



San Francisco  
**Water Power Sewer**  
Services of the San Francisco Public Utilities Commission

# 2021

# ANNUAL WATER QUALITY REPORT

# SAN FRANCISCO REGIONAL WATER SYSTEM

# Our Tap Water

The San Francisco Public Utilities Commission (SFPUC) provides 2.7 million customers in cities and towns across the region with water so pure that it meets all federal and state standards. Through careful stewardship of both our natural resources and our infrastructure, every drop that arrives at your home or business is clean and of the highest quality. However, long-term climate change and recent years of reduced rainfall require all of us to rethink the way we use this precious resource.

In response to the three years of nearly statewide drought, in November 2021 the SFPUC declared a Water Shortage Emergency to help extend our water supplies. The SFPUC is asking all of our customers in San Francisco, San Mateo, Santa Clara, and Alameda counties to reduce their water use by cutting waste. Visit [sfpuc.org/drought](https://sfpuc.org/drought) for ways you can help.

## Understanding This Report

The SFPUC produces a Water Quality Report every year to provide specific information about where your water comes from, how we treat it, and its overall quality. We do this not only to meet regulatory requirements but also to provide you with clear and important information about our drinking water operations and our public health protection efforts.

We are committed to providing high quality drinking water for all our customers. We operate and maintain a water system that extends over a hundred miles across several counties and consists of reservoirs, pipelines, and treatment facilities to deliver potable water for consumption by millions of individuals. It is our hope that this report will not only provide you with greater knowledge of your water, but also an increased confidence in the skills, talents, and efforts of our staff that ensure the highest quality water for every one of our customers.

We're proud of our water, and hope you will be, too. Throughout this report, you'll find facts and figures that enhance not only your knowledge of our water supply and quality but also your ability to help conserve it. We hope you enjoy getting to know a little more about who we are as an Agency and how you can help make a difference.

### WAYS TO SAVE

#### FIX LEAKS RIGHT AWAY

A leaking faucet wastes hundreds of gallons of water a month. Fix leaks to save water and avoid bill increases.



# Our Drinking Water Sources and Treatment

Our 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 (UNHHS) undergoes treatment before it is delivered to our customers. Although the water from Hetch Hetchy Reservoir is exempt from state and federal filtration requirements, it receives the following treatment: 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 UNHHS is delivered to Sunol Valley Water Treatment Plant (SVWTP); whereas water from local reservoirs in San Mateo County is delivered to Harry Tracy Water Treatment Plant (HTWTP). Water treatment at these plants consist of filtration, disinfection, fluoridation, optimum corrosion control, and taste and odor removal.

In 2021, no UNHHS water was used. However, a small amount (<0.06%) of groundwater was added to our surface water supply through blending in the transmission pipelines.

## Protection of Watersheds

We conduct watershed sanitary surveys for the Hetch Hetchy source annually and for the local water sources and UNHHS every five years. The latest sanitary surveys for the local watersheds and the UNHHS 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 National Park Service and US Forest Service. The purposes of the surveys are to evaluate the sanitary conditions and water quality of the watersheds and to review 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 (SWRCB) at **510-620-3474** for more information.



# Water Quality

We regularly collect and test water samples from reservoirs and designated sampling locations throughout the system to ensure the water delivered to you meets all state and federal drinking water standards. In 2021, we conducted more than **48,320** drinking water tests in the source, transmission, and distribution system. This is in addition to the extensive treatment process control monitoring performed by our certified operators and online instruments.

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 (USEPA) and the SWRCB prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

## WAYS TO SAVE

### SHOWERS

Showers can use up to a gallon a minute, so shorter showers really save. Get a water-efficient showerhead before you lather, rinse, and repeat.



## Fluoridation and Dental Fluorosis

Mandated by State law, water fluoridation is a widely accepted practice proven safe and effective for preventing and controlling tooth decay. Our fluoride target level in the water is 0.7 milligram per liter (mg/L, or part per million, ppm), which is consistent with the May 2015 State regulatory guidance on optimal fluoride level. Infants fed formula mixed with water containing fluoride at this level may still have a chance of developing tiny white lines or streaks in their teeth. These marks are referred to as mild to very mild fluorosis, and are often only visible under a microscope. Even in cases where the marks are visible, they do not pose any health risk. The Centers of Disease Control (CDC) considers it safe to use optimally fluoridated water for preparing infant formula. To lessen this chance of dental fluorosis, you may choose to use low-fluoride bottled water to prepare infant formula. Nevertheless, children may still develop dental fluorosis due to fluoride intake from other sources such as food, toothpaste, and dental products.

Contact your healthcare provider or SWRCB if you have concerns about dental fluorosis. For additional information about fluoridation or oral health, visit the SWRCB website [waterboards.ca.gov/drinking\\_water/certific/drinkingwater/Fluoridation.html](https://waterboards.ca.gov/drinking_water/certific/drinkingwater/Fluoridation.html), the CDC website [cdc.gov/fluoridation](https://cdc.gov/fluoridation), or our website [sfpub.org/tapwater](https://sfpub.org/tapwater).



# Get Familiar With Our Watersheds

The system that delivers our water is made up of many different sources of water. We work hard to protect our water and water quality. Find out about each of our reservoirs, how much they contribute to the system and how you can visit them.

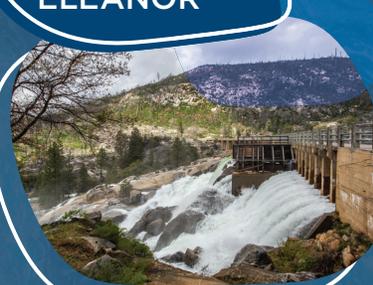
A watershed is a land area that collects and channels rainfall and snowmelt by gravity to creeks, streams, and rivers, and eventually to common outflow points such as reservoirs, bays, and the ocean.

## CALAVERAS RESERVOIR



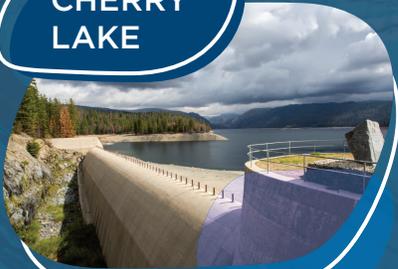
**FUN FACT:** The largest of our East Bay reservoirs, Calaveras is located near a seismically active fault. The original dam was built in 1925, and was recently replaced along with several upgrades to improve our ability to better manage the watershed's biodiversity.

## LAKE ELEANOR



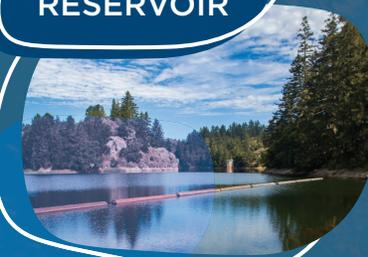
**FUN FACT:** Although the current lake was created by the damming of the Eleanor Creek in 1918, there was a smaller natural lake located at the same site, and bearing the same name. Today, visitors can take advantage of trails primarily used for moderate hikes as well as the campground.

## CHERRY LAKE



**FUN FACT:** Cherry Lake is a popular recreation spot for local and visitors alike. It provides emergency backup water supply to our system, and recreational boating is permitted on the water itself. This reservoir is maintained in partnership with US Forest Service.

## PILARCITOS RESERVOIR



**FUN FACT:** Construction of Pilarcitos Dam began in 1862, and was completed in 1866. It was raised in 1867 and 1874. The dam is an earth fill dam with a clay puddle core, and a height of 95 feet from foundation to crest. The reservoir has a capacity of just over 1 billion gallons. It serves as a key water supply for Half Moon Bay.

## CRYSTAL SPRINGS RESERVOIR



**FUN FACT:** Actually consisting of two reservoirs, Upper and Lower Crystal Springs together provide one of the most accessible watersheds to visit offering the opportunity to walk, hike, and even attend docent lead bike tours along nearby trails.

## SAN ANDREAS RESERVOIR



**FUN FACT:** As the name would suggest, the San Andreas fault runs through the reservoir, and the dam holding back the reservoir survived the 1906 earthquake. The 6-mile long Sawyer Camp Trail links San Andreas and Crystal Springs reservoirs.

## HETCH HETCHY RESERVOIR



**FUN FACT:** The name of our largest reservoir likely comes from the Miwok word, hatchhatchie, meaning "edible grasses." Miwok names are still used throughout the area, including the two waterfalls Tueeulala Fall, Wapama Fall, and Kolana Rock.

## SAN ANTONIO RESERVOIR



**FUN FACT:** Located near the town of Sunol in Alameda County, this reservoir was impounded in 1964 by Turner Dam, named after former General Manager of Hetch Hetchy, James H. Turner. Like Calaveras, it is closed to the public.

# Special Health Needs

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS 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. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline **800-426-4791** or at [epa.gov/safewater](http://epa.gov/safewater).

# Per- and Polyfluoroalkyl Substances (PFAS)

PFAS is a group of approximately 5,000 man-made, persistent chemicals used in a variety of industries and consumer products. In 2021, we conducted a second round of voluntary monitoring using a new analytical method adopted by the USEPA for some other PFAS contaminants. No PFAS were detected above the SWRCB's Consumer Confidence Report Detection Levels in our surface water and groundwater sources. For additional information about PFAS, visit our website at [sfpuc.org/tapwater](http://sfpuc.org/tapwater), SWRCB website [waterboards.ca.gov/pfas](http://waterboards.ca.gov/pfas), and/or USEPA website [epa.gov/pfas](http://epa.gov/pfas).

# 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. 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 from human activity. Such substances are called contaminants, and may be present in source water as:

**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 USEPA's Safe Drinking Water Hotline **800-426-4791**, or at [epa.gov/safewater](http://epa.gov/safewater).



## WAYS TO SAVE

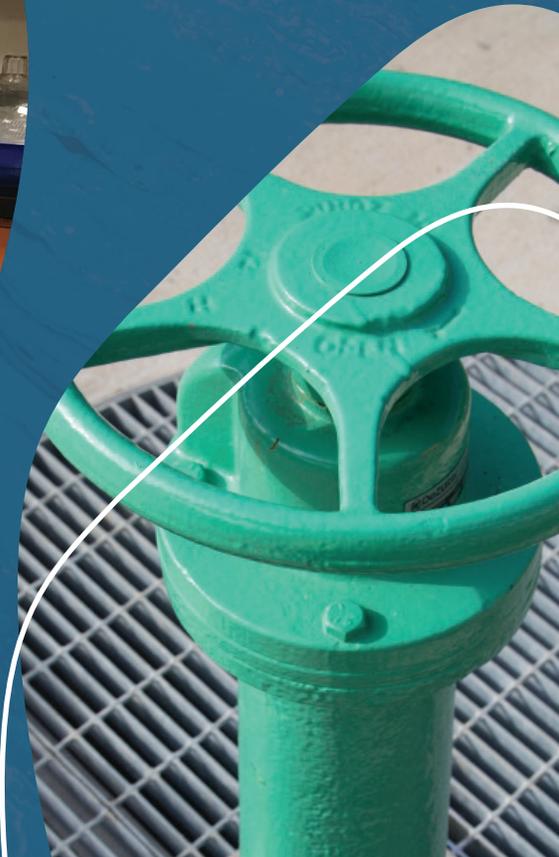
### LAWNS AND GARDENS

Use water-wise principles when caring for lawns and gardens -- select climate appropriate plants, efficient irrigation and conservation-friendly design.

# 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 our water distribution system. We are responsible for providing high quality drinking water and removing lead pipes, but we cannot control the variety of materials used in plumbing components in your home. 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 by taking steps to reduce your family's risk. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your pipes for several minutes, such as running your tap, taking a shower, doing laundry or a load of dishes, before using water for drinking and cooking. You can also use a filter certified by an American National Standards Institute accredited certifier to remove lead from drinking water. If you are concerned about lead in your water, you may wish to have your water tested. Information about lead in drinking water, testing methods, and steps you can take to minimize exposure is available at [epa.gov/safewater/lead](https://www.epa.gov/safewater/lead).



# Lead User Service Line (LUSL)

As previously reported, we completed an LUSL inventory in our distribution system in 2018 and there are no known service lines made of lead. If a galvanized service line is found or the unknown material cannot be verified, the service line is scheduled for replacement. Our policy is to remove and replace any LUSL promptly if it is discovered during pipeline repair and/or maintenance. Information about our LUSL inventory can be found in the dataset table at SWRCB website [waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/lead\\_service\\_line\\_inventory\\_pws.html](https://waterboards.ca.gov/drinking_water/certlic/drinkingwater/lead_service_line_inventory_pws.html).

## Lead and Copper Tap Sampling Results

We conducted our triennial Lead and Copper Rule (LCR) monitoring in 2021 when we sample from customer taps rather than our distribution system, and all lead results were below the regulatory Action Level. The next round of LCR monitoring will be in 2024. Contact us at **(877) 737-8297** for the tap monitoring results.



## State Revised Total Coliform Rule

This report reflects changes in drinking water regulatory requirements during 2021, in which the SWRCB adopted the California version of the federal Revised Total Coliform Rule. The revised rule, effective on July 1, 2021, maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbes (i.e., total coliform and *E. coli* bacteria). Greater public health protection is anticipated, as the revised rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system.

**WAYS  
TO SAVE**



### OUTDOORS

Landscaping with native plants attracts beneficial bugs and minimizes the need for chemicals.

[sfpuc.org/savewater](https://sfpuc.org/savewater)



# 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.

**Cryptosporidium** is a parasitic microbe found in most surface water. We regularly test for this waterborne pathogen and found it at very low levels in source water and treated water in 2021. However, current test methods approved by the USEPA 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.



# San Francisco Regional Water System - Water Quality Data for 2021

This report is a snapshot of last year's water quality. The tables below list detected contaminants in our drinking water in 2021 and the information about their typical sources. Contaminants below detection limits for reporting are not shown, in accord with regulatory guidance. We hold a SWRCB monitoring waiver for some contaminants in our surface water supply and therefore their monitoring frequencies are less than annual. Visit [sfpub.org/WQR-analytes](http://sfpub.org/WQR-analytes) for a list of all water quality parameters we monitored in both raw water and treated water in 2021.

DETECTED CONTAMINANTS	UNIT	MCL/TT	PHG OR (MCLG)	RANGE OR LEVEL FOUND	AVERAGE OR [MAX]	TYPICAL SOURCES IN DRINKING WATER
<b>TURBIDITY</b>						
Unfiltered Hetch Hetchy Water	NTU	5	N/A	0.2 - 0.4 <sup>(1)</sup>	[3.3]	Soil runoff
Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	NTU	1 <sup>(2)</sup>	N/A	-	[0.4]	Soil runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	NTU	1 <sup>(2)</sup>	N/A	-	[0.2]	Soil runoff
		Min 95% of samples ≤0.3 NTU <sup>(2)</sup>	N/A	99.8% - 100%	-	Soil runoff
		Min 95% of samples ≤0.3 NTU <sup>(2)</sup>	N/A	100%	-	Soil runoff
<b>DISINFECTION BY-PRODUCTS AND PRECURSOR</b>						
Total Trihalomethanes	ppb	80	N/A	6 - 47	[34] <sup>(3)</sup>	By-product of drinking water disinfection
Five Haloacetic Acids	ppb	60	N/A	<2 - 32	[22] <sup>(3)</sup>	By-product of drinking water disinfection
Bromate	ppb	10	0.1	ND - 1.9	[2.1] <sup>(4)</sup>	By-product of drinking water disinfection
Total Organic Carbon <sup>(5)</sup>	ppm	TT	N/A	1.2 - 2.2	1.8	Various natural and man-made sources
<b>MICROBIOLOGICAL</b>						
Total Coliform <sup>(6)</sup>	-	NoP ≤5.0% of monthly samples	(0)	-	[0.6%]	Naturally present in the environment
Fecal coliform and <i>E. coli</i> <sup>(6)</sup>	-	0 Positive Sample	(0)	-	[0]	Human or animal fecal waste
<i>Giardia lamblia</i>	cyst/L	TT	(0)	0 - 0.04	0.01	Naturally present in the environment
<b>INORGANICS</b>						
Fluoride (source water) <sup>(7)</sup>	ppm	2.0	1	ND - 0.8	0.4 <sup>(8)</sup>	Erosion of natural deposits; water additive to promote strong teeth
Chlorine (including free chlorine and chloramine)	ppm	MRDL = 4.0	MRDLG = 4	0.6 - 3.7	[2.8] <sup>(4)</sup>	Drinking water disinfectant added for treatment
<b>CONSTITUENTS WITH SECONDARY STANDARDS</b>						
Chloride	ppm	500	N/A	<3 - 11	6.7	Runoff / leaching from natural deposits
Specific Conductance	µS/cm	1600	N/A	34 - 217	135	Substances that form ions when in water
Sulfate	ppm	500	N/A	1.1 - 29	13	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	<20 - 96	52	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	ND - 0.2	ND	Soil runoff
<b>LEAD AND COPPER <sup>(9)</sup></b>						
Copper	ppb	1300	300	ND - 192	145	Internal corrosion of household water plumbing systems
Lead	ppb	15	0.2	ND - 13	11	Internal corrosion of household water plumbing systems
<b>NON-REGULATED WATER QUALITY PARAMETERS</b>						
Alkalinity (as CaCO <sub>3</sub> )	ppm	N/A	4.5 - 79	37		<b>KEY</b> < / ≤ = less than / less than or equal to AL = Action Level Max = Maximum Min = Minimum N/A = Not Available ND = Non-Detect NL = Notification Level NoP = Number of Coliform-Positive Sample NTU = Nephelometric Turbidity Unit ORL = Other Regulatory Level pCi/L = picocurie per liter ppb = part per billion ppm = part per million µS/cm = microSiemens/centimeter
Boron	ppb	1000 (NL)	ND - 123	ND		
Calcium (as Ca)	ppm	N/A	3 - 17	9.5		
Chlorate <sup>(10)</sup>	ppb	800 (NL)	28 - 420	162		
Hardness (as CaCO <sub>3</sub> )	ppm	N/A	7.7 - 60	34		
Magnesium	ppm	N/A	<0.2 - 5.5	2.9		
pH	-	N/A	8.6 - 9.7	9.2		
Phosphate (ortho)	ppm	N/A	<0.3 - 0.3	<0.3		
Potassium	ppm	N/A	0.4 - 1.1	0.7		
Silica	ppm	N/A	3 - 5.9	4.8		
Sodium	ppm	N/A	3.1 - 17	12		
Strontium	ppb	N/A	14 - 181	83		

**FOOTNOTES ON SAN FRANCISCO REGIONAL WATER SYSTEM - WATER QUALITY DATA:**

(1) These are monthly average turbidity values measured every 4 hours daily. (2) This is a TT requirement for filtration systems. (3) This is the highest locational running annual average value. (4) This is the highest running annual average value. (5) Total organic carbon is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from the SVWTP only. (6) The MCL was changed to *E. coli* based starting on July 1, 2021 after the SWRCB adopted the Revised Total Coliform Rule. (7) The SWRCB recommended an optimal fluoride level of 0.7 ppm be maintained in the treated water. In 2021, the range and average of the fluoride levels were 0.6 ppm - 0.9 ppm and 0.7 ppm, respectively. (8) Natural fluoride in the Hetch Hetchy source was ND. Elevated fluoride levels in raw water at the SVWTP and HTWTP were attributed to the transfer of fluoridated Hetch Hetchy water into the local reservoirs. (9) The most recent Lead and Copper Rule monitoring from consumer taps was in August 2021. None of the 15 site samples collected at consumer taps had concentration above the corresponding ALs. (10) The detected chlorate in the treated water is a degradation product of sodium hypochlorite, which we use for water disinfection.

**Note: The different water sources blended at different ratios throughout the year have resulted in varying water quality. Additional water quality data may be obtained by calling our Water Quality Division toll-free number at 877-737-8297.**

## San Francisco Regional Water System - Groundwater Quality Data for Year 2021

Treated Water <sup>(1)</sup>	CONSTITUENTS WITH SECONDARY STANDARDS	UNIT	SMCL	PHG OR (MCLG)	RANGE OR LEVEL FOUND	AVERAGE	TYPICAL SOURCES IN DRINKING WATER
	Chloride	ppm	500	N/A	4.5 - 13	8.6	Runoff / leaching from natural deposits
	Specific Conductance	µS/cm	1600	N/A	55 - 146	101	Substances that form ions when in water
	Sulfate	ppm	500	N/A	1.6 - 7.7	4.6	Runoff / leaching from natural deposits
	Total Dissolved Solids	ppm	1000	N/A	<20 - 69	35	Runoff / leaching from natural deposits
	Turbidity	NTU	5	N/A	0.2	0.2	Soil runoff

Raw Water (GSR Groundwater Wells) <sup>(2)</sup>	DETECTED CONTAMINANTS	UNIT	MCL	PHG OR (MCLG)	RANGE	AVERAGE	TYPICAL SOURCES IN DRINKING WATER	
	<b>INORGANICS <sup>(3)</sup></b>							
	Chromium (VI) <sup>(4)</sup>	ppb	N/A	0.02	4.4 - 32	19	Leaching from natural deposits; waste discharges from electroplating	
	Chromium (Total)	ppb	50	(100)	ND - 29	18	Erosion of natural deposits; discharge from electroplating	
	Fluoride	ppm	2.0	1	ND - 0.2	ND	Erosion of natural deposits	
	Manganese	ppb	50 (SMCL)	N/A	ND - 23	ND	Leaching from natural deposits	
	Nitrate (as Nitrogen)	ppm	10	10	2.8 - 28	13	Landscape fertilizers and leaked wastewater	
	Perchlorate	ppb	6	1	ND - 3.8	ND	Environmental contamination from use/disposal of fireworks, explosives, and a variety of industries	
	<b>RADIONUCLIDES</b>							
	Strontium-90 <sup>(5)</sup>	pCi/L	8	0.35	ND - 3.3	ND	Decay of natural and man-made deposits	
	Uranium <sup>(6)</sup>	pCi/L	20	0.43	ND - 1	ND	Erosion of natural deposits	
	OTHER WATER QUALITY PARAMETERS	UNIT	ORL		RANGE	AVERAGE	KEY	
	Alkalinity (as CaCO3)	ppm	N/A		134 - 156	145	GSR = Regional Groundwater Storage and Recovery Project, which is designed to supply groundwater to the system in the northern San Mateo County during dry years.	
	Bromide	ppm	N/A		0.3 - 0.6	0.5		
	Calcium (as Ca)	ppm	N/A		48	48		
Hardness (as CaCO3)	ppm	N/A		270 - 298	284			
Magnesium	ppm	N/A		48	48			
pH	-	N/A		6.9 - 8.4	7.8			
Potassium	ppm	N/A		2.4	2.4			
Silica	ppm	N/A		44	44			
Sodium	ppm	N/A		50	50			
Strontium	ppb	N/A		133 - 320	248			
Total Organic Carbon	ppm	N/A		0.5 - 0.6	0.5			

**FOOTNOTES ON SAN FRANCISCO REGIONAL WATER SYSTEM - GROUNDWATER WATER QUALITY DATA:**

(1) Treated water is the blend water consisting of GSR groundwater and SFRWS surface water supplies from Hetch Hetchy, SVWTP, and HTWTP. (2) In 2021, a total of 48.7 million gallons of groundwater from four GSR wells was intermittently delivered to the system during the start-up tests. Due to the low percentage (0.06%) of contribution to the total system water supply, the overall water quality changes attributed to the GSR supply was insignificant. (3) The concentration ranges and averages of these contaminants are in the raw groundwater prior to blending, which is approved by the SWRCB as a treatment for groundwater. They are not representative of the blend water in the transmission system. (4) Chromium (VI) is currently regulated by the SWRCB under a MCL of 50 ppb for total chromium. (5) Strontium-90 was detected at Serramonte Boulevard Well in November 2021. (6) Uranium was detected at Mission Well in December 2021.

**Note: 1. VOCs, SOCs, and radionuclides were monitored as part of the initial 4-quarter monitoring at some GSR well sources in 2021, and all except strontium-90 and uranium results were below detection limits. 2. The SFPUC conducted voluntary monitoring for PFAS contaminants at the seven Phase 1 GSR wells in 2021. All results were non-detect.**



San Francisco  
**Water  
Power  
Sewer**

Services of the San Francisco  
Public Utilities Commission

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**Water quality policies are  
decided at SFPUC Commission  
hearings, held the 2nd and  
4th Tuesdays of each month  
at 1:30 pm in San Francisco  
City Hall, Room 400.**



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**Newsha K. Ajami, VICE PRESIDENT**  
**Sophie Maxwell, COMMISSIONER**  
**Tim Paulson, COMMISSIONER**

This report contains important information about our drinking water. Please contact SFPUC Communications at **628-215-0940** or email [jstreeter@sfwater.org](mailto:jstreeter@sfwater.org) for assistance.

Este informe contiene información muy importante sobre su agua potable. Favor de comunicarse con JP Streeter en tel **628-215-0940** o [jstreeter@sfwater.org](mailto:jstreeter@sfwater.org) para asistencia.

此報告有重要飲水資訊。需要協助，請聯絡三藩市水利局公關部，電話：**628-215-0940**或電郵 [jstreeter@sfwater.org](mailto:jstreeter@sfwater.org)。

### San Francisco Public Utilities Commission

Every day we deliver high-quality drinking water to 2.7 million people in San Francisco, Alameda, Santa Clara and San Mateo counties. We generate clean, reliable hydroelectricity that powers 100% of San Francisco's vital services, including police and fire stations, street lights, Muni, SF General Hospital and more.

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

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

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

این اطلاعیه شامل اطلاعات مهمی را جمع به آب آشامیدنی است. اگر نمیتوانید این اطلاعات را بزبان انگلیسی بخوانید لطفاً از کسی که میتواند داری بگیرد تا مطالب را برای شما به فارسی ترجمه کند.

Cé rapport contient des information importantes concernant votre eau potable. Veuillez traduire, ou parlez avec quelqu' un qui peut le comprendre.

Этот отчет содержит важную информацию о вашей питьевой воды. Переведите его или поговорите с тем, кто это понимает.

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。

Chi tiết này thật quan trọng. Xin nhờ người dịch cho quý vị.

この報告書には上水道に関する重要な情報が記されております。翻訳を御依頼なされるか、内容をご理解なさっておられる方にお尋ね下さい。

यह सूचना महत्वपूर्ण है । कृपा काके किसी से सका अनुवाद करायें ।

이 안내는 매우 중요합니다. 본인을 위해 번역인을 사용하십시오.