, it was determined to replace the media in both vessels which is a normal maintenance procedure for this type of filter system. It was completed in April 2015 by WRT and after proper testing was placed back in service in May and continues to perform as designed removing nearly all of the raw water uranium.

Important Information About Lead in Drinking Water

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. Bass Lake 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. 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 or at http://www.epa.gov/safewater/lead.