

Important contact information

City contacts

City of Milpitas
455 E Calaveras Blvd.
Milpitas, CA 95035
(408) 586-3000; TDD (408) 586-2643
www.ci.milpitas.ca.gov

Hours of operation
8 a.m. to 5 p.m., M–F

Water Emergencies
(408) 586-2600, Business Hours
(408) 586-2400, After Hours

Billing Questions
(408) 586-3100

Water Conservation Hotline
(408) 586-2666

SCVWD Pollution Hotline
(888) 510-5151 (24 Hours)

More information

For more information about this report or the City's water quality monitoring program, please contact:

Glen Campi, Public Works Manager for Utilities, City of Milpitas
(408) 586-2600; gcampi@ci.milpitas.ca.gov

Resources

Division of Drinking Water
waterboards.ca.gov/drinking_water/
(510) 620-3474

US EPA
water.epa.gov/drink
(800) 426-4791

Department of Water Resources
www.dwr.water.ca.gov

Bay Area Water Supply and Conservation Agency
bawsca.org

American Water Works Association
awwa.org or DrinkTap.org

SCVWD **SFPUC**
valleywater.org sfwater.org

How to get involved

City Council meetings typically occur on the first and third Tuesday of every month at 7:00 pm in the City Hall Council Chambers located at 455 E. Calaveras Blvd. City Council agendas are posted prior to each meeting at City Hall and on the City's website. www.ci.milpitas.ca.gov



CITY OF MILPITAS 2017 Water Quality Report

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.

Ito ay isang mahalagang impormasyon tungkol sa inyong iniinom na tubig. Isaling-wika ito, o makipag-usap sa isang tao na naiintindihan ito.

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

此份有關你的食水報告 內有重要資料和訊息 請找他人為你翻譯及解釋清楚。

यह महत्वपूर्ण जानकारी आपके पीने के पानी के बारे में है। इसका अनुवाद करें, या किसी ऐसे व्यक्ति से बात करें जो इसे समझता हो।

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Frequently asked questions

Why is my water brown or not clear? Stagnant water sitting in aging plumbing may become brown. This should clear up once sitting water is flushed out from the pipes and replaced with fresh water. Brown water could also be from blocked or clogged sink fixture aerators. Aerators are located at the end of a fixture and can be removed and flushed to clear any debris. Once flushed, hand-tighten to reassemble.

Is there fluoride in the water? The City receives fluoridated water from SFPUC and SCVWD. SFPUC has been fluoridating water since 1995 while SCVWD began fluoridation in December of 2016.

Why has my water pressure dropped suddenly? Depending on your location, you could receive water pressure between 40 to 140 psi. Water pressure could have dropped for a variety of reasons. If your water pressure drops unexpectedly please call Milpitas Public Works Dept at (408) 586-2600. You can also check for clogged strainers and proper operation of any pressure regulators (setting).

How can I treat my drinking water after a disaster? If you run out of stored drinking water, strain and treat water from your water heater or toilet reservoir tank (except if you use toilet tank cleaners.) You cannot drink swimming pool or spa water, but it can be used for flushing toilets or washing.

- Strain large particles by pouring water through a couple of layers of paper towels or clean cloth. Purify the water by:
- Boiling. Bring to a rolling boil and maintain for 3-5 minutes. To improve the taste, pour it back and forth between two clean containers to add oxygen back into the water.
- Disinfecting. If the water is clear, add 8 drops of bleach per gallon of water. If it is cloudy, add 16 drops. Shake or stir, then let stand for 30 minutes. A slight chlorine taste and smell is to be expected.

What is the state of the drought and what is "Making Water Conservation A California Way of Life"?

On April 7, 2017 Governor Brown issued Executive Order B-40-17, terminating the January 17, 2014 drought State of Emergency for most counties in California. The Order does however direct the Water Board to continue "Making Water Conversation a California Way of Life" and keep certain restrictions to prohibit wasteful practices. These restrictions along with additional water conservation measures set by the City include:

- Apply only as much water as your landscape needs to prevent water runoff onto streets and sidewalks
- Wash vehicles with a hose that has a shut-off nozzle
- Use a broom to clean driveways and sidewalks
- Recirculate potable water in fountains or decorative water features
- Do not water landscapes during or within 48 hours of measureable rainfall
- Restaurants to only serve drinking water upon request
- Guests of hotels and motels can choose not to have towels and linens laundered daily
- Pools and spas must be covered when not in use to prevent evaporation

How can I prepare for an emergency? In a disaster or emergency situation, water supplies may be cut off or contaminated. Store enough water to supply everyone in your family for at least 3 days. For general drinking purposes, store one gallon of water, per person, per day, and three gallons of water, per person, per day for limited cooking and personal hygiene use. If you store tap water, use food grade plastic containers. Replace water at least once every six months. If you buy bottled "spring" or "drinking" water, keep it in its original container. Label bottles with their replacement date and store in a cool, dark place.

Last year your tap water met all USEPA and State drinking water health standards. We vigilantly safeguard our water supplies, and once again, we are proud to report that our system had no water quality standard violations in 2017

Look inside for more information about our water quality.



Our drinking water and how we protect it

The City of Milpitas draws water from two sources to provide clean water to residents and businesses. The water is purchased from two separate wholesalers: treated surface water from the San Francisco Public Utilities Commission (SFPUC) and treated surface water from the Santa Clara Valley Water District (SCVWD). In the event that water supply is interrupted from either SCVWD or SFPUC, the City has the option of utilizing its emergency supply to meet basic water needs for a short duration of time. In 2017, the City supplied an average of 6.8 million gallons of water per day to approximately 16,000 homes and businesses for indoor and outdoor use.



Hetch Hetchy Reservoir

SFPUC Supply

SFPUC water is a combination of Hetch Hetchy water and treated local water. Most of SFPUC's water is sourced from the Hetch Hetchy watershed located in the Sierra Nevada Mountains. This water is exempt from filtration requirements by the United States Environmental Protection Agency (USEPA) and State Water Resources Control Boards' Division of Drinking Water (DDW), due to the protected Sierra spring snow melt water source. Local water is collected within the Alameda watershed at Calaveras Reservoir and San Antonio Reservoir. Local water is treated through filtration and disinfection at the Sunol Valley Water Treatment Plant.

SCVWD Supply

SCVWD water is sourced primarily from the Sacramento-San Joaquin Delta watershed via the South Bay Aqueduct, Dyer Reservoir, Lake Del Valle, and San Luis Reservoir. The water supply is supplemented by local water sources at Anderson and Calero Reservoirs. SCVWD water is treated through filtration and disinfection at Penitencia and Santa Teresa Water Treatment Plants.

Emergency Supplies

The City does not blend or combine SFPUC and SCVWD waters under normal operating conditions. However, the service areas can be interconnected to provide emergency water supply if needed. The City's water system is also interconnected with the Alameda County Water District to the north and San Jose Water Company to the south. In the event that there is an emergency, either or both agencies can provide water to the City. SFPUC and SCVWD share an intertie that can supply water from one wholesaler to the other. The City can also provide temporary emergency water supply using Pinewood Well, located in the southwestern portion of the City.

Drinking Water Source Assessment Program

Drinking Water Source Assessment Programs evaluate the vulnerability of water sources to potential contamination. Both SFPUC and SCVWD have conducted drinking water source assessments for the City's potable water supplies. The assessments are available for review at the State Water Resources Control Board (SWRCB) – Division of Drinking Water District Office. You may request that a summary of the assessments be sent to you by calling (510) 620-3474.

SFPUC conducts an annual watershed sanitary survey for the Hetch Hetchy source as well as five year sanitary surveys for local water sources. These surveys evaluate the sanitary condition, water quality, potential contamination sources, and the results of watershed management activities. The surveys were completed with support from partner agencies including the National Park Service and US Forest Service. These surveys have identified wildlife, stock, and human activities as potential contamination sources.

SCVWD's water sources are vulnerable to potential contamination from a variety of land use practices, such as agricultural and urban runoff, recreational activities, livestock grazing, and residential and industrial development. The imported sources are also vulnerable to wastewater treatment plant discharges, seawater intrusion, and wild fires in open space areas. In addition, local sources are also vulnerable to potential contamination from commercial stables and historic mining practices. No contaminants associated with any of these activities have been detected in SCVWD's treated water. The water treatment plants provide multiple barriers for physical removal and disinfection of contaminants.

Recycled Water – providing drought-proof, high quality water for our community

In 2017, irrigation, commercial, and industrial customers in Milpitas used 277 million gallons of recycled water, thereby conserving an equal amount of potable drinking water. Recycled water from the San Jose/Santa Clara Water Pollution Control Plant undergoes an extensive treatment process (including filtration and disinfection) and is delivered to landscape irrigation and industrial customers in Milpitas, San Jose, and Santa Clara. Visit www.sanjoseca.gov/sbwr.

Contaminants and Regulations

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, 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. Contaminants that may be present in source water include:

- **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 that 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** that can be naturally-occurring or be the result of oil and gas production and mining activities.



Maintaining water quality

The City is dedicated to maintaining the water quality and protecting the water supply. The safeguards include a combination of preventative and monitoring practices described below.

Hydrant and Water Main Flushing. Flushing of fire hydrants and water mains is performed to remove sediment and keep the distribution system refreshed by circulating water in pipes. As a result, residents in the immediate vicinity may experience temporary discoloration in their water. This discoloration does not affect the safety of the water. If you experience discoloration in your water after crews have been flushing in your neighborhood, clear the water from your home pipes by running water faucets for a few minutes.

Backflow Testing. A backflow preventer is a plumbing device that keeps the water supply safe by preventing water on private property from flowing back into the City's distribution system. The City sends yearly testing notifications to backflow device owners requiring appropriate testing and maintenance to ensure all devices are operating correctly.

Water Sampling. Sampling of the water system is performed in accordance to State rules and regulations in order to verify the quality. This requires purging of the water line for a sample to be lab tested.

Littering is throwing it all away

Nearly 80 percent of the debris found in our watersheds, creeks, shorelines, and the South San Francisco Bay is washed, blown or dumped there from land. One piece of litter can end up miles from where it as improperly discarded, polluting our water systems and causing a threat to wildlife. The primary sources of litter are: pedestrians, motorists, trucks with uncovered loads, household trash handling and its placement at the curb, loading docks, and demolition sites.

Because we live in a watershed, our community's litter makes a very big impact. A watershed is a land area that drains water into a creek, river, lake, wetland, bay or groundwater aquifer. In the Santa Clara Valley, the water from rain and irrigation (called runoff) picks up litter and carries it directly into storm drains and creeks that flow to San Francisco Bay.

You Can Make a Difference

- Don't litter, ever. Something as small as a cigarette butt thrown on a city street as long term adverse effects on the environment.
- When you see litter, pick it up and dispose of it properly.
- Secure and cover all truckloads of loose debris.
- Make sure your trash can lid is closed securely.
- Always bring a bag for trash when picnicking, hiking or camping.
- If you own a business, check your dumpster on a regular basis, keep it locked and protect it from illegal dumping.
- Report illegal dumping to the Milpitas Police Dept. at (408) 586-2400. For solid waste and street sweeping services, call Milpitas Sanitation at (408) 330-7199.
- Call the Santa Clara Countywide Recycling Hotline at (800) 533-8414 or visit www.reducewaste.org to find out where to dispose of or donate large commercial items such as furniture, appliances, etc.

2017

Water Quality Data

In 2017, The City of Milpitas collected over 2,000 drinking water samples to be analyzed by State-certified laboratories.

The water supplied in Milpitas met all USEPA and State drinking water health standards in 2017, as shown in the adjacent table, which lists all drinking water constituents that were detected during the 2017 calendar year. A full list of tested constituents is available upon request. Unless otherwise noted, the data presented in this table reflects testing completed between January 1 and December 31, 2017.



Some data—although representative—were collected prior to 2017, as the State Board requires monitoring for some constituents less frequently. The concentrations of these constituents do not vary frequently or significantly.

What else should I know?

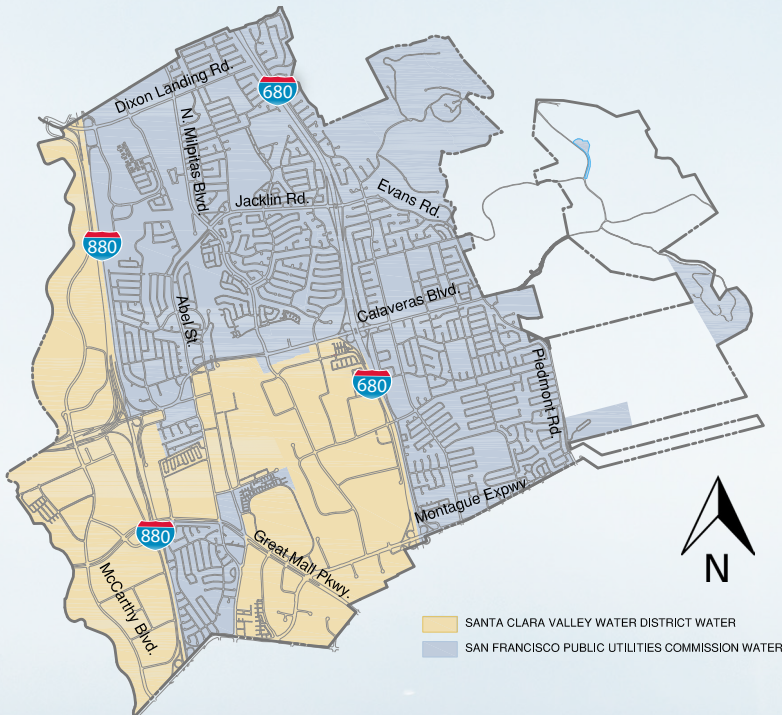
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA Safe Drinking Water Hotline. Call 1(800) 426-4791

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy; persons who have undergone organ transplants; people with HIV/AIDS or other immune system disorders; some elderly; and infants can be particularly at risk from infections. These individuals should seek advice from their health care providers.

USEPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the USEPA Safe Drinking Water Hotline. Call 1(800) 426-4791

Water Supply Map

The City serves SFPUC source water to the area south of Calaveras Blvd and east of I-680, as well as north of Calaveras Blvd and east of I-880. SCVWD service areas are west of I-880, as well as south of Calaveras Blvd and west of I-680. Refer to the Water Supply Map below to see where your water comes from.



PRIMARY DRINKING WATER STANDARDS (PUBLIC HEALTH RELATED STANDARDS)														
PARAMETER	Unit	MCL, (AL), or [MRDL]	PHG, (MCLG), or [MRDLG]	Distribution System		SCVWD _o		SFPUC		Typical Sources*				
				Average	Range	Average	Range	Average	Range					
SOURCE WATER SAMPLING														
INORGANIC CHEMICALS														
Aluminum	ppm	1	0.6			0.051	ND – 0.120	ND	ND – 0.01	3, 4				
Fluoride	ppm	2	1			0.7	0.7	0.2	ND – 0.6	3, 5, 6				
Nitrate (as Nitrogen)	ppm	10	10			0.2	ND – 0.7	ND	ND	3, 7, 8				
SYNTHETIC ORGANIC CONTAMINANTS														
1,2,3, - Trichloropropane	ppt	5	0.7			ND	ND	ND	ND					
DISINFECTION BYPRODUCT PRECURSOR														
TOC (precursor control)	ppm	TT	NA			2	1.7 – 2.2	2.4	1.0 – 3.7	10				
MICROBIOLOGICAL														
Giardia Lamblia	cysts/L	TT	(0)			ND	ND	0.05	0 – 0.22	1				
Turbidity	NTU	TT _a	NA			0.07	0.05 – 0.16	1 _c	99 – 100% _d	2				
DISTRIBUTION SYSTEM SAMPLING														
LEAD AND COPPER RULE STUDY (MILPITAS 2016 AT-THE-TAP SAMPLING)				90th Percentile			# of Samples Above AL							
Lead	ppb	(15)	0.2	1.6			2 out of 37			3, 17, 19				
Copper	ppm	(1.3)	0.3	0.049			0 out of 37			3, 17, 18				
A total of 14 schools in Milpitas have requested lead service line sampling. Results pending														
DISINFECTION RESIDUALS AND BYPRODUCTS				Highest Location RAA			Range							
Disinfectant Residual as Chlorine	ppm	[4]	[4]	2.37			0.2–4.0			20				
Total Trihalomethanes	ppb	80	NA	53.3			19–56			9				
Haloacetic Acids	ppb	60	NA	54			7.2–49			9				
MICROBIOLOGICAL				Average			Range							
Total Coliform Bacteria	% pos / month	5.0%	(0)	0.15%			0–0.97%			1				
SECONDARY DRINKING WATER STANDARDS (AESTHETIC STANDARDS)														
PARAMETER	Unit	MCL		Average	Range	Average	Range	Average	Range	Sources*				
Aluminum	ppb	200		NA	NA	51	ND – 120	ND	ND – 99	3, 4				
Chloride	ppm	500		NA	NA	44.5	24 – 76	9	<3 – 17	11, 12, 14				
Color	CU	15		ND	ND–15	<2.5	ND – <2.5	<5	<5 – 13	13				
Odor — Threshold	TON	3		ND	ND	1	1	ND	ND	13				
Specific Conductance	μS/cm	1600		NA	NA	374	211 – 525	168	29 – 256	14, 16				
Sulfate	ppm	500		NA	NA	36	17 – 51	17	0.9 – 34	11, 12, 15				
Total Dissolved Solids	ppm	1000		NA	NA	200	120 – 70	76	<20 – 122	11, 12				
UNREGULATED PARAMETERS FOR UCMR (2017)														
PARAMETER	Unit	NL		Average	Range	Average	Range	Average	Range					
Chlorate	ppb	800		120	68–190	123	72 – 290	52	51–180					
Boron	ppb	1000		NA	NA	ND	ND – 123	ND	ND–203					
Molybdenum	ppb	NS		1.9	1.8–2.0	<1	ND – <1	NA	NA					
Strontium	ppb	NS		151	14–290	ND	ND	111	12–234					
Vanadium	ppb	50		ND	ND–4.5	ND	ND – 4	NA	NA					
OTHER WATER QUALITY PARAMETERS														
PARAMETER	Unit	MCL		Average	Range	Average	Range	Average	Range					
Hardness (as Calcium Carbonate)	ppm	NS		NA	N/A	88	48 – 114	51	7 – 82					
pH	–	NS		9	7.2–10.0	7.85	7.7 – 8.0	9.2	7.4 – 9.8					
Sodium	ppm	NS		NA	NA	47.5	21 – 80	18	2.3 – 31					
Temperature	°C	NS		NA	NA	20	15–24	NA	NA					

Definitions of Key Terms

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 are set to protect the odor, taste and appearance of drinking water. MCLs are established by USEPA and the State Board.

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 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.

Notification Level (NL). Health based advisory levels established by SWRCB for chemicals in drinking water that lack MCLs.

Primary Drinking Water Standard (PDWS). MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

Treatment Technique (TT). A required process intended to reduce the level of a contaminant in drinking water.

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 Office of Environmental Health Hazard Assessment.

Regulatory Action Level (AL). The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Total Organic Carbon (TOC). TOC is precursor for disinfection byproduct formation.

Turbidity. Turbidity is a measure of the cloudiness of the water, and is also used to indicate the effectiveness of the filtration system. High turbidity can hinder the effectiveness of disinfectants.

UCMR. Unregulated Contaminant Monitoring Rule requires monitoring for contaminants not currently regulated. This monitoring provides a basis for future regulatory actions to protect public health.

NOTES

- For unfiltered water, the MCL is 5.0 NTU. For filtered water, the MCL is ≤0.3 NTU 95% of the time.
- Water system was fed by Santa Teresa and Penitencia Water Treatment Plants.
- Maximum value measured.
- Percent of time turbidity was maintained at or below 0.3 NTU.

Abbreviations

°C	Degrees Celsius
CU	Color unit
cysts/L	Cysts per liter
DDW	Division of Drinking Water
NA	Not applicable
ND	Not detected
NS	No standard
NTU	Nephelometric turbidity unit
ppt	parts per trillion (
ppb	parts per billion (micrograms per liter)
ppm	parts per million (milligrams per liter)
μS/cm	microSiemens per centimeter
% pos	% positive
RAA	Running annual average
SCVWD	Santa Clara Valley Water District
SFPUC	San Francisco Public Utilities Commission
TOC	Total organic carbon
TON	Threshold odor number
USEPA	United States Environmental Protection Agency

Water Quality Information

Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Infants and young children are typically more vulnerable to lead in drinking water than the general population. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested by a laboratory and/or flush your tap. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the USEPA Safe Drinking Water Hotline or at (800) 426-4791 or at epa.gov/lead.

The City of Milpitas, through a coordinated effort with the Milpitas Unified School District (MUSD) has completed lead service line sampling at fourteen (14) K-12 school sites, in compliance with Assembly Bill No. 746. Results pending at the time this CCR was prepared.

Fluoride and Dental Fluorosis

All water supplied by SFPUC is fluoridated. The fluoride levels in treated water are maintained within the range required by state regulations. In 2017, SFPUC water was fluoridated at an average level of 0.2 ppm. Water supplied by SCVWD's Santa Teresa treatment plant began fluoridation in December 2016. SCVWD's Penitencia Treatment Plant began fluoridation in 2017. Infants fed formula mixed with water containing fluoride may have an increased chance of developing tiny white lines or streaks in their teeth. These marks are referred to as 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 Center for 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 health provider or SWRCB if you have concerns about dental fluorosis. For additional information visit the SWRCB website www.swrcb.ca.gov and search for fluoride, or the CDC website www.cdc.gov/fluoridation.

Disinfection with Chloramine

Both SFPUC and SCVWD waters are treated with chloramine to protect public health. Chloramine assists in destroying disease-causing organisms. Chloramine is considered safe for use as a water disinfectant. However, home dialysis patients and aquarium owners must take precautions before using the chloraminated water in kidney dialysis machines or aquariums. Dialysis patients should consult with their doctor or dialysis technician and aquarium owners should consult with their pet store.

Hardness

Water hardness is determined mainly by the presence of calcium and magnesium salts. Although hard water does not pose a health risk, it may be considered undesirable for other reasons. Some benefits of water softening are reductions in soap usage, longer life for water heaters and a decrease in encrustation of pipes; disadvantages are an increase in sodium intake, an increase in maintenance and servicing and potential adverse effects on salt-sensitive plants. To convert hardness from ppm to grains per gallon, divide by 17.1. A hardness scale is provided below for your reference.

Hardness Classification	Grains per Gallon	ppm
Soft	less than 1.0	less than 17.1
Slightly hard	1.0–3.5	17.1–60
Moderately hard	3.5–7.0	60–120
Hard	7.0–10.5	120–180
Very hard	over 10.5	over 180

* Typical Sources In Drinking Water

- Naturally present in the environment
- Soil runoff
- Erosion of natural deposits
- Residue from some surface water treatment processes
- Water additive that promotes strong teeth
- Discharge from fertilizer and aluminum factories
- Runoff and leaching from fertilizer use
- Leaching from septic tanks and sewage
- By-product of drinking water disinfection
- Various natural and man-made sources
- Runoff from natural deposits
- Leaching from natural deposits
- Naturally-occurring organic materials
- Seawater influence
- Industrial wastes
- Substances that form ions when in water
- Internal corrosion of household plumbing systems
- Leaching from wood preservatives
- Discharges from industrial manufacturers
- Drinking water disinfectant added for treatment