



Mid-Peninsula Water District 2006 Annual Water Quality Report

"This report contains important information about your drinking water. Translate it, or speak with someone who understands it."
Spanish: "Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien."
Tagalog: "Mahalaga ang impormasyong ito. Mangyaring ipasalin ito."
French: "Ce rapport contient des informations importantes concernant votre eau potable. Veuillez traduire, ou parlez avec quelqu'un qui peut le comprendre."
Polish: "Ta broszura zawiera ważne informacje dotyczące jakości wody do picia. Przetłumacz zawartość tej broszury lub skontaktuj się z osobą która pomoże ci w zrozumieniu zawartych informacji."

The Mid-Peninsula Water District is pleased to present this 2006 Annual Water Quality Report (Consumer Confidence Report) to our customers. It is important to our Board of Directors and Staff that our customers are informed about the quality of your drinking water. The Mid-Peninsula Water District exists to serve our customers by obtaining and distributing a safe, reliable, high quality supply of water for current and future needs in the most cost efficient manner. Should you have any questions or concerns regarding this report, please feel free to call the District Office at (650) 591-8941 and one of our Office Specialists or Technicians will be happy to assist you.

Where SFPUC Water Comes From

In 2006, the Hetch Hetchy watershed provided approximately 86% of our total water supply with the rest supplemented by local watersheds in Alameda, Santa Clara, and San Mateo Counties.

Protecting Our Watersheds

The SFPUC aggressively protects the natural water resources entrusted to its care. An annual report on the Hetch Hetchy, Priest, and Moccasin watersheds is prepared to evaluate the sanitary conditions, water quality, and potential contamination sources in these watersheds. The report also presents performance results of watershed management activities implemented by the SFPUC to reduce the potential contamination sources. The 2006 sanitary survey concludes that very low levels of contaminants associated with wildlife and human activities exist in these watersheds.

The SFPUC also conducts sanitary surveys of the local watersheds every five years. The potential contamination sources identified in the 2005 survey are similar to the upcountry watersheds. The reports are available through the California Department of Health Services.

Our Drinking Water Sources

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. For our system, the major water source originates from spring snowmelt flowing down the Tuolumne River and is stored in the Hetch Hetchy Reservoir. Because this pristine water source meets all federal and state criteria for watershed protection, disinfection treatment, bacteriological quality, and operational standards, the California Department of Health Services has granted this 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 Alameda Watershed spans more than 35,000 acres in Alameda and Santa Clara Counties. Surface water from rainfall and runoff is collected in the Calaveras and San Antonio Reservoirs. Prior to distribution, water from the watershed is treated at the Sunol Valley Water Treatment Plant (SWWTP). Treatment processes include coagulation, flocculation, sedimentation, filtration, and disinfection. Fluoridation, chloramination and corrosion control treatment are provided for the combined Hetch Hetchy and SWWTP water at the Sunol Chloramination and Fluoridation Facilities.

Surface water from rainfall and runoff captured in the 23,000-acre Peninsula Watershed, which is located in San Mateo County, is stored in four reservoirs: Crystal Springs (Lower and Upper), San Andreas, Pilarcitos, and Stone Dam. The water from these reservoirs is treated at the Harry Tracy Water Treatment Plant (HTWTP). Treatment processes at HTWTP include ozonation, coagulation, flocculation, filtration, disinfection, chloramination, fluoridation, and corrosion control treatment.

The Highest Quality Water

The SFPUC's Water Quality Bureau 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 2006, Water Quality staff conducted 88,096 tests of drinking water quality.

All drinking waters contain some minerals or elements, often in very low levels. In water quality terms these substances are called contaminants.

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. 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.

The adjacent table lists all drinking water contaminants detected in 2006. Contaminants below detection limits, such as arsenic, perchlorate, MIBE, and others, are not listed. The table contains the name of each contaminant, the applicable drinking water standards or action levels, the ideal goals for public health, the amount detected in water, the typical contaminant sources, and footnotes explaining the findings.

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 byproducts 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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Department of Health Services (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must 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 (1-800-426-4791).

Cryptosporidium and Giardia are parasitic microbes found in most surface water supplies. The SFPUC tests for them regularly both in source and treated water supplies. Both were occasionally found at very low levels in the SFPUC's water in 2006. If ingested these parasites may produce symptoms of nausea, stomach cramps, diarrhea, and associated headaches.

Special Health Needs

Some people may be more vulnerable to contaminants in drinking water, including bottled 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 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.

To Learn More

Want to learn more about drinking water regulations? Visit the California Department of Health Services at www.dhs.ca.gov or the U.S. Environmental Protection Agency at www.epa.gov.

MPWD Board Meetings Held Every 4th Thursday of Every Month

The Mid-Peninsula Water District Board of Directors hold a Board Meeting on the 4th Thursday of each month. Customers are encouraged to attend these meetings. The meetings are held at our District Office at 3 Dairy Lane, Belmont at 6:30 p.m.

DETECTED CONTAMINANTS	Unit	MCL	PHG (MCLG)	Range	Average (Maximum)	Typical Sources in Drinking Water
TURBIDITY (2)						
Unfiltered Hetch Hetchy Water, max 5 NTU	-	TT	NA	0.22 - 0.93 (3)	(4.4) (4)	Soil run-off
Filtered water - Harry Tracy WTP, max 1 NTU	-	TT	NA	-	(0.02)	Soil run-off
more than 95% of measurements < 0.3 NTU	-	TT	NA	99.3% (5)	-	Soil run-off
Filtered Water - Sunol Valley WTP, max 1 NTU	-	TT	NA	-	(0.18)	Soil run-off
more than 95% of measurements < 0.3 NTU	-	TT	NA	100% (5)	-	Soil run-off
DISINFECTION BY-PRODUCTS (SFPUC Regional System)						
Total Trihalomethanes (TTHMs)	ppb	80	NA	22- 57	(38) (6)	By-product of drinking water chlorination
Total Haloacetic Acids (HAAs)	ppb	60	NA	8 - 45	(25) (6)	By-product of drinking water chlorination
Total Organic Carbon (TOC) (8)	ppm	TT	NA	1.1 - 2.9	2.4	Various natural and man-made sources
DISINFECTION BY-PRODUCTS (MPWD)						
Total Trihalomethanes (TTHMs)	ppb	80	NA	36.3 - 50.3	42.2 (6)	By-product of drinking water chlorination
Total Haloacetic Acids (HAAs)	ppb	60	NA	1.2 - 43.3	28.4 (6)	By-product of drinking water chlorination
Total Organic Carbon (TOC) (7)	ppm	NA	NA	1.1 - 2.9	2.4	Various natural and man-made sources
MICROBIOLOGICAL (7) (MPWD)						
Total Coliform, highest % of positives detected in any month	%	<5	(0)	0	0	Naturally present in the environment
INORGANIC CHEMICALS						
Aluminum	ppb	1000	600	6 - 70	38	Erosion of natural deposits
Fluoride (9)	ppm	2.0	1.0	0.1 - 1.2	1.0	Water additive that promotes strong teeth
Chlorine (MPWD)	ppm	MRDL=4.0	MRDLG=4	1.35 - 2.46	1.91 (6)	Drinking water disinfectant added for treatment
CONSTITUENTS WITH SECONDARY STANDARDS						
	Unit	SMCL	PHG	Range	Average	Typical Sources in Drinking Water
Chloride	ppm	500	NA	3 - 22	12	Runoff / leaching from natural deposits
Color	unit	15	NA	<5 - 10	<5	Naturally-occurring organic materials
Specific Conductance	µS/cm	1600	NA	24 - 376	195	Substances that form ions when in water
Sulfate	ppm	500	NA	0.8 - 44	20	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	NA	20 - 190	112	Runoff / leaching from natural deposits
Turbidity	NTU	5	NA	0.08.45	0.21	Soil runoff
LEAD AND COPPER RULE STUDY (MPWD)						
	Unit	AL	PHG	Range	90th Percentile	Typical Sources in Drinking Water
Copper	ppb	1300	170	7.5 - 235.4 (10)	123.1	Corrosion of household plumbing systems
Lead	ppb	15	2	0.2 - 12.9 (11)	7.8	Corrosion of household plumbing systems
OTHER WATER QUALITY PARAMETERS						
	Unit	NL	Range	Average		
Alkalinity (as CaCO ₃)	ppm	NA	6 - 114	58		
Boron	ppb	1000	<100 - 161	<100		
Calcium	ppm	NA	3 - 28	15		
Fluoride (source water)	ppm	NA	<0.1 - 0.2	0.1		
Hardness (as CaCO ₃)	ppm	NA	6- 146	66		
Magnesium	ppm	NA	<0.2 - 11.5	6.3		
pH	Unit	NA	7.6 - 9.7	8.9		
Potassium	ppm	NA	<0.2 - 1.8	1.0		
Silica	ppm	NA	3.8 - 7.2	5.0		
Sodium	ppm	NA	2 - 24	14.3		

How Your Water Measures Up

Following are definitions of key terms noted on the adjacent water quality data chart. These terms refer to the standards and goals for water quality described below.

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

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 U.S. Environmental Protection Agency.

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 Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

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

Treatment Technique: 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.

Key:

< / ≤ = less than / less than or equal to
 TT = Treatment Technique
 AL = Action Level
 NA = Not Available
 NTU = Nephelometric Turbidity Unit
 ppb = parts per billion
 ppm = parts per million
 µS/cm = microSiemens/centimeter
 Max = maximum
 NL = Notification Level

- All results met State and Federal drinking water regulations.
- Turbidity is the water clarity indicator; it also indicates the quality of the water and the treatment system efficiency.
- Turbidity is measured every four hours. These are monthly average turbidity values.
- This is a single, maximum measurement. This elevated turbidity was caused by startup of the Hetch Hetchy Aqueduct after shutdown for maintenance work. The turbid water was not served to customers.
- This is the minimum percentage of time that the filtered water turbidity was less than 0.3 NTU.
- This is the highest quarterly running annual average value.
- TOC is a precursor for disinfection by-product formation
- The Mid-Peninsula Water District had 0 positive samples in 2006
- There is 1.0 ppm of fluoride in your drinking water.
- Latest round of Lead and Copper Rule monitoring was in 2006. 0 out of 30 residences were over the copper action level at consumer taps.
- Latest round of Lead and Copper Rule monitoring was in 2006. 0 out of 30 residences were over the lead action level at consumer taps.

Note: Additional water quality data may be obtained by calling the Mid-Peninsula Water District phone number at (650) 591-8941.