



**PURISSIMA  
HILLS** EST. 1955  
WATER DISTRICT

2023

ANNUAL WATER  
QUALITY REPORT



See inside for important info  
about our drinking water.



# 2023 | PHWD ANNUAL

## Our Drinking Water Sources and Treatment

The SFRWS'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 with the surface water stored in reservoirs located in the Sierra Nevada, Alameda County, and San Mateo County, as well as groundwater stored in a deep aquifer located in the northern part of San Mateo County. Maintaining this variety of sources is an important component of our near- and long-term water supply management strategy. A diverse mix of sources protects us from potential disruptions due to emergencies or natural disasters, provides resiliency during periods of drought, and helps us ensure a long-term, sustainable water supply as we 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 it is

delivered to our customers. While the water from Hetch Hetchy Reservoir is exempt from state and federal filtration requirements, it does receive the following treatment before being delivered for your 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. ■



This report contains important information about our drinking water. For assistance or additional information concerning this report, please contact the Purissima Hills Water District at **(650) 948-1217** or email the District at [samv@purissimawater.org](mailto:samv@purissimawater.org). Translate it, or speak with someone who understands it.

### PHWD BOARD OF DIRECTORS

**President:** Anand Ranganathan **Vice President:** Lucille Glassman  
**Directors:** Brian Holtz, Steve Jordan, Essy Stone

### PHWD MANAGEMENT

**General Manager:** Phil Witt

# WATER QUALITY REPORT



## Water Quality

The SFRWS regularly collects and tests water samples from reservoirs and designated sampling locations throughout its system to ensure the water delivered to you 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 the 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. ■

## 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 about drinking water from their healthcare providers.

*Cryptosporidium* is a parasitic microbe found in most surface water. The SFRWS regularly tests for this water-borne 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 [www.epa.gov/safewater](http://www.epa.gov/safewater) ■





## Protection of Watersheds

The SFRWS conducts watershed sanitary surveys for its Hetch Hetchy source annually 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. ■



### Boron Detection Above Notification Level in Source Water

In 2023, boron was detected at a level of 1.7 ppm (parts per million) 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 also 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 weather naturally. ■

### 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. ■

### No PFAS Detected

Per- and poly-fluoroalkyl substances (PFAS) comprise a group of man-made, persistent chemicals that have been used in the industry and consumer products since the 1940s. We did not detect PFAS in our water. To learn more, visit [waterboards.ca.gov/pfas](https://waterboards.ca.gov/pfas) ■

Please distribute this Water Quality Report and make available to everyone, including tenants, employees, homeowner association members, etc. The District welcomes the opportunity for public participation in discussing the Water Quality Report. Board Meetings are held at the District Office 26375 Fremont Road, Los Altos Hills at 6:30 pm on the second Wednesday of every month.



## 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 [www.epa.gov/safewater](http://www.epa.gov/safewater)

## Key Water Quality Terms

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

**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 USEPA.

**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 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 cloudiness of the water, and is also used to indicate the effectiveness of the filtration system. High turbidity can hinder the effectiveness of disinfectants.



**PLEASE BE PREPARED!** Your water service may be interrupted at any time if a District's main pipe breaks, or our supplier's pipes break from a natural disaster such as an earthquake. You must be responsible for supplying your family with water for drinking and sanitation in an emergency. Keep an emergency supply of bottled water in your home or garage and refresh it every 4-5 months.

# PHWD's Water Quality Data for Calendar Year 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 our surface water and groundwater supplies, and therefore their monitoring frequencies are less than annual. Visit [sfpuc.org/WaterQuality](https://sfpuc.org/WaterQuality) for a list of all water quality parameters monitored in both raw water and treated water in 2023.

## DETECTED CONTAMINANTS <sup>1</sup>

### ▼ TURBIDITY

	Unit	MCL	PHG or (MCLG)	Range or Level Found	Average or [Max]	Major Sources in Drinking Water
Unfiltered Hetch Hetchy Water	NTU	5	N/A	0.3 - 0.9 <sup>(2)</sup>	[2]	Soil runoff
Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	NTU	1 <sup>(3)</sup>	N/A	–	[0.2]	Soil runoff
	–	Min 95% of samples ≤ 0.3 NTU <sup>(3)</sup>	N/A	100%	–	Soil runoff

### ▼ DISINFECTION BYPRODUCTS AND PRECURSOR

Total Trihalomethanes	ppb	80	N/A		[69.1] <sup>(4)</sup>	Byproduct of drinking water disinfection
Five Haloacetic Acids	ppb	60	N/A		[59.9] <sup>(4)</sup>	Byproduct of drinking water disinfection
Total Organic Carbon <sup>(6)</sup>	–	TT (% Removal Ratio)	N/A	1.2 - 1.8	[1.5] <sup>(5)</sup>	Various natural and man-made sources

### ▼ MICROBIOLOGICAL

<i>E. coli</i> <sup>(7)</sup>	–	0 Positive Sample	(0)	–	[0]	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 (source water) <sup>(8)</sup>	ppm	2.0	1	ND - 0.7	0.2 <sup>(9)</sup>	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	2.92 - 3.22	[3.08] <sup>(5)</sup>	Drinking water disinfectant added for treatment

## KEY

< / ≤ = less than / less than or equal to  
 AL = Action Level  
 Max = Maximum  
 Min = Minimum  
 N/A = Not Available

ND = Non-detect  
 NL = Notification Level  
 NTU = Nephelometric Turbidity Unit  
 ORL = Other Regulatory Level  
 ppb = parts per billion

ppm = parts per million  
 PS = Number of Positive Sample  
 μS/cm = microSiemens / centimeter

Additional water quality data may be obtained by calling Phil Witt, General Manager, Purissima Hills Water District at (650) 948-1217 or SFPUC Water Quality Division at (877) 737-8297.

## DETECTED CONTAMINANTS <sup>1</sup>

### ▼ CONSTITUENTS WITH SECONDARY STANDARDS

	Unit	SMCL	PHG	Range	Average	Major Sources of Contaminant
Aluminum <sup>(10)</sup>	ppb	200	600	ND - 82	ND	Erosion of natural deposits; some surface water treatment residue
Chloride	ppm	500	N/A	<3 - 9.3	4.6	Runoff / leaching from natural deposits
Color	Unit	15	N/A	<5 - 5	<5	Naturally-occurring organic materials
Iron	ppb	300	N/A	<6 - 42	21	Leaching from natural deposits
Manganese	ppb	50	N/A	3.1 - 4.6	3.8	Leaching from natural deposits
Specific Conductance	µS/cm	1600	N/A	32 - 289	160	Substances that form ions when in water
Sulfate	ppm	500	N/A	1.2 - 36	19	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	<20 - 153	77	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	Major Sources in Drinking Water
Copper	ppb	1300	300	5.2 - 860 <sup>(11)</sup>	130	Internal corrosion of household water plumbing systems
Lead	ppb	15	0.2	5.9 - 8.2 <sup>(11)</sup>	7.4	Internal corrosion of household water plumbing systems

### ▼ OTHER WATER QUALITY PARAMETERS

	Unit	ORL	Range	Average
Alkalinity (as CaCO <sub>3</sub> )	ppm	N/A	3.1 - 103	44
Boron	ppb	1000 (NL)	22 - 65	43
Calcium (as Ca)	ppm	N/A	2.9 - 24	13
Chlorate	ppb	(800) NL	30 - 749	168
Chromium (VI)	ppb	N/A	0.11 - 0.35	0.23
Hardness (as CaCO <sub>3</sub> )	ppm	N/A	7.5 - 86	47
Magnesium	ppm	N/A	0.2 - 8.4	4.3
pH	—	N/A	8.4 - 9.8	9.3
Potassium	ppm	N/A	0.3 - 1.7	1
Silica	ppm	N/A	4.9 - 9.4	7.1
Sodium	ppm	N/A	2.7 - 19	11
Strontium	ppb	N/A	14 - 331	173

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### 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) The SWRCB recommended an optimal fluoride level of 0.7 ppm be maintained in the treated water. In 2023, the range and average of the fluoride levels were 0.4 ppm - 2.6 ppm and 0.6 ppm, respectively.
- (9) Natural fluoride in the Hetch Hetchy source was ND. Elevated fluoride levels in raw water to the SVWTP were attributed to the transfer of fluoridated Hetch Hetchy water into local reservoirs in the East Bay.
- (10) Aluminum also has a primary MCL of 1,000 ppb.
- (11) The most recent Lead and Copper Rule monitoring was in September 12, 2023. 0 of 20 site samples collected at consumer taps had copper concentrations above the AL.
- (12) The most recent Lead and Copper Rule monitoring was in September 12, 2023. 0 of 20 site samples collected at consumer taps had lead concentrations above the AL.
- (13) The detected chlorate in the treated water is a degradation product of sodium hypochlorite used by the SFRWS for water disinfection.





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WATER DISTRICT

26375 Fremont Road  
Los Altos Hills, CA 94022

# 2023

## PHWD Annual Water Quality Report

This report contains important information about our drinking water. Translate it, or speak with someone who understands it. Este informe contiene información importante sobre nuestra agua potable. Tradúzcalo, o hable con alguien que lo entienda. 本报告中包含有关我们的饮用水的重要信息。翻译这份报告，或与了解的人谈一谈。 이 보고서는 식수에 관한 중요한 정보를 포함하고 있습니다. 번역하거나 이해할 수 있는 사람과 이야기하십시오. Maglalaman ang ulat na ito ng mahalagang impormasyon tungkol sa ating inininom na tubig. Isaling-wika ito, o makipag-usap sa isang taong naiinindihan ito. Báo cáo này bao gồm những tin quan trọng về nước uống của chúng ta. Dịch hoặc trao đổi với người nào hiểu báo cáo này.

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# ANNUAL WATER QUALITY REPORT

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