

City of Milpitas

Water Quality in 2014

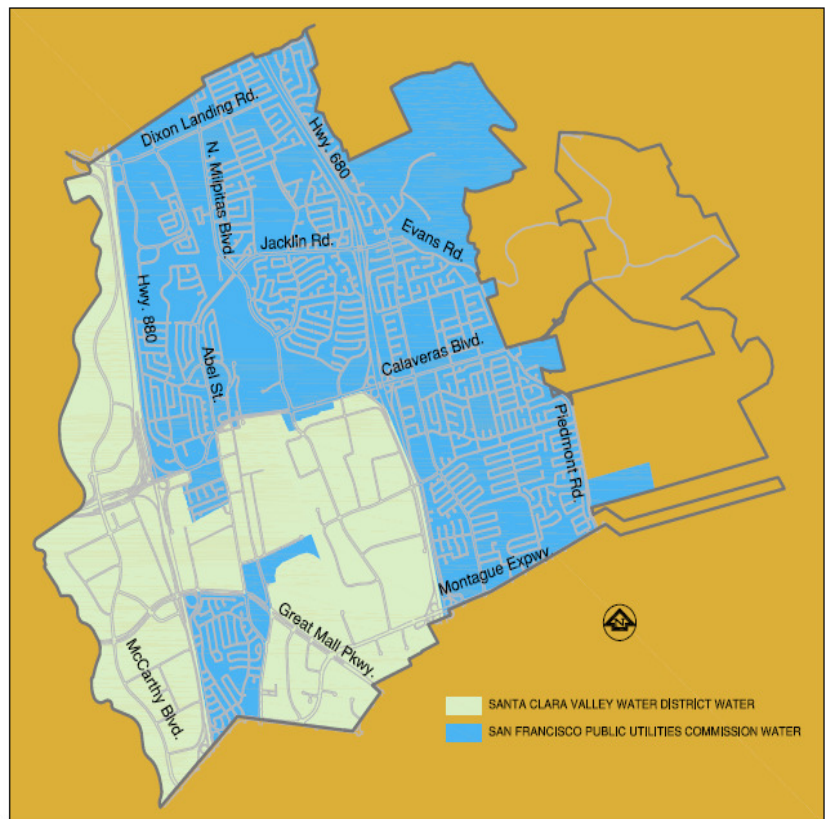
Consumer Confidence Report issued June 2015



Last year, as in years past, your tap water met all USEPA and State drinking water health standards. The City of Milpitas vigilantly safeguards its water supplies and once again, we are proud to report that our system had no health related water quality standard violations in 2014.

Drinking Water Sources

The City purchases drinking water from two wholesalers: two-thirds from the San Francisco Public Utilities Commission (SFPUC) and one-third from the Santa Clara Valley Water District (SCVWD). SFPUC water is primarily from the Hetch Hetchy watershed located in the Sierra Nevada mountains and is supplemented by water from the Alameda watershed in Calaveras Reservoir and San Antonio Reservoir for filtration and disinfection at the Sunol Valley Water Treatment Plant. 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 and is supplemented by local water sources in Anderson and Calero Reservoirs for filtration and disinfection at Penitencia and Santa Teresa Water Treatment Plants. In 2014, the City supplied an average of 8.7 million gallons of water per day to over 16,000 homes and businesses for indoor and outdoor use in Milpitas. 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 Source Map to view the water service areas.



Some Hillside homes (Spring Valley Heights Subdivision and Ed Levin Park area) are not shown due to small size on map. They are in the SFPUC service area.

Emergency Supplies

The City does not blend 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 also has emergency interties with Alameda County Water District to the north and San Jose Water Company to the south. 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.

Protecting Water Sources

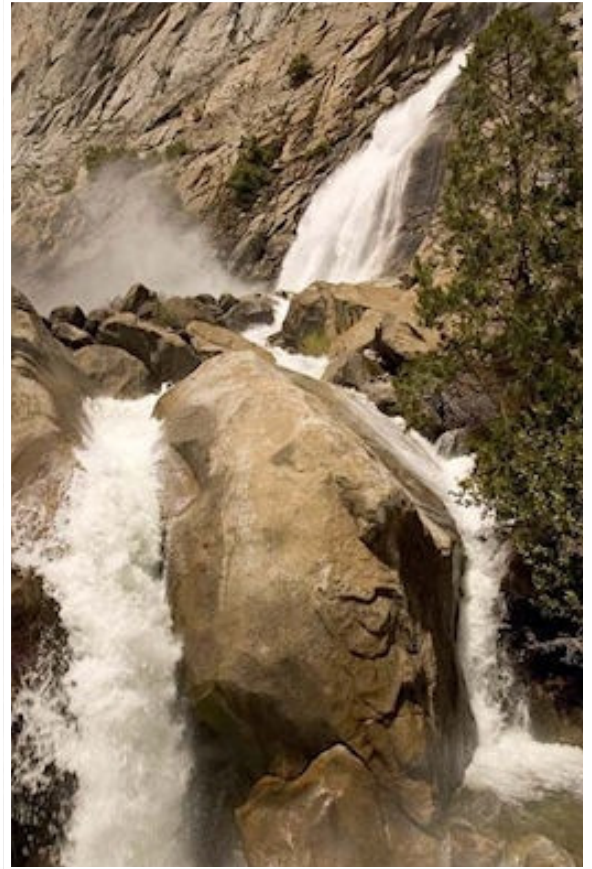
Drinking Water Source Assessment Program

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

SFPUC

The SFPUC's annual Hetch Hetchy Watershed Sanitary Survey evaluates the sanitary conditions, water quality, potential contamination sources, and the results of watershed management activities with partner agencies including the National Park Service and US Forest Service.

The SFPUC also conducts sanitary surveys every five years to detect and track sanitary concerns for the local watersheds and the approved standby water sources in Early Intake Watershed, which includes Cherry Lake and Lake Eleanor. The latest 5-year surveys were completed in 2011 for the period of 2006-2010. These surveys identified wildlife, stock, and human activities as potential contamination sources.



Hetch Hetchy Watershed. Source: SFPUC

SCVWD

SCVWD's source waters 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 land fires in open space areas. In addition, local sources are also vulnerable to potential contamination from commercial stables and historic mining practices. No contaminant associated with any of these activities has been detected in the SCVWD's treated water. The water treatment plants provide multiple barriers for physical removal and disinfection of contaminants. For additional information, visit the District website at www.valleywater.org.



Recycled Water

Recycled Water - Providing Drought-Proof, High Quality Water for Our Community

In 2014, irrigation, commercial, and industrial customers in Milpitas used 852,000 gallons of recycled water per day, 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. For more information, please visit the South Bay Water Recycling Program's web site at: <http://www.sanjoseca.gov/sbwr>.

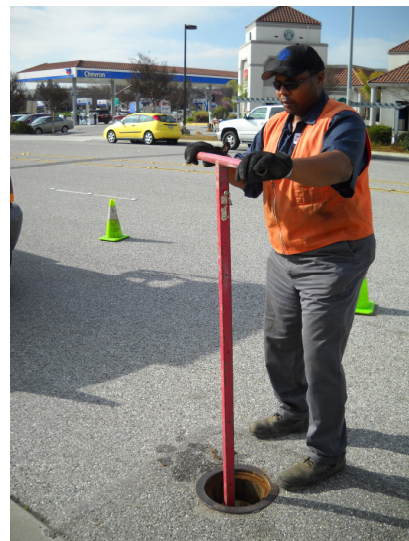
Maintaining Water Quality

Hydrant and Water Main Flushing. Flushing of fire hydrants and water mains is performed to remove sediment and keep the distribution system refreshed. 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. Backflow prevention devices keep the water supply safe by ensuring that the water used does not flow back into the City's distribution system. Milpitas sends out notifications and tracks the testing and repair of over 1,900 backflow devices each year.

Water Sampling. Sampling of the water system is also performed to verify the quality. This requires purging of the water line for a sample to be lab tested.

Survey. Site surveys are also performed to ensure the existing water system is also protected from any possible contamination.



Water Quality Monitoring

Fluoride and Dental Fluorosis

SFPUC supplies fluoridated water to the City. The fluoride levels in the treated water are maintained within the range required by state regulations. SFPUC water has been fluoridated at 0.9 milligram per liter (mg/L) until May 2015, when the State regulatory guidance was revised. That water source is now fluoridated at a new optimal level of 0.7 mg/L. Infants fed formula mixed with water containing fluoride at this level may have an increased chance of developing tiny white lines or streaks in their teeth. These marks are referred to as mild to very mild fluorosis, and are often only visible under a microscope. Even in cases where the marks are visible, they do not pose any health risk. The 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. Water supplied by SCVWD is not fluoridated although SCVWD is planning on starting fluoridation in future years. Please reference the map on the front page of this document to find your service area.

Chloramine

Both SFPUC and SCVWD waters are treated with chloramine to protect public health by 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.



Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. 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. 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 the water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800) 426-4791 or at: www.epa.gov/safewater/lead.

2014 Water Quality Data

Water Quality Monitoring Results

The City collected over 2,000 drinking water samples for analysis in State-certified laboratories to safeguard the public's health and water supply in 2014. The water supplied in Milpitas has met all USEPA and State drinking water health standards in 2014, as shown in the following table, which lists all drinking water constituents that were detected during the 2014 calendar year. Additionally, many other constituents were monitored. Unless otherwise noted, the data presented in this table are for testing done between January 1 and December 31, 2014.

Definitions

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs or MCLGs as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

Maximum 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 U.S. Environmental Protection Agency.

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 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): These are 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 Environmental Protection Agency.

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.

				SCVWD Water ⁽¹⁾		SFPUC Water ⁽²⁾		
DETECTED CONSTITUENTS	Unit	MCL	PHG [MCLG]	Range or Level	Avg. or [Max]	Range or Level	Avg. or [Max]	Typical Sources in Drinking Water
Microorganism								
Total Coliform Bacteria ⁽³⁾	%	5	[0]	ND	ND	ND	ND	Naturally present in environment
Giardia lamblia	Cyst/L	TT	[0]	ND	ND	<0.01 - 0.04	<0.01	Naturally present in environment
Cryptosporidium	Oocysts/L	TT	[0]	0-0.1	[0.1]	ND	ND	Naturally present in environment
Turbidity ⁽⁵⁾								
Unfiltered Hetch Hetchy Water	NTU	5	NS	NA	NA	0.2 - 2.8	[2.8]	Soil runoff
Filtered Water – SVWTP	NTU	MCL = 1, and 95% of samples mini- mum ≤ 0.3 NTU	NS	NA	NA	97%-100% of samples ≤ 0.3 NTU	[0.98]	Soil runoff
Filtered Water – PWTP STWTP	NTU	MCL = 1, and 95% of samples mini- mum ≤ 0.3 NTU	NS	100%, 100% of samples ≤ 0.3 NTU	[0.21] [0.12]	NA	NA	Soil runoff
Milpitas distribution system ⁽³⁾	NTU	5	NS	ND - 0.88	0.25	ND-2.20	0.3	Soil runoff
Inorganic Chemicals								
Chlorine residual ⁽³⁾	ppm	MRDL = 4	MRDLG = 4	0.1 - 2.8	1.8	0.4 - 3.3	2.4	Disinfection treatment
Fluoride (naturally occurring)	ppm	2	1	ND	ND	ND - 0.8	0.4	Erosion of natural deposits
Fluoride (with additive) ⁽⁶⁾	ppm	2	1	NA	NA	0.6 - 1.2	0.9	Water additive promotes strong teeth
Nitrate (as NO ₃)	ppm	45	45	ND - 5	ND	ND	ND	Fertilizer runoff, erosion of natural deposits
Organic Chemicals								
Total Organic Carbon ⁽⁷⁾	ppm	TT	NS	2.00-3.28	2.36	1.3-2.8	1.9	Various natural and man-made sources
Secondary Standards								
Aluminum	ppb	1000	60	ND - 57	ND	ND	ND	Erosion of natural deposits
Chloride	ppm	600	NS	81-167	129	<3 - 15	9	Soil runoff, leaching from natural deposits
Color ^(3,4)	unit	15	NS	<5—5	<5	<5 - 20	<5	Natural occurring organics
Odor ⁽³⁾	TON	3	NS	<1	<1	<1	<1	Natural occurring organics
Specific Conductance	µS/cm	2200	NS	364 - 576	487	32-222	151	Substances that form ions when in water
Sulfate	ppm	600	NS	50.7-112.0	68.7	0.9-32	17	Soil runoff, leaching from natural deposits
Total Dissolved Solids (TDS)	ppm	1500	NS	394-538	451	31-120	81	Soil runoff, leaching from natural deposits
Radionuclides								
Natural Uranium ⁽⁸⁾	pCi/L	20	[0]	1	-	ND	ND	Erosion of natural deposits

KEY	ND = Not Detected	PWTP = Penitencia Water Treatment Plant
<= Less Than		
Avg = Average	NS = No Standard	STWTP = Santa Teresa Water Treatment Plant
cyst/L = microbe cysts/liter	NTU = Nephelometric Turbidity Units	
LRAA = locational running annual average	Oocyst/L = microbe Oocysts/liter	SVWTP = Sunol Valley Water Treatment Plant
is reported, which includes test results of prior year	pCi/L = picocuries per liter	
Max = Maximum	ppb = parts per billion	
NA = Not Applicable	ppm = parts per million	
	TON = Threshold Odor Number	
	µS/cm = Microsiemens/centimeter	

2014 Water Quality Data (continued)

DETECTED CONSTITUENTS - Unregulated	Unit	MCL	PHG [MCLG]	SCVWD Water ⁽¹⁾		SFPUC Water ⁽²⁾		Typical Sources in Drinking Water
				Range	Avg. or [Max]	Range	Avg. or [Max]	
Alkalinity (as CaCO ₃)	ppm	NS	NS	70-94	82	8- 94	37	Physical characteristic
Ammonia (free)	ppm	NS	NS	0.08 - 0.14	0.11	ND	ND	Disinfection treatment
Ammonia (total)	ppm	NS	NS	0.32-0.49	0.40	ND	ND	Disinfection treatment
Boron	ppb	NS	NS	138- 356	212	ND	ND	Natural deposits
Bromide	ppb	NS	NS	60-220	160	ND-27	5	Natural deposits
Calcium	ppm	NS	NS	17 - 32	23	3 - 20	11	Natural deposits
Chlorate ⁽³⁾	ppb	(800) NL	NS	120-190	153	68-260	132	Byproduct of disinfection
Chromium ⁽³⁾	ppb	NS	NS	0.21-0.23	0.22	ND-0.24	0.22	Natural deposits
Hardness (as CaCO ₃)	ppm	NS	NS	109-177	132	7 - 77	46	Physical characteristic
Hexavalent Chromium (dissolved) ⁽³⁾	ppb	NS	NS	0.053-0.085	0.071	0.03-0.058	0.040	Natural deposits
Magnesium	ppm	NS	NS	14-21	17	<0.2 - 6.4	3.9	Natural deposits
Molybdenum ⁽³⁾	ppb	NS	NS	1.7-2.0	1.85	ND	ND	Natural deposits
pH ⁽³⁾	unit	NS	NS	7.86 - 9.84	8.56	7.20 - 9.90	9.36	Acidity of water
Phosphate	ppm	NS	NS	0.69-0.99	0.86	ND	ND	Natural deposits, anticorrosive additive
Potassium	ppm	NS	NS	3.8-4.6	4.1	0.2-1	0.6	Natural deposits, soil runoff
Silica	ppm	NS	NS	6-12	9	2-5	4	Natural deposits, treatment
Sodium	ppm	NS	NS	<0.5 - 119	67	2.4-16	10	Natural deposits
Strontium ⁽³⁾	ppb	NS	NS	210-470	330	14-46	27	Natural deposits
Vanadium ⁽³⁾	ppb	NS	NS	2.3-4.5	3.28	0.22-0.46	0.33	Natural deposits
Disinfection By-products								
Total Trihalomethanes ⁽³⁾	ppb	80	NS	43-84	54.6 LRAA	20-51	33.8 LRAA	By-product of disinfection
Total Haloacetic Acids ⁽³⁾	ppb	60	NS	7.6-27	14.3 LRAA	19-41	28.9 LRAA	By-product of disinfection
Lead and Copper⁽⁹⁾	Unit	AL	PHG	Range	90th Percentile	# sites⁽¹⁰⁾	# sites >AL	Typical Sources in Drinking Water
Copper	ppb	1300	300	16 - 170	70	35	0	Corrosion of household plumbing
Lead	ppb	15	0.2	<0.5 - 4	1.8	35	0	Corrosion of household plumbing

Notes:

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| <p>(1) Water quality data in SCVWD's transmission system, unless noted as (3)</p> <p>(2) Water quality data in SFPUC's transmission system, unless noted as (3)</p> <p>(3) Water quality data in the City's distribution system.</p> <p>(4) Although one MCL exceedance for Color occurred in 2014, the locational running annual average was not exceeded. Color is a secondary standard that does not affect human health.</p> <p>(5) 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</p> | <p>the effectiveness of disinfectants.</p> <p>(6) SFPUC started fluoridating its water in November 2005.</p> <p>(7) Precursor for disinfection byproduct formation.</p> <p>(8) Result from monitoring done by SCVWD at San Luis Reservoir on 11/5/2013. Radiological monitoring is conducted every 9 years by water wholesalers as well as by the City.</p> <p>(9) Lead and copper monitoring was conducted for selected homes and businesses in August 2013. The standard is met if the 90th percentile is less than the action level.</p> |
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Contaminants and Regulations

The sources of drinking water (both tap and bottled water) include rivers, lakes, oceans, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Such substances are called contaminants. 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. 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, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.
- **Radioactive contaminants** which can be naturally-occurring or be the result of oil and gas production and mining activities.

Be the Solution to Storm Water Pollution

Ever wonder where that storm drain goes? Unlike indoor plumbing, the storm drain carries rainwater and urban pollution directly to our neighborhood creeks and eventually to the San Francisco Bay without treatment! Here are a few simple things you can do to prevent pollution of our creeks and Bay:

- Call the Household Hazardous Waste Program at (408) 299-7300 to make an appointment to dispose household hazardous wastes such as batteries, paints, fluorescent lamps, and used motor oil to your local hazardous waste facilities.
- Sweep up leaves, dirt and waste near curbs and place in the proper bins for recycling or garbage collection.
- Pick up litter. A large portion of the trash in our creeks and Bay starts out as litter on our streets.
- Keep pet waste away from neighborhood streets and storm drains.

In order to ensure that tap water is safe to drink, 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. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

What Else Should I Know?

More information about contaminants and potential health effects can be obtained by calling the USEPA'S Safe Drinking Water Hotline (800 426 4791).

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as those with cancer undergoing chemotherapy, who have undergone organ transplants, HIV/AIDS, other immune system disorders, some elderly people, or infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791 or at www.epa.gov/safewater.

Cryptosporidium and *Giardia* are parasitic microbes found in most surface water. Test methods approved by the USEPA do not distinguish between dead organisms and those capable of causing disease. Filtration and disinfection are common effective treatment methods, but cannot guarantee 100 percent removal. If ingested, these parasites may produce symptoms of nausea, abdominal cramps, diarrhea, and associated headaches. Very low levels were found as shown on the Water Quality Data table on page 4 and are below levels of concern for most people. Most healthy individuals overcome the disease within a few weeks. However, immuno-compromised people are at greater risk. Consult your health provider. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.



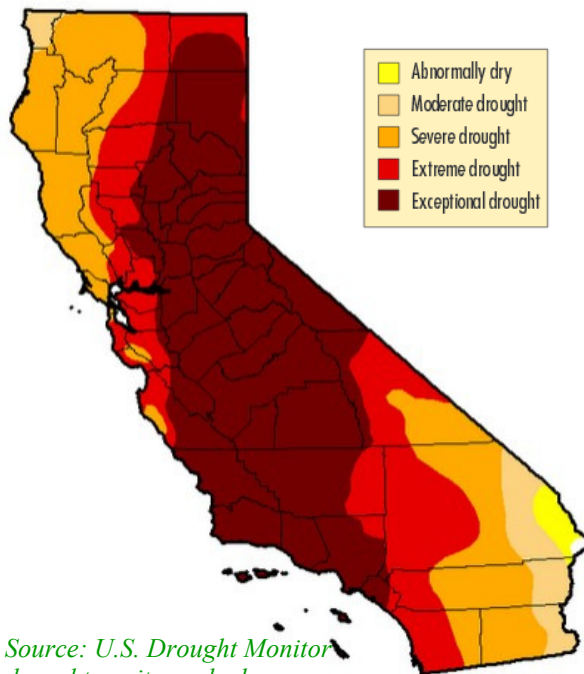
Drought Update

The State of California is experiencing a severe multiple-year water drought. On April 1, 2015, the Governor issued a Proclamation declaring a Continued State of Emergency due to severe drought conditions and requiring a statewide 25% reduction. The State Water Resources Control Board (SWRCB) has developed severe penalties for cities that fail to meet their conservation goals. Similarly, Santa Clara Valley Water District (SCVWD) and San Francisco Public Utilities Commission (SFPUC) requested water conservation targets of 30% and 10% respectively reflecting their supply conditions. In order to meet these goals, the City is asking all residents and businesses to cut back their water use. City code currently prohibits the following uses of water and can apply fines for misuse of water.

It is prohibited to....

- Use potable water to water lawn or landscape more than two days per week.
- Use potable water to clean sidewalks, decks, or buildings.
- Construct new swimming pools or ponds or initial fill of any swimming pool or pond (refilling due to evaporation or repairs is acceptable)
- Use potable water to clean, fill, or maintain levels in decorative fountains
- Use potable water in a way that results in flooding or runoff
- Use a hose unless there is a shutoff nozzle on end of hose
- Serve water at a restaurant unless requested by customer
- Use broken or defective plumbing, sprinkler or irrigation systems

For the latest water use regulations, please visit the City's website at www.ci.milpitas.ca.gov. For more information on conservation and rebates, contact the Santa Clara Valley District's Water Conservation Hotline at (408) 630-2554 or email conservation@valleywater.org.



Frequently Asked Questions

Why is my water brown or not clear?

Water sitting in aging household plumbing may become brown or rusty colored. This should clear up once sitting water is flushed out from the pipes and replaced with water that has not been sitting in the pipes. Also check for blocked fixture strainers, dirty filters, and dirty water heater.

Is there fluoride in the water?

See the water service area map on page 1. If you live in the blue colored area for SFPUC, you have fluoridated water. Otherwise, you do not have fluoridated water.

Why has my water pressure dropped suddenly?

Call the Milpitas Public Works Department at (408) 586-2600. You can also check for clogged strainers and proper operation of any pressure regulator (setting). The Water system in the streets varies typically from 40 to 140 psi depending on the location.

If you use water for medical equipment such as a dialysis machine, medical equipment requiring re-calibration if the water quality fluctuates, etc., please provide your email address and contact information (name, address, phone #) to jleung@ci.milpitas.ca.gov with a subject: "water medical dependent user".