

Crestline-Lake Arrowhead Water Agency (CLAWA)

2010 Water Quality Report



We are pleased to present CLAWA's Annual Water Quality Report for 2010. 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) 447-7357.

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 2010, 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, 2010. 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	.18	0-1.7	TT	0.3	N/A	Soil runoff
The TT requirement is: at least 95% of samples must be less than 0.3 NTU.*							
Total Trihalomethanes	N	12	0-32.5****	uG/l	80	N/A	By-product of drinking water disinfection
Haloacetic Acids	N	6	0-26.9****	uG/l	60	N/A	By-product of drinking water disinfection
Inorganic Chemicals							
Aluminum	N	.05	0-.2	mg/l	1	.6	Erosion of natural deposits; residue from some surface water treatment processes
Fluoride	N	.04	0-.15	mg/l	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	N	.69	0-11	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	1.86	0-3.9	mg/l	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
SECONDARY STANDARDS							
Chloride	N	80.44	64-110	mg/l	500	N/A	Runoff/leaching from natural deposits; seawater influence
Manganese	N	10.47	8-14	mg/l	50	N/A	Leaching from natural deposits
Sulfate	N	46.88	39-57	mg/l	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	N	303.75	280-350	mg/l	1000	N/A	Erosion of natural deposits
OTHER CONSTITUENTS							
Sodium	N	64.75	56-84	mg/l	N/A	N/A	"Sodium" refers to the salt present in the water and is generally naturally occurring
Total Hardness	N	100	88-120	mg/l	N/A	N/A	"Hardness" is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.
Odor - Threshold	N	1	1	TON	3	N/A	Naturally occurring organic materials
Unregulated Contaminants**							
Boron	N	151.88	120-260	uG/l	1,000	N/A	Erosion of natural deposits
Vanadium	N	3.56	0-7.4	uG/l	50	N/A	Erosion of natural deposits
pH	N	7.55	7.1-8	uG/l	6.5-8.5	N/A	
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 Stage 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.
- **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.
- **N/A:** Not Applicable
- **ND:** Non-Detected
- **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.
- **IDSE:** Initial Distribution System Evaluation
- **Stage 2 D/DBPR:** Stage 2 Disinfectants and Disinfection Byproducts Rule
- **USEPA:** United States Environmental Protection Agency

Questions

If you have any questions regarding the information contained in this report, please contact Justin Georgantas 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. CLAWA 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>.

CLAWA does not add fluoride to the water it supplies. 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.

California's Water Shortage Crisis

Fortunately, the Crestline-Lake Arrowhead Water Agency has not suffered during the current water shortage crisis that has plagued most other areas in the State. Thanks to ample rainfall in the San Bernardino Mountains in recent years, the demand for imported water has been less than the imported supply available to the Agency, and local water purveyors have been able to satisfy much of their own demand from local well water supplies. This has allowed the Agency to deliver some of its available imported water to neighboring State Water Contractors that are in a position to store the water within their groundwater basins pursuant to exchange agreements that will allow the Agency to take the water back in the future, during periods of shortage that are sure to occur. The Agency is grateful to its neighboring State Water Contractors for their cooperation in approving such water exchange arrangements.

But the Agency's good fortune in being able to satisfy local needs in recent years does not change the fact that most of California continues to suffer from a water supply system that is broken and needs to be repaired. Farmlands in the

fertile Central Valley have been turned into dust bowls because environmental, regulatory and infrastructure constraints currently prevent much of the State's water supply from being transported from where the water is, in Northern California, through the San Francisco Bay Delta for delivery to areas of need south of the Delta. The problem continues to hurt California's economy, damaging agricultural production, putting people out of work, and driving up food prices. Suppliers of water for domestic, commercial and industrial uses have also felt the impact of new regulations and requirements resulting from a diminished water supply, in the form of increased costs for less water. Ultimately, the end user must bear the additional expense for less water.

The State Water Contractors and the State and Federal regulatory agencies are trying to address the water supply problem while also addressing environmental concerns in the Delta. Together they have been working on a program called the Delta Habitat Conservation and Conveyance Program, intended to restore sensitive habitat in the Delta, protect endangered fish that inhabit that environmentally sensitive area, and construct and operate an alternate conveyance facility that will restore lost water supplies without putting those species or their habitat at risk. The program is inherently contentious, as a proposed solution to one concern often entails some risk to a competing concern. Patience, understanding and compromise are required in order to move forward to a solution that addresses all needs. And the solution will be expensive, although not nearly as expensive as failing to address the problem.

In 2010 a water bond measure was scheduled to be placed on the ballot to finance a number of environmental improvements that must be made in the Delta before the water supply improvements can occur. However, given the State's current economic crisis, the Legislature decided to delay the vote on that ballot measure until 2012. Repair of the State's water delivery system will prove to be one of the major challenges confronting Governor Brown.

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 as appropriate. 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 reduce evaporation.