



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

20
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ANNUAL
WATER
QUALITY
REPORT

TREASURE ISLAND

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 high quality that it meets all federal and state standards. Through careful stewardship of both natural resources and infrastructure, our goal is to reliably deliver high quality drinking water to homes and businesses every second of every day. However, long-term climate change requires all of us to rethink the way we use this precious resource. The SFPUC is asking all customers to reduce their water use by cutting waste. Visit 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 it is treated, and its overall quality. We do this not only to meet regulatory requirements but also to provide you with 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. The SFPUC operates and maintains a system that delivers potable water for consumption by millions of individuals across four Bay Area counties. In addition to the system of reservoirs within San Francisco, the SFPUC also maintains a wider system of reservoirs and pipelines on the Peninsula, in the South Bay, and upcountry in the Yosemite National Park. It is our hope that this report will not only provide you with greater knowledge of your water, but also an increased appreciation for and 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 we need your help in conserving it. 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 help make a difference.

Our Drinking Water Sources and Treatment

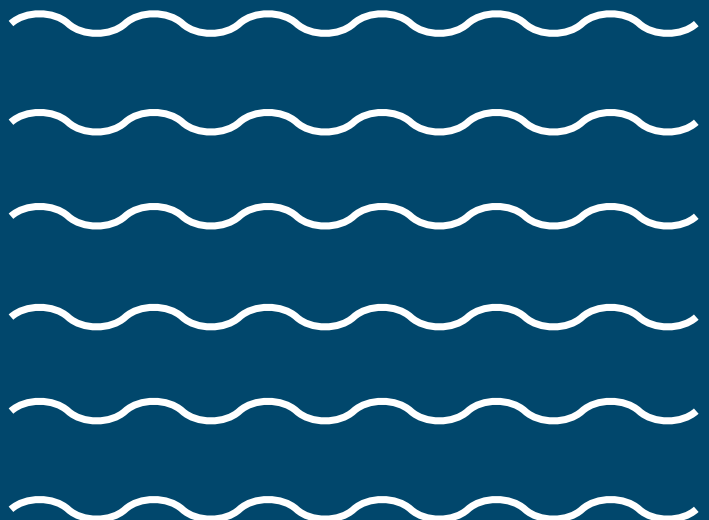
The Treasure Island Water System obtains water from the San Francisco Regional Water System through the San Francisco Water System. All of these three water systems are operated under the auspices of the SFPUC. The SFPUC's major water source is in Yosemite National Park, and originates from spring snowmelt flowing down the Tuolumne River to storage in Hetch Hetchy Reservoir. This source is supplemented with other surface water supplies 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 San Francisco and San Mateo counties. Such 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 the surface water sources undergoes treatment before it is delivered to our customers. While 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 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 consist of filtration, disinfection, fluoridation, optimum corrosion control, and taste and odor removal. In 2022, no upcountry non-Hetch Hetchy sources of water were used.

Protection of Watersheds

The SFPUC conducts watershed sanitary surveys for the Hetch Hetchy source annually and for the non-Hetch Hetchy surface water sources every five years. The latest sanitary surveys for the non-Hetch Hetchy sources were completed in 2021 for the period of 2016-2020. These annual and quinquennial surveys are to evaluate the sanitary conditions and water quality of the watersheds and to review results of watershed management activities conducted by the SFPUC and partner agencies including National Park Services and US Forest Services 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.





San Francisco
Water
Power
Sewer



Water Quality

The SFPUC regularly collects and tests water samples from designated sampling points throughout the systems to ensure the water delivered to you meets all state and federal drinking water standards. Collectively, we conducted more than 74,510 drinking water tests in the source, transmission, and distribution systems in 2022. This is in addition to the extensive treatment process control monitoring performed by the SFPUC's certified operators and online instruments.

Drinking water, including bottled water, may reasonably be expected to contain at least small amount 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 State Water Resources Control Board 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.

74,510
DRINKING
WATER TESTS









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. The SFPUC's 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 for Disease Control and Prevention (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 the State Water Resources Control Board's Division of Drinking Water if you have concerns about dental fluorosis. For additional information about fluoridation or oral health, visit the San Francisco District office of the State Water Resources Control Board's Division of Drinking Water website waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html, the CDC website [cdc.gov/fluoridation](https://www.cdc.gov/fluoridation), or SFPUC website [sfpuc.org/TapWater](https://www.sfpuc.org/TapWater).

Water Quality Report Card

Your drinking water comes from rain or melted snow collected in reservoirs in the Sierra Nevada, Alameda and San Mateo Counties, and a small amount of groundwater. 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. Collectively these are called contaminants.

Potential Contaminants	Why We Test For It	Likely Source	Your Water Source
Microbes Microscopic organisms such as Coliform bacteria, Giardia and Cryptosporidium	Can make people sick after drinking several glasses.	Naturally present in the environment or from animals or human activity	Surpasses State and Federal Water Quality Requirements 
Copper and lead	High Levels can cause health issues over an extended period of time.	Corrosion of indoor plumbing	Surpasses State and Federal Water Quality Requirements 
Disinfection Byproducts Byproducts of the process of disinfecting drinking water- trihalomethanes and haloacetic acids	High levels can cause health issues over an extended period of time.	Water Disinfection Process	Surpasses State and Federal Water Quality Requirements 
Turbidity – cloudiness of water from suspended particles in the water	Less turbid water indicates high water quality	Soil runoff	Surpasses State and Federal Water Quality Requirements 
Fluoride	High levels can cause marks on teeth over an extended period of time.	Erosion of natural deposits and mandated water additive for dental health	At the optimal CDC recommended level 
PFAS	Synthetic organic chemicals that are resistant to heat, water, and oil	Widely used in consumer and industrial products	No PFAS detected 



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.

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.

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/water/lead. In addition to our water source protection efforts, we continue the following programs to minimize customer exposure to lead in water:

The SFPUC offers the following to help our customers minimize exposure to lead in water:

- Offer low-cost water tests for lead at \$25 per tap; clients enrolled in the Women, Infants and Children program may receive free lead test vouchers from our partner agency San Francisco Department of Public Health. Call 311 or visit SFPUC website at sfpub.org/LeadTest to apply for the lead testing analysis.

Lead User Service Line (LUSL)

We reported in 2019 that a total of 182 service lines made of unknown material and five galvanized steel service lines were identified in our distribution system, which has no known LUSLs. We continued inspecting and characterizing these unknown material service throughout 2022. Our policy is to remove and replace any LUSL promptly if it is discovered during pipeline repair. Currently, both Treasure Island and Yerba Buena Island are under redevelopment and the associated construction activities that began in 2015 will continue in phases through 2036. Upon completion of each redevelopment phase, the corresponding portion of our existing water distribution will be replaced with lead-free infrastructure.

In 2023 TIDA will continue and complete the investigation of service lines of unknown materials, and will develop a plan, schedule and budget for replacement of any service lines found to contain lead components.

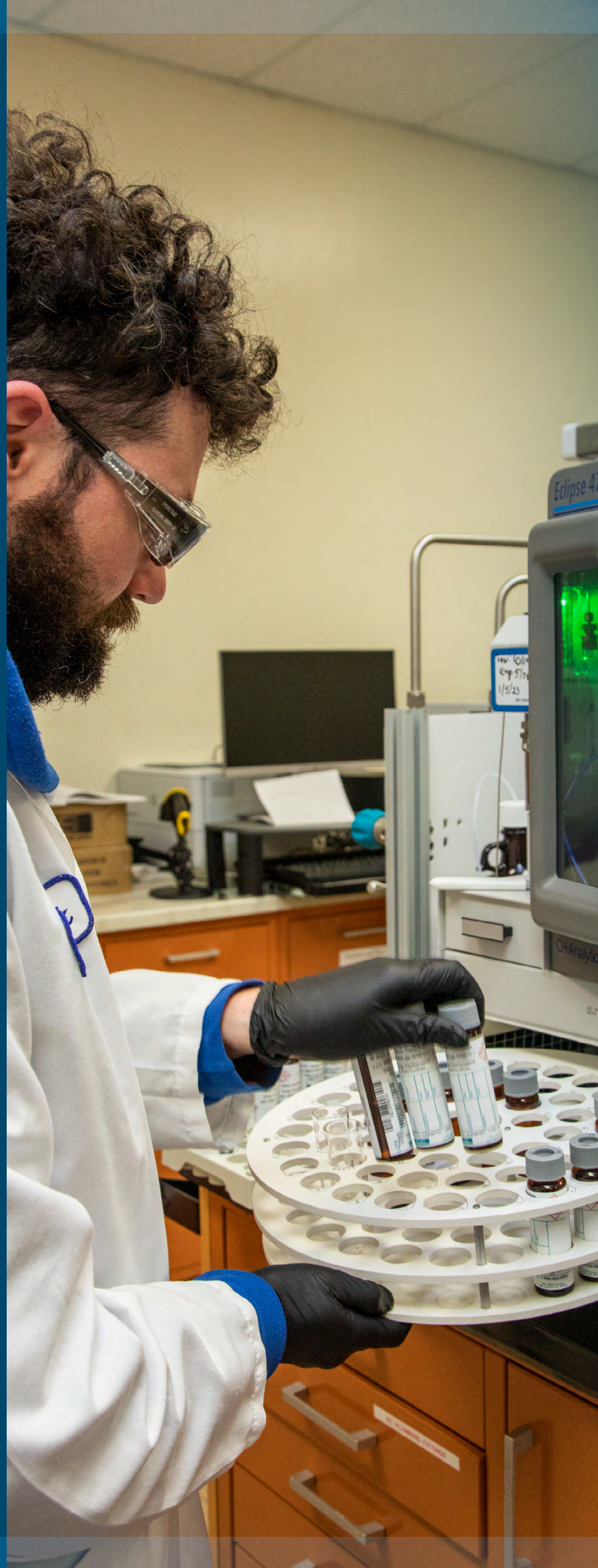
Lead and Copper Tap Sampling Results

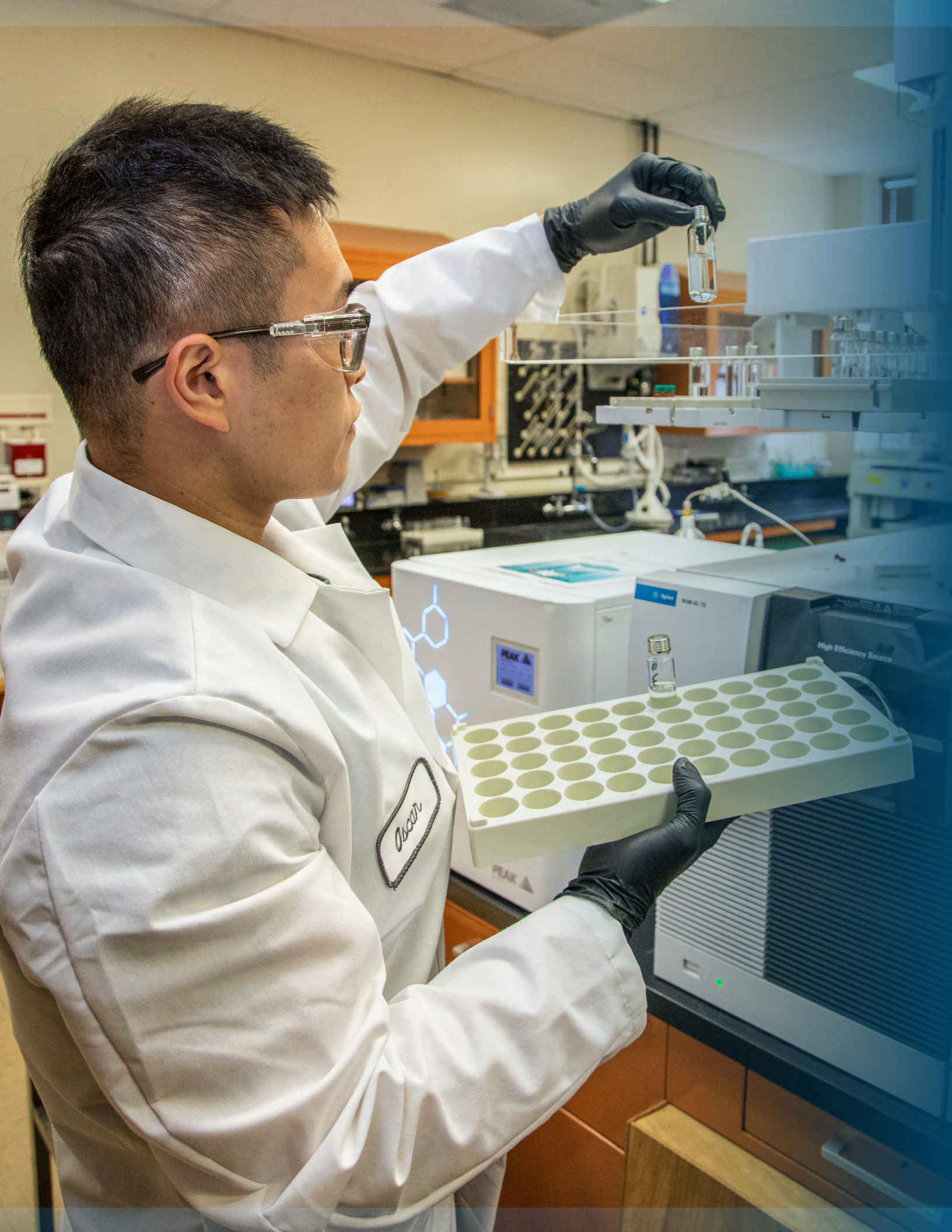
The SFPUC conducted our triennial LCR monitoring in 2021 when we sampled from customer taps rather than our distribution system. The next round of monitoring will be in 2024. Contact the SFPUC at **(877) 737-8297** for the tap sample results.

New Water Infrastructure

Three new water storage tanks with a total capacity of 4.2 million gallons have been constructed and commissioned on Yerba Buena Island. These tanks and associated pumping facilities are currently in service and supplying water to the islands and are being processed for acceptance by the SFPUC. The new infrastructure replaces the old, Navy-era tanks and provides water to all Treasure Island and Yerba Buena Island users. Their storage capacity is sufficiently sized to meet the daily water demands at full buildout and provides reserved storage capacity for fire-fighting flows.

In addition to the new water storage tanks, new water infrastructure associated with the first phase of development has been completed on Yerba Buena Island and the southwestern portion of Treasure Island. The new infrastructure includes dual, seismically-resistant conveyance pipelines on the Causeway between the two islands and new distribution system piping and valves beneath the new streets within the first phase of development. The newly constructed facilities are being processed for acceptance by the SFPUC.





Acad



PEAK

High Efficiency Source

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 2022. 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.



Treasure Island/Yerba Buena Island - Water Quality Data for 2022

This report is a snapshot of last year's water quality. The tables below list detected contaminants in our drinking water in 2022 and the information about their typical sources. Contaminants below detection limits for reporting are not shown, in accord with regulatory guidance. The SFPUC holds a SWRCB monitoring waiver for some contaminants in our surface water supply and therefore their monitoring frequencies are less than annual. Visit SFPUC website [sfpuc.org/WaterQuality](https://www.sfpuc.org/WaterQuality) for a list of all water quality parameters monitored in raw water and treated water in 2022.

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	0.2 - 0.4 ⁽¹⁾	[3.4]	Soil runoff
Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	-	Min 95% of samples ≤0.3 NTU ⁽²⁾	N/A	99.3% - 100%	-	Soil runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	-	Min 95% of samples ≤0.3 NTU ⁽²⁾	N/A	100%	-	Soil runoff
DISINFECTION BY-PRODUCTS AND PRECURSOR						
Total Trihalomethanes	ppb	80	N/A	28 - 50	[44] ⁽³⁾	By-product of drinking water disinfection
Five Haloacetic Acids	ppb	60	N/A	32 - 45	[40] ⁽³⁾	By-product of drinking water disinfection
Bromate	ppb	10	0.1	ND - 1.7	[1.3] ⁽⁴⁾	Byproduct of drinking water disinfection
Total Organic Carbon ⁽⁵⁾	ppm	TT	N/A	1.3 - 3.9	2.3	Various natural and man-made sources
MICROBIOLOGICAL						
Fecal coliform and <i>E. coli</i> ⁽⁶⁾	-	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
INORGANICS						
Fluoride (source water) ⁽⁷⁾	ppm	2.0	1	ND - 0.8	0.4 ⁽⁸⁾	Erosion of natural deposits; water additive to promote strong teeth
Chloramine (as chlorine)	ppm	MRDL = 4.0	MRDLG = 4	0.5 - 3.1	[2.3] ⁽⁴⁾	Drinking water disinfectant added for treatment
CONSTITUENTS WITH SECONDARY STANDARDS						
Chloride	ppm	500	N/A	<3 - 15	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 - 24	11	Leaching from natural deposits
Manganese	ppb	50	N/A	<2 - 2.4	<2	Leaching from natural deposits
Specific Conductance	µS/cm	1600	N/A	37 - 210	140	Substances that form ions when in water
Sulfate	ppm	500	N/A	1.1 - 29	15	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	<20 - 104	61	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	0.1 - 0.2	0.1	Soil runoff
LEAD AND COPPER ⁽⁹⁾						
Copper	ppb	1300	300	ND - 267	92	Internal corrosion of household water plumbing systems
Lead	ppb	15	0.2	ND - 11	ND	Internal corrosion of household water plumbing systems
NON-REGULATED WATER QUALITY PARAMETERS						
Alkalinity (as CaCO ₃)	ppm	N/A	7.1 - 166	41		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 NoP = Number of Coliform-Positive Sample NTU = Nephelometric Turbidity Unit ORL = Other Regulatory Level ppb = part per billion ppm = part per million µS/cm = microSiemens/centimeter
Boron	ppb	1000 (NL)	28 - 105	56		
Calcium (as Ca)	ppm	N/A	3.2 - 15	9.3		
Chlorate	ppb	800 (NL)	45 - 650	147		
Chromium (VI)	ppb	N/A	0.22 - 0.27	0.25		
Hardness (as CaCO ₃)	ppm	N/A	9.1 - 49	32		
Magnesium	ppm	N/A	0.2 - 4.2	2.9		
pH	-	N/A	7.8 - 9.6	9.2		
Potassium	ppm	N/A	5 - 5.9	5.5		
Silica	ppm	N/A	3.5 - 21	14		
Sodium	ppb	N/A	16 - 159	79		
Strontium	ppb	N/A	14 - 181	83		

FOOTNOTES ON TREASURE ISLAND/YERBA BUENA ISLAND - 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 2022, the range and average of the fluoride levels were 0.5 ppm - 0.9 ppm and 0.7 ppm, respectively. (8) 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. (9) The most recent Lead and Copper Rule monitoring was in August 2021. None of the 19 site samples collected at consumer taps had lead concentrations above the AL.

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 the SFPUC's Water Quality Division toll-free number at 877-737-8297.





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.

Newsha K. Ajami, PRESIDENT
Sophie Maxwell, VICE PRESIDENT
Tim Paulson, COMMISSIONER
Anthony River, COMMISSIONER
Kate H. Stacy, COMMISSIONER

This report contains important information about our drinking water. Please contact SFPUC Communications at **628-215-0940** or email jstreeter@sfgwater.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@sfgwater.org para asistencia.

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 را جمع به آب آشامیدنی است. اگر نمیتوانید این اطلاعات را به زبان انگلیسی بخوانید لطفاً از کسی که میتواند دبیاری بگیرد یا به شما کمک کند. ترجمه کنید.

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.

この報告書には水道に関する重要な情報が記されており、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.

