

2019 WATER QUALITY REPORT



Introduction

This report is provided to help consumers make informed decisions about their drinking water. It is a key element of the public right-to-know provision of the Federal EPA Safe Drinking Water Act since 2011.

The results provided in the accompanying tables were from sampling conducted in 2019 by the San Francisco Public Utilities Commission, our wholesale water provider, and Hillsborough staff within our water distribution system. It is available to all Hillsborough residents and published on-line at: <https://www.hillsborough.net/262/Water-Quality>

This report contains the following information:

- Our drinking water sources and treatment
- Water quality monitoring programs
- Regulated contaminants detected
- Comparison of contaminant concentration to regulatory levels and health goals
- Health effects information
- Information for immunocompromised persons
- Other information about accessing your water consumption to conserve water

For more information, please contact Tony Brenner at (650) 375-7444 or TBrenner@hillsborough.net.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse [insert your agency's name and contact phone number] 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。

Our Drinking Water Sources and Treatment

San Francisco Regional Water System's (SFRWS) major water source is in Yosemite National Park and originates from spring snowmelt flowing down the Tuolumne River to storage in Hetch Hetchy Reservoir. The well-protected Sierra water source is exempt from federal and State's filtration requirements. To meet the appropriate drinking water standards for consumption, water from Hetch Hetchy Reservoir receives treatment consisting of 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.

The Hetch Hetchy water supply is supplemented with surface water from local watersheds and upcountry non-Hetch Hetchy sources (UNHHS). Rainfall and runoff from the 35,000-acre Alameda Watershed in Alameda and Santa Clara counties are first collected in Calaveras Reservoir and San Antonio Reservoir for storage followed by delivery to the Sunol Valley Water Treatment Plant (SVWTP) for treatment. Rainfall and runoff from the 23,000-acre Peninsula Watershed in San Mateo County are stored in Crystal Springs Reservoir, San Andreas Reservoir and Pilarcitos Reservoir, and are delivered to the Harry Tracy Water Treatment Plant. Water delivered to the two treatment plants is subject to filtration, disinfection, fluoridation, optimum corrosion control, and taste and odor removal to ensure the water supplied to our customers meet the federal and state drinking water standards. SFRWS did not use the UNHHS in 2019.

Watersheds Protection

SFRWS conducts watershed sanitary surveys for the Hetch Hetchy source annually and for the local water sources and UNHHS every five years. The latest local sanitary survey was completed in 2016 for the period of 2011-2015. The last watershed sanitary survey for UNHHS was conducted in 2015 as part of SFRWS's drought response plan efforts. All these surveys together with the stringent watershed protection management activities were completed by SFRWS 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. Wildlife, stock, and human activities are continued 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-DDW) at 510-620-3474 for the review of these reports.

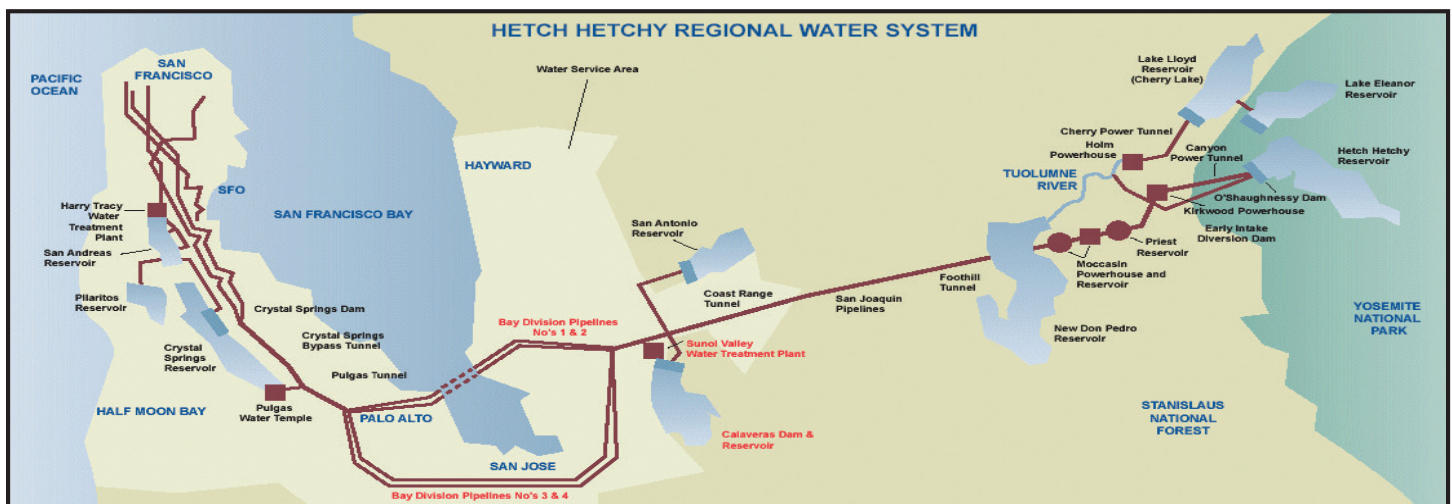
Water Quality

SFRWS regularly collects and tests water samples from reservoirs and designated sampling points throughout the sources and the transmission system to ensure the water delivered to you meets or exceeds federal and State drinking water standards. In 2019, SFRWS conducted more than 53,650 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. 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. 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 SWRCB-DDW if you have concerns about dental fluorosis. For additional information about fluoridation or oral health, visit the SWRCB-DDW website www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml, or the CDC website www.cdc.gov/fluoridation.

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 www.epa.gov/safewater.

Quinoline Monitoring

SFRWS conducted a special round of voluntary monitoring for the contaminant quinoline. The monitoring effort was part of SFRWS' assessment to identify if quinoline a contaminant of concern in its water sources and/or transmission system. The monitoring results confirm that the raw water sources and transmission system have no quinoline detected.

Monitoring of Per- and Polyfluoroalkyl Substances (PFAS)

PFAS is a group of approximately 5,000 man-made chemicals used in a variety of industries and consumer products. These chemicals are very persistent in the

environment and human body. SFRWS conducted a special round of PFAS monitoring of its water sources and transmission system in 2019. The monitoring effort was not under any federal or State order/permit requirements; it was proactively conducted on a voluntary basis with the objective to identify if SFRWS's water supplies are impacted by PFAS. Using the State's stringent sampling procedures and based on the currently approved/certified method of analysis for 18 PFAS contaminants, SFRWS confirmed no PFAS was detected in its water sources and transmission system. Considering USEPA's recent development of a newer method of analysis for additional PFAS contaminants, SFRWS intends to conduct another round of monitoring when the new analytical method is available at its contract laboratory. For additional information about PFAS, visit SWRCB-DDW website waterboards.ca.gov/pfas and/or USEPA website epa.gov/pfas.

Contaminants and Regulations

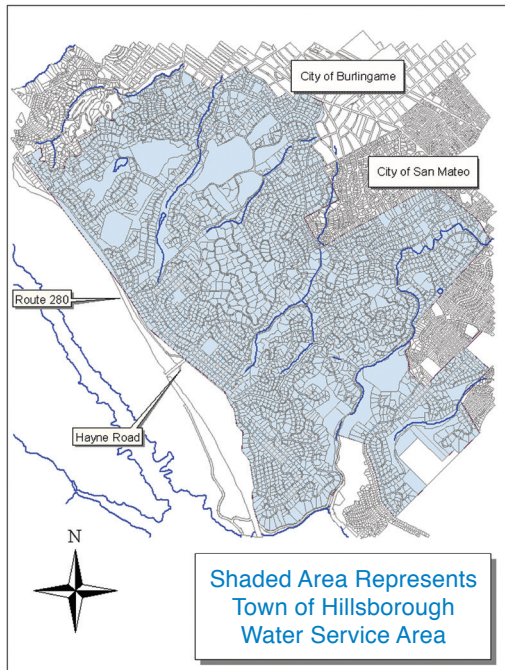
Generally, the sources of drinking water (both tap water and bottled water) include rivers, lakes, oceans, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, 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 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. Lead exposure among women who are pregnant increases prenatal risks. Lead exposure among women who later become pregnant has similar risks if lead stored in the mother's bones is released during pregnancy. Recent science suggests that adults who drink water containing lead 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, but we cannot control the variety of materials used in plumbing components. 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, 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 to remove lead from drinking water.

If you are concerned about lead levels in your water, you may wish to have your water tested. Additional information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the USEPA's Safe Drinking Water Hotline 800-426-4791 or at www.epa.gov/safewater/lead.

As previously reported in 2018, the Town completed an inventory of lead user service lines (LUSL) in its system and there are no known pipelines and connectors between water mains and meters made of lead. It is the Town's policy to remove and replace any LUSL promptly if it is discovered during pipeline repair and/or maintenance. The Town conducts lead and copper testing every 3 years.

Boron Detection Above Notification Level in Source Water

In 2019, boron was detected at a level of 1.49 ppm in the raw water stored in Pond F3 East, one of SFRWS's approved sources in Alameda Watershed. A similar level was also detected in the same pond in 2017. 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 0.1 ppm. Boron is an element in nature, and is typically released into air and water when soils and rocks naturally weather.

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. 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.

Wholesale Agency's Water Quality Data for Year 2019

The table below lists all 2019 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.

Town of Hillsborough — Water Quality Data for Year 2019⁽¹⁾

DETECTED CONTAMINANTS	Unit	MCL	PHG or [MCLG]	Range or Level Found	Average or [Max]	Major Sources in Drinking Water
TURBIDITY						
Unfiltered Hetch Hetchy Water	NTU	5	N/A	0.3 - 0.7 ⁽²⁾	[2.1]	Soil runoff
Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	NTU	1 ⁽³⁾	N/A	-	[1]	Soil runoff
	-	min 95% of samples ≤ 0.3 NTU ⁽³⁾	N/A	99.89%-100%	-	Soil runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	NTU	1 ⁽³⁾	N/A	-	[0.07]	Soil runoff
	-	min 95% of samples ≤ 0.3 NTU ⁽³⁾	N/A	100%	-	Soil runoff
DISINFECTION BYPRODUCTS AND PRECURSORS						
Total Trihalomethanes	ppb	80	N/A	11.1 - 57	42 ⁽⁴⁾	Byproduct of drinking water disinfection
Haloacetic Acids	ppb	60	N/A	7.6 - 44	30.3	Byproduct of drinking water disinfection
Total Organic Carbon ⁽⁶⁾	ppm	TT	N/A	1.6 - 2.6	2.1	Various natural and man-made sources
MICROBIOLOGICAL						
Total Coliform ⁽⁶⁾	-	'NoP ≤ 5.0% of monthly samples	[0]	0 - 0	[1]	Naturally present in the environment
Giardia lamblia	cyst/L	TT	[0]	0 - 0.09	0.02	Naturally present in the environment
INORGANICS						
Fluoride (source water) ⁽⁷⁾	ppm	2.0	1	ND - 0.9	0.3 ⁽⁸⁾	Erosion of natural deposits, water additive to promote strong teeth
Chloramine (as chlorine)	ppm	MRDL = 4.0	MRDLG = 4	0.2 - 3.63	2.57 ⁽⁹⁾	Drinking water disinfectant added for treatment

CONSTITUENTS WITH SECONDARY STANDARDS	Unit	SMCL	PHG	Range	Average	Typical Sources in Drinking Water
Aluminum ⁽¹⁰⁾	ppb	200	600	ND - 68	ND	Erosion of natural deposits; some surface water treatment residue
Chloride	ppm	500	N/A	<3 - 17	8.7	Runoff / leaching from natural deposits
Color	unit	15	N/A	<5 - 10	<5	Naturally occurring organic materials
Specific Conductance	µS/cm	1600	N/A	32 - 234	158	Substances that form ions when in water
Sulfate	ppm	500	N/A	1 - 29	15	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	<20 - 119	76	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	ND - 0.5	0.2	Soil runoff

LEAD AND COPPER	Unit	AL	PHG	Range	90th Percentile	Typical Sources in Drinking Water
Copper	ppb	1300	300	6.21 - 101	46.3	Internal corrosion of household plumbing systems
Lead	ppb	15	0.2	<1 - 12.0	7.3	Internal corrosion of household plumbing systems

OTHER WATER QUALITY PARAMETERS	Unit	ORL	Range	Average	KEY
Alkalinity (as CaCO ₃)	ppm	N/A	3.5 - 97	46	< / ≤ = less than / less than or equal to
Boron	ppb	1000 (NL)	ND - 107	ND	AL = Action Level
Calcium (as Ca)	ppm	N/A	3.3 - 20	12	Max = Maximum
Chlorate ⁽¹²⁾	ppb	(800) NL	40 - 220	84	Min = Minimum
Chromium (VI) ⁽¹³⁾	ppb	N/A	0.04 - 0.19	0.12	N/A = Not Available
Hardness (as CaCO ₃)	ppm	N/A	8.9 - 77	47	ND = Non-Detect
Magnesium	ppm	N/A	0.2 - 6.6	4.2	NL = Notification Level
pH	-	N/A	8.8 - 10.1	9.3	NoP = Number of Coliform-Positive Sample
Potassium	ppm	N/A	0.3 - 1.2	0.8	NTU = Nephelometric Turbidity Unit
Silica	ppm	N/A	4.9 - 7	6.1	ORL = Other Regulatory Level
Sodium	ppm	N/A	2.8 - 21	14	ppb = parts per billion
Strontium	ppb	N/A	13 - 230	107	ppm = parts per million
					µS/cm = microSiemens / centimeter

Taste and Odor Treatment at SVWTP

In response to an increase in the magnitude and frequency of algal blooms in Calaveras Reservoir and San Antonio Reservoir, the SFPUC initiated a taste and odor (T&O) control program for the SVWTP in 2019. The program will address seasonal taste and odor resulting from algal blooms in the reservoirs. The first component of this program is to a Powdered Activated Carbon facility to mitigate the occurrence of taste and odor compounds. A secondary benefit of using carbon for treatment will reduce the color of the water and formation of disinfection byproducts. The long-term component of the program is an ozonation treatment facility that is currently in design phase.

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) There is no turbidity MCL for filtered water. The limits are based on the TT requirements for filtration systems.
- (4) This is the highest locational 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) No positive samples were collected in any one month
- (7) In May 2015, the SWRCB recommended an optimal fluoride level of 0.7 ppm be maintained in the treated water. In 2019, the range and average of the fluoride levels were 0.6 ppm - 1.0 ppm and 0.7 ppm, respectively.
- (8) The natural fluoride level in the Hetch Hetchy supply was ND. Elevated fluoride levels in the SVWTP and HTWTP raw water were attributed to the transfer of fluoridated Hetch Hetchy water into the local reservoirs.
- (9) This is the highest running annual average value.
- (10) Aluminum also has a primary MCL of 1,000 ppb.
- (11) The most recent Lead and Copper Rule monitoring was in 2019. 0 of 30 sites samples collected at consumer taps had copper concentrations above the AL. Next round of samples to be taken summer of 2022
- (12) The most recent Lead and Copper Rule monitoring was in 2019. 0 of 30 sites samples collected at consumer taps had lead concentrations above the AL. Next round of samples to be taken summer of 2022
- (13) The detected chlorate in the treated water is a degradation product of sodium hypochlorite used by the SFRWS for water disinfection.
- (14) Chromium (VI) has a PHG of 0.02 ppb but no MCL. The previous MCL of 10 ppb was withdrawn by the SWRCB-DDW on September 11, 2017. Currently, the SWRCB-DDW regulates all chromium through a MCL of 50 ppb for Total Chromium, which was not detected in our water in 2019.

Note: Additional water quality data may be obtained by calling the Town of Hillsborough water system phone number: (650) 375-7444.



Town of Hillsborough
1600 Floribunda Avenue
Hillsborough, CA 94010

2019 WATER QUALITY REPORT

If you have questions or comments about water quality data, conservation, supply or regulations, please contact the Town of Hillsborough or any of the agencies below. Information about public meetings, proposed and current regulations, water conservation and other consumer information can be found on the websites of all the agencies mentioned here.

For inquiries, contact Hillsborough Public Works (650) 375-7444

Town of Hillsborough

City Council Meetings: Second Monday of each month at Town Hall
Written comments may be sent to the City Council in care of the City Clerk.

Town Hall: 1600 Floribunda Ave, Hillsborough, CA 94010

Public Works Main: (650) 375-7444

Water Billing or Service: (650) 375-7402

After Business Hours and Emergencies: (650) 375-7470

Email: pw@hillsborough.net

Website: www.hillsborough.net

Bay Area Water Supply and Conservation Agency (BAWSCA) and Regional Water System Financing Authority (RFA)

BAWSCA, comprised of 27 public agencies including Hillsborough negotiates water supply issues with SFPUC. The RFA oversees bonds issued to finance regional water improvements.

Office: (650) 349-3000

Website: www.bawasca.org

SFPUC Commission

Decisions about water sources and water quality including treatment processes are made by the SFPUC.

Public Meetings of Commission: Second and fourth Tuesday at 1:30 p.m. at San Francisco City Hall, 1 Carlton B. Goodlett Place Room 400, San Francisco, CA 94102.

Agendas and minutes for public meetings are maintained by the Commission Secretary.

Office of the Commission Secretary: (415) 554-3165

Water Quality Bureau: (650) 872-5950

Customer Service Bureau: (415) 551-3000

Website: www.sfwater.org

State Water Resources Control Board

Drinking Water Program, Santa Clara District:

(510) 620-3474

Drinking Water Treatment Device Certification Unit:

(916) 449-5600

Website: <http://www.cdph.ca.gov/programs/Pages/DWTP.aspx>

Federal Environmental Protection Agency (EPA)

Safe Drinking Water Hotline: (800) 426-4791

Website: www.epa.gov/safewater

Translation Languages

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