



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

# 2020 ANNUAL WATER QUALITY REPORT



## SAN FRANCISCO REGIONAL WATER SYSTEM



# UNDERSTANDING THIS REPORT

The San Francisco Public Utilities Commission (SFPUC) produces this annual report detailing where your water comes from, how we treat it, and its overall chemical composition. We do this not only to meet a regulatory requirement but also provide an educational opportunity for you to understand our drinking water operations and public health protection efforts.

We are committed to providing high quality drinking water for all our customers. Our system is large and we work across several counties to maintain the system that delivers potable water for your consumption. It is our hope that this report will not only provide you with greater knowledge of your water, but also an increased understanding of the considerable skill, talent, and effort of the SFPUC staff that goes into ensuring businesses and residents have reliable access to this precious resource.

We're proud of our water, and we hope you are too. Throughout this report, you'll find facts and figures to help expand upon the basic information we're required to provide. We hope you enjoy getting to know a little more about who we are as an Agency and how you can get involved.

## **WATER FACT:**

*Bottled water not only contributes to plastic waste and additional carbon emissions in transportation, it is also on average*

# **11 TIMES**

*more expensive than tap water, and not as heavily regulated as tap water.*

# 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 the origin and the location with the surface water stored in reservoirs located in the Sierra Nevada, Alameda County and San Mateo County, and groundwater stored in a deep aquifer located in the north 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, water from all of our surface water sources including the upcountry non-Hetch Hetchy sources (UNHHS) undergoes treatment before it is delivered to our customers. Water from the Hetch Hetchy Reservoir is exempt from state and federal filtration requirements but receives the following treatment: ultraviolet light and chlorine disinfection, 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 San Mateo County is delivered to Sunol Valley Water Treatment Plant (SVWTP) and Harry Tracy Water Treatment Plant (HTWTP), respectively, and is treated by filtration, disinfection, fluoridation, optimum corrosion control and taste and odor removal processes.

In 2020, the UNHHS was not used; a small amount of groundwater from five of the regional wells was added to our surface water supplies.

## WATERSHED PROTECTION

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 are 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-DDW) at **510-620-3474** to review these reports.



### WATER FACT:

**96%** of the Earth's water is saline,

**2%** is trapped in the polar caps as ice.

Humans rely on the remaining **2%** for drinking water.

Source: [on.doi.gov/3uNqkV](https://on.doi.gov/3uNqkV)

# WATER QUALITY

We regularly collect and test water samples from reservoirs and designated sampling points throughout the system to ensure the water delivered to you meets or exceeds federal and state drinking water standards. In 2020, we conducted more than **47,600** 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. In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the SWRCB-DDW 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.

# FLUORIDATION AND DENTAL FLUOROSIS

Mandated by State law, water fluoridation is a widely accepted practice proven to be 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-DDW if you have concerns about dental fluorosis. For additional information about fluoridation or oral health, visit the SWRCB-DDW website [waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Fluoridation.html](https://waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html), the CDC website [cdc.gov/fluoridation](https://cdc.gov/fluoridation), or our website [sfpu.org/waterquality](https://sfpu.org/waterquality).

## WATER FACT:

*Ever wondered how much water it takes to make breakfast?*

*On average, it takes about **35 gallons** to produce a cup of coffee beans, **193 gallons** to produce the wheat for a 1lb loaf of bread, and **50 gallons** of water to produce 2 eggs.*

*Source: [waterfootprint.org](https://waterfootprint.org)*

# 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.



## CHERRY LAKE

### FUN FACT:

This is the only lake in our system where recreational boating is permitted on the water itself, as this is only an emergency supply. Maintained in partnership with the US Forest Service, Cherry Lake is a popular recreation spot for locals and visitors alike.



## 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.



## HETCH HETCHY RESERVOIR

### FUN FACT:

The name of our largest reservoir is Miwok for "Valley of the Two Trees", which refers to a pair of pines that once stood at the head of Hetch Hetchy Valley. Miwok names are still used throughout the area, including the two waterfalls Tueeulala Fall, Wapama Fall, and Kolana Rock.



## 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.



## 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.



## 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.

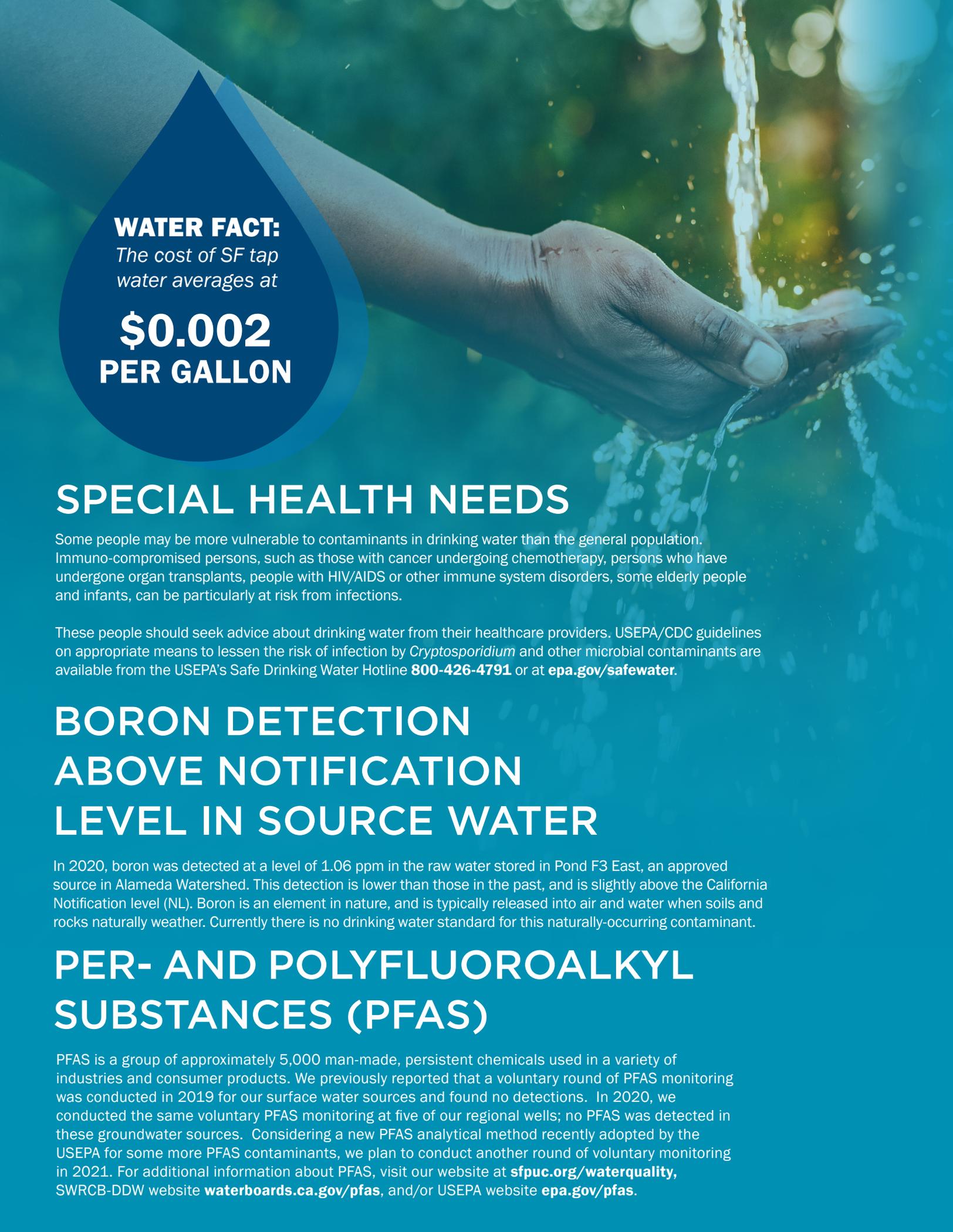


## SAN ANTONIO RESERVOIR

### 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.





**WATER FACT:**

*The cost of SF tap water averages at*

**\$0.002  
PER GALLON**

## 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, 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](https://www.epa.gov/safewater).

## BORON DETECTION ABOVE NOTIFICATION LEVEL IN SOURCE WATER

In 2020, boron was detected at a level of 1.06 ppm in the raw water stored in Pond F3 East, an approved source in Alameda Watershed. This detection is lower than those in the past, and is slightly above the California Notification level (NL). Boron is an element in nature, and is typically released into air and water when soils and rocks naturally weather. Currently there is no drinking water standard for this naturally-occurring contaminant.

## 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. We previously reported that a voluntary round of PFAS monitoring was conducted in 2019 for our surface water sources and found no detections. In 2020, we conducted the same voluntary PFAS monitoring at five of our regional wells; no PFAS was detected in these groundwater sources. Considering a new PFAS analytical method recently adopted by the USEPA for some more PFAS contaminants, we plan to conduct another round of voluntary monitoring in 2021. For additional information about PFAS, visit our website at [sfpuc.org/waterquality](https://www.sfpuc.org/waterquality), SWRCB-DDW website [waterboards.ca.gov/pfas](https://www.waterboards.ca.gov/pfas), and/or USEPA website [epa.gov/pfas](https://www.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,

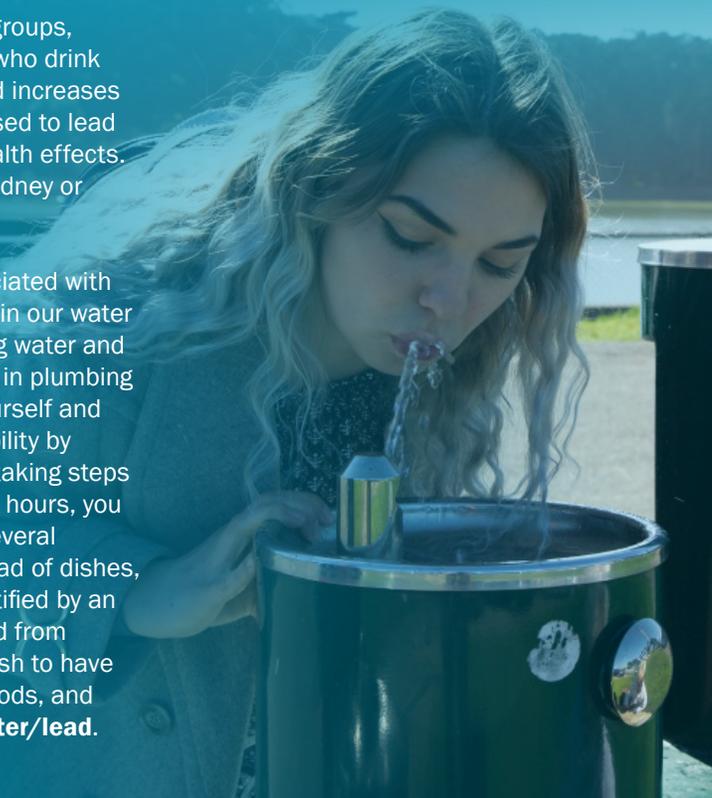
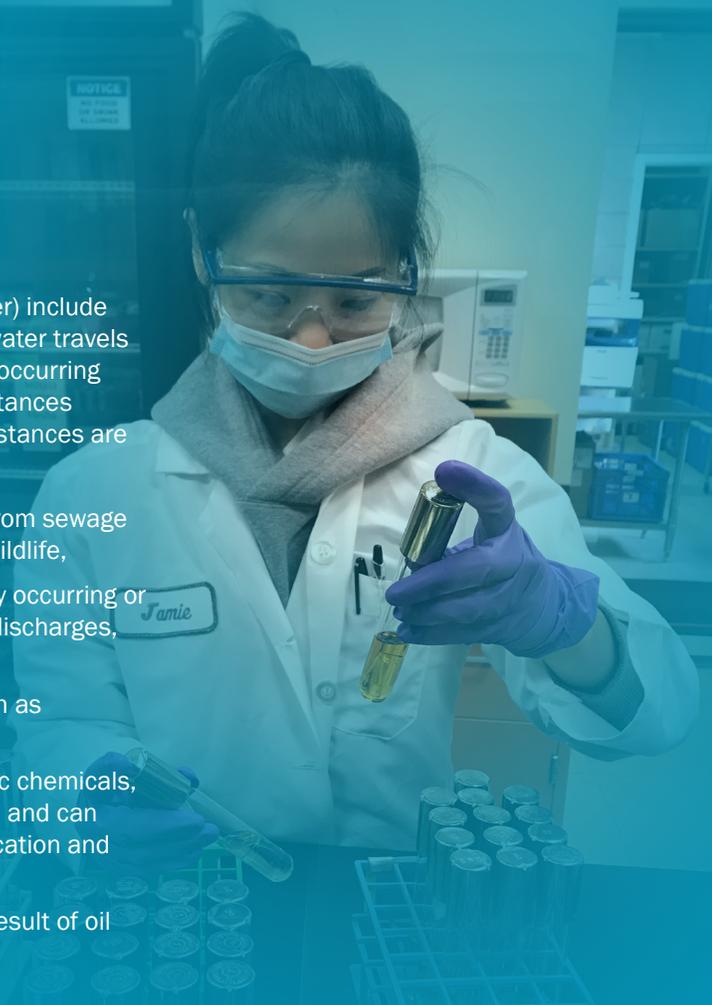
**Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

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).

# 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 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](http://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. 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-DDW 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 2018, and no tap sites had lead levels exceeded the regulatory Action Level. LCR monitoring occurs at household taps within residences. The results do not represent lead and copper concentrations throughout the distribution system. The next round of LCR monitoring will be in 2021. Contact us at **877-737-8297** for the tap monitoring results.

# LEAD MONITORING IN SCHOOLS

We did not conduct this monitoring, as there are no schools in our service areas.

**WATER FACT:**  
*Only 14 countries report high levels of community and user participation for collaborative management and decision-making.*

Source: : **UN Water: SDG6 Water and Sanitation for All, 2021.**

[bit.ly/3m0gag7](https://bit.ly/3m0gag7)

# 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, MRDLs, and TT (see below) 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 2020. 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.

## OUR WATER IN THE COMMUNITY: ALAMEDA WATERSHED CENTER

The SFPUC is building the Alameda Creek Watershed Center, located next to the Sunol Water Temple at the confluence of two major tributaries. It will allow visitors to explore the watershed and the significance of water in sustaining both the people and the nature. The Watershed Center is designed with features and programs that will raise awareness of, and appreciation for, the natural and cultural history of the Alameda Creek Watershed and the San Francisco Regional Water System.

The Center will contain an exhibit hall, classroom, and community room. The outdoor Watershed Discovery Trail will mimic the flora of the watershed with plants grown at the SFPUC's nearby Sunol Native Plant Nursery. Construction will include improved access to the historic picnic area adjacent to the Sunol Water Temple and Alameda Creek.

We expect to open the doors to the public in spring 2022. We hope to see you there.

# SAN FRANCISCO REGIONAL WATER SYSTEM-WATER QUALITY DATA FOR 2020

The table below lists all detected contaminants in our drinking water in 2020 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-DDW monitoring waiver for some contaminants in our surface water supply and therefore their monitoring frequencies are less than annual. Visit [sfpub.org/waterquality](http://sfpub.org/waterquality) for a list of all water quality parameters we monitored in raw water and treated water in 2020.

DETECTED CONTAMINANTS	UNIT	MCL	PHG OR (MCLG)	RANGE OR LEVEL FOUND	AVERAGE OR [MAX]	MAJOR SOURCES IN DRINKING WATER
<b>TURBIDITY</b>						
Unfiltered Hetch Hetchy Water	NTU	5	N/A	0.2 - 0.5 <sup>(1)</sup>	[1.3]	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)	-	Min 95% of samples ≤0.3 NTU <sup>(2)</sup>	N/A	99.8% - 100%	-	Soil runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	NTU	1 <sup>(2)</sup>	N/A	-	[0.1]	Soil runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	-	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	9 - 48	[46] <sup>(3)</sup>	By-product of drinking water disinfection
Haloacetic Acids	ppb	60	N/A	2 - 29	[30] <sup>(3)</sup>	By-product of drinking water disinfection
Total Organic Carbon <sup>(4)</sup>	ppm	TT	N/A	1.7 - 3.4	2.9	Various natural and man-made sources
<b>MICROBIOLOGICAL</b>						
Total Coliform	-	NoP ≤5.0% of monthly samples	(0)	-	[1.7%]	Naturally present in the environment
<i>Giardia lamblia</i>	cyst/L	TT	(0)	0 - 0.05	0.01	Naturally present in the environment
<b>INORGANICS</b>						
Fluoride (source water) <sup>(5)</sup>	ppm	2.0	1	ND - 0.7	0.3 <sup>(6)</sup>	Erosion of natural deposits; water additive to promote strong teeth
Chlorine (free chlorine and chloramine)	ppm	MRDL = 4.0	MRDLG = 4	0.4 - 4.0	[2.6] <sup>(7)</sup>	Drinking water disinfectant added for treatment
<b>CONSTITUENTS WITH SECONDARY STANDARDS</b>						
Chloride	ppm	500	N/A	<3 - 15	9	Runoff / leaching from natural deposits
Specific Conductance	µS/cm	1600	N/A	30 - 260	160	Substances that form ions when in water
Sulfate	ppm	500	N/A	1 - 34	17	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	<20 - 137	72	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	ND - 0.2	ND	Soil runoff
<b>LEAD AND COPPER <sup>(8)</sup></b>						
Copper	ppb	1300	300	ND - 490	75	Internal corrosion of household water plumbing systems
Lead	ppb	15	0.2	<1 - 6.9	2.9	Internal corrosion of household water plumbing systems
<b>OTHER WATER QUALITY PARAMETERS</b>						
Alkalinity (as CaCO <sub>3</sub> )	ppm	N/A	6.7 - 138	55		<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
Calcium (as Ca)	ppm	N/A	2.9 - 22	12		
Chlorate <sup>(9)</sup>	ppb	800 (NL)	67 - 1200	262		
Hardness (as CaCO <sub>3</sub> )	ppm	N/A	8.0 - 79	45		
Magnesium	ppm	N/A	0.2 - 6.8	4.0		
pH	-	N/A	8.6 - 9.8	9.3		
Potassium	ppm	N/A	0.3 - 1.3	0.8		
Silica	ppm	N/A	2.8 - 7	4.8		
Sodium	ppm	N/A	2.4 - 22	14		
Strontium	ppb	N/A	14 - 242	110		

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

(1) These are monthly average turbidity values measured every 4 hours daily. (2) There is no turbidity MCL for filtered water. The limits are based on the TT requirements for filtration systems. (3) This is the highest locational running annual average value. (4) Total organic carbon is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from the SVWTP only. (5) The SWRCB-DDW recommended an optimal fluoride level of 0.7 ppm be maintained in the treated water. In 2020, the range and average of the fluoride levels were 0.6 ppm - 0.9 ppm and 0.7 ppm, respectively. (6) Natural fluoride in the Hetch Hetchy source was ND. Elevated fluoride levels in the raw water at the SVWTP and HTWTP were attributed to the transfer of fluoridated Hetch Hetchy water into the local reservoirs. (7) This is the highest running annual average value. (8) The most recent Lead and Copper Rule monitoring was in August 2018. None of the 28 site samples collected at consumer taps had concentration above the corresponding ALs. (9) The detected chlorate in the treated water is a degradation product of sodium hypochlorite, which we use for water disinfection.

**Note: A small amount of drinking water was temporarily brought from Santa Clara Valley Water District (less than 0.017 percent of the total supply) during the Hetch Hetchy Aqueduct shutdown in 2020, and the associated water quality changes due to this short-term source were insignificant.**

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 2020**

Raw Water (GSR Groundwater Wells) <sup>(1)</sup>	DETECTED CONTAMINANTS	UNIT	MCL	PHG OR (MCLG)	RANGE	AVERAGE	MAJOR SOURCES IN DRINKING WATER	
	<b>INORGANICS <sup>(2)</sup></b>							
	Chromium (VI) <sup>(3)</sup>	ppb	N/A	0.02	5.3 - 30	19	Leaching from natural deposits; waste discharges from electroplating	
	Chromium (Total)	ppb	50	(100)	ND - 30	19	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 - 25	ND	Leaching from natural deposits	
	Nitrate (as nitrogen)	ppm	10	10	3 - 47	13	Landscape fertilizers and leaked wastewater	
	<b>RADIONUCLIDES</b>							
	Gross Alpha Particles <sup>(4)</sup>	pCi/L	15	(0)	ND - 5.4	ND	Erosion of natural deposits	
	Gross Beta Particles <sup>(5)</sup>	pCi/L	50	(0)	ND - 6.2	ND	Decay of natural and man-made deposits	
OTHER WATER QUALITY PARAMETERS	UNIT	ORL		RANGE	AVERAGE	KEY		
pH	-	N/A		6.9 - 8.2	7.7	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.		
Strontium	ppb	N/A		138 - 270	221			
Vanadium	ppb	50 (NL)		4.7 - 7	5.7			

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

(1) In 2020, a total of 14.7 million gallons of groundwater from five GSR wells was intermittently delivered to the system during the start-up tests. Due to the low percentage (0.02%) of contribution to the total system water supply, the overall water quality changes attributed to the GSR supply was insignificant. (2) The concentration ranges and averages of these contaminants are in the raw groundwater prior to blending, which is approved by the SWRCB-DDW as a treatment for groundwater. They are not representative of the blended water in the distribution system. (3) Chromium (VI) is currently regulated by the SWRCB-DDW under a MCL of 50 ppb for total chromium. (4) The detection of Gross Alpha Particles was only at Colma Boulevard Well in the first sample collected in July 2020; it was non-detect in the following quarterly sample collected in October 2020. (5) The one-time detection of Gross Beta Particles was at Colma Boulevard Well in October 2020.

**Note: In 2020, SFPUC voluntarily conducted monitoring of 18 PFAS contaminants at five GSR wells (F Street, Colma Boulevard, Hickey Boulevard, Millbrae Yard, and Poncetta Drive wells) and all results were non-detect.**



Services of the San Francisco Public Utilities Commission

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*Interested in learning more? The Commission meets monthly, and more details are on our website*

**[sfpuc.org/commission](http://sfpuc.org/commission)**

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**Ed Harrington**, COMMISSIONER  
**Newsha K. Ajami**, COMMISSIONER

This report contains important information about our drinking water. Please contact SFPUC Communications at **415-554-3289** or email **info@sfpuc.org** for assistance.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse SFPUC a **415-554-3289** 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。

### 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 راجع به آب آشامیدنی است، اگر نمی‌توانید این اطلاعات را بر زبان انگلیسی بخوانید لطفاً کسی که می‌تواند برای بگردد 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.

”هذا التقرير يحتوي على معلومات مهمة تتعلق بمياه الشفة (أو الشرب).  
ترجم التقرير، أو تكلم مع شخص يستطيع أن يفهم التقرير.“

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

הדו"ח הזה מכיל מידע חשוב לגבי מי השתייה שלך  
תרגם את הדו"ח או דבר עם מישהו שמבין אותו

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.

Dieser Bericht enthält wichtige Information über Ihr Trinkwasser. Bitte übersetzen Sie ihn oder sprechen Sie mit jemandem, der ihn versteht.

Questo rapporto contiene informazioni importanti che riguardano la vostra acqua potabile. Traducetelo, o parlate con una persona qualificata in grado di spiegarvelo.

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 करके किसी से :सका अनुवाद करायें ।

이 안내는 매우 중요합니다. 본인을 위해 번역인을 사용하십시오.

Η κατοθεν αναφορά παρουσιάζει σπουδαιες πληροφορειες για το ποσιμο νερο σας. Πρακακλω να το μεταφρασετε η να το σξολιασετε με καποιον που το καταλαβαινη απολητως.