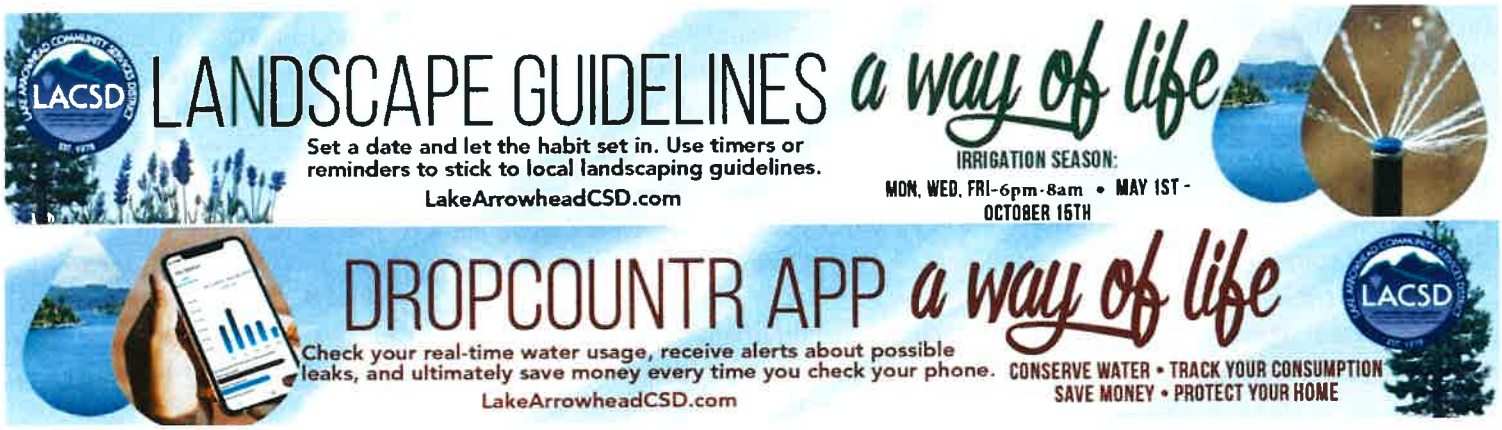
The Lake Arrowhead Community Services District

2021 Water Quality Consumer Confidence Report (CCR)

LAKE ARROWHEAD CSD WATER SYSTEM

***Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Para una versión en español por favor póngase en contacto con nuestra oficina* - (909) 336-7100 -**http://www.lakearrowheadcsd.com/



The Lake Arrowhead Community Services District (LACSD) is happy to present the 2021 annual water quality report covering all testing performed between January 1 and December 31, 2021. At LACSD, we are committed to ensuring a safe, dependable water supply for our community. We continually monitor the drinking water that we deliver to be sure that it meets or exceeds all state and federal standards. In addition to monitoring the water, we also maintain and work to improve our treatment plants, wells, pump stations, reservoirs, water mains, service lines and fire hydrants that make up your water system. Here is a link to a short, kid-friendly system overview video: http://www.lakearrowheadcsd.com/lacsd-you/. We seek new and more efficient methods to deliver the highest quality drinking water possible. Our staff is available 24 hours a day for emergencies and regularly work 7 days a week to overcome increasingly difficult challenges of source water protection, drought preparedness, water conservation and ever-changing regulations while striving to increase community education and awareness to better serve the needs of all our water users. Please remember that we are always available should you ever need any information about your water quality.

DRINKING WATER - including bottled water, can be expected to contain at least small amounts of some contaminants. Most of these contaminants have allowable levels set by the State and Federal government. More information about contaminants and potential health effects can be obtained by calling the **EPA's Safe Drinking Water Information Hotline** at **1-800-426-4791**. LACSD customers in the Arrowhead Woods receive water from Lake Arrowhead through two surface water treatment plants. A small portion of your drinking water comes from five groundwater wells along with purchased water from Crestline-Lake Arrowhead Water Agency (CLAWA). CLAWA treats the water from Silverwood Lake and delivers it to LACSD where it is blended with our other sources.

SOURCES OF DRINKING WATER - 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. Water can acquire naturally occurring minerals and contaminants, such as:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production or mining activities.

Inorganic contaminants, such as salts and metals like arsenic, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic sewage discharges, oil and gas production, mining, and farming. Arsenic can pose a risk of cancer when ingested. Fortunately, LACSD's routine sampling has shown "not detected" results.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban storm water runoff, agricultural application, and septic systems.

PROTECT YOUR WATER SOURCE

Quagga/Zebra Mussels, pose a serious threat to our lake, fishery, and water system. Thanks to our community, and ALA's diligence and Member support, the lake has remained Quagga/Zebra Mussel free. Be sure items used on Lake Arrowhead (vessels, including but not limited to kayaks, canoes, pedal boats and paddle boards, inflatables, wet-suits, life jackets, rafts, squirt guns, waders etc.) are only used on Lake Arrowhead and not on any other body of water. If you have questions, please call ALA's main office (909) 337-2595.

Report illegal dumping, Materials dumped in soil can wind-up in your drinking water. If you witness illegal dumping contact County of San Bernardino Code Enforcement at (909) 884-4056, or if the material possesses an immediate threat to health or safety, call 911.

Fats Oils and Grease (FOG), along with "flushable wipes", are plaguing sewer systems. Sanitary sewer overflows, both public and private, can be costly and contaminate your drinking water supply. Be sure to avoid putting wipes, diapers, personal hygiene products, FOG, or food scraps down the drains. Instead, dispose of these items in the garbage. Be sure to have a wastebasket in areas of the home where these types of waste are generated.

Water Conservation, our primary source of water is Lake Arrowhead which is almost completely dependent on rainfall to keep it full. We must always conserve water and be extra diligent in drought years. A considerable amount of water is wasted through broken or improperly designed irrigation, high flow shower heads, high flow or tampered with faucet aerators, and leaks. Leaks in toilets often go unnoticed because the water goes down the drain costing you money and wasting water. For more information, please visit our website: http://www.lakearrowheadcsd.com/conservation-2/water-saving-tips/

CUSTOMER OUTREACH - We encourage you to participate in our public forums to voice your concerns about your drinking water. Regularly scheduled meetings of the Board of Directors are held on the fourth Tuesday of every month (except for November and December) at 5:30p.m. at the District Board Room (27307 State Hwy 189 Suite 104) in Blue Jay. Special meetings may be held, if necessary, throughout the year, with dates, times, and locations to be determined. For more information about this report, or for any questions relating to your drinking water, please call Mica O'Connell, Water Treatment Supervisor, at (909) 336-7165 or Customer Service at (909) 336-7100. You may also visit our web site at http://www.lakearrowheadcsd.com/

LEAD IN RESIDENTIAL PLUMBING - 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. We are responsible for providing high-quality drinking water, but we cannot control which materials are used in your home's 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 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 at (800) 426-4791 or at www.epa.gov/safewater/lead

SOURCE WATER ASSESSMENT

A watershed sanitary survey was originally completed in 1995 to determine the vulnerability of the lake to contaminants. That survey was updated in 2001, 2009, 2015, and the latest assessment was completed in 2021. The survey concluded that the lake is at low risk for contamination, with the greatest potential being the proximity of the wastewater collection system. The district filed its Vulnerability Assessment with the state and federal agencies in 2006. For more information about this report, or for any questions relating to your drinking water, please call Mica O'Connell, Water Treatment Supervisor, at (909) 336-7165 or Customer Service at (909) 336-7100. You may also visit our website at http://www.lakearrowheadcsd.com/

HOME USE WATER TREATMENT SYSTEMS - Point of use and whole house treatment systems are great ways to add another layer of protection to your drinking water. Many of these devices (even the simple pitcher type) do an excellent job improving taste and removing the remaining small amounts of contaminates from your water supply. If you use these devices, it is very important that you follow the manufacturer's recommended maintenance and filter replacement guidelines. To help you select the correct filter look for a filter performance data sheet; it will list removal rates of contaminants. Most manufactures have a customer support line to help with specific questions. Additional information about home water treatment systems is available from the **Water Quality Association** at **630-505-0160** or by visiting https://wqa.org/find-products#/

WHAT ARE WATER QUALITY STANDARDS? Drinking water standards established by U.S. EPA and DDW set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The tables shown later in this report specify the following types of water quality standards:

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.

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.

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

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

Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

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

WHAT IS A WATER QUALITY GOAL? In addition to mandatory water quality standards, U.S. EPA and DDW have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guideposts and direction for water management practices. The chart in this report includes three types of water quality goals:

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 U.S. EPA.

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.

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.

HOW ARE CONTAMINANTS MONITORED? Water is sampled and tested throughout the year. Contaminants are measured in:

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

Parts per billion (ppb): or micrograms per liter (µg/L).

TON: Threshold Odor Number.

90TH PERCENTILE: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested.

NA: Not applicable

ND: (Not detected): Indicates that the substance was not detected.

SAMPLE ANALYSIS RESULTS - The drinking water test results shown below were taken between January 1 and December 31, 2021. In these tables, we only show substances that were detected in our water. If you would like to see a full list of sampling and results, they are available by request. Please remember that detecting a contaminant does not mean that the water is harmful to drink. The safe levels reflected below in the "MCL or MRDL" columns, are established by the State and Federal government. The State recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

PRIMARY (REGULATED) STANDARDS				LACSD		CLAWA				
CONSTITUENTS	**YEAR**	**MCL or MRDL**	**PHG (MCLG) [MRDLG]**	**DETECTED AMOUNT**	**DETECTION RANGE**	**YEAR**	**DETECTED AMOUNT**	**DETECTION RANGE**	**VIOLATION YES/NO**	**TYPICAL SOURCE(S) OF CONTAMINATION**
Chlorine as CL2 (ppm)	2021	4.0	[4.0 (as Cl2)]	1.57	1.04-2.10	2021	NA	NA	NO	Disinfectant added during water treatment
Control of DBP precursors [TOC] (Units)	2021	TT	TT	2.61	2.1-2.9	2021	NA	NA	NO	Decaying natural organic material along with synthetic sources, detergents, pesticides, fertilizers, and other chemicals
Fluoride (ppm)	2021	2.0	1	0.04	0-0.12	2021	0.09	0-0.15	NO	Naturally occurring, also used in water treatment - **LACSD DOES NOT ADD FLOURIDE TO YOUR WATER**
Gross Alpha Particle Activity* (pCi/L)	2021	15	(0)	0.985	0-4.7	2021	NA	NA	NO	Naturally occurring in many rocky regions
Haloacetic Acids**(ppb)	2021	60	NA	17.23	8.1-31.6	2021	4.2	1.8-5.4	NO	By-products of drinking water disinfection and organic material
Nitrate [as nitrogen] (ppm)	2021	10	10	ND	NA	2021	0.11	0-0.53	NO	Septic systems, runoff from fertilizer and naturally occurring
TTHMs [Total Trihalomethanes] (ppb)	2021	80	NA	45.4	17.3-67.4	2021	34.2	19.4-54.3	NO	By-products of drinking water disinfection and organic material
Turbidity*** (NTU)	2021	TT	NA	.110	0.06-0.25	2021	NA	0-0.06	NO	Runoff entering sources
Turbidity (Percent of monthly samples at or below the limit)	2021	TT = 95% of samples were ≤ 0.3 NTU	NA	100	NA	2021	100	NA	NO	Runoff entering sources
Total Coliform Bacteria	2021	2 or more monthly	0	3 *****	NA	2021	0	NA	NO	Naturally present in the environment

CONSTITUENTS	**YEAR**	**ACTION LEVEL**	**PHG (MCLG)**	**90TH PERCENTILE**	**SITES ABOVE AL/TOTAL SITES**	**ACTION LEVEL?**	**TYPICAL SOURCE(S) OF CONTAMINATION**
Copper (ppm)	2021	1.3	0.3	0.640	0/20	NO	Naturally occurring, leaching from plumbing
Lead (ppb)	2021	15	0.2	ND	0/20	NO	Naturally occurring, leaching from plumbing and industrial discharges

SECONDARY STANDARDS

CONSTITUENTS	YEAR	SMCL	LACSD DETECTED AMOUNT	LACSD DETECTION RANGE	CLAWA YEAR	CLAWA DETECTED AMOUNT	CLAWA DETECTION RANGE	VIOLATION YES/NO	TYPICAL SOURCE(S) OF CONTAMINATION
Aluminum (ppb)	2021	200	21.82	ND-85	2021	NA	NA	NO	Naturally occurring and from water treatment additives
Chloride (ppm)	2021	500	36.14	18-78	2021	91.13	70-110	NO	Naturally occurring
Color (Units)	2021	15	1.8	0-11	2021	NA	NA	NO	Naturally occurring organic materials
Corrosivity (Units)	2021	Non Corrosive	11.41	10.96-12.06	2021	NA	NA	NO	Naturally occurring, chemistry of hydrogen, carbon, and oxygen in the water that is affected by temperature and other factors
Iron	2021	300	90.94	0-380******	2021	NA	NA	YES******	Leaching from natural deposits and industrial waste
Manganese	2021	50	3	0-140******	2021	NA	NA	YES******	Leaching from natural deposits
Odor Threshold (TON)	2021	3	1	1-2	2021	1	1-1	NO	Naturally occurring organic materials
Specific Conductance (µS/cm)	2021	1,600	316.56	208-597	2021	NA	NA	NO	Substances that affect the waters capacity to conduct electricity
Sulfate (ppm)	2021	500	17.06	0-77	2021	62.69	48-75	NO	Runoff entering sources, industrial waste
Total Dissolved Solids (ppm)	2021	1,000	202.81	130-390	2021	330.63	180-400	NO	Naturally occurring, an overall indicator of the amount of minerals in water.
Turbidity (Units)	2021	5	0.233	0.07-0.68	2021	NA	NA	NO	Runoff entering sources

UNREGULATED SUBSTANCES ****

CONSTITUENTS	YEAR	LACSD DETECTED AMOUNT	LACSD DETECTION RANGE	CLAWA YEAR	CLAWA DETECTED AMOUNT	CLAWA DETECTION RANGE
Bicarbonate (ppm)	2021	120	79-180	2021	NA	NA
Boron (ppb)	2021	ND	NA	2021	190.63	140-240
Calcium (ppm)	2021	31.58	21-65	2021	NA	NA
Magnesium (ppm)	2021	4.63	3.8-6.3	2021	NA	NA
pH (Units)	2021	7.59	6.58-8.60	2021	8.08	7.2-8.3
Potassium (ppm)	2021	2.13	1.8-2.3	2021	NA	NA
Sodium (ppm)	2021	19	16-24	2021	81.31	75-87
Total Hardness (ppm)	2021	85.98	59-190	2021	99.44	82-110
Vanadium	2021	ND	ND	2021	0.82	0-3.5

HEALTH CONSIDERATIONS: Certain 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 may be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the **EPA's Safe Drinking Water Information Hotline** at **1-800-426-4791**.

*These results are from samples taken at the IX Treatment Plant Final at the Lake Arrowhead Country Club. This water is pumped to Bernina Treatment Plant, where it is blended with lake and CLAWA water.
**Total trihalomethanes and haloacetic acids are reported as the highest locational running annual average (LRAA).
*** Turbidity (NTU) is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system and general system health.
**** Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board determine where certain contaminants occur and whether the contaminants need to be regulated.
***** These "present" results were taken at separate times and were not a violation. Insect contamination of the sample tap was found in all three cases, the water supply was never actually contaminated.
****** The highest value shown is an outlier that does not represent normal, this was caused by disturbing an old steel line prior to taking the sample.