

2022 WATER QUALITY REPORT

City of Foster City/Estero Municipal Improvement District



Dear EMID Customer,

The City of Foster City/Estero Municipal Improvement District (EMID) is pleased to provide you with the Annual Water Quality Report for 2022. On the following pages, you will find important information about the origin of your water, the quality of your water, and the steps taken to protect the water supply.

Of special note: EMID is supporting the ongoing conservation effort, reminding Californians to remain water-wise and make water conservation a way of life.

As the purveyor of your drinking water, we are proud to be able to state that the water we provide is of the highest quality, meeting or exceeding all primary drinking water standards set by the United States Environmental Protection Agency (USEPA) and the State Water Resources Control Board's Division of Drinking Water (SWRCB-DDW).

EMID purchases all of its water from the San Francisco Regional Water System (SFRWS). The following pages contain the source water information prepared by the SFRWS Water Quality Bureau. In addition to the monitoring and testing performed by SFRWS, EMID does its own monitoring and testing to ensure that the water quality in the distribution system meets or exceeds all drinking water standards. If there are any questions about the water, please call the SFRWS Water Quality Bureau at 1-877-737-8297 or visit the website at www.sfwater.org. Any other questions about the water system should be directed to EMID Public Works Maintenance Manager, Zaheed Danish, at 650-286-3544.

SFPUC DRINKING WATER SOURCES

CONSERVATION REMINDER: EMID continues to encourage customers to conserve our precious resource. EMID supports the message that urges: “Make water conservation a California way of life.”

OUR DRINKING WATER SOURCES AND TREATMENT

Most of our drinking water supply comes from the San Francisco Regional Water System (SFRWS), which is a wholesaler owned and managed by the San Francisco Public Utilities Commission (SFPUC). The supply consists of surface water and ground water that are well protected and carefully managed by the SFPUC. 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 northern part of San Mateo County. Maintaining this variety of sources is an important component of the SFPUC’s near- and long-term water supply management strategy. A diverse mix of 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 supplies including the upcountry non-Hetch Hetchy sources (UNHHS) undergo treatment by the SFRWS before it is delivered. Water from Hetch Hetchy Reservoir is exempt from federal and State filtration requirements but receives the following treatment: disinfection using ultraviolet light and

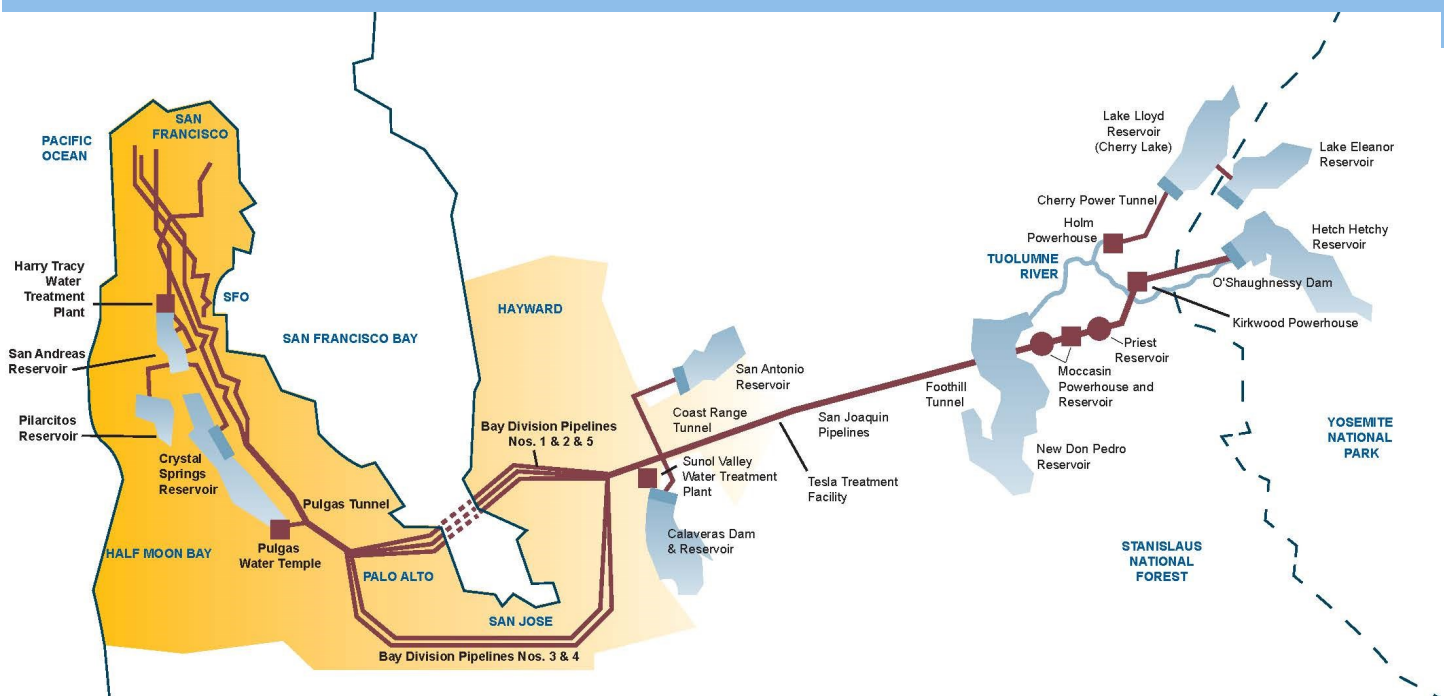
chlorine, pH adjustment for optimum corrosion control, fluoridation for dental health protection, and chloramination for maintaining disinfectant residual and minimizing the formation of regulated disinfection byproducts. Water from local Bay Area reservoirs in Alameda County and UNHHS is delivered to 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 2022, no UNHHS water was used. However, a small amount of groundwater from four wells was added to the SFRWS’s surface water supply through blending in the transmission pipelines.

WATERSHEDS PROTECTION

The SFRWS conducts watershed sanitary surveys for the Hetch Hetchy source annually and for non-Hetch Hetchy surface water sources every five years. The latest sanitary surveys for the non-Hetch Hetchy watersheds were completed in 2021 for the period of 2016-2020. All these surveys, together with SFRWS’s 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 the review of these reports.

SFPUC WATER SYSTEM



WATER QUALITY



O'Shaughnessy Dam

WATER QUALITY

Together with the SFRWS, 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 2022, the SFRWS conducted more than 48,320 drinking water tests in the sources and the transmission system. This is in addition to the extensive treatment process control monitoring performed by SFRWS's 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.

BORON DETECTION ABOVE NOTIFICATION LEVEL IN SOURCE WATER

In 2022, boron was detected at a level of 1.3 ppm in the raw water stored in Pond F3 East, one of the SFRWS' approved sources in the Alameda Watershed. Similar levels were also detected in the same pond in 2017 and 2019. Although the detected value is above the California Notification Level of 1 ppm for source water, the corresponding level in the treated water from the SVWTP was only 0.11 ppm due to blending with water from San Antonio Reservoir in the influent piping to the treatment plant. Boron is an element in nature, and is typically released into air and water when soils and rocks naturally weather.

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 1-800-426-4791, or at www.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. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to remove lead from drinking water. Information about lead in drinking water, testing methods, and steps you can take to minimize exposure is available at USEPA website www.epa.gov/safewater/lead.

As previously reported in 2018, we completed an inventory of lead user service lines (LUSL) in our system and there are no known pipelines and connectors between water mains and meters made of lead. Our policy is to remove and replace any LUSL promptly if it is discovered during pipeline repair and/or maintenance.

KEY WATER QUALITY TERMS

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. The fluoride target level in the water is 0.7 milligram per liter (mg/L, or part per million, ppm), 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 the SWRCB if you have concerns about dental fluorosis. For additional information about fluoridation or oral health, visit the SWRCB website www.waterboards.ca.gov/drinking_water/certific/drinkingwater/Fluoridation.shtml, or the CDC website www.cdc.gov/fluoridation.

MONITORING OF 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 2022, our wholesaler conducted a second round of voluntary monitoring using a newer 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 surface water and groundwater sources. For additional information about PFAS, you may visit SWRCB website www.waterboards.ca.gov/pfas, SFPUC website www.PFASfactsheet.pdf (sfpuc.org), and/or USEPA website www.epa.gov/pfas.

2022 WATER QUALITY DATA

This report is a snapshot of last year's water quality. The table on the next page lists all 2022 detected drinking water contaminants and the information about their typical sources. Contaminants below detection limits for reporting are not shown, in accord with regulatory guidance. SFRWS holds a SWRCB-DDW monitoring waiver for some contaminants in its surface water supply and therefore the associated monitoring frequencies are less than annual.

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, reporting, 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. SFRWS regularly tests for this waterborne pathogen and found it at very low levels in source water and treated water in 2019. 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.*

CITY OF FOSTER CITY - Water Quality Data for Year 2022 ⁽¹⁾

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 ⁽²⁾	[3.4]	Soil runoff
Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	NTU	1 ⁽³⁾	N/A	-	[2.2]	Soil runoff
	-	Min 95% of samples ≤ 0.3 NTU ⁽³⁾	N/A	99.3% - 100%	-	Soil runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	NTU	1 ⁽³⁾	N/A	-	[0.1]	Soil runoff
	-	Min 95% of samples ≤ 0.3 NTU ⁽³⁾	N/A	100%	-	Soil runoff
DISINFECTION BYPRODUCTS AND PRECURSOR						
Total Trihalomethanes	ppb	80	N/A	38.5-67.0	51.75 ⁽⁴⁾	Byproduct of drinking water disinfection
Five Haloacetic Acids	ppb	60	N/A	25.7-42.5	31.92 ⁽⁴⁾	Byproduct of drinking water disinfection
Bromate	ppb	10	0.1	ND - 1.7	[1.3] ⁽⁵⁾	Byproduct of drinking water disinfection
Total Organic Carbon ⁽⁶⁾	ppm	TT	N/A	1.3 - 3.9	2.3	Various natural and man-made sources
MICROBIOLOGICAL						
Fecal coliform and <i>E. coli</i> ⁽⁷⁾	-	0 PS	(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) ⁽⁸⁾	ppm	2.0	1	ND - 0.8	0.3 ⁽⁹⁾	Erosion of natural deposits; water additive to promote strong teeth
Chloramine (as chlorine)	ppm	MRDL = 4.0	MRDLG = 4	.50 - 3.52	2.67 ⁽⁵⁾	Drinking water disinfectant added for treatment

CONSTITUENTS WITH SECONDARY STANDARDS	Unit	SMCL	PHG	Range	Average	Typical Sources in Drinking Water
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	Unit	AL	PHG	Range	90th Percentile	Typical Sources in Drinking Water
Copper	ppb	1300	300	3.9 - 200 ⁽¹⁰⁾	61	Internal corrosion of household water plumbing systems
Lead	ppb	15	0.2	<1 - 8.4 ⁽¹¹⁾	5.4	Internal corrosion of household water plumbing systems

NON-REGULATED WATER QUALITY PARAMETERS	Unit	ORL	Range	Average
Alkalinity (as CaCO ₃)	ppm	N/A	7.1 - 166	41
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	8.2 - 9.6	9.2
Potassium	ppm	N/A	0.3 - 1	0.7
Silica	ppm	N/A	5 - 5.9	5.5
Sodium	ppm	N/A	3.5 - 21	14
Strontium	ppb	N/A	16 - 159	79

KEY:
< / ≤ = less than / less than or equal to
AL = Action Level
Max = Maximum
Min = Minimum
N/A = Not Available
ND = Non-detect
NL = Notification Level
NTU = Nephelometric Turbidity Unit
ORL = Other Regulatory Level
pCi/L = picocurie per liter
ppb = part per billion
ppm = part per million
PS = Number of Positive Sample
µS/cm = microSiemens/centimeter

Footnotes:

- (1) All results met State and Federal drinking water health standards.
- (2) These are monthly average turbidity values measured every 4 hours daily.
- (3) This is a TT requirement for filtration systems.
- (4) This is the highest locational running annual average value.
- (5) This is the highest running annual average value.
- (6) Total organic carbon is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from the SVWTP only.
- (7) The MCL was changed to *E. coli* based starting on July 1, 2021 when the State Revised Total Coliform Rule became effective.
- (8) The SWRCB recommended an optimal fluoride level of 0.7 ppm be maintained in the treated water. In 2022, the range and average of the fluoride levels were 0.5 ppm - 0.9 ppm and 0.7 ppm, respectively.
- (9) 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.
- (10) The most recent Lead and Copper Rule monitoring was in 2022. 0 of 30 site samples collected at consumer taps had copper concentrations above the AL.
- (11) The most recent Lead and Copper Rule monitoring was in 2022. 0 of 30 site samples collected at consumer taps had lead concentrations above the AL.

Note: Additional water quality data may be obtained by calling the City of Foster City phone number at 650-286-8140.

MORE IMPORTANT INFORMATION



Hetch Hetchy Reservoir

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 1-800-426-4791 or at www.epa.gov/safewater.

PUBLIC PARTICIPATION

The EMID President and Board of Directors are the governing authority of the EMID water system. They meet on the first and third Mondays of the month at 6:30 p.m. at the Foster City Council/Board Chambers located at 620 Foster City Blvd., Foster City, California. An agenda for each EMID meeting is posted on the City of Foster City website at:

<https://www.fostercity.org/agendasandminutes>.

- To access the meeting by computer / smartphone, go to: <https://fostercity-org.zoom.us/j/86030614501>
- To dial-in via phone: 1-669-900-6833 or 1-408-638-0968 and enter Webinar ID: 860 3061 4501

This report contains important information about your drinking water. Please contact EMID at 1-650-286-8140 or publicworks@fostercity.org for assistance.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse EMID a 1-650-286-8140 o publicworks@fostercity.org 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。



**City of Foster City/Estero Municipal Improvement District
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Foster City, CA 94404**