



CASTAIC POWER PLANT

2020

DRINKING WATER QUALITY REPORT

The 2020 Drinking Water Quality Report for Castaic Power Plant (CPP) was prepared by the Los Angeles Department of Water and Power (LADWP). This annual Drinking Water Quality Report (also known as a Consumer Confidence Report) is required by the California State Water Resources Control Board, Division of Drinking Water (SWRCB-DDW) and is prepared in accordance with their guidelines. The report provides information about drinking water at CPP during the 2020 calendar year (January 1, 2020 to December 31, 2020). Only those constituents that were detected are listed.

SUMMARY

The water provided to the CPP meets all state and federal drinking water requirements. Only the following substances with primary standards were detected at low levels in the water supplied to CPP: fluoride, nitrate, chlorine residual, haloacetic acids, and trihalomethanes. SWRCB-DDW allows us to monitor for a number of 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 data for lead and copper on this table are the results of residential tap monitoring conducted in 2020 as required by the Lead and Copper Rule (LCR). For more information on these contaminants, please refer to the Table 1 “Primary Drinking Water Substances Detected in Drinking Water.”

**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, and sodium bicarbonate for pH stabilization. Treatment for color and disinfection by-products (DBP) removal was added in 2017. Treated water is then filtered and chlorinated prior to being available for consumption. 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 (800-426-4791).

In order to ensure that tap water is safe to drink, the USEPA and the DDW prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DDW regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. 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.

**Health Advisory for
People with Weakened Immune Systems**

Although LADWP treats its water to meet drinking water standards, some people may be more vulnerable to constituents 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 individuals 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 available from the USEPA at www.epa.gov/safewater.

**MONITORING OF REGULATED
CONSTITUENTS**

There are over 110 regulated constituents (or contaminants). Utilities monitor for each constituent at varying frequencies based on the type of constituent and the type of source water. For example, groundwater sources are generally sampled once every three years. Those constituents that pose acute risk require more frequent monitoring. Nitrate sampling is required quarterly, and bacteriological sampling is required monthly. Since most constituents are not detected in our water, only those constituents that are detected are listed in the tables.

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 DDW 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 DDW 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 SDWS 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.

Turbidity

Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites such as Cryptosporidium and Giardia that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Lead in Drinking Water

Lead and Copper Rule (LCR) sampling was conducted in September of 2020. The 90th percentile values for lead and copper at Castaic were below the Action Levels for both constituents. This data, as well as other water quality data, are shown in tables on the following pages. Tap water sampling, as required by the Lead and Copper Rule (LCR), will be conducted in 2023.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels may be higher at one home than at other homes in the community as a result of materials used in each home’s plumbing. If you are concerned about elevated lead levels in your home’s water, you

may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before consuming water. More information is available from the EPA Safe Drinking Water Hotline at 800-426-4791, or at <https://www.epa.gov/lead>.

WATER QUALITY UPDATE

CPP received no violations and met all primary drinking water standards in 2020. There were no Unsafe Water Alert events for 2020.

Source Water Assessment

In 2016, Metropolitan Water District completed an assessment of the watersheds that supply the California Aqueduct. These sources are vulnerable to fluctuations in water quality from the delta. Other activities that impact water quality in these watersheds are livestock grazing, wildlife, and unauthorized public use of storage reservoirs. The impact to water quality from these activities is deemed to be minimal.

Regular monitoring for Cryptosporidium and Giardia indicates that their presence is infrequent and at very low levels.

CASTAIC POWER PLANT – 2020 CALENDAR YEAR

Table 1: Health-Based Primary Drinking Water Substances Detected

Constituents / Contaminants	Sampled	Major Source in Drinking Water	Units	MEET PRIMARY STANDARD / ACTION LEVEL?	Primary Standard (MCL)	PHG	CASTAIC POWER PLANT Water Quality	
							Range	Average
Fluoride	2020	Erosion of natural deposits	mg/L	YES	2	1		0.16
Copper (at-the-tap) ^a	2020	Internal corrosion of interior water plumbing systems	µg/L	YES	AL=1300	300	number of samples exceeding AL = 0 out of 5	90th Percentile value = 133
Lead (at-the-tap) ^a	2020	Internal corrosion of interior water plumbing systems	µg/L	YES	AL=15	0.2	number of samples exceeding AL = 0 out of 5	90th Percentile value = 5.9
Nitrate (as N)	2020	Runoff and leaching from fertilizer use; erosion of natural deposits	mg/L	YES	10	10	ND - 0.67	0.48
Chlorine Residual, Total (as Cl ₂)	2020	Drinking water disinfectant added for treatment	mg/L	YES	[MRDL = 4.0 (as Cl ₂)]	[MRDL = 4.0 (as Cl ₂)]	1.5 – 3.04	2.2
Haloacetic Acids [HAA5]	2020	Disinfection by-product	µg/L	YES	60	none	4.57 – 13.5	8.4
Total Tri-Halomethanes	2020	Disinfection by-product	µg/L	YES	80	none	18.8 – 39.3	32.8
Turbidity ^b	2020	Soil runoff	NTU	YES	TT	TT	100%	0.4

Table 2: Regulated Substances with Secondary Drinking Water Standards Detected

Contaminants /Constituents	Sampled	Units	Castaic Power Plant Water Quality		
			Level Detected	Secondary MCL	Major Source in Drinking Water
Chloride	2020	mg/L	55	500	Runoff/leaching from natural deposits
Color	2020	ACU	3	15	Naturally-occurring organic materials
pH	2020	Unit	7.2 – 8.0	6.5 – 8.5	Naturally-occurring dissolved gases and minerals
Specific Conductance	2020	µS/cm	489	1600	Substances that form ions when in water
Sulfate (as SO ₄)	2020	mg/L	55.6	500	Natural constituent
Total Dissolved Solids (TDS)	2020	mg/L	273	1000	Runoff/leaching from natural deposits
Turbidity	2020	NTU	0.3 – 0.7	5	Soil runoff

Footnotes for Tables

- a. At-the-tap monitoring in 2020 was conducted annually, as required by the Lead and Copper Rule. A system is out of compliance if the 90th percentile value of all samples taken exceeds the Action Level of 15 µg/L and 1300 µg/L of lead and copper, respectively.
- b. Turbidity is a measure of the cloudiness of the water and is a good indicator of water quality and filtration performance. The Primary Drinking Water Standard for turbidity at the treatment plant is less than or equal to 0.3 NTU in at least 95% of the measurements taken in any month, and must not exceed 1.0 NTU at any time. High turbidity can hinder the effectiveness of disinfectants and can harbor pathogens. The reporting requirement for treatment plant turbidity is to report the highest single measurement in the calendar year and the lowest monthly percentage of measurements less than or equal to 0.3 NTU. Turbidity is monitored at 15-minute intervals all year round.

Table 3: Unregulated Drinking Water Substances Detected

Contaminants /Constituents	Sampled	Units	Castaic Power Plant Water Quality	
			Level Detected	Major Source in Drinking Water
Alkalinity	2020	mg/L	91.0	Natural constituent
Boron	2020	µg/L	177	Natural constituent
Bromide	2020	µg/L	39.1	Runoff / leaching from natural deposits; seawater influence
Calcium	2020	mg/L	29.5	Natural constituent
Magnesium	2019	mg/L	9.8	Natural constituent
Potassium	2020	mg/L	2.3	Natural constituent
Sodium	2020	mg/L	51.3	Natural constituent
Total Hardness [as CaCO ₃]	2020	mg/L	114	Natural constituent
Total Phosphorus [as PO ₄]	2020	mg/L	0.147	Natural constituent

Abbreviations for Tables

- mg/L = milligrams per Liter (equivalent to parts per million)
- µg/L = micrograms per Liter (equivalent to parts per billion)
- NTU = Nephelometric Turbidity Units

GENERAL INFORMATION

This annual Drinking Water Quality Report (also known as a Consumer Confidence Report) is required by the California State Water Resources Control Board, Division of Drinking Water (SWRCB-DDW) and is prepared in accordance with their guidelines.

LADWP, the largest municipal utility in the nation, was established more than 100 years ago. The utility now provides a reliable and safe water and electric supply to the City's more than 4 million residents and businesses. LADWP is governed by a five-member Board of Water and Power Commissioners, appointed by the Mayor and confirmed by the City Council. The Board meets regularly on the second and fourth Tuesdays of each month at 10:00 a.m.

Meetings are held at: **Los Angeles Department of Water and Power**
111 North Hope Street, Room 1555H
Los Angeles, CA 90012-2694

The meeting agenda is available to the public the Thursday prior to the week of the meeting. You can access the Board agenda at www.ladwp.com/board or by calling (213) 367-1351. For general information about LADWP, call (800) 342-5397 or visit www.ladwp.com.

For questions regarding information in this report or the Source Water Assessment, please contact Michael Mercado at (213) 367-0395, or via email at michael.mercado@ladwp.com.