



San Francisquito Power Plants 1 and 2

2021 DRINKING WATER QUALITY REPORT

The 2021 Annual Water Quality Report for San Francisquito Power Plant 1 (PP1) and Power Plant 2 (PP2) 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, (CCR) 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 PP1 and PP2 during the 2021 calendar year (January 1, 2021 to December 31, 2021). Only those constituents that were detected are listed.

SUMMARY

The water provided to PP1 and PP2 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 PP1 and PP2: arsenic, chlorine residual, copper, lead, fluoride, gross alpha particle activity, haloacetic acids, trihalomethanes, turbidity and uranium. 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 2021 as required by the Lead and Copper Rule (LCR). For more information on these contaminants, please refer to the Table 1 "Health Based Primary Drinking Water Substances Detected."

**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.

PP1 and PP2 receive surface water from the Los Angeles Aqueduct (LAA). Prior to entering the distribution system, the water is disinfected with chlorine to ensure bacterial quality of the water. It is also treated by filtration, coagulation, and flocculation to decrease turbidity and remove arsenic and other constituents. In addition, each of the homes and power plants is equipped with point-of-entry filters to further treat the water prior to usage.

SOURCE WATER ASSESSMENT



LADWP is required to conduct source water assessments every five years. In 2020, LADWP completed the assessment of the Owens Valley and Mono Basin watersheds that supply the Los Angeles Aqueduct. These sources are most vulnerable to geothermal activities that release naturally occurring arsenic into creeks that feed the Owens River. 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.

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 can 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.

WATER QUALITY UPDATE

PP1 and PP2 received no violations and met drinking water standards in 2021.

An Unsafe Water Alert was issued at PP2 on August 5, 2021 due to a distribution pipe leak. The pipe was repaired on the same day. Following the repairs, disinfection of the distribution system was completed, and bacterial monitoring was conducted confirming the safety of the water. SWRCB-DDW approval was confirmed prior to cancelling the Unsafe Water Alert.

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 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 constituents and contaminants required for monitoring. 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. Constituents that pose acute risks 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.

ARSENIC

The current EPA standard for arsenic in drinking water is 10 ppb. The California Office of Environmental Health Hazard Assessment adopted a Public Health Goal of 0.004 ppb in April 2004. In November 2008, SWRCB-DDW adopted the EPA arsenic standard as the new State drinking water standard for arsenic. Arsenic compliance is based on a running annual average. In 2021, the average amount of arsenic was 2.4 ppb.

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 March and August 2021 at PP1 and in September 2021 at PP2. The 90th percentile values for lead and copper at PP1 and PP2 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. Residential tap water sampling, as required by the Lead and Copper Rule (LCR), will be conducted in 2022 at PP1; sampling will be conducted in 2024 at PP2.

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. LADWP 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. 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/lead>.

MONITORING OF UNREGULATED CONSTITUENTS

There are constituents found in drinking water that are not yet regulated by the USEPA and SWRCB-DDW. Some of these “unregulated constituents” are monitored because they could be candidates for future regulations, or are of interest to our consumers.

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.

POWER PLANT 1 - 2021 CALENDAR YEAR

Table 1: Health-Based Primary Drinking Water Substances Detected

Constituents / Contaminants	Major Source in Drinking Water	Sampled	Units	MEETS PRIMARY STANDARD / ACTION LEVEL (AL)	Primary Standard (MCL)	PHG	Water Quality	
							Range	Average
Arsenic	Natural hot springs; erosion of natural deposits	2021	mg/L	YES	10	0.004	ND – 6.7	2.4
Chlorine Residual, Total (as Cl ₂)	Disinfectant	2021	mg/L	YES	4.0	4.0	1.36-2.21	1.92
Copper (at the tap) ^a	Internal corrosion of household water plumbing systems	3/2021	µg/L	YES	AL = 1300	300	Number of samples exceeding AL = 0 out of 5	90 th percentile value = 317
Copper (at the tap) ^a	Internal corrosion of household water plumbing systems	8/2021	µg/L	YES	AL = 1300	300	Number of samples exceeding AL = 0 out of 5	90 th percentile value = 114
Fluoride	Erosion of natural deposits	2021	mg/L	YES	2	1	0.9	0.9
Haloacetic Acids, Total (HAA5)	Disinfection by-product	2021	µg/L	YES	60	N/A	12.9-21	15.7
Lead (at the tap) ^a	Internal corrosion of household water plumbing systems	3/2021	µg/L	YES	AL = 15	0.2	Number of samples exceeding AL = 0 out of 5	90 th percentile value = 7.1
Lead (at the tap) ^a	Internal corrosion of household water plumbing systems	8/2021	µg/L	YES	AL = 15	0.2	Number of samples exceeding AL = 0 out of 5	90 th percentile value = 2.3
Total Tri-Halomethanes	Disinfection by-product	2021	µg/L	YES	80	N/A	24.2-4	26.4
Turbidity ^c	Soil runoff	2021	NTU	YES	TT	TT	100%	0.06
Uranium	Erosion of natural deposits	2021	pCi/L	YES	20	0.43	6.3	5.7

Footnotes:

- a. At-the-tap monitoring in 2021 was conducted, 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. Gross Alpha was analyzed from samples collected in 2017 from Power Plants 1 and 2 raw water samples. Radionuclides are collected on a 6-year frequency cycle, as determined by the DDW.

- c. 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.

POWER PLANT 2 - 2021 CALENDAR YEAR

Table 1: Health-Based Primary Drinking Water Substances Detected

Constituents / Contaminants	Major Source in Drinking Water	Sampled	Units	MEETS PRIMARY STANDARD / ACTION LEVEL(AL)	Primary Standard (MCL)	PHG	Water Quality	
							Range	Average
Arsenic	Natural hot springs; erosion of natural deposits	2021	mg/L	YES	10	0.004	1.8-8.0	3.5
Chlorine Residual, Total (as Cl ₂)	Disinfectant	2021	mg/L	YES	4.0	4.0	1.4-2.5	1.9
Copper (at the tap) ^a	Internal corrosion of household water plumbing systems	2021	µg/L	YES	AL=1300	300	Number of samples exceeding AL = 0 out of 5	90 th percentile value =158
Fluoride	Erosion of natural deposits	2021	mg/L	YES	2	1	0.9	0.9
Haloacetic Acids, Total (HAA5)	Disinfection by-product	2021	µg/L	YES	60	N/A	11.7-32.1	21.6
Lead (at the tap) ^a	Internal corrosion of household water plumbing systems	2021	µg/L	YES	AL = 15	0.2	Number of samples exceeding AL = 0 out of 5	90 th percentile value = 2.2
Total Tri-Halomethanes	Disinfection by-product	2021		YES	80	N/A	26.0-59.6	41.2
Turbidity ^c	Soil runoff	2021	NTU	YES	TT	TT	100%	0.06
Uranium	Erosion of natural deposits	2020	pCi/L	YES	20	20	6.2	6.2

Abbreviations for Tables

mg/L milligrams per Liter, equivalent to parts per million (ppm)
pCi/L picoCuries per Liter (a unit of radioactivity)
NTU Nephelometric Turbidity Units

µg/L micrograms per Liter, equivalent to parts per billion (ppb)
µS/cm micro Siemens per centimeter
ACU apparent color units

POWER PLANTS 1 and 2 - 2021 CALENDAR YEAR

Table 2: Regulated Substances with Secondary Drinking Water Standards Detected

Constituents/Contaminants	Major Source in Drinking Water	Units	Sampled	Federal & State Secondary Standard [SMCL]	Level Detected	
					Power Plant 1	Power Plant 2
Chloride	Runoff/leaching from natural deposits	mg/L	2021	500	31.6	31.4
Color	Naturally-occurring organic materials	ACU	2021	15	5	5
Specific Conductance, field	Substances that form ions when in water	uS/cm	2021	1600	424	424
Sulfate	Runoff/leaching from natural deposits	mg/L	2021	500	31.2	31
Total Dissolved Solids [TDS]	Runoff/leaching from natural deposits	mg/L	2021	1000	238	237
Turbidity	Soil runoff	NTU	2021	5	0.9	1.1

POWER PLANTS 1 and 2 - 2021 CALENDAR YEAR

TABLE 3: Unregulated Drinking Water Substances Detected

Constituents/Contaminants	Major Source in Drinking Water	Sampled	Units	Level Detected	
				Power Plant 1	Power Plant 2
Alkalinity, Total (as CaCO ₃)	Natural hot springs; erosion of natural deposits	2021	mg/L	134	137
Bicarbonate	Erosion of natural deposits	2021	mg/L	164	161
Boron	Erosion of natural deposits	2021	µg/L	685	681
Calcium	Natural constituent	2021	mg/L	28.4	26.8
Chloride	Natural constituent	2021	mg/L	42.6	31.4
Magnesium	Natural constituent	2021	mg/L	7.33	7.0
pH, field	Naturally-occurring gases and minerals	2021	Units	7.8	8.2
Potassium	Natural constituent	2021	mg/L	5.29	5.1
Silica	Erosion of natural deposits	2021	mg/L	17.0	16.3
Sodium	Natural constituent	2021	mg/L	53.3	46.3
Total Hardness (as CaCO ₃)	Natural constituent	2021	mg/L	101	96

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 and provides a safe, reliable water and power 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 on 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.