

HILLSBOROUGH 2023 WATER QUALITY REPORT



This report contains important information about our drinking water. Please contact Jeremy McMullen at (650) 375-7444 or email JMcMullen@hillsborough.net for assistance.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse The Town of Hillsborough (650) 375-7444 para asistirlo en español con alguien que lo entienda bien.

此份水質報告，內有重要資訊。請找他人為你翻譯和解說清楚。



Town of Hillsborough
1600 Floribunda Avenue
Hillsborough, CA 94010

Introduction

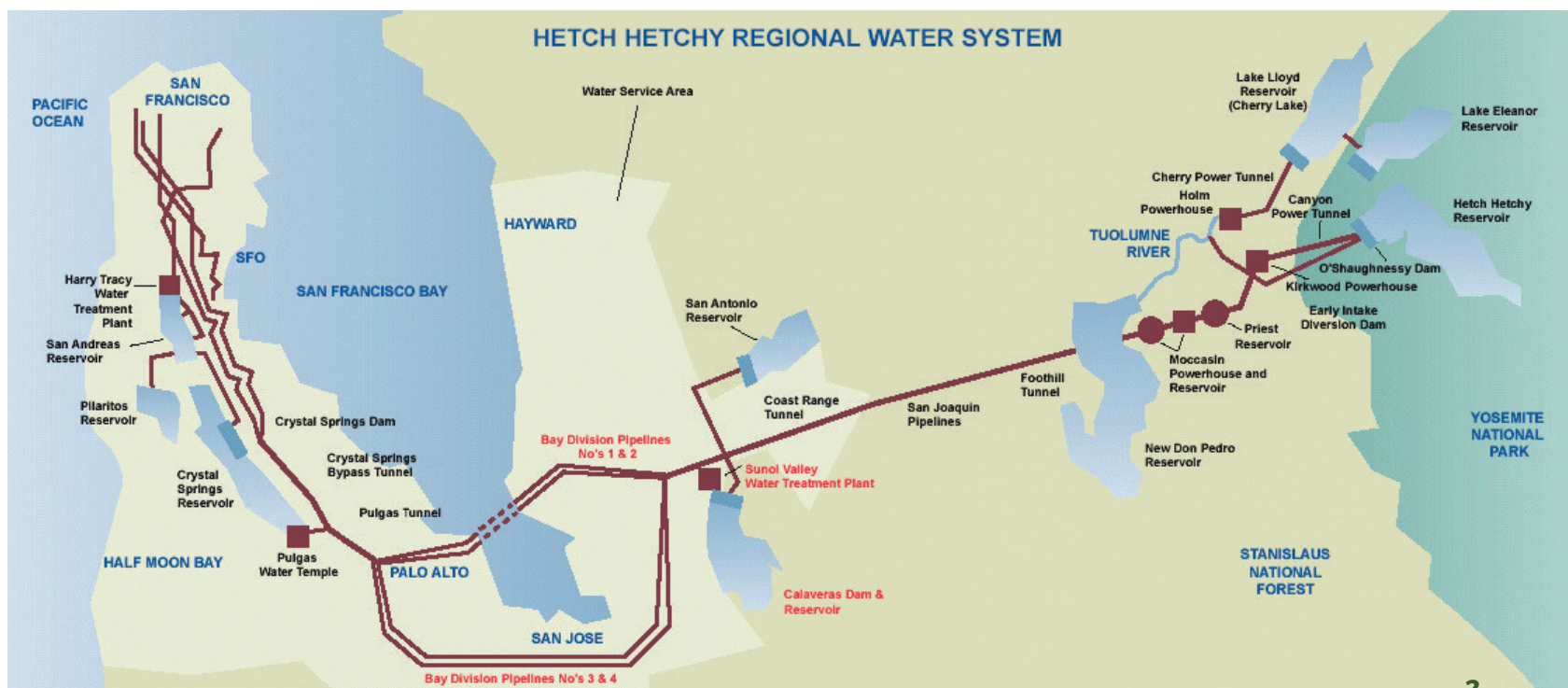
The Town of Hillsborough's drinking water is provided by the San Francisco Regional Water System (also known as the Hetch Hetchy Regional Water System). The San Francisco Regional Water System (SFRWS) is owned and managed by the San Francisco Public Utilities Commission (SFPUC). The SFPUC provides water to 2.7 million customers in cities and towns across the region. The water that the SFPUC provides Hillsborough and its other wholesale customers meets all federal and state water quality standards.

Drinking Water Sources and Treatment

The San Francisco Regional Water System's drinking water supply consists of surface water and groundwater that are well protected and carefully managed. These sources are diverse in both origin and location. SFRWS's surface water is stored in reservoirs located in the Sierra Nevada, Alameda County, and San Mateo County. SFRWS's groundwater is stored in a deep aquifer located in the northern part of San Mateo County. Maintaining this variety of sources is an important component of the SFPUC's near- and long-term water supply management strategy. A diverse mix of water sources protects the SFRWS from potential disruptions due to emergencies or natural disasters, provides resiliency during periods of drought, and helps ensure a long-term, sustainable water supply as the SFPUC address issues such as climate uncertainty, regulatory changes, and population growth.



To meet drinking water standards for consumption, all surface water sources (including the upcountry non-Hetch Hetchy sources) undergo treatment before being delivered to customers. While the water from Hetch Hetchy Reservoir is exempt from state and federal filtration requirements, it receives the following treatment before being delivered for consumption: disinfection using ultraviolet light and chlorine, pH adjustment for optimum corrosion control, fluoridation for dental health protection, and chloramination for maintaining disinfectant residual and minimizing the formation of regulated disinfection byproducts. Water from local Bay Area reservoirs in Alameda County and upcountry non-Hetch Hetchy sources is delivered to Sunol Valley Water Treatment Plant; whereas water from local reservoirs in San Mateo County is delivered to Harry Tracy Water Treatment Plant. Water treatment at these plants consists of filtration, disinfection, fluoridation, optimum corrosion control, and taste and odor removal. In 2023, neither upcountry non-Hetch Hetchy sources nor groundwater was used by the SFRWS.



Water Quality

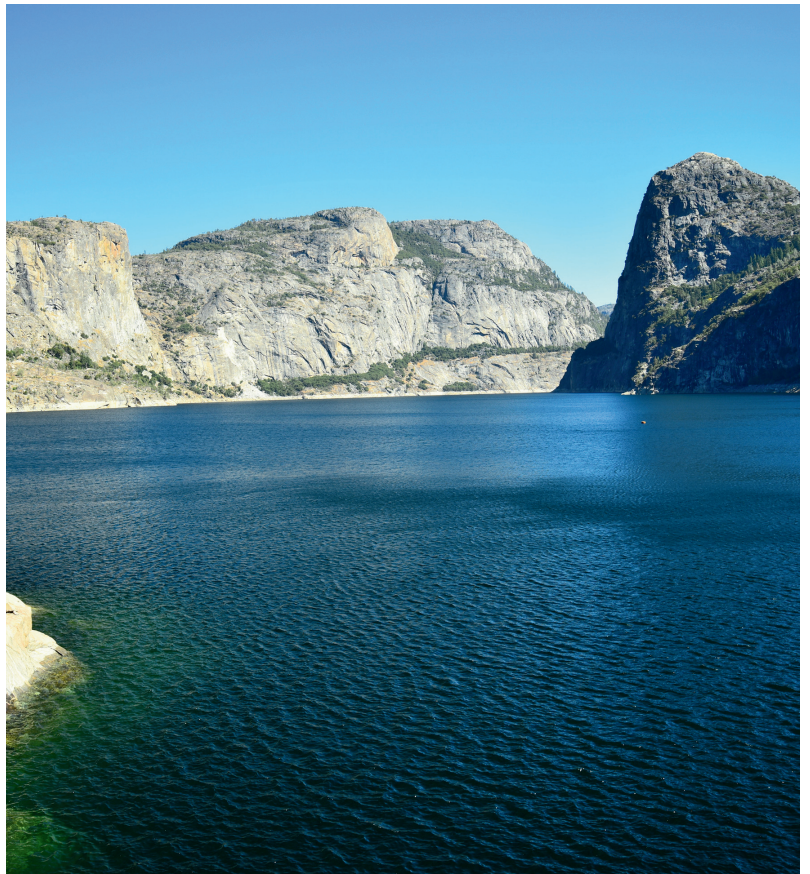
The SFRWS regularly collects and tests water samples from reservoirs and designated sampling locations throughout its system to ensure the water delivered meets all state and federal drinking water standards. In 2023, the SFRWS conducted more than 49,610 drinking water tests in the source, transmission, and distribution system. This is in addition to its extensive treatment process control monitoring performed by certified operators and online instruments.



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. Collectively these are called contaminants. Therefore, 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 water poses a health risk. To ensure that tap water is safe to drink, the United States Environmental Protection Agency and the State Water Resources Control Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The United States Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

Protection of Watersheds

The SFRWS conducts watershed sanitary surveys annually for its Hetch Hetchy source and every five years for its local water sources and upcountry non-Hetch Hetchy sources. The latest sanitary surveys for the non-Hetch Hetchy watershed were completed in 2021 for the period of 2016-2020. All these surveys, together with our stringent watershed protection management activities, were completed with support from partner agencies including the National Park Service and the United States Forest Service. The purposes of these annual and quinquennial surveys are to evaluate the sanitary conditions and water quality of the watersheds and to review the results of watershed management activities conducted in the preceding years. Wildfire, wildlife, livestock, and human activities continue to be the potential contamination sources. You may contact the San Francisco District office of the State Water Resources Control Board's Division of Drinking Water at 510-620-3474 for more information.



Special Health Needs

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons, such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome or other immune system disorders, and some elderly people and infants, can be particularly at risk from infections. These people should seek advice from their healthcare providers about drinking water.

Cryptosporidium is a parasitic microbe found in most surface water. The SFRWS regularly test for this waterborne pathogen and found it at very low levels in source water and treated water in 2023. However, current test methods approved by the United States Environmental Protection Agency do not distinguish between dead organisms and those capable of causing disease. Ingestion of Cryptosporidium may produce symptoms of nausea, abdominal cramps, diarrhea, and associated headaches. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

The United States Environmental Protection Agency and the Centers for Disease Control and Prevention guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the United States Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791 or at [epa.gov/safewater](https://www.epa.gov/safewater).

Contaminants and Regulations



Generally, the sources of drinking water (both tap water and bottled water) include rivers, lakes, oceans, streams, ponds, reservoirs, springs, and wells. Water from these sources may pick up contaminants in following forms:

- 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, which 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, which can be naturally occurring or be the result of oil and gas production and mining activities

More information about contaminants and potential health effects can be obtained by calling the United States Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791, or at [epa.gov/safewater](https://www.epa.gov/safewater).

BORON DETECTION ABOVE NOTIFICATION LEVEL IN SOURCE WATER

In 2023, boron was detected at a level of 1.7 ppm in the raw water stored in Pond F3 East, one of the San Francisco Regional Water System's approved sources in the Alameda Watershed. Similar levels were previously detected in the same pond. Although the detected value was above the California Notification Level (NL) of 1 ppm, the water was typically delivered to San Antonio Reservoir where it was substantially diluted to below the NL before treatment at the Sunol Valley Water Treatment Plant. Boron is an element in nature and is typically released into air and water when soils and rocks naturally weather.

Unregulated Contaminant Monitoring Rule

The SFRWS conducted four consecutive quarters of monitoring at designated locations approved by the United States Environmental Protection Agency in 2023, and all results have been non-detected.

KEY WATER QUALITY TERMS

The following are definitions of key terms referring to standards and goals of water quality noted on the data table on page 9.

- **Public Health Goal (PHG):** 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.
- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the United States Environmental Protection Agency.
- **Maximum Contaminant Level (MCL):** 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 (SMCLs) are set to protect the odor, taste, and appearance of drinking water.
- **Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** 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.
- **Primary Drinking Water Standard (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- **Regulatory Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.
- **Turbidity:** A water clarity indicator that measures the cloudiness of the water and is also used to indicate the effectiveness of the filtration system. High turbidity can hinder the effectiveness of disinfectants.

LEAD USER SERVICE LINE (LUSL)

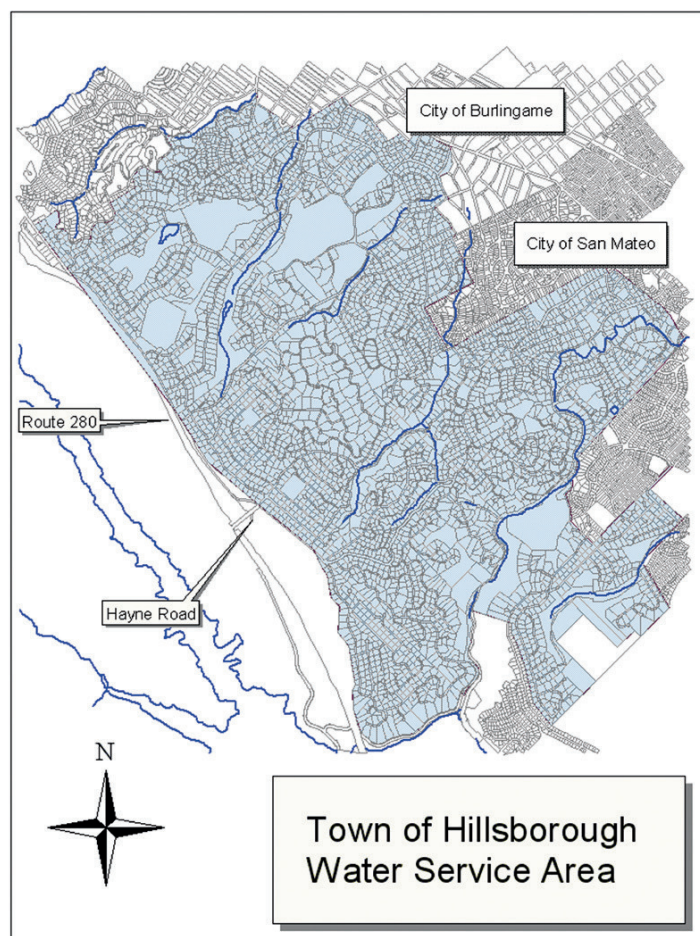
As previously reported in 2018, the Town of Hillsborough completed an inventory of lead user service lines (LUSL) in its water system and there are no known pipelines and connectors between water mains and meters made of lead. It is the Town's policy to remove and replace any LUSL promptly if it is discovered during pipeline repair and/or maintenance. The next round of Lead and Copper Rule (LCR) monitoring will be conducted in 2024.

DRINKING WATER AND LEAD

Exposure to lead, if present, can cause serious health effects in all age groups, especially for pregnant women and young children. Infants and children who drink water containing lead could have decreases in IQ and attention span and increases in learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney, or nervous system problems.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. There are no known lead service lines in Hillsborough's water distribution system. Hillsborough is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. There are no known lead service lines in our water distribution system.



You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap. You can also use a filter certified by an American National Standards Institute accredited certifier to remove lead from drinking water. You may have your water tested if you are concerned about lead in your water.

Information about lead in drinking water, testing methods, and steps you can take to minimize exposure is available at USEPA website www.epa.gov/safewater/lead.

WATER REBATE AND CONSERVATION PROGRAMS

The Town of Hillsborough coordinates with the Bay Area Water Supply and Conservation Agency (BAWSCA) to provide water conservation and rebate programs, including:

Smart Irrigation Controllers



Hillsborough offers rebates on the Rachio 3 Smart Irrigation Controllers.

Free Landscape Classes



Learn how to garden beautifully while reducing your water use. Visit www.bawasca.org/classes. Classes are designed to introduce homeowners, landscape service providers, and others to water-efficient landscaping.

Free Water Conservation Devices



Hillsborough residents can pick up free water conservation devices at Hillsborough Town Hall, including soil moisture sensors, shower timers and indoor water audit kits.

Lawn Be Gone Program



Save water by replacing your lawn with a beautiful, drought-tolerant landscape and receive a rebate of up to \$1 per sq. ft. of turf removed.

Please visit www.bawasca.org for more information

WATER QUALITY FLUSHING

The Town of Hillsborough routinely flushes water from its fire hydrants to maintain water quality, clean water mains, and test fire flows.

Water Quality Flushing: The disinfectant chloramine becomes less effective as water collects and sits in dead end lines. The Town flushes hydrants in areas where there is low water demand.

Water Main Cleaning: Over time, small particles of rust and clay build up inside the Town's main water pipes and can harm water quality. Water quality staff flush water from a hydrant at a high velocity to scour the insides of the pipes.

Fire Flow Testing: Hillsborough regularly tests its hydrants to verify that they have sufficient water pressure and flow to fight fires. This is particularly important for hydrants at higher elevations.

Hillsborough uses a mobile water filtration and treatment unit called No-DES to flush, filter, and re-circulates the water within the water distribution system whenever possible. This practice saves millions of gallons of water that would otherwise be spilled in Town storm drains.

Please visit www.hillsborough.net/waterflushing for more information.

DARRELL TANK SITE REPLACEMENT PROJECT

The Town of Hillsborough has nearly completed the replacement of two 0.5 million-gallon tanks with one 2-million-gallon prestressed concrete water tank constructed in accordance with AWWA D-110. The two replaced tanks were at their end of their useful life. The new tank is seismically resilient and increases Hillsborough's uphill emergency water storage by 1 million gallons. The project design was completed in FY 2021-22. Construction began in November 2022 and the project will be completed by June 2024.



TOWN OF HILLSBOROUGH WATER QUALITY DATA FOR 2023

This report is a snapshot of last year's water quality. The tables below list detected contaminants in our drinking water in 2023 and the information about their typical sources. Contaminants below detection limits for reporting are not shown, in accordance with regulatory guidance. The San Francisco Public Utilities Commission holds a State Water Resources Control Board monitoring waiver for some contaminants in its surface water and groundwater supplies, and therefore monitoring frequencies are less than annual.

Visit sfpuc.org/WaterQuality for a list of all water quality parameters monitored in both raw water and treated water in 2023.

TOWN OF HILLSBOROUGH

WATER QUALITY DATA FOR 2023

DETECTED CONTAMINANTS	Unit	MCL/TT	PHG or (MCLG)	Range or Level Found	Average or [Max]	Typical Sources in Drinking Water
TURBIDITY						
Unfiltered Hetch Hetchy Water	NTU	5	N/A	0.3 - 0.9 ⁽²⁾	[2]	Soil runoff
Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	NTU	1 ⁽³⁾	N/A	-	[0.2]	Soil runoff
	-	Min 95% of samples ≤ 0.3 NTU ⁽³⁾	N/A	100%	-	Soil runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	NTU	1 ⁽³⁾	N/A	-	[0.6]	Soil runoff
	-	Min 95% of samples ≤ 0.3 NTU ⁽³⁾	N/A	99.4% - 100%	-	Soil runoff

DISINFECTION BYPRODUCTS AND PRECURSOR						
Total Trihalomethanes	ppb	80	N/A	35.7 - 64.8	53.5 ⁽⁴⁾	Byproduct of drinking water disinfection
Five Haloacetic Acids	ppb	60	N/A	24.6 - 53	42.9 ⁽⁴⁾	Byproduct of drinking water disinfection
Bromate	ppb	10	0.1	ND - 1.7	[1] ⁽⁵⁾	Byproduct of drinking water disinfection
Total Organic Carbon ⁽⁶⁾	-	TT (% Removal Ratio)	N/A	1.2 - 1.8	[1.5] ⁽⁵⁾	Various natural and man-made sources

MICROBIOLOGICAL						
<i>E. coli</i> ⁽⁷⁾	-	0 PS	(0)	-	0 ⁽¹⁾	Human or animal fecal waste
<i>Giardia lamblia</i>	cyst/L	TT	(0)	0 - 0.13	0.03	Naturally present in the environment

INORGANICS						
Fluoride ⁽⁸⁾	ppm	2.0	1	0.4 - 2.6	0.6	Erosion of natural deposits; water additive to promote strong teeth
Nitrate (as N)	ppm	10	10	ND - 0.6	ND	Erosion of natural deposits
Chloramine (as chlorine)	ppm	MRDL = 4.0	MRDLG = 4	.46 - 3.39	2.59 ⁽⁵⁾	Drinking water disinfectant added for treatment

CONSTITUENTS WITH SECONDARY STANDARDS	Unit	SMCL	PHG	Range	Average	Typical Sources in Drinking Water
Aluminum ⁽⁹⁾	ppb	200	600	ND - 82	ND	Erosion of natural deposits; some surface water treatment residue
Chloride	ppm	500	N/A	<3 - 17	8.7	Runoff / leaching from natural deposits
Color	Unit	15	N/A	<5 - 5	<5	Naturally-occurring organic materials
Iron	ppb	300	N/A	<6 - 42	19	Leaching from natural deposits
Manganese	ppb	50	N/A	<2 - 4.6	2.6	Leaching from natural deposits
Specific Conductance	µS/cm	1600	N/A	32 - 289	175	Substances that form ions when in water
Sulfate	ppm	500	N/A	1.2 - 36	17	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	<20 - 153	84	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	0.1 - 0.6	0.3	Soil runoff

LEAD AND COPPER	Unit	AL	PHG	Range	90th Percentile	Typical Sources in Drinking Water
Copper	ppb	1300	300	13 - 100 ⁽¹⁰⁾	54	Internal corrosion of household water plumbing systems
Lead	ppb	15	0.2	<1 - 14 ⁽¹¹⁾	6.5	Internal corrosion of household water plumbing systems

NON-REGULATED WATER QUALITY PARAMETERS	Unit	ORL	Range	Average	KEY:
Alkalinity (as CaCO ₃)	ppm	N/A	3.1 - 103	46	< / ≤ = less than / less than or equal to
Boron	ppb	1000 (NL)	22 - 65	40	AL = Action Level
Calcium (as Ca)	ppm	N/A	2.9 - 24	13	Max = Maximum
Chlorate ⁽¹²⁾	ppb	800 (NL)	30 - 749	141	Min = Minimum
Chromium (VI)	ppb	N/A	0.11 - 0.35	0.23	N/A = Not Available
Hardness (as CaCO ₃)	ppm	N/A	7.5 - 86	46	ND = Non-detect
Magnesium	ppm	N/A	0.2 - 8.4	4.7	NL = Notification Level
pH	-	N/A	8.4 - 9.8	9.2	NTU = Nephelometric Turbidity Unit
Potassium	ppm	N/A	0.3 - 1.7	1	ORL = Other Regulatory Level
Silica	ppm	N/A	4.4 - 9.4	6.2	ppb = part per billion
Sodium	ppm	N/A	2.7 - 20	14	ppm = part per million
Strontium	ppb	N/A	14 - 331	139	PS = Number of Positive Sample
					µS/cm = microSiemens / centimeter

Key Water Quality Terms on page 5.

Footnotes:

- (1) All results met State and Federal drinking water health standards.
- (2) These are monthly average turbidity values measured every 4 hours daily.
- (3) This is a TT requirement for filtration systems.
- (4) This is the highest locational running annual average value.
- (5) This is the highest running annual average value.
- (6) Total organic carbon (TOC) is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from the SVWTP only. In 2023, the range of the SVWTP effluent TOC levels were 0.6 ppm - 3.3 ppm.
- (7) The MCL was changed to E. Coli based starting on July 1, 2021 when the State Revised Total Coliform Rule became effective.
- (8) Natural fluoride in the Hetch Hetchy source was ND. Elevated fluoride levels in raw water to the water treatment plants were attributed to the transfer of fluoridated Hetch Hetchy water into the local reservoirs. In 2023, the average fluoride level in raw water sources was 0.3 mg/L.
- (9) Aluminum also has a primary MCL of 1,000 ppb.
- (10) The most recent Lead and Copper Rule monitoring was in 2022. 0 of 30 site samples collected at consumer taps had copper concentrations above the AL.
- (11) The most recent Lead and Copper Rule monitoring was in 2022. 0 of 30 site samples collected at consumer taps had lead concentrations above the AL.
- (12) The detected chlorate in the treated water is a degradation product of sodium hypochlorite used by the SFRWS for water disinfection.