

City of Milpitas

# Water Quality 2012

Consumer Confidence Report • July 2013



The City of Milpitas is committed to providing its customers with a safe and reliable supply of high-quality drinking water that meets Federal and State standards. Each year the City provides a summary of the water quality sampling results and other information through a Consumer Confidence Report. This Consumer Confidence Report was prepared in accordance with the Federal Safe Drinking Water Act and California Department of Public Health (CDPH) requirements.

## 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. SCVWD water is primarily from the Sacramento-San Joaquin Delta watershed and is supplemented by local water sources such as Anderson and Calero Reservoirs. In 2012, the City supplied an average of 9 million gallons of water per day to over 16,000 homes and businesses in Milpitas for indoor and outdoor use.



*O'Shaughnessy Dam at Hetch-Hetchy Reservoir*

*Source: SFPUC*

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 on page 2 to view the water service areas.

## 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.

If you should run out of drinking water during an emergency, strain and boil or add bleach to 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 you can use it for flushing toilets or washing. To find out more about treating water after an emergency, go to the City's website [www.ci.milpitas.ca.gov](http://www.ci.milpitas.ca.gov), select the Residents tab, click on Emergency Preparedness and select Water.

# 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 California Department of Public Health (CDPH) Drinking Water Field Operations Branch, call (510) 620-3474 for more information.

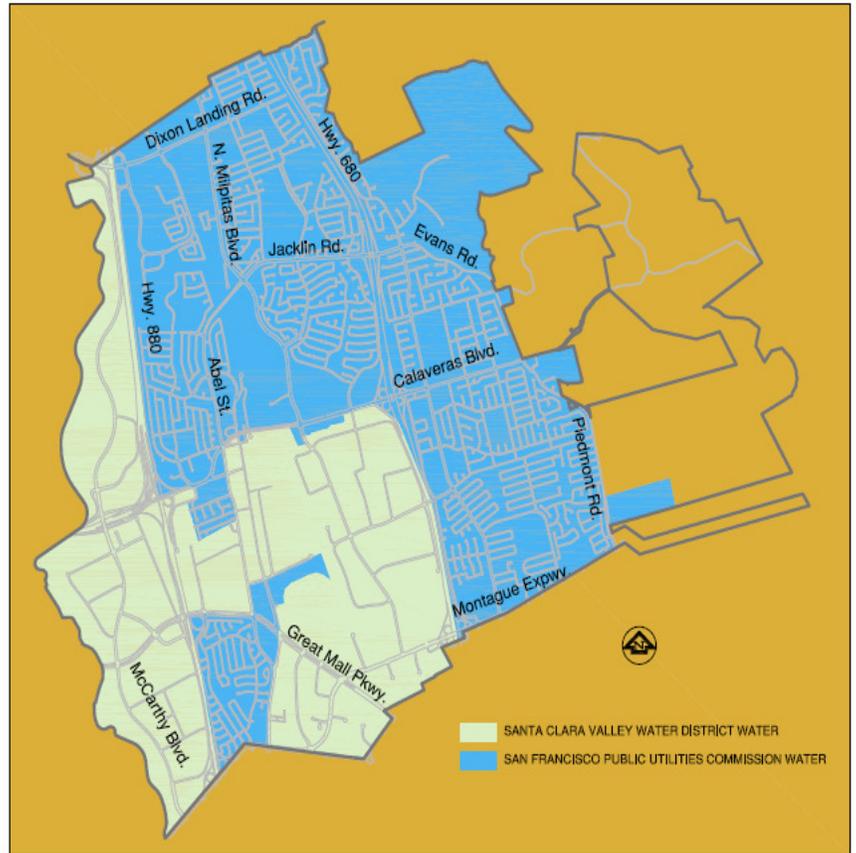
### SFPUC

The SFPUC actively protects the water resources entrusted to its care. It's annual update of Hetch Hetchy Watershed Sanitary Survey evaluates the sanitary conditions, water quality, potential contamination sources, and the results of watershed management activities with partner agencies (such as 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 Bay Area 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.

### SCVWD

The District'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 District'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](http://www.valleywater.org).



# Recycled Water

## Recycled Water - Preserving Drinking Water for the Future

In 2012, irrigation and industrial customers in Milpitas used 732,000 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

The City continually works to maintain the quality of its water through the following activities:

**Hydrant and Water Main Flushing.** City maintenance crews routinely flush fire hydrants and water mains 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 at commercial, industrial, and irrigation sites does not flow back into the City's distribution system. Milpitas sends out notifications and tracks the testing and repair of over 1,600 backflow devices each year.

## Water Quality Monitoring

### Fluoride

SFPUC supplies fluoridated water to the City. However, the water supplied by SCVWD is not fluoridated. Customers in both SFPUC and SCVWD service areas should check with their dentist to determine if fluoride supplements are still necessary for use. For more information, please visit CDPH's website at:

[www.cdph.ca.gov/certlic/drinkingwater/Pages/Fluoridation.aspx](http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Fluoridation.aspx).

### 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 local pet store.



*Source: SFPUC*

### 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](http://www.epa.gov/safewater/lead).

## Water Quality Monitoring Results

In 2012, and in the City's effort to safeguard the public's health and water supply, the City collected over 2,000 drinking water samples for analysis in State-certified laboratories. We are pleased to report that water supplied in Milpitas met all EPA and State drinking water health standards in 2012, as shown in the following table, which lists all drinking water constituents that were detected during the 2012 calendar year. Additionally, many other constituents were monitored and we are pleased to report that these constituents were not detected in the water. Unless otherwise noted, the data presented in this table is for testing done between January 1 and December 31, 2012.

## 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 CDPH 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.

## 2012 Water Quality Data

				SCVWD Water <sup>(1)</sup>		SFPUC Water <sup>(2)</sup>		
DETECTED CONSTITUENTS	Unit	MCL	PHG [MCLG]	Range	Avg. or [Max]	Range	Avg. or [Max]	Typical Sources in Drinking Water
<b>Microbiological</b>								
Total Coliform Bacteria <sup>(3)</sup>	%	5	[0]	0	0	0 - 1 <sup>(4)</sup>	0	Naturally present in environment
<i>Giardia lamblia</i>	cyst/L	TT	[0]	0	0	<0.01 - 0.06	[0.06]	Naturally present in environment
<b>Turbidity<sup>(5)</sup></b>								
Unfiltered Hetch Hetchy Water	NTU	5	NS	NA	NA	0.2 - 2.8	[2.8]	Soil runoff
Filtered Water – SVWTP	NTU	1	NS	NA	NA	-	[0.26]	Soil runoff
Filtered Water – SVWTP	%	Min. 95% of samples of ≤ 0.3 NTU	NS	NA	NA	100 - 100	-	Soil runoff
Filtered Water – PWTP & STWTP	%	Min. 95% of samples of ≤ 0.3 NTU	NS	100	NA	NA	NA	Soil runoff
<b>Inorganic Constituents</b>								
Chlorine residual <sup>(3)</sup>	ppm	MRDL = 4	MRDLG = 4	0.9 - 2.7	1.95	0.7 - 3.8	2.4	Disinfection treatment
Fluoride (naturally occurring)	ppm	2	1	<0.1 - 0.1	<0.1	ND - 0.8	0.3	Erosion of natural deposits
Fluoride (with additive) <sup>(6)</sup>	ppm	2	1	NA	NA	0.4 - 1.3	1.0	Water additive promotes strong teeth
Nitrate (as NO <sub>3</sub> )	ppm	45	45	<2 - 4	<2	-	-	Fertilizer runoff, erosion of natural deposits
<b>Organic Constituents</b>								
Total Organic Carbon <sup>(7)</sup>	ppm	NS	NS	1.52 - 2.95	2.23	2.3 - 3.7	2.7	Various natural and man-made sources
<b>Secondary Standards</b>								
Aluminum	ppb	200	600	55 - 82	70	ND - 90	ND	Erosion of natural deposits
Chloride	ppm	500	NS	54 - 89	66	2 - 20	12.3	Soil runoff, leaching from natural deposits
Color <sup>(3)</sup>	unit	15	NS	<5	<5	<5 - 7	<5	Natural occurring organics
Odor <sup>(3)</sup>	TON	3	NS	<1	<1	<1	<1	Natural occurring organics
Specific Conductance	µS/cm	1600	NS	337 - 608	489	31 - 344	202	Substances that form ions when in water
Sulfate	ppm	500	NS	23.7 - 66.3	48.2	0.9 - 40	20	Soil runoff, leaching from natural deposits
Total Dissolved Solids (TDS)	ppm	1000	NS	184 - 364	274	<20 - 195	108	Soil runoff, leaching from natural deposits
Turbidity <sup>(3)</sup>	NTU	5	NS	0.03 - 0.99	0.52	0.06 - 1.55	0.52	Soil runoff

**KEY**

< = Less Than  
 cyst/L = microbe cysts/liter  
 Max = Maximum  
 NA = Not Applicable  
 ND = Not Detected  
 NS = No Standard

NTU = Nephelometric Turbidity Units  
 ppb = parts per billion  
 ppm = parts per million  
 PWTP = Penitencia Water Treatment Plant

STWTP = Santa Teresa Water Treatment Plant  
 SVWTP = Sunol Valley Water Treatment Plant  
 TON = Threshold Odor Number  
 µS/cm = microSiemens/centimeter

**2012 Water Quality Data (continued)**

DETECTED CONSTITUENTS - No Standards	Unit	MCL	PHG [MCLG]	SCVWD Water <sup>(1)</sup>		SFPUC Water <sup>(2)</sup>		
				Range	Avg. or [Max]	Range	Avg. or [Max]	
Alkalinity (as CaCO <sub>3</sub> )	ppm	NS	NS	51 - 98	76	10 - 111	61	Physical characteristic
Ammonia (free)	ppm	NS	NS	<0.05 - 0.08	<0.05	-	-	Disinfection treatment
Ammonia (total)	ppm	NS	NS	0.30 - 0.64	0.48	-	-	Disinfection treatment
Boron	ppb	NS	NS	<100 - 203	125	-	-	Natural deposits
Bromide	ppb	NS	NS	<50 - 70	<50	<10 - 24	<10	Natural deposits
Calcium	ppm	NS	NS	13 - 25	20	3 - 28	15	Natural deposits
Chlorate	ppb	(800) NL	NS	67 - 190	129	53 - 399	221	Byproduct of disinfection
Hardness (as CaCO <sub>3</sub> )	ppm	NS	NS	64 - 127	105	8 - 114	62	Physical characteristic
Magnesium	ppm	NS	NS	9 - 15	13	0.2 - 10.8	6.1	Natural deposits
pH <sup>(3)</sup>	unit	NS	NS	7.11 - 8.88	7.74	7.19 - 8.91	7.81	Acidity of water
Phosphate	ppm	NS	NS	0.86 - 1.06	0.99	-	-	Natural deposits, anticorrosive additive
Potassium	ppm	NS	NS	2.2 - 3.2	2.7	-	-	Natural deposits, soil runoff
Silica	ppm	NS	NS	9-13	11	3.2 - 5.3	4.1	Natural deposits, treatment
Sodium	ppm	NS	NS	42 - 62	52	3 - 25	15.7	Natural deposits
Vanadium	ppb	NS	NS	ND - 4	ND	-	-	Natural deposits
<b>Radionuclides</b>								
Radium - 226	pCi/L	NA	0.05	<1	<1	<1 - 1.2	<1	Erosion of natural deposits
<b>Disinfection By-products</b>								
Total Trihalomethanes <sup>(5)</sup>	ppb	80	NS	39 - 59	53	35 - 48	42	By-product of disinfection
Total Haloacetic Acids <sup>(3)</sup>	ppb	60	NS	10 - 34	20	8 - 37	27	By-product of disinfection
<b>Lead and Copper<sup>(8)</sup></b>	<b>Unit</b>	<b>AL</b>	<b>PHG</b>	<b>Range</b>	<b>90<sup>th</sup> Percentile</b>	<b># sites<sup>(9)</sup></b>	<b># sites &gt;AL</b>	<b>Typical Sources in Drinking Water</b>
Copper	ppb	1300	300	16 - 500	170	37	0	Corrosion of household plumbing
Lead	ppb	15	0.2	<0.5 - 48	3.9	37	3	Corrosion of household plumbing

**Notes:**

- (1) Water quality data in SCVWD's transmission system.  
 (2) Water quality data in SFPUC's transmission system.  
 (3) Water quality data in the City's distribution system.  
 (4) One positive detection in 2012. Confirmation and follow up samples were negative for fecal coliforms and *E. Coli*.  
 (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 the effectiveness of disinfectants.  
 (6) SFPUC started fluoridating its water in November 2005.  
 (7) Precursor for disinfection byproduct formation.  
 (8) Lead and copper monitoring was conducted for selected homes and businesses in September 2010. The standard is met if the 90th percentile is less than the action level.  
 (9) SFPUC service area had 27 sites; SCVWD service area had 10 sites.

## How Do Drinking Water Sources Become Polluted?

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.
- Wash your car at a commercial car wash that recycles water.

In order to ensure that tap water is safe to drink, USEPA and CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

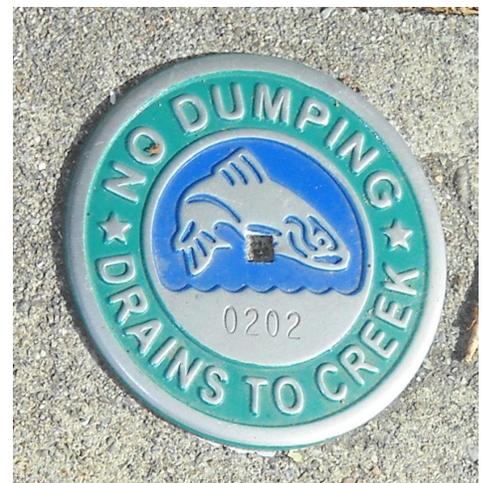
### What Else Should I Know?

More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline. (1-800-426-4791)

### Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly people, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their 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](http://www.epa.gov/safewater).

*Cryptosporidium* is a parasitic microbe found in most surface water. Current test methods approved by the USEPA do not distinguish between dead organisms and those capable of causing disease. Ingestion of *Cryptosporidium* may produce symptoms of nausea, abdominal cramps, diarrhea, and associated headaches. *Cryptosporidium* must be ingested to cause disease, and it may spread through means other than drinking water.





## Water Conservation Tips

### Ways to conserve indoors:

- Fix leaking faucets, pipes, toilets, etc.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing your teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.
- Install water-saving devices in faucets, toilets and appliances.

### Ways to conserve outdoors:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water-saving nozzles.
- Use water from a bucket to wash your car or bike and save the hose for rinsing.

## Managing our Water Wisely

### Urban Water Management Planning

The California Water Code requires urban water suppliers, including Milpitas, to prepare an Urban Water Management Plan (UWMP) to assess water supplies and demands 20 years into the future. Plan requirements include discussions of current and planned water sources, future demands, water supply reliability, and water shortage contingency plans. The UWMP must be updated every five years and Milpitas completed the most recent update in 2011. The City worked collaboratively with the SFPUC and SCVWD to assess supplies and demands during normal precipitation years and reviewed shortage contingency plans for dry periods. Milpitas has adequate supply for periods of normal precipitation and dry periods. The UWMP can be found on the City's website at [www.ci.milpitas.ca.gov](http://www.ci.milpitas.ca.gov).

### Long-Term Water Conservation

In California, conserving water is an important part of everyday life, and the City of Milpitas encourages its customers to use water wisely. To help customers save water and reach the State's goal of reducing per-capita water use by 20 percent by 2020, visit SCVWD's water conservation site [save20gallons.org](http://save20gallons.org) for more information on:

- Clothes washer rebate program
- Water-wise house call program
- High-efficiency toilet rebate program
- Free conservation items



### Rainwater Harvesting

Rainwater harvesting is the process of collecting storm water for use in the home and garden. Extend rain gutters to water different parts of the lawn and to water plants, trees and flowers. Rainwater can also be collected in a rain barrel or cistern and stored for future use. Attach a hose to the side of the barrel when ready to use the water.

## To Contact Us

Billing Questions 408.586.3100

Water Emergencies (Mon.-Fri., 8:00 a.m - 5:00 p.m.) 408.586.2600

Water Emergencies (after hours) 408.586.2400

Water Quality Questions 408.586.3348

Water Conservation Information Line 408.586.2605

Visit our website at [www.ci.milpitas.ca.gov](http://www.ci.milpitas.ca.gov)

For questions or comments about this report, please call Marilyn Nickel, Utility Engineering, at (408) 586-3347.

EPA Safe Drinking Water Hotline 800.426.4791

CDPH Drinking Water Field Operations Branch 510.620.3474

To find out more about drinking water treatment, quality and regulations, visit these internet sites:

American Water Works Association • [www.awwa.org](http://www.awwa.org)

Santa Clara Valley Water District • [www.valleywater.org](http://www.valleywater.org)

San Francisco Public Utilities Commission • [www.sfwater.org](http://www.sfwater.org)

United States Environmental Protection Agency • [www.epa.gov/safewater/](http://www.epa.gov/safewater/)

California Department of Public Health • [www.cdph.ca.gov/programs/pages/ddwem.aspx](http://www.cdph.ca.gov/programs/pages/ddwem.aspx)

## HOW CAN I GET INVOLVED?

City Council meetings typically occur on the first and third Tuesday of every month at 7:00 p.m. 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.

The City is a member of the American Water Works Association and the Bay Area Water Supply and Conservation Agency.



City of Milpitas  
455 E. Calaveras Blvd.  
Milpitas, CA 95035

## Postal Patron

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

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

此份有关你的食水报告,内有重要资料和信息,请找他人為你翻译及解释清楚。

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。

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

यह सूचना महत्वपूर्ण है ।  
कृपा करके किसी से :सका अनुवाद कराये ।

ਇਹ ਸੂਚਨਾ ਮਹੱਤਵਪੂਰਣ ਹੈ ।  
ਕ੍ਰਿਪਾ ਕਰਕੇ ਕਿਸੀ ਤੋਂ ਇਸ ਦਾ ਅਨੁਵਾਦ ਕਰਾਉ ।

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.