

# Crestline-Lake Arrowhead Water Agency

## 2008 Water Quality Report



We are pleased to present CLAWA's Annual Water Quality Report for 2008. 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.

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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, 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 must 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 Bay 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 2008, 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.

**Questions** If you have any questions regarding the information contained in this report, please contact Jim DeMent at (909) 338-1779. We want our valued customers to be informed about their water utility. 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.

The table below shows the results of our monitoring for the period of January 1 to December 31, 2008. 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	Major Sources in Drinking Water
<b>PRIMARY STANDARDS</b>							
Turbidity	N	.01	0-.1	NTU	0.3	NS	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	16	0-62	uG/l	80	NS	By-product of drinking water chlorination
Haloacetic Acids	N	3	0-11	uG/l	60	NS	By-product of drinking water disinfection
<b>Inorganic Chemicals</b>							
Aluminum	N	.101	0-.200	mg/l	1	.6	Erosion of natural deposits; residue from some surface water treatment processes
Fluoride	N	.14	.1-.14	mg/l	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as NO3)	N	3.48	2.5-4.9	mg/l	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
<b>SECONDARY STANDARDS</b>							
Chloride	N	82.44	77-88	mg/l	500	NS	Erosion of natural deposits
Manganese	N	1.69	0-27	uG/l	50	NS	Leaching from natural deposits
Sulfate	N	58	50-64	mg/l	500	NS	Erosion of natural deposits
Total Dissolved Solids (TDS)	N	326.25	250-390	mg/l	1000	NS	Erosion of natural deposits
<b>OTHER CONSTITUENTS</b>							
Sodium	N	70.75	60-78	mg/l	NS	NS	Erosion of natural deposits
Total Hardness	N	107.13	92-120	mg/l	NS	NS	Erosion of natural deposits
Odor - Threshold	N	1	1-1	TON	3	NS	Naturally occurring organic materials
<b>Unregulated Contaminants</b>							
Boron	N	173.75	100-240	uG/l	1,000	NS	Erosion of natural deposits
Vanadium	N	2.61	0-5.4	uG/l	50	NS	Erosion of natural deposits
pH	N	7.8	7.4-8	uG/l	6.5-8.5	NS	
<b>Lead and Copper</b>							
		No. of Samples collected	90 <sup>th</sup> 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	

\*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.

### Monitoring Requirements Not Met:

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the heavy snowfall period in December 2008, we did not complete all monitoring or testing for Total Coliform Bacteria at one location in the system which serves the Grandview retail service area, and therefore, we cannot be sure of the quality of the drinking water quality in that area during that time.

## **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.
- **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.

## **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>.

## **Delta Solutions**

Two-thirds of this state's water supply is located in Northern California, while two-thirds of the demand for water is in Southern California. Water supply facilities have been constructed and are in place to deliver water from where it originates to where it is needed. But it requires getting the water through an environmentally sensitive ecosystem inhabited by endangered species of fish, where regulatory constraints have made the delivery of that water more and more difficult.

The Sacramento River begins at Lake Shasta and is joined by several other rivers and tributaries, including the Feather River, as it flows south for ultimate discharge into the San Francisco Bay. East of the bay the Sacramento River joins with the San Joaquin River, where the two rivers divide into a maze of rivulets, waterways and marshes to form the San Francisco Bay Delta, which is home or habitat for a number of threatened and endangered fish. Some of these endangered species, such as the Delta smelt for example, live only in the San Francisco Bay Delta and are highly sensitive to changes in temperature and water quality. Other endangered species, such as certain types of salmon, depend upon the flow of cold water through the Delta to swim upstream and spawn. The federal and state Endangered Species Acts protect these fish by requiring the release of certain quantities of fresh water to the ocean, in order to regulate flows and water temperature, and by limiting the operation of pumps currently in place to take water from the South Delta for delivery to agricultural areas in the Central Valley and to urbanized areas in Southern California.

Following many years of tension and legal battles between environmental interests seeking to protect ecological resources in the Delta and water supply interests seeking to address the state's water supply needs, the two opposing interests recently joined hands in a sincere effort to develop a cooperative plan for restoring ecological resources in the Delta while also addressing water supply objectives. The team of scientists, university professors and policy leaders selected for this task studied the various alternatives for solving the problems in the Delta and have proposed a multi-species habitat conservation plan called the Delta Habitat Conservation and Conveyance Plan. The plan proposes the construction of an alternate conveyance facility which can intercept certain quantities of water from the Sacramento River, north of the Delta, for delivery around the Delta to water conveyance facilities located south of the Delta, while also allowing the continued flow of water through the Delta. This plan was determined to provide the best option for restoring habitat in the Delta and protecting endangered species that inhabit the Delta, while also addressing water supply needs. Preliminary engineering and environmental assessment of this plan to "fix" the Delta have already commenced and soon will be completed.

The immediate future of this plan will be especially challenging. Some environmental interests will not be satisfied that the plan adequately addresses all of the environmental concerns. On the other hand, many others may feel that the water supply benefits are not adequate. Legislators are already debating various proposals to govern the operation of

new facilities and implement assurances to protect ecological resources. And the question of how to pay for these very expensive improvements and protections will spark heated disagreement.

But this plan must not fail. There is too much at stake.

### ***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.