CITY OF MILPITAS – 2019 PUBLIC HEALTH GOALS REPORT

BACKGROUND

The California Health and Safety Code, section 116470(b) requires public water systems serving more than 10,000 service connections to prepare a report if water quality monitoring results over the past three years exceed any California Public Health Goals (PHGs) and/or federal Maximum Contaminant Level Goals (MCLGs). PHGs are non-enforceable goals established by the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA). MCLGs are goals that are adopted by USEPA, and only come into play if there is no California PHG. PHGs may not be more lenient that MCLGs.

Only constituents that have a California primary drinking water standard and for which either a PHG or MCLG has been set are to be addressed in the Report. **Attachment 1** contains a list of the regulated constituents and their respective PHGs or MCLGs.

If a constituent was detected by a water supplier between January 1, 2016 and December 31, 2018 at a level exceeding an applicable PHG or MCLG, the Report shall contain the following information as required by the law:

- Numerical public health risk associated with the enforced Maximum Contaminant Level (MCL) and the PHG or MCLG;
- Category or type of risk to health that could be associated with each constituent;
- Best treatment technology available, if any, that could be used to remove or reduce the constituent to a level at or below the PHG or MCLG;
- Estimate of the cost to install that treatment and if it is appropriate and feasible; and
- Description of the actions, if any, the City intends to take to reduce the level of the constituent.

The City of Milpitas conducts weekly, quarterly, annual, triennial, and 9-year monitoring on a continuous basis and is pleased to report that water quality meets all state and federal standards. However, total coliform was detected above the MCLG of zero and is discussed for the purpose of this report.

PHG/MCLG vs. MCL

PHGs are set by OEHHA (and MCLGs by USEPA) based solely on public health risk considerations. MCLs are set by USEPA or the California State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) as the contaminants maximum level which public water systems must not exceed. Violations of MCLs can result in fines, abatement orders, or closure of facilities. When the USEPA, or the DDW, adopts an MCL, they take into account such factors as (1) analytical methodologies, (2) effectiveness of available treatment technologies, and (3) health benefits versus costs. PHGs (and MCLGs) are not enforceable and are not required to be met by any public water system.

Water Quality Data Review for this Report

Water quality data collected by the City of Milpitas during the calendar years of 2016, 2017 and 2018 for purposes of determining compliance with drinking water standards were reviewed in order to prepare this Report. The City of Milpitas purchases water from two water wholesalers: the San Francisco Public Utilities Commission (SFPUC) and the Santa Clara Valley Water District (Valley Water) and results of that monitoring is also considered in the report review. This data was summarized in the 2016, 2017, and 2018 Annual Water Quality Reports, also known as Consumer Confidence Reports, which were distributed to all of our customers by July of each of the following year and are also available online (see **Attachment 2** for copies of the 2016, 2017, and 2018 City of Milpitas Water Quality Reports).

Guidelines Followed for Preparation of this Report

The Association of California Water Agencies (ACWA) formed a workgroup that prepared guidelines for water utilities to use in preparing required PHG Reports. These guidelines, titled "Suggested Guidelines for Preparation of Required Reports on PUBLIC HEALTH GOALS (PHGs) to satisfy requirements of California Health and Safety Code Section 116470(b)" dated April 2019 were used in the preparation of this Report.

Best Available Treatment Technology and Cost Estimates

Both USEPA and DDW adopt Best Available Technologies (BATs), which are the best known methods of reducing contaminant levels below the MCL. This report also considers, where appropriate, other commercially available BATs that may have the ability to further reduce constituent levels beyond the MCL to the PHG/MCLG level or below. While a BAT may identify a process that can reduce the presence of a constituent, the cost of implementation can be a major factor in deciding whether or not to adopt the process. For a system that is in compliance with MCL levels, striving to keep constituents at or below PHG/MCLG levels must be evaluated with costs in mind. Thus, while the City is meeting all water quality MCLs, the intent of this exercise is to re-evaluate the value of a technology to remove or reduce a constituent to the level at which the USEPA or OEHHA has determined that there is no associated health risk (i.e. at or below the PHG/MCLG), if possible, and whether the cost to the ratepayers to provide advanced treatment could be justified.

The PHGs/MCLGs are set much lower than the MCL, and it is not always possible or feasible to determine what treatment technology is able to further reduce a constituent to a level at or below the PHG/MCLG. In some cases, such as when the MCLG is set at zero, there may not be commercially available technology to reach that level. The issue is further complicated because it is often not possible to verify by analytical means that the constituent has been totally eliminated, as some laboratory analyses can detect constituents down to a DDW approved level with certainty and are unable to definitively identify the constituent at lower levels. In some cases, installing treatment to try and further reduce very low levels of one constituent may have adverse effects on other aspects of water quality.

CONSTITUENTS DETECTED THAT EXCEED A PHG OR MCLG

In reviewing water quality monitoring data collected during 2016, 2017, and 2018, City of Milpitas staff have concluded that a PHG Report is required that addresses coliform bacteria.

The following section presents a discussion of the detected constituent, the BATs to manage and mitigate the presence of coliform bacteria, and the results and actions taken by the City to the presence of coliform bacteria.

Coliform Bacteria

The EPA has revised the 1989 Total Coliform Rule (TCR), now known as the Revised Total Coliform Rule (RTCR). As of April 1, 2016, public water systems must comply with the requirements of the RTCR. The MCL for total coliforms is five percent (5%) positive samples of all samples collected in each month. The MCLG is zero (there is no PHG for coliform bacteria).

The reason for the coliform standard is to minimize the possibility for drinking water to contain pathogens. Pathogens are microorganisms that can cause disease if ingested. Coliform bacteria is an indicator organism that is not generally considered harmful, but is used to identify the potential presence of pathogens in water. It is not unusual for a system to have an occasional positive sample. A positive sample serves as a trigger to prompt further investigation into the presence of other organisms, requiring additional sampling and corrective actions to be implemented immediately after it is discovered.

The monitoring of a non-harmful constituent (coliform bacteria) to indicate the possible presence of harmful pathogens makes for an inexact, but generally conservative process. Therefore, it is not possible to state a specific numerical health risk associated with a given level of coliform bacteria. EPA normally sets MCLGs “at a level where no known or anticipated adverse effects on persons would occur.” When EPA published the final TCR they stated that it was not possible to determine such a level with coliform sampling. The absence of coliform bacteria is therefore the goal, and when that goal is not achieved, follow-up testing verifies whether an actual pathogen is present.

Best Available Technology to address Total Coliform

DDW identifies the best available technologies to meet the total coliform MCL in Title 22 of the California Code of Regulations Section 64447, which are as follows:

1. Protection of wells from coliform contamination by appropriate placement and construction;
2. Maintenance of a disinfectant residual throughout the distribution system;
3. Proper maintenance of the distribution system (e.g. including appropriate pipe replacement and repair procedures, main flushing programs, proper operation and maintenance of storage tanks and reservoirs, and continual maintenance of positive water pressure in all parts of the distribution system); and
4. Filtration and/or disinfection of surface water, in compliance with Section 64650, or disinfection of ground water

The City of Milpitas has implemented all of the above applicable actions or processes, or obtains water from suppliers who implement these processes (such as filtration and disinfection). There is one method that may further reduce or eliminate the presence of total coliform, which is to increase the amount of disinfectant residual in the distribution system; however, the tradeoff includes the increased potential for the presence of cancer-causing disinfection byproducts. In the interest of protecting the public's health, the City will continue to implement the current technologies, as well as its ongoing monitoring and maintenance program. As such, there is no estimated cost associated with additional treatment to reduce the incidence of coliform bacteria.

Milpitas Total Coliform Rule Monitoring Results

Each month the City collects at least 136 samples (both compliance and operational samples) from sites located throughout the distribution system that are analyzed for the presence of coliform bacteria. If a positive coliform sample is found, follow-up sampling is done for more specific indicators of bacterial contamination. Additionally, if the source of the contamination is known or can be determined, corrective actions are taken to address the issue.

Over the last three years, the monthly percentage of positive samples for coliform bacteria ranged from 0% to 1%. All instances where a positive coliform sample was initially found, follow-up samples were negative for E. coli bacteria. The data indicated that these were isolated incidents, and the quality of the water in the distribution system was never compromised.

The City works closely with our regional water suppliers, Valley Water and SFPUC. Both provide filtration and water with a chloramine residual in accordance with the RTCR.

Other measures and programs that the City implements to protect the microbiological quality of the drinking water served include:

- flushing of distribution system dead-ends as needed;
- flushing of hydrants as needed;
- implementation of a cross-connection control program;
- monitoring of a disinfectant residual throughout the distribution system;
- ongoing microbiological monitoring and surveillance program of all supply sources, storage, and the distribution system; and
- implementation of a nitrification response plan; and
- maintenance of positive pressures throughout the distribution system at all times.

As stated above, monitoring for coliform bacteria to indicate the possible presence of harmful pathogens is a conservative, yet inexact process. As such, there is no specific numerical correlation to health risk. However, the City has implemented a vigilant monitoring and maintenance program that is intended to meet the requirements of the RTCR and protect public health.

No additional actions are recommended at this time for coliform bacteria.

SUMMARY AND CONCLUSION

The drinking water for the City of Milpitas meets all standards established by DDW and USEPA to protect public health. No additional treatment is recommended in an effort to decrease the incidence of total coliform in system water testing. The level of total coliform detected is well below the MCL, and elimination may be impossible. Therefore, no additional actions are proposed at this time for reducing coliform bacteria. The City and its water suppliers will continue to implement the BATs for total coliform as well as the monitoring and maintenance program.

Attachments:

1. Table of Regulated Constituents with MCLs, PHGs or MCLGs
2. Consumer Confidence Reports for 2016, 2017 and 2018.

ATTACHMENT NO. 1

MCLs, DLRs and PHGs for Regulated Drinking Water Contaminants

Last Update: December 26, 2018

Prepared and provided by the Association of California Water Agencies (ACWA).

MCLs, DLRs, and PHGs for Regulated Drinking Water Contaminants

(Units are in milligrams per liter (mg/L), unless otherwise noted.)

Last Update: December 26, 2018

This table includes:

California's maximum contaminant levels (MCLs)

Detection limits for purposes of reporting (DLRs)

Public health goals (PHGs) from the Office of Environmental Health Hazard Assessment (OEHHA)

Also, the PHG for NDMA (which is not yet regulated) is included at the bottom of this table.

Regulated Contaminant	MCL	DLR	PHG	Date of PHG
Chemicals with MCLs in 22 CCR §64431—Inorganic Chemicals				
Aluminum	1	0.05	0.6	2001
Antimony	0.006	0.006	0.001	2016
Arsenic	0.010	0.002	0.000004	2004
Asbestos (MFL = million fibers per liter; for fibers >10 microns long)	7 MFL	0.2 MFL	7 MFL	2003
Barium	1	0.1	2	2003
Beryllium	0.004	0.001	0.001	2003
Cadmium	0.005	0.001	0.00004	2006
Chromium, Total - OEHHA withdrew the 0.0025-mg/L PHG	0.05	0.01	withdrawn Nov. 2001	1999
Chromium, Hexavalent - 0.01-mg/L MCL & 0.001-mg/L DLR repealed September 2017	--	--	0.00002	2011
Cyanide	0.15	0.1	0.15	1997
Fluoride	2	0.1	1	1997
Mercury (inorganic)	0.002	0.001	0.0012	1999 (rev2005)*
Nickel	0.1	0.01	0.012	2001
Nitrate (as nitrogen, N)	10 as N	0.4	45 as NO3 (=10 as N)	2018
Nitrite (as N)	1 as N	0.4	1 as N	2018
Nitrate + Nitrite (as N)	10 as N	--	10 as N	2018
Perchlorate	0.006	0.004	0.001	2015
Selenium	0.05	0.005	0.03	2010
Thallium	0.002	0.001	0.0001	1999 (rev2004)
Copper and Lead, 22 CCR §64672.3				
Values referred to as MCLs for lead and copper are not actually MCLs; instead, they are called "Action Levels" under the lead and copper rule				
Copper	1.3	0.05	0.3	2008

Lead	0.015	0.005	0.0002	2009
Radionuclides with MCLs in 22 CCR §64441 and §64443—Radioactivity				
[units are picocuries per liter (pCi/L), unless otherwise stated; n/a = not applicable]				
Gross alpha particle activity - OEHHA concluded in 2003 that a PHG was not practical	15	3	none	n/a
Gross beta particle activity - OEHHA concluded in 2003 that a PHG was not practical	4 mrem/yr	4	none	n/a
Radium-226	--	1	0.05	2006
Radium-228	--	1	0.019	2006
Radium-226 + Radium-228	5	--	--	--
Strontium-90	8	2	0.35	2006
Tritium	20,000	1,000	400	2006
Uranium	20	1	0.43	2001
Chemicals with MCLs in 22 CCR §64444—Organic Chemicals				
(a) Volatile Organic Chemicals (VOCs)				
Benzene	0.001	0.0005	0.00015	2001
Carbon tetrachloride	0.0005	0.0005	0.0001	2000
1,2-Dichlorobenzene	0.6	0.0005	0.6	1997 (rev2009)
1,4-Dichlorobenzene (p-DCB)	0.005	0.0005	0.006	1997
1,1-Dichloroethane (1,1-DCA)	0.005	0.0005	0.003	2003
1,2-Dichloroethane (1,2-DCA)	0.0005	0.0005	0.0004	1999 (rev2005)
1,1-Dichloroethylene (1,1-DCE)	0.006	0.0005	0.01	1999
cis-1,2-Dichloroethylene	0.006	0.0005	0.013	2018
trans-1,2-Dichloroethylene	0.01	0.0005	0.05	2018
Dichloromethane (Methylene chloride)	0.005	0.0005	0.004	2000
1,2-Dichloropropane	0.005	0.0005	0.0005	1999
1,3-Dichloropropene	0.0005	0.0005	0.0002	1999 (rev2006)
Ethylbenzene	0.3	0.0005	0.3	1997
Methyl tertiary butyl ether (MTBE)	0.013	0.003	0.013	1999
Monochlorobenzene	0.07	0.0005	0.07	2014
Styrene	0.1	0.0005	0.0005	2010
1,1,2,2-Tetrachloroethane	0.001	0.0005	0.0001	2003
Tetrachloroethylene (PCE)	0.005	0.0005	0.00006	2001
Toluene	0.15	0.0005	0.15	1999
1,2,4-Trichlorobenzene	0.005	0.0005	0.005	1999
1,1,1-Trichloroethane (1,1,1-TCA)	0.2	0.0005	1	2006
1,1,2-Trichloroethane (1,1,2-TCA)	0.005	0.0005	0.0003	2006
Trichloroethylene (TCE)	0.005	0.0005	0.0017	2009
Trichlorofluoromethane (Freon 11)	0.15	0.005	1.3	2014

1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.2	0.01	4	1997 (rev2011)
Vinyl chloride	0.0005	0.0005	0.00005	2000
Xylenes	1.75	0.0005	1.8	1997
(b) Non-Volatile Synthetic Organic Chemicals (SOCs)				
Alachlor	0.002	0.001	0.004	1997
Atrazine	0.001	0.0005	0.00015	1999
Bentazon	0.018	0.002	0.2	1999 (rev2009)
Benzo(a)pyrene	0.0002	0.0001	0.000007	2010
Carbofuran	0.018	0.005	0.0007	2016
Chlordane	0.0001	0.0001	0.00003	1997 (rev2006)
Dalapon	0.2	0.01	0.79	1997 (rev2009)
1,2-Dibromo-3-chloropropane (DBCP)	0.0002	0.00001	0.0000017	1999
2,4-Dichlorophenoxyacetic acid (2,4-D)	0.07	0.01	0.02	2009
Di(2-ethylhexyl)adipate	0.4	0.005	0.2	2003
Di(2-ethylhexyl)phthalate (DEHP)	0.004	0.003	0.012	1997
Dinoseb	0.007	0.002	0.014	1997 (rev2010)
Diquat	0.02	0.004	0.006	2016
Endothal	0.1	0.045	0.094	2014
Endrin	0.002	0.0001	0.0003	2016
Ethylene dibromide (EDB)	0.00005	0.00002	0.00001	2003
Glyphosate	0.7	0.025	0.9	2007
Heptachlor	0.00001	0.00001	0.000008	1999
Heptachlor epoxide	0.00001	0.00001	0.000006	1999
Hexachlorobenzene	0.001	0.0005	0.00003	2003
Hexachlorocyclopentadiene	0.05	0.001	0.002	2014
Lindane	0.0002	0.0002	0.000032	1999 (rev2005)
Methoxychlor	0.03	0.01	0.00009	2010
Molinate	0.02	0.002	0.001	2008
Oxamyl	0.05	0.02	0.026	2009
Pentachlorophenol	0.001	0.0002	0.0003	2009
Picloram	0.5	0.001	0.166	2016
Polychlorinated biphenyls (PCBs)	0.0005	0.0005	0.00009	2007
Simazine	0.004	0.001	0.004	2001
Thiobencarb	0.07	0.001	0.042	2016
Toxaphene	0.003	0.001	0.00003	2003
1,2,3-Trichloropropane	0.000005	0.000005	0.0000007	2009
2,3,7,8-TCDD (dioxin)	$3x10^{-8}$	$5x10^{-9}$	$5x10^{-11}$	2010
2,4,5-TP (Silvex)	0.05	0.001	0.003	2014
Chemicals with MCLs in 22 CCR §64533—Disinfection Byproducts				
Total Trihalomethanes	0.080	--	--	--
Bromodichloromethane	--	0.0010	0.00006	2018 draft

Bromoform	--	0.0010	0.0005	2018 draft
Chloroform	--	0.0010	0.0004	2018 draft
Dibromochloromethane	--	0.0010	0.0001	2018 draft
Haloacetic Acids (five) (HAA5)	0.060	--	--	--
Monochloroacetic Acid	--	0.0020	--	--
Dichloroacetic Adic	--	0.0010	--	--
Trichloroacetic Acid	--	0.0010	--	--
Monobromoacetic Acid	--	0.0010	--	--
Dibromoacetic Acid	--	0.0010	--	--
Bromate	0.010	0.0050**	0.0001	2009
Chlorite	1.0	0.020	0.05	2009
Chemicals with PHGs established in response to DDW requests. These are not currently regulated drinking water contaminants.				
N-Nitrosodimethylamine (NDMA)	--	--	0.000003	2006

*OEHHA's review of this chemical during the year indicated (rev20XX) resulted in no change in the PHG.

**The DLR for Bromate is 0.0010 mg/L for analysis performed using EPA Method 317.0 Revision 2.0, 321.8, or 326.0.

ATTACHMENT NO. 2

City of Milpitas Consumer Confidence Reports:

- 2016 Water Quality Report
- 2017 Water Quality Report
- 2018 Water Quality Report

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)

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
valleywater.org

SFPUC
sfwater.org

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*

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 2016
Water Quality Report

City of Milpitas
455 E. Calaveras Blvd.
Milpitas, CA 95035
www.ci.milpitas.ca.gov

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।

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 regulator (setting).

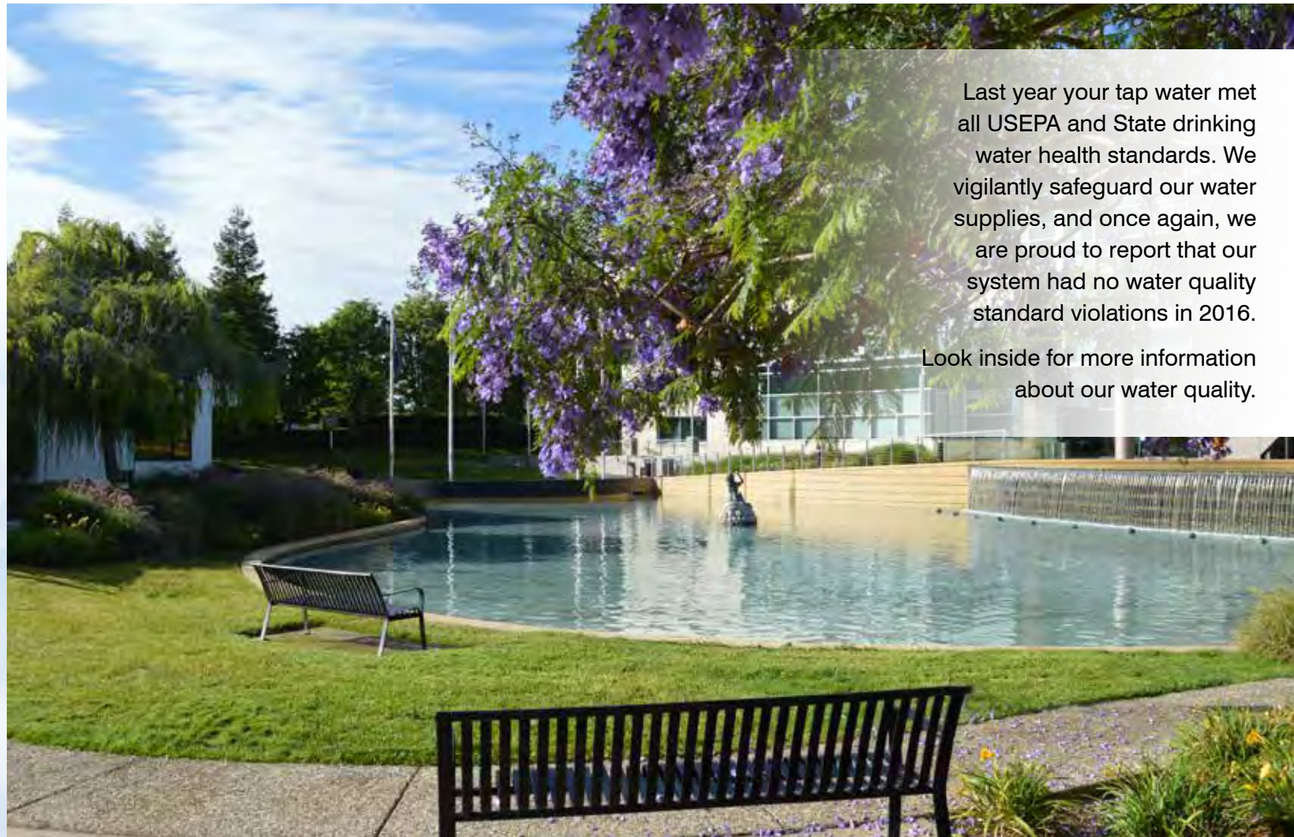
How can I treat my drinking water after a disaster? If you run out of stored drinking water, strain and treat water from your water heater or toilet reservoir tank (except if you use toilet tank cleaners.) You cannot drink swimming pool or spa water, but it can be used for flushing toilets or washing.

- 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. If it is cloudy, add 16 drops. Shake or stir, then let stand for 30 minutes. A slight chlorine taste and smell is normal.

Is the drought over? Have the water use restrictions been lifted? This past winter, California experienced significant precipitation that filled local reservoirs and created an ample snow pack. Our water suppliers have relaxed water restrictions for 2017, but many areas of the state are still experiencing water shortages due to their reliance on groundwater that takes time to rebound. The water supply future is difficult to predict and California could quickly be back in drought response mode. Therefore, it is important to create water conservation habits. In February 2017, the State renewed their Resolution for Emergency Drought Response and below is a list of ongoing water conservation practices:

- 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 will serve drinking water only upon request
- Guests of hotels and motels can choose not to have towels and linens laundered daily

How can I prepare for an emergency? In a disaster or emergency situation, water supplies may be cut off or contaminated. Store enough water for everyone in your family to last for at least 3 days. Store one gallon of water, per person, per day. This amount will be adequate for general drinking purposes. Three gallons per person per day is also sufficient for limited cooking and personal hygiene use. If you store tap water, store water in 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.



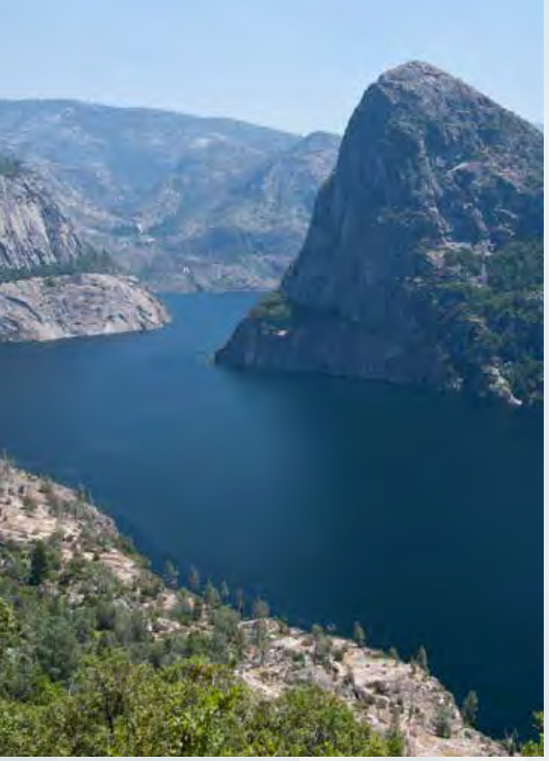
Last year your tap water met all USEPA and State drinking water health standards. We vigilantly safeguard our water supplies, and once again, we are proud to report that our system had no water quality standard violations in 2016.

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. In 2016, the City supplied an average of 6.9 million gallons of water per day to approximately 16,000 homes and businesses for indoor and outdoor use in Milpitas.

Hetch Hetchy Reservoir



SFPUC Supply

SFPUC water is a combination of Hetch Hetchy water and treated local water. Most of SFPUC's water comes from the Hetch Hetchy watershed located in the Sierra Nevada Mountains which 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 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 in Anderson and Calero Reservoirs for 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 physically 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's Pinewood Well, located in the southwestern portion of the City, is also an emergency water supply.

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 a watershed sanitary survey for the Hetch Hetchy source annually as well as every five years 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 source is 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 2016, irrigation, commercial, and industrial customers in Milpitas used 274 million gallons of recycled water, thereby conserving an equal amount of 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 process 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 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.

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 from contamination. 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 used water 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 watershed, creeks, shoreline, 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 is discarded on a suburban street, 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. Even a cigarette butt thrown on a city street can pollute 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 Republic Customer Service at (408) 432-1234.
- 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.

2016

Water Quality Data

In 2016, The City of Milpitas collected over 2,000 drinking water samples to be analyzed in State-certified laboratories. The water supplied in Milpitas met all USEPA and State drinking water health standards in 2016, as shown in the adjacent table, which lists all drinking water constituents that were detected during the 2016 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, 2016.

Some data—although representative—were collected prior to 2016, as the State Board requires monitoring for some constituents less than once per year since the concentrations of these constituents do not vary frequently or significantly.

What else should I know?

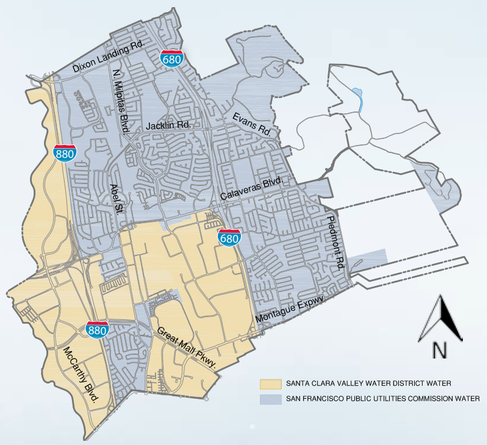
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling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

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 (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 Average	Distribution System Range	SCVWD$_b$ Average	SCVWD$_b$ Range	SFPUC Average	SFPUC Range	Typical Sources*
SOURCE WATER SAMPLING										
INORGANIC CHEMICALS										
Aluminum	ppm	1	0.6			0.072	ND–0.180	ND	ND–0.055	3, 4
Fluoride	ppm	2	1			ND	ND	0.3	ND–0.8	3, 5, 6
Nitrate (as Nitrogen)	ppm	10	10			ND	ND–1.2	ND	ND	3, 7, 8
DISINFECTION BYPRODUCT PRECURSOR										
TOC (precursor control)	ppm	TT	NA			2.4	1.5–3.8	2.4	1.6–5.3	10
MICROBIOLOGICAL										
Giardia Lamblia	cysts/L	TT	(0)			ND	ND	0.03	0–0.11	1
Turbidity	NTU	TT$_a$	NA			0.07	0.05–0.16	1$_c$	98–100%$_d$	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
DISINFECTION RESIDUALS AND BYPRODUCTS				**Highest Location RAA**			**Range**			
Disinfectant Residual as Chlorine	ppm	[4]	[4]	2.54			0.2–4.0			20
Total Trihalomethanes	ppb	80	NA	56.8			25–59			9
Haloacetic Acids	ppb	60	NA	54.5			0–76			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	Distribution System Average	Distribution System Range	SCVWD$_b$ Average	SCVWD$_b$ Range	SFPUC Average	SFPUC Range	Sources*
Aluminum	ppb	200	NA	NA	72	ND–180	ND	ND–55	3, 4
Chloride	ppm	500	NA	NA	77	53–115	8.8	ND–16	11, 12, 14
Color	CU	15	ND	ND–15	1	ND–4	ND	ND–11	13
Odor — Threshold	TON	3	ND	ND	1	1	ND	ND	13
Specific Conductance	µS/cm	1600	NA	NA	536	325–736	146	31–218	14, 16
Sulfate	ppm	500	NA	NA	53	20–70	16	1–30	11, 12, 15
Total Dissolved Solids	ppm	1000	NA	NA	306	180–424	63	ND–95	11, 12

UNREGULATED PARAMETERS FOR UCMR (2014-2015)

PARAMETER	Unit	NL	Distribution System Average	Distribution System Range	SCVWD$_b$ Average	SCVWD$_b$ Range	SFPUC Average	SFPUC Range
Chlorate	ppb	800	120	68–190	144	72–290	143	47–250
Boron	ppb	1000	NA	NA	139	ND–227	ND	ND–123
Molybdenum	ppb	NS	1.9	1.8–2.0	1.5	ND–2	NA	NA
Strontium	ppb	NS	151	14–290	ND	ND	95	13–204
Vanadium	ppb	50	ND	ND–4.5	ND	ND–4	NA	NA

OTHER WATER QUALITY PARAMETERS

PARAMETER	Unit	MCL	Distribution System Average	Distribution System Range	SCVWD$_b$ Average	SCVWD$_b$ Range	SFPUC Average	SFPUC Range
Hardness (as Calcium Carbonate)	ppm	NS	NA	N/A	107	58–136	44	8–76
pH	–	NS	9	7.2–10.0	7.8	7.6–7.9	9.4	8.2–9.8
Sodium	ppm	NS	NA	NA	56	36–80	11	2.6–17
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.

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.

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

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

a. For unfiltered water, the MCL is 5.0 NTU. For filtered water, the MCL is ≤0.3 NTU 95% of the time.
b. Water system was fed by Santa Teresa and Penitencia Water Treatment Plants.
c. Maximum value measured.
d. 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
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

* Typical Sources In Drinking Water

1	Naturally present in the environment
2	Soil runoff
3	Erosion of natural deposits
4	Residue from some surface water treatment processes
5	Water additive that promotes strong teeth
6	Discharge from fertilizer and aluminum factories
7	Runoff and leaching from fertilizer use
8	Leaching from septic tanks and sewage
9	By-product of drinking water disinfection
10	Various natural and man-made sources
11	Runoff from natural deposits
12	Leaching from natural deposits
13	Naturally-occurring organic materials
14	Seawater influence
15	Industrial wastes
16	Substances that form ions when in water
17	Internal corrosion of household plumbing systems
18	Leaching from wood preservatives
19	Discharges from industrial manufacturers
20	Drinking water disinfectant added for treatment

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*.

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. SFPUC water is fluoridated at an optimal level of 0.7 ppm. Water supplied by SCVWD's Santa Teresa treatment plant began fluoridation in December 2016. SCVWD's Penitencia Treatment Plant will begin 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

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)

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
valleywater.org

SFPUC
sfwater.org

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*

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*

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.

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।

City of Milpitas
455 E. Calaveras Blvd.
Milpitas, CA 95035
www.ci.milpitas.ca.gov

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.

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- **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?

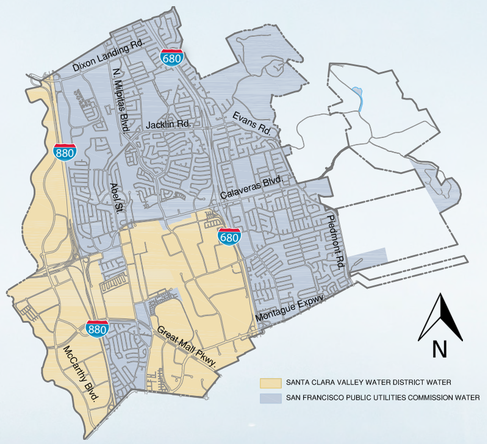
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling 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 Average	Distribution System Range	SCVWD$_b$ Average	SCVWD$_b$ Range	SFPUC Average	SFPUC Range	Typical Sources*
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

a. For unfiltered water, the MCL is 5.0 NTU. For filtered water, the MCL is ≤0.3 NTU 95% of the time.

b. Water system was fed by Santa Teresa and Penitencia Water Treatment Plants.

c. Maximum value measured.

d. 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 Mllpitas, 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

1 Naturally present in the environment
2 Soil runoff
3 Erosion of natural deposits
4 Residue from some surface water treatment processes
5 Water additive that promotes strong teeth
6 Discharge from fertilizer and aluminum factories
7 Runoff and leaching from fertilizer use
8 Leaching from septic tanks and sewage
9 By-product of drinking water disinfection
10 Various natural and man-made sources
11 Runoff from natural deposits
12 Leaching from natural deposits
13 Naturally-occurring organic materials
14 Seawater influence
15 Industrial wastes
16 Substances that form ions when in water
17 Internal corrosion of household plumbing systems
18 Leaching from wood preservatives
19 Discharges from industrial manufacturers
20 Drinking water disinfectant added for treatment

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)

Resources

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

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

Department of Water Resources
www.water.ca.gov

Bay Area Water Supply and Conservation Agency
bawsca.org

American Water Works Association
awwa.org or *DrinkTap.org*

SCVWD
valleywater.org

SFPUC
sfwater.org

More information

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

City of Milpitas Public Works Department at
(408) 586-2600; *MilpitasCCR@ci.milpitas.ca.gov*

How to get involved

City Council meetings are typically held 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. Prior to each meeting, Council meeting agendas can be found posted at City Hall and can also be downloaded from the City website: *www.ci.milpitas.ca.gov.*

National Public Works Day 2019

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
- Pools and spas must be covered when not in use to prevent evaporation

Visit *www2.ci.milpitas.ca.gov/savewatermilpitas* for water conservation tips and water use schedules.

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 3-5 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.

CITY OF MILPITAS 2018
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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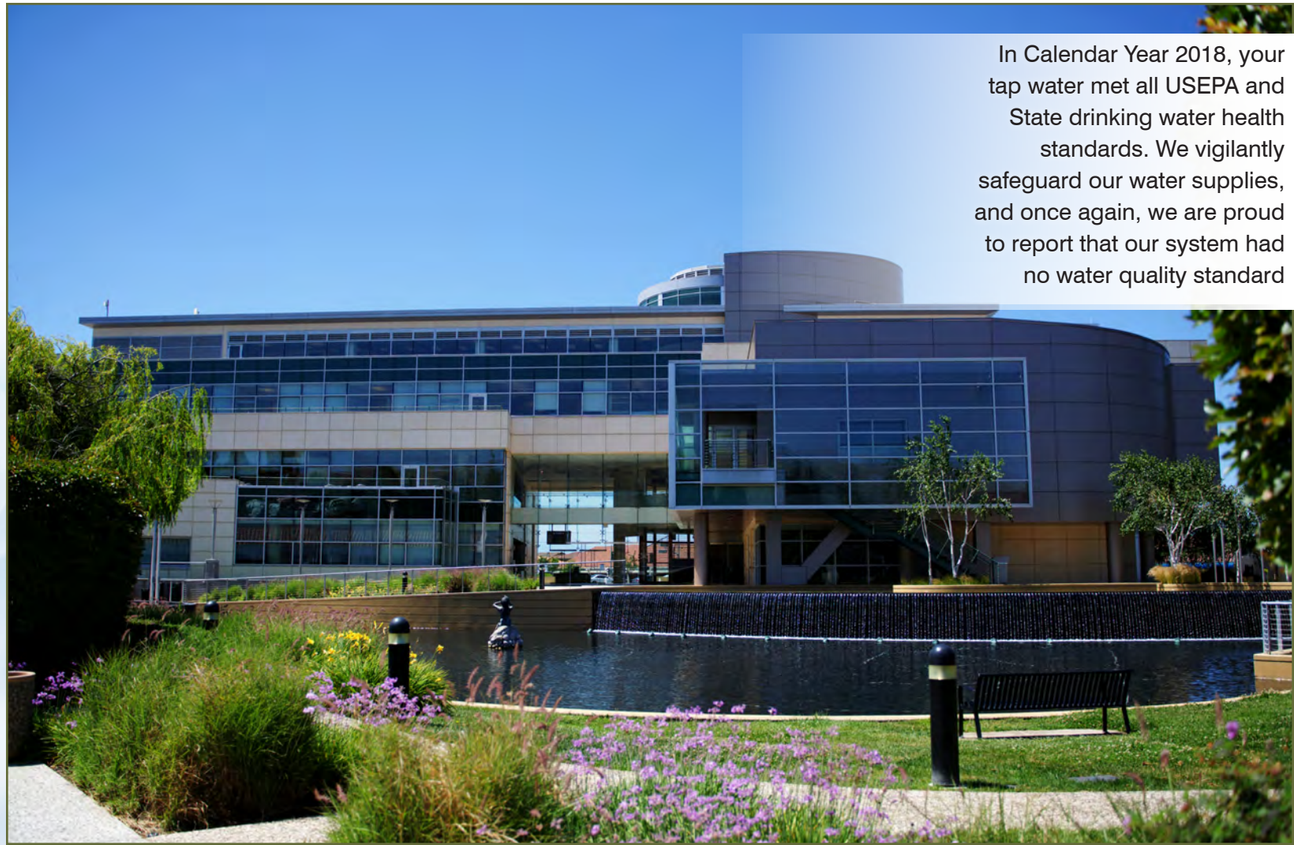
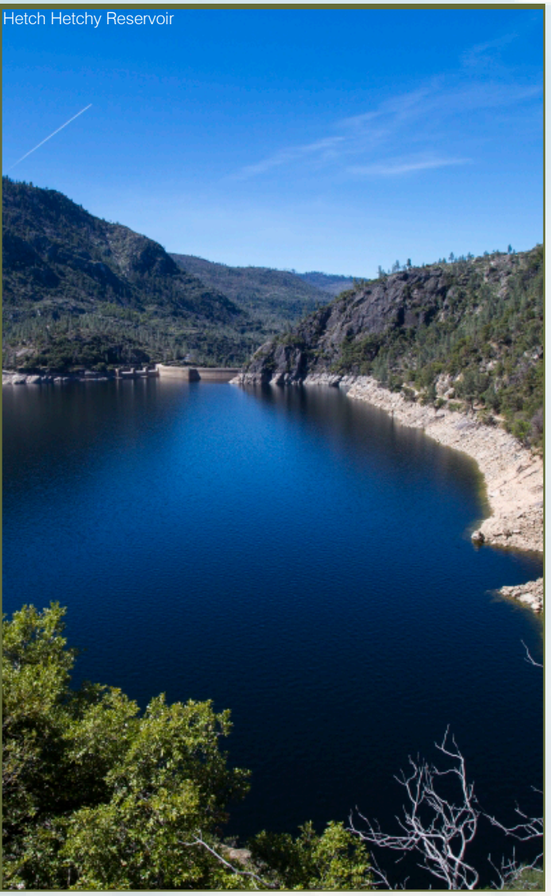


In Calendar Year 2018, your tap water met all USEPA and State drinking water health standards. We vigilantly safeguard our water supplies, and once again, we are proud to report that our system had no water quality standard

Our drinking water and how we protect it

The City of Milpitas draws water from two sources that 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 2018, the City supplied an average of 7.1 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 2018, irrigation, commercial, and industrial customers in Milpitas used 410 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. For more information pertaining to recycled water, 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 that would otherwise remain stagnant. 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 City crews have been flushing in your neighborhood, clear the water from your house plumbing by running water faucets for a few minutes prior to use.

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.Backflow devices are required to be tested annually to ensure they are working properly

Water Sampling. Sampling of the water system is performed in accordance to State and Federal rules and regulations. This requires purging of the water line for a sample to be lab tested. See the third page of this CCR for water quality sampling results.

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 by humans residing in the vicinity of the water shed. One piece of litter can end up miles from where it was 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 has 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) 988-4500.
- 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

2018

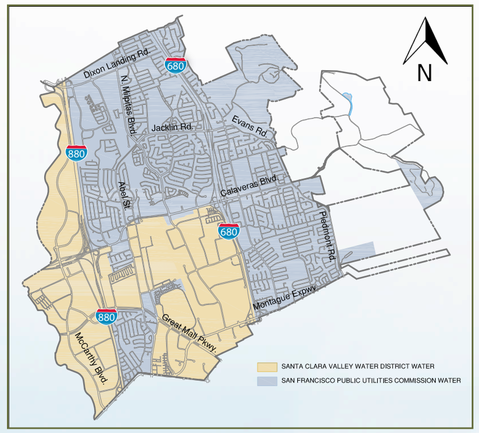
Water Quality Data

In 2018, 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 2018, as shown in the adjacent table, which lists all drinking water constituents that were detected during the 2018 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, 2018.

Some data—although representative—were collected prior to 2018, as the State Board requires monitoring for some constituents less frequently. The concentrations of these constituents do not vary frequently or significantly.

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.



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

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.

PRIMARY DRINKING WATER STANDARDS (PUBLIC HEALTH RELATED STANDARDS)

PARAMETER	Unit	MCL, (AL), or [MRDL]	PHG, (MCLG), or [MRDLG]	Distribution System Average	Distribution System Range	SCVWD$_b$ Average	SCVWD$_b$ Range	SFPUC Average	SFPUC Range	Typical Sources*
SOURCE WATER SAMPLING										
INORGANIC CHEMICALS										
Aluminum	ppm	1	0.6			ND	ND – 0.08	ND	ND	3, 4
Bromate	ppb	10	0.1			2	1 - 4	ND	ND	9
Fluoride	ppm	2	1			0.8	0.6 - 0.9	0.7	0.6 - 1.0	3, 5, 6
Nitrate (as Nitrogen)	ppm	10	10			0.2	ND – 0.7	ND	ND	3, 7, 8
Nitrate + Nitrite (as N)	ppm	10	10			ND	ND - 0.7	ND	ND	3, 7, 8
DISINFECTION BYPRODUCT PRECURSOR										
TOC (precursor control)	ppm	TT	NA			2.3	1.6 - 3.2	2.2	1.2 - 2.9	10
MICROBIOLOGICAL										
Giardia Lamblia	cysts/L	TT	(0)			ND	ND - 0.1	0.03	0 – 0.24	1
Turbidity	NTU	TT$_a$	NA			1	100%	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
DISINFECTION RESIDUALS AND BYPRODUCTS				**Highest Location RAA**				**Range**		
Disinfectant Residual as Chlorine	ppm	[4]	[4]	2.5				0.2–4.0		20
Total Trihalomethanes	ppb	80	NA	41.3				21–51		9
Haloacetic Acids	ppb	60	NA	40				7.2–49		9
MICROBIOLOGICAL				**Average**				**Range**		
Total Coliform Bacteria	% pos / month	5.0%	(0)	0.07%				0–0.78%		1

SECONDARY DRINKING WATER STANDARDS (AESTHETIC STANDARDS)

PARAMETER	Unit	MCL	Distribution System Average	Distribution System Range	SCVWD$_b$ Average	SCVWD$_b$ Range	SFPUC Average	SFPUC Range	Sources*
Aluminum	ppb	200	NA	NA	ND	ND – 80	ND	ND	3, 4
Chloride	ppm	500	NA	NA	75	36 - 80	8.9	<3 – 17	11, 12, 14
Color	CU	15	ND	ND–15	ND	ND	<5	<5 – 7	13
Odor — Threshold	TON	3	ND	ND	1	1	ND	ND	13
Specific Conductance	µS/cm	1600	NA	NA	483	280 - 533	154	29 - 221	14, 16
Sulfate	ppm	500	NA	NA	50	26 - 80	16	0.9 - 29	11, 12, 15
Total Dissolved Solids	ppm	1000	NA	NA	200	120 – 70	82	<20 – 144	11, 12

UNREGULATED PARAMETERS FOR UCMR 3 (2014-2015)

PARAMETER	Unit	NL	Distribution System Average	Distribution System Range	SCVWD$_b$ Average	SCVWD$_b$ Range	SFPUC Average	SFPUC 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	ORL	Distribution System Average	Distribution System Range	SCVWD$_b$ Average	SCVWD$_b$ Range	SFPUC Average	SFPUC Range
Boron	ppb	1000 (NL)			139	ND - 197	ND	ND - 104
Bromide	ppb	NA			100	ND - 130	7	<5 - 27
Calcium (as Ca)	ppm	NA			18	11 - 25	11	2.9 - 18
Chlorate	ppb	800 (NL)			169	43 - 280	124	42 - 230
Chromium (VI)	ppb	NA			ND	ND	0.068	0.031 - 0.1
Hardness (as Calcium Carbonate)	ppm	NA			91	51 - 126	47	15 - 68
Magnesium	ppm	NA			11	6 - 16	4	<0.2 - 6.2
pH	–	NA			7.8	7.5 – 8.0	9.4	8.6 - 9.8
Potassium	ppm	NA			3.1	1.5 - 3.7	0.6	0.2 - 1.0
Silica	ppm	NA			13	10 - 14	5.0	2.8 - 7.1
Sodium	ppm	NA			53	31 - 64	18	2.3 – 2.0
Strontium	ppb	NA			ND	ND	99	12 - 199
Temperature	°C	NA			9	14 - 24	ND	ND
Total Alkalinity (as Calcium Carbonate)	ppm	NA			69	41 - 101	51	<3 - 132

City of Milpitas Public Works Department

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 sampling at fourteen (14) K-12 school sites, in compliance with Assembly Bill No. 746.

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 2018, SFPUC water was fluoridated at an average level of 0.7 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

NOTES

a. For unfiltered water, the MCL is 5.0 NTU. For filtered water, the MCL is ≤0.3 NTU 95% of the time.

b. Water system was fed by Santa Teresa and Penitencia Water Treatment Plants.

c. Maximum value measured.

d. Percent of time turbidity was maintained at or below 0.3 NTU.

* Typical Sources In Drinking Water

1 Naturally present in the environment
2 Soil runoff
3 Erosion of natural deposits
4 Residue from some surface water treatment processes
5 Water additive that promotes strong teeth
6 Discharge from fertilizer and aluminum factories
7 Runoff and leaching from fertilizer use
8 Leaching from septic tanks and sewage
9 By-product of drinking water disinfection
10 Various natural and man-made sources
11 Runoff from natural deposits
12 Leaching from natural deposits
13 Naturally-occurring organic materials
14 Seawater influence
15 Industrial wastes
16 Substances that form ions when in water
17 Internal corrosion of household plumbing systems
18 Leaching from wood preservatives
19 Discharges from industrial manufacturers
20 Drinking water disinfectant added for treatment

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
NL	Notification Level
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