CASTAIC POWER PLANT

WATER QUALITY REPORT

2013

The 2013 Water Quality Report for Castaic Power Plant was prepared by the Los Angeles Department of Water and Power (LADWP). The report is required by the California Department of Public Health (CDPH) and was prepared in accordance with CDPH guidelines. The report gives information about drinking water supplied to Castaic Power Plant during the 2013 calendar year (January 1, 2013 to December 31, 2013). The data is compared to the current State and Federal Standards. The tables contained in this report list all of the drinking water contaminants that were detected during the most recent sampling for the constituent.

The Castaic Water System Remains under a Boil Water Advisory

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

WHERE DOES MY WATER COME FROM?

The term "source water" describes where LADWP obtains the water you drink. All drinking water, tap or bottled, comes from either surface water or groundwater sources. Surface water sources include rivers, lakes, streams, ponds, or reservoirs. Groundwater sources are springs or wells.

The Castaic Power Plant receives raw water from the State Water Project (California Aqueduct) via Pyramid Lake and the Elderberry Forebay. The California Aqueduct is operated by the California Department of Water Resources. The water served at Castaic is treated with polymer and ferric chloride for coagulation, sodium bicarbonate for pH stabilization, then filtered and chlorinated. All monitoring and analyses of source and treated water are conducted by LADWP personnel.

WHY IS DRINKING WATER MONITORED AND TREATED?

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 human activity.

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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

In order to ensure that tap water is safe to drink, the USEPA and the CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that must provide the same protection for public heath. Contaminants that may be present in source waters include

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

Inorganic contaminants, such as salts, and metals, which can be naturally-occurring or result from urban storm run-off, 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 run-off, and residential uses.

Organic chemicals, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water run-off, and septic systems.

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

MONITORING OF REGULATED CONTAMINANTS /CONSTITUENTS

There are over 110 constituents and contaminants required for monitoring. Utilities monitor for each contaminant at varying frequencies based on the type of contaminant and the type of source water.

SPECIAL NOTICE TO IMMUNO-COMPROMISED CONSUMERS

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 risks from infections. These people should seek advice about drinking water from their health care providers. USEPA/Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800) 426-4791).

TERMS USED IN THIS REPORT

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

DLR (Detection Limit for Reporting Purposes): The DLR is the lowest level at which all CDPH certified laboratories can accurately and reliably detect a compound. The DLR provides a standardized basis for reporting purposes.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the PHGs and MCLGs (see below) as economically or technologically feasible. For certain contaminants, compliance with the MCL is based on the average of all samples taken throughout the year.

MCLG (Maximum Contaminant Level Goal) - Federal: 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.

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.

NL (Notification Levels) - State: Health-based advisory levels established by CDPH for chemicals in drinking water that lack maximum contaminant levels (MCLs). When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply.

PHG (Public Health Goal) - State: 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 Standards): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

SDWS (Secondary Drinking Water Standards): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

TT (Treatment Technique): A required treatment process, which will reduce the level of a contaminant in drinking water.

MONITORING OF UNREGULATED CONSTITUENTS

There are contaminants/constituents found in drinking water that are not yet regulated. Some of these "unregulated contaminants/constituents" are monitored because they could be candidates for future regulations or are of interest to our consumers.

WATER QUALITY UPDATE

In the past, the CPP water treatment system did not provide adequate filtration, which resulted in a violation of the turbidity performance standard. Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. LADWP is working to improve the turbidity performance by upgrading the water treatment system and by optimizing coagulant dosages.

In August 2010, Castaic management gave their approval to implement a new water treatment design, which includes the addition of a 10,000 gallon finished water storage tank. The new treatment plant is near completion.

The Castaic Power Plant Domestic Water Treatment System is in commissioning mode. However, state regulations require a new water treatment system to be fully permitted before serving water to customers. LADWP will be submitting a domestic water supply permit application to CDPH once the new treatment system is complete. Until the CDPH water permit is approved and issued, the Castaic Domestic Water System remains under a **boil water advisory**. Bottled water will be available until the system is fully permitted.

For more information regarding this report, please call Ms. Cherylee Sevilla at (213) 367-4009.

CASTAIC POWER PLANT – 2013 CALENDAR YEAR

HEALTH-BASED PRIMARY DRINKING WATER CONSTIUENTS DETECTED IN TREATED WATER

Contaminants /Constituents	Units	Castaic Power Plant Water Quality		State Primary Standard (MCL) [MRDL]	MEET PRIMARY STANDARD?	State PHG (Fed. MCLG) [MRDLG]	Major Sources in Drinking water
		Range	Average				
Fluoride	mg/L	0.11	0.11	2	**YES**	1	Erosion of natural deposits
Gross Beta Particle Activity*	pCi/L	4.7	4.7	50	**YES**	(0)	Decay of natural and man-made deposits
Nitrate (as NO_3)	mg/L	1.96	1.96	45	**YES**	45	Runoff and leaching from fertilizer use; erosion of natural deposits
Radium 226 & 228 (Combined)*	pCi/L	2.13	2.13	5	**YES**	(0)	Erosion of natural deposits
Uranium*	pCi/L	2.14	2.14	20	**YES**	0.43	Erosion of natural deposits
Distribution System							
Copper (at-the-tap) (a)	µg/L	number of samples exceeding AL = 0 out of 5	90th Percentile value = 384	AL=1300 (b)	**YES**	300	Internal corrosion of interior water plumbing systems
Lead (at-the-tap) (a)	µg/L	number of samples exceeding AL = 0 out of 5	90th Percentile value = 7.0	AL=15 (b)	**YES**	0.2	Internal corrosion of interior water plumbing systems
Chlorine Residual, Total (as Cl_2)	mg/L	1.51-2.44	1.93	[4]	**YES**	[4]	Disinfectant
Haloacetic Acids [HAA5]	µg/L	12.59 – 15.51	13.86	60	**YES**	none	Disinfection by-product
Trihalomethanes, Total [TTHM]	µg/L	26.38 – 53.57	42.92	80	**YES**	none	Disinfection by-product

Footnotes for Tables

(a) = At-the-tap monitoring was conducted in 2013 as required by the Lead and Copper Rule. Castaic Power Plant was in compliance.

*Samples were taken in February 2012

CASTAIC POWER PLANT – 2013 CALENDAR YEAR

AESTHETIC-BASED SECONDARY DRINKING WATER CONSTIUENTS DETECTED IN TREATED WATER

Contaminants /Constituents	Units	Castaic Power Plant Water Quality	Federal & State Secondary Standard (SMCL)	Meet Secondary Standard?	Major Source in Drinking Water
		Level Detected			
Chloride	mg/L	82.7	500	**YES**	Runoff/leaching from natural deposits
Color	ACU	3.0	15	**YES**	Naturally-occurring organic materials
Copper	mg/L	0.06	1.0	**YES**	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Odor-Threshold	TON	1.00	3	**YES**	Naturally-occurring organic materials
pH, field	Units	6.81	6.5 - 8.5	**YES**	Substances that form ions when in water
Specific Conductance, field	µS/cm	509	1600	**YES**	Substances that form ions when in water
Sulfate	mg/L	37.4	500	**YES**	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids [TDS]	mg/L	262	1000	**YES**	Runoff/leaching from natural deposits
Turbidity, lab	NTU	0.1	5	**YES**	Soil runoff

Abbreviations for Tables

ACU = Apparent Color Unit

NL = Notification Level

NTU = Nephelometric Turbidity Units. Turbidity is a measure of cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

TON = Threshold Odor Number

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

mg/L = milligrams per Liter (equivalent to parts per million)

pCi/L = picoCuries per Liter (a unit of radioactivity)

µg/L = micrograms per Liter (equivalent to parts per billion)

µS/cm = micro Siemens per centimeter

< = less than (example: for Alpha emitters, <3.0 means the average value is less than 3.0 picoCurie per liter of sample, the detection limit for Alpha emitters)

CASTAIC POWER PLANT – 2013 CALENDAR YEAR

UNREGULATED DRINKING WATER CONSTIUENTS DETECTED IN TREATED WATER

Contaminants /Constituents	Units	Castaic Power Plant Water Quality		
		Level Detected	Notification Level	Major Source in Drinking Water
Alkalinity, Bicarbonate	mg/L	84.8		Natural constituent
Boron	µg/L	148	1000	Erosion of natural deposits
Calcium	mg/L	22.7		Natural constituent
Magnesium	mg/L	10.8		Natural constituent
Potassium	mg/L	3.03		Natural constituent
Sodium	mg/L	56.1		Natural constituent
Total Organic Carbon [TOC]	mg/L	1.17		Natural constituent
Total Hardness [as Ca CO3]	mg/L	101		Natural constituent
Vanadium	µg/L	<3.0	50	Erosion of natural deposits