

2010 CONSUMER CONFIDENCE REPORT

City of Foster City/Estero Municipal Improvement District



Dear EMID Customer,

The City of Foster City/Estero Municipal Improvement District (EMID) is pleased to present you with the Annual Consumer Confidence Report for 2010. On the following pages, you will find important information about the origin of your water, the quality of your water, and the steps taken to protect the water supply.

As the purveyor of your drinking water, we are proud to be able to state that the water we provide is of the highest quality, meeting or exceeding all primary drinking water standards set forth by the U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (CDPH).

EMID purchases all of its water from the San Francisco Public Utilities Commission (SFPUC). The following pages contain the source water information prepared by the SFPUC Water Quality Bureau. In addition to the monitoring and testing performed by SFPUC, EMID does its own monitoring and testing to ensure that the water quality in the distribution system meets or exceeds all drinking water standards. If there are any questions about the water, please call the SFPUC Water Quality Bureau at (877) 737-8297 or visit its website at www.sfwater.org. Any other questions about the water system should be directed to EMID Public Works Manager, Norman Dorais at (650) 286-8140.

SFPUC DRINKING WATER SOURCES

The sources of drinking water (both tap water and bottled water) include rivers, lakes, oceans, streams, ponds, reservoirs, springs, and wells. For the SFPUC system, the major water source originates from spring snowmelt flowing down the Tuolumne River to the Hetch Hetchy Reservoir, where it is stored. This pristine water source meets all federal and state criteria for watershed protection. The SFPUC also maintains stringent disinfection treatment practices, extensive bacteriological-quality monitoring, and high operational standards. As a result, the California Department of Public Health and USEPA have granted the Hetch Hetchy water source a filtration exemption. In other words, the source is so clean and protected that the SFPUC is not required to filter water from the Hetch Hetchy Reservoir.

The Hetch Hetchy water is supplemented with surface water from two local watersheds. Rainfall and runoff collected from the Alameda Watershed, spanning more than 35,000 acres in Alameda and Santa Clara Counties, are collected in the Calaveras and San Antonio Reservoirs and treated at the Sunol Valley Water Treatment Plant before distribution. Rainfall and runoff from the 23,000-acre Peninsula

Watershed in San Mateo County, are stored in Crystal Springs, San Andreas, and Pilarcitos reservoirs and treated at the Harry Tracy Water Treatment Plant before distribution.

In 2010, the Hetch Hetchy Watershed provided the majority of our total water supply with the remainder contributed by the local watersheds.

PROTECTING OUR WATERSHEDS

The SFPUC aggressively protects the natural water resources entrusted to its care. Its annual Hetch Hetchy Watershed survey evaluates the sanitary conditions, water quality, potential contamination sources and the results of watershed management activities by the SFPUC and its partner agencies, including the National Park Service, to reduce or eliminate potential contamination sources. The SFPUC also conducts sanitary surveys of the local Alameda and Peninsula watersheds every five years. These surveys identified wildlife and human activity as potential contamination sources. The reports are available for review at the CDPH's San Francisco District office (510) 620-3474.

SFPUC WATER SYSTEM



WATER QUALITY



Hetch Hetchy Dam

WATER QUALITY: CONTAMINANTS AND REGULATIONS

The SFPUC's Water Quality Division regularly collects and tests water samples from reservoirs and designated sampling points throughout the system to ensure that the SFPUC's water meets or exceeds federal and state drinking water standards. In 2010, Water Quality staff conducted 58,750 drinking water tests in the transmission and distribution systems. This monitoring effort is in addition to the extensive treatment process control monitoring performed by our certified and knowledgeable treatment plant staff and online instruments. In addition to monitoring by the SFPUC, EMID employees conduct water quality monitoring and testing throughout the City to assure compliance with CDPH standards as required by its distribution permit.

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.



Routine Maintenance

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and California Department of Public Health (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. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (800) 426-4791.



Water Booster Pump Station



Water Storage Reservoirs

WATER QUALITY



Hetch Hetchy Reservoir

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 storm water 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 storm water 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 storm water 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.



SPECIAL HEALTH NEEDS

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 people, and infants can be particularly at risk from infections.

These people should seek advice about drinking water from their health care providers. EPA/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 (800) 426-4791 or at www.epa.gov/safewater.

WATER QUALITY DATA FOR YEAR 2010

The table on the next page lists all 2010 detected drinking water contaminants and the information about their typical sources. Contaminants below detection limits are not shown, in accordance with the CDPH guidance.

REDUCING LEAD FROM PLUMBING FIXTURES

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. EMID is responsible for providing high quality drinking water, but cannot control the variety of materials used in your household or building 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 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.

For more information, visit the CDPH website at www.cdph.ca.gov or the EPA website www.epa.gov.

Fire Hydrant Flushing

TABLE 1

FOSTER CITY (EMID) WATER QUALITY DATA FOR YEAR 2010¹

DETECTED CONTAMINANTS	Unit	MCL	PHG (MCLG)	Range/Level	Average (Max)	Typical Sources in Drinking Water
TURBIDITY						
For Unfiltered Hetch Hetchy Water	NTU	5	N/A	0.2 - 0.6 ²	[4.9] ³	Soil runoff
Filtered Water from Sunol Valley WTP (HTWTP)	NTU	1 ⁴	N/A	-	[0.54]	Soil runoff
min 95% of samples	NTU	≤0.3 ⁴	N/A	96.7 - 100%	-	Soil runoff
Filtered Water from Harry Tracy WTP (HTWTP)	NTU	1 ⁴	N/A	-	[0.19]	Soil runoff
min 95% of samples	NTU	≤0.3 ⁴	N/A	100%	-	Soil runoff
DISINFECTION BY-PRODUCTS AND PRECURSOR (SFPUC Regional System) - for information only						
Total Trihalomethanes	ppb	80	N/A	14 - 92	[40] ⁵	By-product of drinking water chlorination
Haloacetic Acids	ppb	60	N/A	7 - 55	[25] ⁵	By-product of drinking water chlorination
Total Organic Carbon ⁶	ppm	TT	N/A	2.4 - 3.2	2.7	Various natural and man-made sources
DISINFECTION BY-PRODUCTS AND PRECURSOR						
Total Trihalomethanes	ppb	80	N/A	28 - 61.3	49.6	By-product of drinking water chlorination
Haloacetic Acids	ppb	60	N/A	21.6 - 42.2	33.4	By-product of drinking water chlorination
Total Organic Carbon ⁶	ppm	TT	N/A	2.3 - 3.2	2.7	Various natural and man-made sources
MICROBIOLOGICAL						
Total Coliform, ≤5.0% of monthly samples	-	0	[0]	0	0	Naturally present in the environment
Giardia lamblia	cyst/L	TT	[0]	ND - 0.06	[0.06]	Naturally present in the environment
INORGANIC CHEMICALS						
Fluoride (source water) ⁷	ppm	2.0	1	ND - 0.7	0.3 ⁸	Erosion of natural deposits
Chlorine (as chlorine)	ppm	MRDL = 4	MRDLG = 4	1.4 - 2.8	2.0	Drinking water disinfectant added for treatment
CONSTITUENTS WITH SECONDARY STANDARDS						
Chloride	ppm	500	N/A	3 - 16	9.5	Runoff / leaching from natural deposits
Color	unit	15	N/A	<5 - 6	<5	Naturally-occurring organic materials
Specific Conductance	µS/cm	1600	N/A	33 - 316	179	Substances that form ions when in water
Sulfate	ppm	500	N/A	1.6 - 38.7	18.2	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	27 - 174	95	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	0.07 - 0.33	0.16	Soil runoff
LEAD AND COPPER						
Copper	ppb	1300	300	10.9 - 92.7 ⁹	72.6	Corrosion of household plumbing systems
Lead	ppb	15	0.2	<1.0 - 8.1 ¹⁰	8.1	Corrosion of household plumbing systems
OTHER WATER QUALITY PARAMETERS						
Alkalinity (as CaCO ₃)	ppm	N/A	8 - 98	49		
Bromide	ppb	N/A	<10 - 17	<10		
Calcium (as Ca)	ppm	N/A	2 - 26	12		
Chlorate ¹¹	ppb	(800) NL	92 - 357	150		
Hardness (as CaCO ₃)	ppm	N/A	8 - 104	53		
Magnesium	ppm	N/A	0.3 - 9	4.6		
pH	-	N/A	8.2 - 8.7	8.5		
Potassium	ppm	N/A	0.34 - 1.2	0.6		
Silica	ppm	N/A	4.1 - 7.6	5.7		
Sodium	ppm	N/A	3 - 22	13		

KEY:

- < / ≤ = less than / less than or equal to
- AL = Action Level
- Max = Maximum
- Min = Minimum
- N/A = Not Available
- ND = Non-detect
- NL = Notification Level
- NTU = Nephelometric Turbidity Unit
- ORL = Other Regulatory Level
- ppb = part per billion
- ppm = part per million
- µS/cm = microSiemens / centimeter

Notes:

- ¹ All results met State and Federal drinking water health standards.
- ² Turbidity is measured every four hours. These are monthly average turbidity values.
- ³ This is the highest turbidity of the unfiltered water served to customers in 2010. The switch of San Joaquin Pipelines and rate change caused elevated turbidities as a result of sediment resuspension in the pipelines. The turbidity spike was not observed further downstream at Alameda East.
- ⁴ There is no MCL for turbidity. The limits are based on the TT requirements in the State drinking water regulations.
- ⁵ This is the highest quarterly running annual average value.
- ⁶ Total organic carbon is a precursor for disinfection by-product formation. The TT requirement applies to the filtered water from the SVWTP only.
- ⁷ The SFPUC adds fluoride to the naturally occurring level to help prevent dental caries in consumers. The CDPH requires our fluoride levels in the treated water to be maintained within a range of 0.8 ppm - 1.5 ppm. In 2010, the range and average of our fluoride levels were 0.6 ppm - 1.5 ppm and 1.0 ppm, respectively.
- ⁸ The naturally occurring fluoride levels in the Hetch Hetchy and SVWTP raw water were ND and 0.15 ppm, respectively. The HTWTP raw water had elevated fluoride levels of 0.7 ppm - 0.9 ppm due to the continued supply of the fluoridated Hetch Hetchy & SVWTP treated water into the Lower Crystal Springs Reservoir, which supplies water via the San Andreas Reservoir to the HTWTP for treatment.
- ⁹ The most recent Lead and Copper monitoring was in 2010. 0 of 31 water samples collected at consumers taps had copper concentrations above the Action Level.
- ¹⁰ The most recent Lead and Copper monitoring was in 2010. 0 of 31 water samples collected at consumers taps had lead concentrations above the Action Level.
- ¹¹ There were no chlorate detected in the raw water sources except the Crystal Springs and San Andreas reservoirs, where the detected chlorate were 81 ppb and 57 ppb, respectively. The chlorate levels in both reservoirs are due to the transfer of the disinfected Hetch Hetchy water and SVWTP effluent into the Crystal Springs Reservoir. The detected chlorate in treated water is a degradation by-product of sodium hypochlorite, the primary disinfectant used by SFPUC for water disinfection.

Note: Additional water quality data may be obtained by calling the City of Foster City/EMID Public Works Department at (650) 286-8140.



City of Foster City/Estero
Municipal Improvement District

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This report contains very important information about your drinking water.

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

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。

KEY WATER QUALITY TERMS

Following are definitions of key terms noted on the water quality data table, Table 1. These terms refer to the standards and goals for water quality described below.

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.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.

Maximum 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 Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

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

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

Cryptosporidium is a parasitic microbe found in most surface water. The SFPUC regularly tests for this waterborne pathogen, and found it at very low levels in source water and treated water in 2010. However, 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 be spread through means other than drinking water.

PUBLIC PARTICIPATION

The EMID President and Board of Directors are the governing authority of the EMID water system. They meet on the first and third Mondays of the month at 6:30 p.m. at the Foster City Council/Board Chambers located at 610 Foster City Blvd. Foster City, California. An agenda for each EMID meeting is posted on the City of Foster City web site at www.fostercity.org/city_hall. The SFPUC meets on the second and fourth Tuesdays of the month at 1:30 p.m. at the San Francisco City Hall, Room 400. The public is invited to participate in these meetings.