

# City of Milpitas

**2010 Report on Public Health Goals**

**For The Public Water System**

**June 30, 2010**

**City of Milpitas  
2010 Public Health Goals (PHGs) Report**

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## **EXECUTIVE SUMMARY**

Every three years, the California Department of Public Health (CDPH) requires public water systems serving more than 10,000 service connections to prepare a written report on any chemical, microbiological, or radiological contaminants detected in the potable water supply at concentrations exceeding either a Public Health Goal (PHG) or a Maximum Contaminant Level Goal (MCLG). These goals are not regulatory drinking water standards (known as Maximum Contaminant Levels, or MCLs), but are values thought by either the federal or state government to have potential public health impacts. Reports cover three calendar years of water quality data and are to be completed by July 1st after the third year. The City is required to hold a public hearing to receive comment on the report at any regular public meeting scheduled “reasonably” after report completion. The City is then required to notify the State of the public hearing.

Staff completed the “City of Milpitas 2010 Report on Public Health Goals for the Public Water System,” included in the Council agenda packet, by the July 1, 2010 deadline, after reviewing all water monitoring data for the calendar years 2007 through 2009. This review identified the following PHG exceedances:

- Lead – The City analyzed 37 water samples from home taps in 2007 for lead and found that 23 samples exceeded the PHG of 0.2 parts per billion (ppb). Lead detections typically result from the corrosion of lead solder in home plumbing, as lead is not detected in the municipal water. Suppliers can reduce lead concentrations from home plumbing by reducing the corrosivity of supplied water. However, CDPH has determined that the City’s wholesale suppliers have already implemented optimum corrosion controls and no further action is necessary. Customers with lead-solder plumbing can further reduce their exposure by not drinking or cooking with “first flush” water (water that sits overnight in home plumbing).
- Coliform – Coliform bacteria are abundantly present in nature and so are considered a potential indicator of contamination. The City tested 3,925 water samples for coliform bacteria during the three-year period of 2007, 2008 and 2009 and found one positive result. Subsequent re-sampling did not reproduce positive results. The one positive result exceeded the MCLG (greater than 0% positive), but did not exceed the MCL (greater than 5% positive of samples taken in a monthly batch, equating to five positives in a monthly batch of 100).

The water delivered by the City has met all regulatory drinking standards and is considered to be safe for consumption. More information on the City’s water quality can be found in the annual Consumer Confidence Report, attached in Appendix A of this report.

Any questions regarding this report should be directed to:

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## **INTRODUCTION**

Provisions of Section 116470 of the Health and Safety Code (see Appendix B) specify that public water systems serving more than 10,000 service connections must prepare a report to inform the public of any Public Health Goal (PHG) exceedances, and hold a public hearing for the purpose of accepting and responding to public comment. The report, due every three years, is required by July 1, 2010, and a public hearing must be held for the purpose of accepting and responding to public comment at any time subsequent to the report.

PHGs are set by the California Office of Environmental Health Hazard Assessment (OEHHA), which is part of the California Environmental Protection Agency, and are based solely on public health risk considerations. None of the practical risk-management factors that are considered by the U.S. Environmental Protection Agency (USEPA) or the California Department of Public Health (CDPH) in setting Maximum Contaminant Levels (MCLs) are considered in setting PHGs. These factors include analytical detection capability, treatment technology available, benefits and costs. PHGs are not enforceable and are not required to be met by any public water system. Maximum Contaminant Level Goals (MCLGs) are the federal equivalent to PHGs.

The purposes of this report are the following:

- Identify each contaminant detected in drinking water that exceeds the applicable PHG (or MCLG if a PHG has not been adopted),
- Disclose the health risk associated for each contaminant identified,
- Describe the best available technology (BAT) to remove the contaminant or reduce the concentration of the contaminant,
- Estimate the aggregate cost and the cost per customer of utilizing technology to reduce the concentration of that contaminant to a level at or below the PHG (or MCLG), and
- Describe what action, if any, the City intends to take to reduce the concentration of the contaminant and the basis for that decision.

Although the City's supplies meet all drinking water requirements (see Appendix A – June 2010 Consumer Confidence Report), two of the more stringent PHG levels were exceeded as described in the following sections. All of the water quality data collected by the City's water system from 2007 through 2009 for purposes of determining compliance with drinking water standards were considered.

## **FINDINGS**

The City purchases water from the San Francisco Public Utilities Commission (SFPUC) and the Santa Clara Valley Water District (SCVWD) and maintains separate service areas for each (see Figure 1). Table 1 shows that the City exceeded the PHG for lead and the MCLG for coliform.

**Table 1 - City Exceedances**

Contaminant	PHG <sup>1</sup> or MCLG	MCL	Milpitas service area <sup>2</sup>	Comments
Lead	0.2 ppb	N/S	<0.5 – 76 ppb	38 taps were sampled in 2007; 23 samples exceeded the PHG.
Coliform	0% positive	>5% Positive in month	1 (SFPUC)	3,925 samples were taken from January 1, 2007 to December 31, 2009; 1 sample was positive.

1 PHGs adopted by OEHHA

2 ppb = parts per billion

N/S No Standard

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### **Lead**

The City water supply does not contain detectable levels of lead. However, special samplings showed that lead levels can increase within households due to leaching from household plumbing and fixtures. CDPH requires the City to monitor for household lead once every three years. Out of 37 samples collected in 2007, 23 samples exceeded the lead PHG of 0.2 ppb. Of these 23 samples, 5 were in the SCVWD service area and 18 were in the SFPUC service area.

### **Coliform**

The City took 3,925 samples (25 per week) from 2007 to 2009 throughout the distribution system and used a state-certified laboratory to analyze for coliform. In September 2009, one sample was coliform positive in the SFPUC service area. Subsequent re-sampling at the station and two other locations (one upstream and one downstream) were coliform negative. The State MCL for coliform is more than 5% positive per month and the City did not violate the coliform standard. However the Federal MCLG is 0% positive, which the City did exceed.

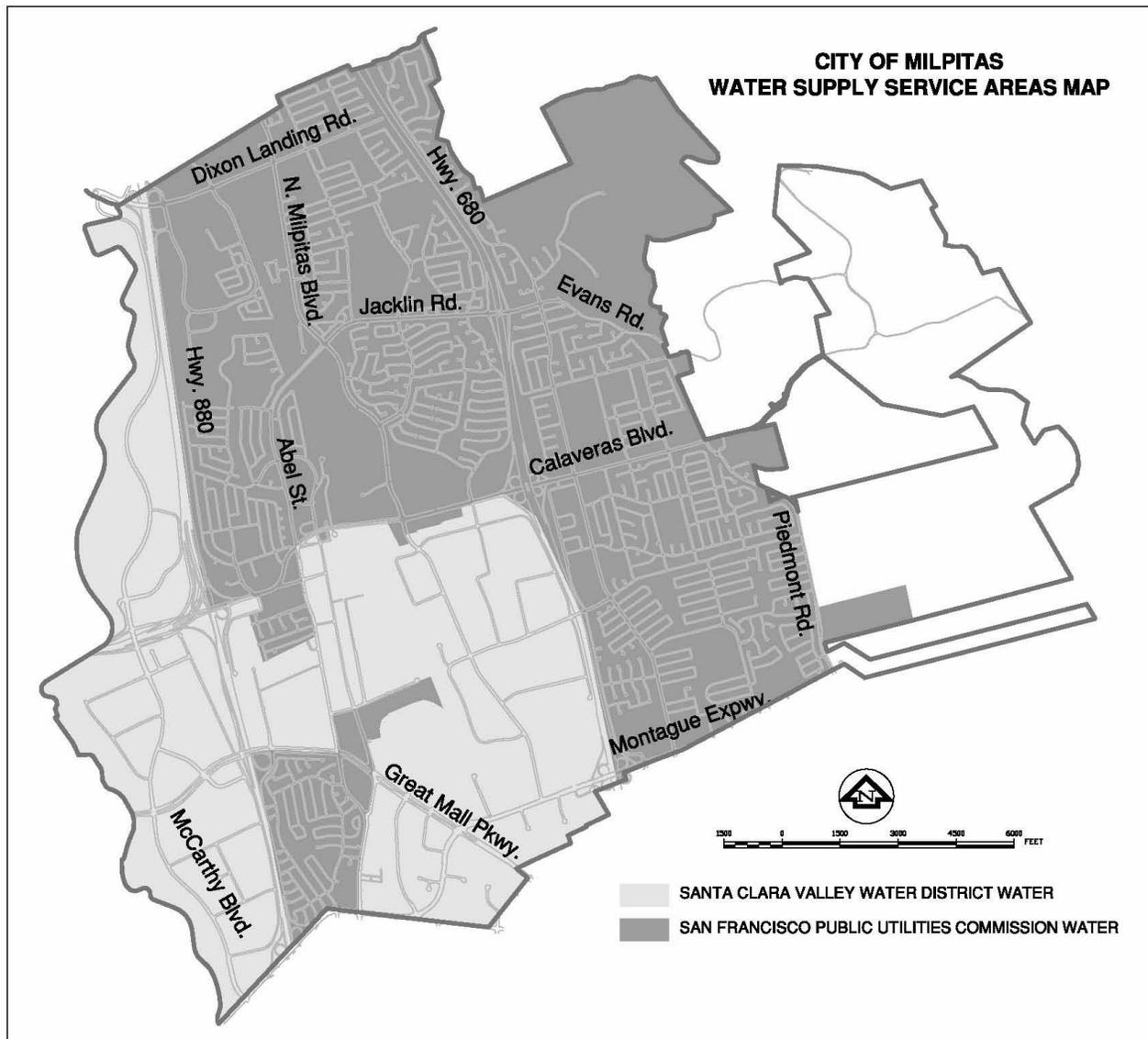


Figure 1 - Water Supply Service Areas

## **DISCUSSION**

This section describes public health risks associated with lead and coliform levels monitored within the City's system and the best available treatment technologies (BAT). This section also explains why cost estimates for treatment are not required for the City's water utility.

### **Lead**

Lead is a cumulative toxic substance with no known human health benefits. It is a normally a low level background component in the environment caused by extensive corrosion inhibitor use in paints, water piping and various alloys. In addition to drinking water, lead intake can also occur through air, house dust, and lead-based paints. Lead is considered to be a health risk at levels above 15 ppb. The PHG for lead is 0.2 ppb.

Lead can cause a variety of adverse health effects in humans. At relatively low levels of exposure, these effects may include interference with red blood cell chemistry, delays in normal physical and mental development in babies and young children, slight deficits in the attention span, hearing, and learning ability of children, and slight increases in the blood pressure of some adults. Lead has also been linked to human kidney and nervous system damage.

The City's municipal water supply has no detectable levels of lead. Although there are no lead pipes in the City's municipal water distribution system, USEPA has determined that lead can enter drinking water primarily as a result of corrosion, or wearing away, of materials containing lead, such as lead solder in household plumbing. Any time the water in a faucet has been unused for more than six hours, the City advises residents to flush the water from the tap (run the cold water faucet until the water gets noticeably colder, usually about 15-30 seconds) before using it for drinking or cooking. The majority of Milpitas homes have a protective pipe coating on solder. Homes built after 1986 were built with low lead solder and so have less risk of lead contamination.

### **Corrosion Control Treatment Optimization**

Corrosion control through water chemistry and adjustment is the best available technology (BAT) for lead control. The two wholesalers, SFPUC and SCVWD, have conducted evaluations to determine what could be done on a regional basis to minimize corrosiveness of water to reduce the tendency of lead to leach into water. SCVWD has optimized their system by adding phosphoric acid to their water, while SFPUC has increased pH levels to decrease corrosion. Therefore, no further action is required by the City.

Although corrosion control is considered to be the BAT for reducing lead in drinking water, consumers at risk can take additional measures to reduce lead leaching at the tap. One such measure is to replace household brass fixtures with "lead-free" fixtures. Brass fixtures were more typically installed in homes built prior to 1996. The 1996 Safe Drinking Water Act was amended to include the regulation of leaded plumbing fittings and fixtures and prohibit the use of

fittings and fixtures that contain more than 4% lead. Consumers can also take the following steps to reduce lead levels at their taps:

- Flush the taps for about 15-30 seconds before using it for drinking or cooking any time the water in a faucet has been unused for more than six hours.
- Use cold water for cooking, as hot water dissolves lead faster than cold water.

## **Coliform**

The MCL for coliform is more than 5% positive samples of all samples per month and the MCLG is zero. The reason for the coliform drinking water standard is to identify the possibility of the water containing pathogens, which are organisms that cause waterborne disease. Because coliform is only a surrogate indicator of the potential presence of pathogens, it is not possible to state a specific numerical health risk. While USEPA normally sets MCLGs “at a level where no known or anticipated adverse effects on persons would occur,” they indicate that they cannot do so with coliform.

Coliform bacteria are an indicator organism that are ubiquitous in nature and are not generally considered harmful. They are used as an indicator of potential contamination because of their ease in monitoring and analysis. If a positive sample is found, it indicates a potential problem that needs to be investigated and report sampling done. It is not unusual for a system to have an occasional positive sample.

CDPH has identified certain technologies, treatment techniques and other means that can be used to achieve compliance with total coliform MCL as BAT for coliform bacteria in Section 64447, Title 22, CCR. These include:

- Protection of wells from coliform contamination by appropriate placement and construction,
- Maintenance of a disinfectant residual throughout the distribution system,
- Proper maintenance of the distribution system, and
- Filtration and/or disinfection of approved surface water, or disinfection of groundwater.

In addition to the BAT listed above, the City has implemented the following: an effective cross-connection control program, water main flushing program, an effective monitoring and surveillance program and maintenance of positive pressures in the distribution system.

The water that the City receives from its regional water suppliers is disinfected by chloramination and ozonation. The City occasionally adds chlorine to the reservoirs to maintain optimal disinfection. The chlorine residual levels are carefully controlled to provide the best health protection without causing the water to have undesirable taste and odor or increasing the disinfection byproduct level.

The City has implemented a program to control microbiological contamination to the maximum extent possible. There are no additional actions available to feasibly further reduce coliform results.

## **CONCLUSIONS**

SFPUC and SCVWD are implementing corrosion control treatment in order to minimize corrosiveness of the water, thereby minimizing lead concentrations at household taps. The City's water system is in full compliance with CDPH drinking water standards.

Corrosion control optimization is considered to be the BAT for corrosion issues and lead findings. The City continues to monitor water quality parameters that relate to corrosivity. Simple practices on the part of the consumers, such as flushing the taps and using cold water for cooking or drinking, may reduce the amount of lead in the drinking water.

Since the City is meeting the "optimized corrosion control" requirements, it is not necessary to initiate additional corrosion control treatment. Thus, no cost estimate is needed.

Coliform is an indicator organism used to determine the potential presence of pathogenic organisms in water. Ongoing efforts such as disinfection, maintenance of disinfectant residual, cross-connection control, water main flushing, monitoring and surveillance programs and maintenance of positive pressures in the City's distribution system will minimize occurrence of microbiological contamination in the City's water. The City system complies with BAT for coliform as described in Section 64447, Title 22, CCR and with the State MCL for coliform. Thus, no cost estimate is needed.

**APPENDIX A**

**June 2010 Consumer Confidence Report**

# City of Milpitas

## 2010 Consumer Confidence Report

*The City of Milpitas is pleased to provide our consumers with information about the quality of our drinking water. In this report, you will find information on our water sources, water quality test results, and water conservation. We are happy to report that Milpitas drinking water meets all water quality standards of the California Department of Public Health (CDPH) and the U.S. Environmental Protection Agency (USEPA).*



*City Hall Fountains*

### 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 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 2009, the City supplied an average of 10 million gallons of water per day to approximately 17,000 homes and businesses in Milpitas for indoor and outdoor use.

### 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.

SFPUC service areas are 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. The City generally provides SFPUC water to residential areas and SCVWD water to commercial and industrial areas. Refer to the Water Source Map on page 2 to view the water service areas.

In case of emergency, you should store a gallon of drinking water per person per day (two quarts for drinking and two quarts for food preparation and sanitation). Keep at least a three-day supply per person. By maintaining emergency supplies, you can be self-sufficient for a few days if utilities and infrastructure are damaged and need to be repaired during an emergency or natural disaster.

*Liam Harris, grandson of Milpitas residents, spends a hot summer day playing in the water.*

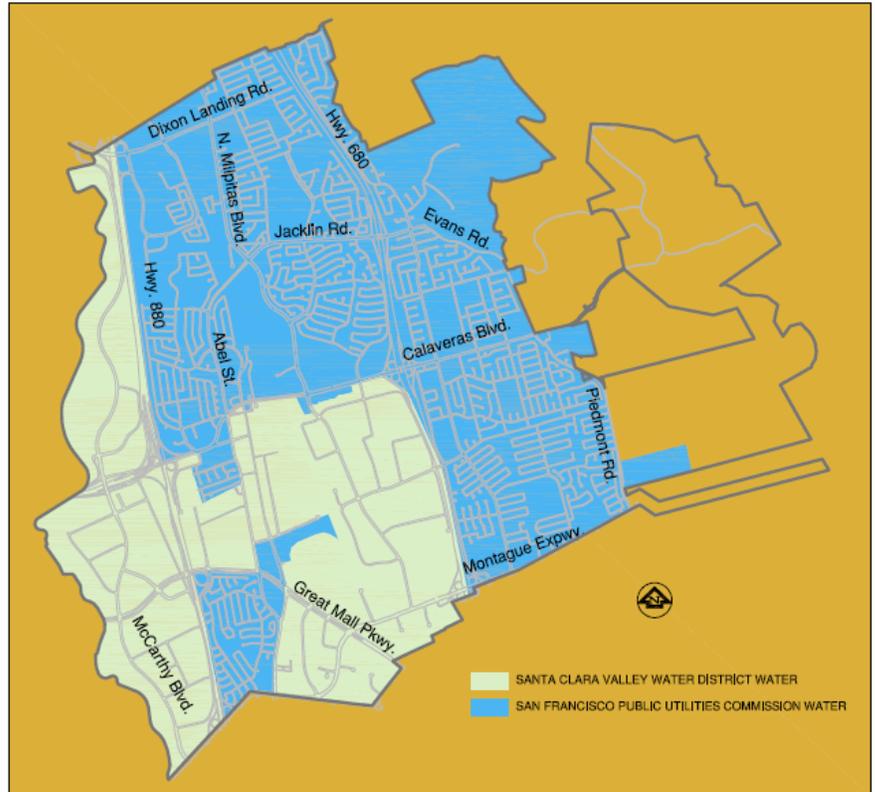


## Protecting Water Sources

SFPUC protects their natural water resources by continuously monitoring Hetch Hetchy watershed weather conditions, water turbidity levels, microbial contaminants and aqueduct disinfectant levels, and by complying with monitoring and reporting requirements. SFPUC's 2005 update on their Watershed Control Program and Sanitary Survey showed that their watersheds have very low levels of contaminants that could potentially affect the source water. Those contaminants found are associated with wildlife and, to a limited extent, human recreational activity.

In 2003, SCVWD completed a vulnerability analysis, as its 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 wildland fires in open space areas. In addition, local sources are also vulnerable to potential contamination from commercial horse stables and historic mining practices. No contaminant associated with any of these activities has been detected in SCVWD's treated water. The water treatment plants provide multiple treatment processes for physical removal and disinfection of contaminants.

The City completed a drinking water source assessment of Pinewood Well in 2000. Following CDPH procedures, the well is classified as vulnerable due to a nearby dry-cleaning establishment and the local sewer collection system. However, the well is about 590 feet deep and the groundwater is protected by clay soil, which prevents contaminants from entering the groundwater supply. No drinking water standards have been exceeded in the well water. To obtain a copy of the assessment, please call (408) 586-3348.



*Our utility maintenance crew tests Milpitas' water quality every week.*

## Recycled Water - Preserving Drinking Water for the Future

In 2009, commercial irrigation and industrial customers in Milpitas used 800,000 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>.

## 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.



*Our utility maintenance crew flushes a City fire hydrant. There are over 1,500 fire hydrants to maintain in the City.*



*City worker, Jon Frost, exercises a water valve.*

## Important Note for Dialysis Patients and Aquarium Owners

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 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.

## SFPUC Water Is Fluoridated; SCVWD Water is Not

SFPUC supplies fluoridated water to the City. However, 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:

<http://cdph.ca.gov/certlic/drinkingwater/Pages/Fluoridation.aspx>.

## Information on 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 household 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 two minutes before using 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: <http://www.epa.gov/safewater/lead>.



*"The Flute Player" by Carla Moss - City Hall Pond*

## Water Quality Test Results

In 2009, 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 did not exceed any water quality standards in 2009, as shown in the following table, which lists all drinking water constituents that were detected during the 2009 calendar year. Many other constituents were monitored but 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, 2009.

### 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 are set to control the odor, taste, and appearance of drinking water. MCLs are set by CDPH.

**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 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 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, requires the water supplier to do additional treatment or follow other requirements.

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

## 2009 Water Quality Data

DETECTED CONSTITUENTS	Unit	MCL	PHG [MCLG]	SCVWD Water <sup>(1)</sup>		SFPUC Water <sup>(2)</sup>		Typical Sources in Drinking Water
				Range	Avg. or [Max]	Range	Avg. or [Max]	
<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 - 0.05	[0.05]	Naturally present in environment
<b>Turbidity<sup>(5)</sup></b>								
Unfiltered Hetch Hetchy Water, max 5 NTU	NTU	TT	NS	NA	NA	0.27 - 0.52 <sup>(6)</sup>	[3.87]	Soil runoff
Filtered Water – SVWTP, max 1 NTU	NTU	TT	NS	NA	NA	NA	[0.26]	Soil runoff
Filtered Water – SVWTP, > 95% of measurements < 0.3 NTU	%	TT	NS	NA	NA	100%	-	Soil runoff
Filtered Water – PWTP, max 1 NTU	NTU	TT	NS	-	[0.09]	NA	NA	Soil runoff
Filtered Water – STWTP, max 1 NTU	NTU	TT	NS	-	[0.09]	NA	NA	Soil runoff
Filtered Water – PWTP & STWTP, >95% of measurements <0.3 NTU	%	TT	NS	100%	-	NA	NA	Soil runoff
<b>Inorganic Constituents</b>								
Aluminum	ppb	1000	600	<50 - 82	51	<50 - 51	<50	Erosion of natural deposits
Chlorine residual <sup>(3)</sup>	ppm	MRDL=4	MRDLG=4	0.3 - 2.6	1.82	0.3 - 2.8	2.12	Disinfection treatment
Fluoride (naturally occurring)	ppm	2	1	<0.1 - 0.1	<0.1	<0.1 - 0.8	0.3	Erosion of natural deposits
Fluoride (with additive) <sup>(7)</sup>	ppm	2	1	NA	NA	0.7 - 1.3	1.0	Water additive promotes strong teeth
Nitrate (as NO <sub>3</sub> )	ppm	45	45	<2 - 6	<2	<2	<2	Fertilizer runoff, erosion of natural deposits
<b>Organic Constituents</b>								
Total Organic Carbon <sup>(8)</sup>	ppm	NS	NS	0.81 - 2.54	1.73	2.2 - 2.8	2.5	Various natural and man-made sources
<b>Secondary Standards</b>								
Chloride	ppm	500	NS	50 - 136	89	4 - 14.6	9.5	Soil runoff, leaching from natural deposits
Color <sup>(3)</sup>	unit	15	NS	<5 - 5	<5	<5 - 5	<5	Natural occurring organics
Odor <sup>(3)</sup>	ton	3	NS	1 - 1	1	1 - 1	1	Natural occurring organics
Specific Conductance	µS/cm	1600	NS	406 - 903	559	30 - 309	170	Substances that form ions when in water
Sulfate	ppm	500	NS	29.5 - 93.7	51.6	1.1 - 35.6	16.6	Soil runoff, leaching from natural deposits
Total Dissolved Solids (TDS)	ppm	1000	NS	248 - 436	302	22 - 168	92	Soil runoff, leaching from natural deposits
Turbidity <sup>(3)</sup>	NTU	5	NS	0.01 - 0.54	0.21	0.01 - 1.09	0.26	Soil runoff

**KEY**

< =	Less Than	NTU =	Nephelometric Turbidity Units	STWTP =	Santa Teresa Water Treatment Plant
cyst/L =	microbe cysts/liter	ppb =	parts per billion	SVWTP =	Sunol Valley Water Treatment Plant
Max =	Maximum	ppm =	parts per million	TON =	Threshold Odor Number
NA =	Not Applicable	PWTP =	Penitencia Water	µS/cm =	microSiemens/centimeter
NS =	No Standard				

**2009 Water Quality Data**

DETECTED CONSTITUENTS - No Standards	Unit	MCL	PHG [MCL G]	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	52 - 90	67	8 - 102	50	Physical characteristic
Ammonia (free)	ppm	NS	NS	0.08 - 0.15	0.11	0 - 0.14	0.04	Disinfection treatment
Ammonia (total)	ppm	NS	NS	0.45 - 0.52	0.50	-	-	Disinfection treatment
Boron	ppb	NS	NS	<100 - 307	149	<100 - 102	<100	Natural deposits
Bromide	ppm	NS	NS	<0.05 - 0.15	0.08	<10 - 16	<10	Natural deposits
Calcium	ppm	NS	NS	14 - 32	20	2 - 26	12	Natural deposits
Chlorate	ppb	NS	NS	98 - 124	111	56 - 511	258	Byproduct of disinfection
Hardness (as CaCO <sub>3</sub> )	ppm	NS	NS	77 - 159	103	12 - 108	55	Physical characteristic
Magnesium	ppm	NS	NS	11 - 21	14	0.2 - 8.8	4.5	Natural deposits
pH <sup>(3)</sup>	unit	NS	NS	7.2 - 8.8	8.0	7.6 - 9.4	8.6	Acidity of water
Phosphate	ppm	NS	NS	1 - 1	1	<1	<1	Natural deposits, anticorrosive additive
Potassium	ppm	NS	NS	2.4 - 4.6	3.2	0.24 - 1.5	0.9	Natural deposits, soil runoff
Silica	ppm	NS	NS	10 - 15	11	4.8 - 7.5	5.9	Natural deposits, treatment
Sodium	ppm	NS	NS	46 - 115	69	3 - 23	14	Natural deposits
Vanadium	ppb	NS	NS	<3 - 5	3	<3	<3	Natural deposits
<b>Disinfection By-products</b>								
Total Trihalomethanes <sup>(3)</sup>	ppb	80	NS	29 - 74	44.5 <sup>(9)</sup>	28 - 46	44.5 <sup>(9)</sup>	By-product of disinfection
Total Haloacetic Acids <sup>(3)</sup>	ppb	60	NS	7.6 - 17	20.5 <sup>(9)</sup>	20 - 37	20.5 <sup>(9)</sup>	By-product of disinfection
<b>Lead and Copper<sup>(10)</sup></b>	<b>Unit</b>	<b>AL</b>	<b>PHG</b>	<b>Range</b>	<b>90<sup>th</sup> Percentile</b>	<b># sites<sup>(11)</sup></b>	<b># sites &gt;AL</b>	<b>Typical Sources in Drinking Water</b>
Copper <sup>(3)</sup>	ppb	1300	300	4.6 - 190	120	38	0	Corrosion of household plumbing
Lead <sup>(3)</sup>	ppb	15	0.2	<0.5 - 76	2.6	38	2	Corrosion of household plumbing

**Notes:**

- |  |  |
|--|--|
| (1) Water quality data in SCVWD's transmission system.   | (7) SFPUC started fluoridating its water in November 2005.   |
| (2) Water quality data in SFPUC's transmission system.   | (8) Precursor for disinfection byproduct formation.  |
| (3) Water quality data in the City's distribution system.  | (9) The highest running annual average for SFPUC and SCVWD combined.   |
| (4) One positive sample was collected in 2009. All confirmation and follow up samples were negative for fecal coliforms and <i>E. Coli</i> . | (10) Lead and copper monitoring was conducted for selected homes and businesses in September 2007. The standard is met if the 90th percentile is less than the action level. |
| (5) Turbidity is an indicator for water clarity, water quality and treatment system efficiency.  | (11) SFPUC service area had 28 sites; SCVWD service area had 10 sites.   |
| (6) Monthly average turbidity values.  |  |

## How Do Drinking Water Sources Become Polluted?

The sources of drinking water (both tap 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.

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



*Rainwater causes trash on the street to collect in our creek beds, Coyote Creek.*

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 limits for public water systems. CDPH regulations also establish contaminants in bottled water that must provide the same protection for public health.

## What Else Should I Know?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants, including *Cryptosporidium* and *Giardia*. 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's Safe Drinking Water Hotline.

## Important Health Information

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 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 USEPA's Safe Drinking Water Hotline.



*City storm water outfall located at Coyote Creek.*

**Water Conservation Fun Facts**

- If everyone in the U.S. flushed one less time per day, we could conserve a lake full of water!
- Every glass of water brought to your table in a restaurant requires another two glasses of water to wash and rinse the glass. If one in every four people avoided the free glass of water at a restaurant, we could conserve more than 26 million gallons of water!
- A faucet drip or invisible toilet leak that total only two tablespoons a minute come to 15 gallons a day. That’s 5,460 wasted gallons of water a year!
- Here's a two-for-one idea if you have a fish tank in the house. When cleaning the tank, use the dirty water on your houseplants. It's rich in nitrogen and phosphorous, giving you a nice fertilizer, while you use the same water **twice**.



*Cartwheels" by Carla Moss, front lawn of City Hall*

**Indoor Water Saving Tips:**

- Shorten your shower by 5 minutes & you’ll save 15 gallons, every time.
- Install aerators & low flow shower heads. You’ll save 16 gallons a day!
- Wash dishes & laundry in a full load & save more than 20 gallons per load.
- High-efficiency toilets save 25 gallons per day!
- High-efficiency washers save 20 gallons per load.
- Turn off the faucet while shaving & brushing your teeth, it saves 2 gallons per minute.
- Installing water efficient appliances helps to save water and may qualify you for money saving rebates! Check out [ValleyWater.org](http://ValleyWater.org) for more information on rebates.

**Outdoor Water Saving Tips:**

- Water your lawn between midnight & 6:00 a.m. when evaporation is kept to a minimum.
- Apply a layer of organic mulch around plants to reduce moisture loss and weed growth.
- For landscaping, use drought resistant plants; see your local nursery for advise.
- Check your irrigation system for leaks.
- Adjust lawn watering seasonally.

**For more information on water conservation, visit [www.save20gallons.org](http://www.save20gallons.org)**

**City of Milpitas Information Request Form**

Name: \_\_\_\_\_

Address: \_\_\_\_\_, Milpitas, CA 95035 Phone: \_\_\_\_\_



**Please send me the following: (circle all that apply)**

- Faucet Aerator (FREE –2 max)
- Low Flow Showerheads (FREE - 2 max)
- Less Toxic Gardening Tips
- Water Wise House Call Program
- Water Wise Garden CD

**REBATE INFORMATION**  
 Clothes Washer  
 High Efficiency Toilet  
 Water Efficient Landscape  
 Non-Residential Programs

**Place form in a stamped envelope and mail to:**  
 City of Milpitas/Utility Engineering  
 455 E. Calaveras Blvd.  
 Milpitas, CA 95035



# Your City Services at Work for You...

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

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)

We value our consumers and work hard to ensure service and satisfaction. If you have any questions or comments about this report, please call the appropriate number below.

Billing Questions 408.586.3100

Water Hotline 408.586.2605

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

EPA Safe Drinking Water Hotline 800.426.4791

## 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.

This report contains important information about your drinking water. Translate or speak 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.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

Chi tiet này thật quan trọng.

Xin nhờ người dịch cho quý vị.

此份有关你的食水报告,内有重要资料和讯息,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。

यह सूचना महत्वपूर्ण है ।

कृपा करके किसी से :सका अनुवाद कराये ।

ਇਹ ਸੂਚਨਾ ਮਹੱਤਵਪੂਰਣ ਹੈ ।

ਕ੍ਰਿਪਾ ਕਰਕੇ ਕਿਸੀ ਤੋਂ ਇਸ ਦਾ ਅਨੁਵਾਦ ਕਰਾਉ ।



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

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**APPENDIX B**

**Section 116470 of the Health and Safety Code**

**Health and Safety Code**  
**Section 116470**

(a) As a condition of its operating permit, every public water system shall annually prepare a consumer confidence report and mail or deliver a copy of that report to each customer, other than an occupant, as defined in Section 799.28 of the Civil Code, of a recreational vehicle park. A public water system in a recreational vehicle park with occupants as defined in Section 799.28 of the Civil Code shall prominently display on a bulletin board at the entrance to or in the office of the park, and make available upon request, a copy of the report. The report shall include all of the following information:

- (1) The source of the water purveyed by the public water system.
- (2) A brief and plainly worded definition of the terms "maximum contaminant level," "primary drinking water standard," and "public health goal."
- (3) If any regulated contaminant is detected in public drinking water supplied by the system during the past year, the report shall include all of the following information:
  - (A) The level of the contaminant found in the drinking water, and the corresponding public health goal and primary drinking water standard for that contaminant.
  - (B) Any violations of the primary drinking water standard that have occurred as a result of the presence of the contaminant in the drinking water and a brief and plainly worded statement of health concerns that resulted in the regulation of that contaminant.
  - (C) The public water system's address and phone number to enable customers to obtain further information concerning contaminants and potential health effects.
- (4) Information on the levels of unregulated contaminants, if any, for which monitoring is required pursuant to state or federal law or regulation.
- (5) Disclosure of any variances or exemptions from primary drinking water standards granted to the system and the basis therefor.

(b) On or before July 1, 1998, and every three years thereafter, public water systems serving more than 10,000 service connections that detect one or more contaminants in drinking water that exceed the applicable public health goal, shall prepare a brief written report in plain language that does all of the following:

- (1) Identifies each contaminant detected in drinking water that exceeds the applicable public health goal.
- (2) Discloses the numerical public health risk, determined by the office, associated with the maximum contaminant level for each contaminant identified in paragraph (1) and the numerical public health risk determined by the office associated with the public health goal for that contaminant.
- (3) Identifies the category of risk to public health, including, but not limited to, carcinogenic, mutagenic, teratogenic, and acute toxicity, associated with exposure to the contaminant in drinking water, and includes a brief plainly worded description of these terms.
- (4) Describes the best available technology, if any is then available on a commercial basis, to remove the contaminant or reduce the concentration of the contaminant. The public water system may, solely at its own discretion, briefly describe actions that have

been taken on its own, or by other entities, to prevent the introduction of the contaminant into drinking water supplies.

(5) Estimates the aggregate cost and the cost per customer of utilizing the technology described in paragraph (4), if any, to reduce the concentration of that contaminant in drinking water to a level at or below the public health goal.

(6) Briefly describes what action, if any, the local water purveyor intends to take to reduce the concentration of the contaminant in public drinking water supplies and the basis for that decision.

(c) Public water systems required to prepare a report pursuant to subdivision (b) shall hold a public hearing for the purpose of accepting and responding to public comment on the report. Public water systems may hold the public hearing as part of any regularly scheduled meeting.

(d) The department shall not require a public water system to take any action to reduce or eliminate any exceedance of a public health goal.

(e) Enforcement of this section does not require the department to amend a public water system's operating permit.

(f) Pending adoption of a public health goal by the Office of Environmental Health Hazard Assessment pursuant to subdivision (c) of Section 116365, and in lieu thereof, public water systems shall use the national maximum contaminant level goal adopted by the United States Environmental Protection Agency for the corresponding contaminant for purposes of complying with the notice and hearing requirements of this section.

(g) This section is intended to provide an alternative form for the federally required consumer confidence report as authorized by 42 U.S.C. Section 300g-3(c).