

Crestline-Lake Arrowhead Water Agency

2009 Water Quality Report



We are pleased to present CLAWA's Annual Water Quality Report for 2009. 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 protect your water supply. We are committed to ensuring the quality of your water.

Last year, as in years past, your tap water met all EPA and State drinking water health standards. CLAWA vigilantly safeguards its water supplies and once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard. This brochure is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards. We are committed to providing you with information because informed customers are our best allies.

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

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

In order to insure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Department of Public Health (Department) 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 provide the same protection for public health.

CLAWA's Water Supply

All of CLAWA's water supply is surface water from Silverwood Lake, a reservoir of the State Water Project which is operated by the California Department of Water Resources ("DWR"). Silverwood Lake is fed by streams which carry runoff from the local mountains, and also contains imported water which is diverted from the San Francisco-San Joaquin Delta and transported to Southern California in man-made canals. Contamination of the imported water supply can occur at any point along its journey to Silverwood Lake, or from sources within the Silverwood Lake watershed itself. In 2007, DWR published an updated Sanitary Survey Report of all watersheds tributary to the State Water Project, including the Silverwood Lake watershed. Copies of that report can be obtained by contacting the State Water Contractors at (916) 447-7375.

CLAWA pumps surface water from Silverwood Lake, treats and disinfects the water at a "multi-barrier" treatment plant located near the south shore of the Lake, then pumps the treated water uphill to CLAWA's storage and pipeline distribution system which extends from Job's Peak, near Cedarpines Park, eastward to Green Valley Lake.

Water Quality Data

CLAWA routinely monitors for contaminants in your drinking water according to State and Federal laws. In 2009, CLAWA monitored the source and treated water continuously and had thousands of analyses performed by State certified laboratories for all regulated and many unregulated constituents. Of the many constituents that can be present in a water supply, CLAWA's test results reveal that only a few were detected in CLAWA's treated water.

The table below shows the results of our monitoring for the period of January 1 to December 31, 2009. Also please refer to the water quality definitions on the following page.

TEST RESULTS							
Contaminant	Violation Y/N	Average Level Detected	Range of Levels Detected	Units	MCL	PHG (MCLG)	Major Sources in Drinking Water
PRIMARY STANDARDS							
Turbidity	N	0	0	TT	0.3	N/A	Soil runoff
The TT requirement is: at least 95% of samples must be less than 0.3 NTU. 100% of our samples were less than 0.3 NTU*							
Total Trihalomethanes	N	15	0-35.4****	uG/l	80	NS	By-product of drinking water disinfection
Haloacetic Acids	N	3	0-4.5****	uG/l	60	NS	By-product of drinking water disinfection
Inorganic Chemicals							
Aluminum	N	.03	0-.13	mg/l	1	.6	Erosion of natural deposits; residue from some surface water treatment processes
Fluoride	N	.14	.12-.15	mg/l	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	N	.0005	0-.008	uG/l	AL=15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Nitrate (as NO3)	N	2.48	0-3.6	mg/l	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
SECONDARY STANDARDS							
Chloride	N	86.44	73-98	mg/l	500	NS	Erosion of natural deposits
Manganese	N	10.67	7-13	mg/l	50	NS	Leaching from natural deposits
Sulfate	N	57.75	43-68	mg/l	500	NS	Erosion of natural deposits
Total Dissolved Solids (TDS)	N	333.13	270-370	mg/l	1000	NS	Erosion of natural deposits
OTHER CONSTITUENTS							
Sodium	N	73.25	61-82	mg/l	NS	NS	Erosion of natural deposits
Total Hardness	N	110.63	100-120	mg/l	NS	NS	Erosion of natural deposits
Odor - Threshold	N	1	1	TON	3	NS	Naturally occurring organic materials
Unregulated Contaminants**							
Boron	N	170.63	100-230	uG/l	1,000	NS	Erosion of natural deposits
Vanadium	N	.9	0-4.2	uG/l	50	NS	Erosion of natural deposits
pH	N	7.69	6.8-8	uG/l	6.5-8.5	NS	
Lead and Copper***							
		No. of Samples Collected	90 th Percentile Level Detected	No. Sites Exceeding AL	AL	MCLG	
Lead (uG/l)	N	10	0 uG/l	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (uG/l)	N	10	87 uG/l	0	1300	170	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

*Turbidity is monitored continuously because it is a good indicator of the effectiveness of our treatment system. Turbidity measures the cloudiness of water. The Agency uses a conventional treatment process to reduce turbidity.

**Unregulated contaminant monitoring helps EPA and the California Department of Public Health to determine where certain contaminants occur and whether the contaminants need to be regulated.

***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. The Lead and Copper results listed above are from 2008.

****The Range of Levels Detected for Total Trihalomethanes and Haloacetic Acids includes the IDSE sample sites, as required by the Federal EPA State 2 D/DBPR.

Water Quality Definitions:

The water quality data table on the preceding page contains several terms and abbreviations which may be unfamiliar to you. To help you better understand these terms we've provided the following definitions:

- **MCL:** Maximum Contaminant Level – 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.
- **MCLG:** Maximum Contaminant Level Goal – 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).
- **PHG:** Public Health Goal – 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.
- **PDWS:** Primary Drinking Water Standard – MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- **MRDL:** Maximum Residual Disinfectant Level – 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.
- **MRDLG:** Maximum Residual Disinfectant Level Goal – 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.
- **Range:** Lowest to highest
- **mg/l:** Milligrams per liter (parts per million)
- **ug/l:** Micrograms per liter (parts per billion)
- **NTU:** Nephelometric Turbidity Units – a measure of the clarity of water. Turbidity is the measure of particles suspended in water. Higher quality water has low turbidity.
- **NS:** No Standard
- **ND:** Not detectable at testing limit
- **TT:** Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water
- **AL:** Regulatory Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Questions

If you have any questions regarding the information contained in this report, please contact Jim DeMent at (909) 338-1779. We want our customers to be informed about the water system that serves them. If you want to learn more, please attend any of our regularly scheduled Board meetings, which are held the first Thursday of every month at 2:00 p.m.

Additional Information

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 also available from the Safe Drinking Water Hotline (1-800-426-4791).

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. The Agency 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>.

For additional information regarding fluoridation of water, please visit the California Department of Public Health's website at www.cdph.ca.gov/certlic/drinkingwater/Pages/Flouridation.aspx.

Water Bond Ballot Measure

At the end of the 2009 regular legislative session, Governor Schwarzenegger called the State Legislature back into special session to address California's critical water supply and infrastructure needs. In response, the Legislature enacted several bills, one of which will place a \$11.14 billion bond measure on the statewide ballot in November, 2010. The following will explain why The Safe, Clean and Reliable Drinking Water Supply Act of 2010 (the "Bond Measure") was enacted, what it would do, and why it is important.

The State of California is now experiencing a water shortage crisis. The major water system infrastructure designed fifty years ago to serve 16 million residents now serves more than 38 million residents. The water which originates in Northern California flows down the Sacramento River into the San Francisco-San Joaquin Delta where it is protected by crude levees constructed 100 years ago. Then a portion of it is pumped from the southern end of the Delta into the State Water Project and the Central Valley Project, primarily for agricultural and domestic consumption in the San Joaquin Valley and Southern California. Although some surface water reservoirs have been constructed to capture and store that water before it flows into the ocean, the State's primary storage reservoir is its mountain snow pack, which traditionally has released water slowly in the form of snow melt at a rate which has allowed the water to be captured and used.

However, global warming has reduced the mountain snow pack. More of the precipitation is falling in the form of rain with larger volumes of instantaneous runoff. Additional storage reservoirs are needed to capture that runoff before it flows into the ocean. Furthermore, more instantaneous runoff, coupled with a rise in the sea level, has increased the stress on age-old Delta levees, thereby increasing the risk of levee failure, sea water intrusion and contamination of the fresh water supply.

To make matters worse, the State and Federal Endangered Species Acts have greatly inhibited the operation of pumps in the Delta, reducing the quantity of fresh water that can be diverted for agricultural, commercial and residential uses.

These factors have combined to greatly reduce the quantity of imported water available for capture and transport to areas of need, including Southern California and the San Bernardino Mountains. This year the Agency's allocation of water from the State Water Project is only 40% of the Agency's contract amount. Last year it was only 35%. Low allocations have become the norm rather than the rule. If a calamitous event such as a major earthquake occurred in the Delta, levee failure could prevent the delivery of any water at all to the Agency for up to three years.

Recognizing the urgent need to address these problems, the \$11.14 billion Bond Measure will appear on the ballot in November, 2010, to address a variety of water supply needs, including the following:

- Improvement of the infrastructure that stores and delivers water
- Local and regional projects to clean up local water resources and reduce dependence on imported water supplies
- Fortification of hundreds of miles of levees and restoration of the Delta ecosystem (a necessary precursor to capital improvements to deliver more water through, around or under the Delta)
- Improved water conservation and water recycling programs
- Revival of threatened and endangered fish populations in the Delta

Money for the above measures would come from the State General Fund, so that it does not have to be raised from increased water rates.

Agency customers are urged to pay close attention to this measure when it appears on your ballot for the upcoming election in November. Please read the analysis, carefully consider the arguments for and against, and be sure to cast your vote.

Water Conservation

Water conservation remains a high priority throughout the State. As a minimum, please continue to implement the following measures: (1) Protect against frozen pipes. Install and utilize shut-off valves on your side of the meter, and then drain your on-site water system when you leave. Insulate water pipes outside the structure and in the crawl space beneath the structure. (2) Install low-flow showerheads and toilet tank displacement devices. (3) Repair leaky faucets and valves. A leaky faucet can waste 1,500 gallons per month. (4) Use buckets instead of running hoses to wash vehicles, equipment and structures. (5) Use brooms rather than hoses to clean sidewalks and driveways. (6) Minimize landscape irrigation, especially during hot summer days to prevent evaporation.