



2013 Annual Water Quality Report

The City of Menlo Park Municipal Water District (Water District) is pleased to provide our water customers with pertinent information about the quality of our drinking water. This annual water quality report tells you where our water comes from, what our tests show about it, and more. You can be assured that the safety of your water supply is our top priority and we will notify you immediately if there is any reason for concern about our water. We are providing this information to you so you can make informed choices about our water supply.

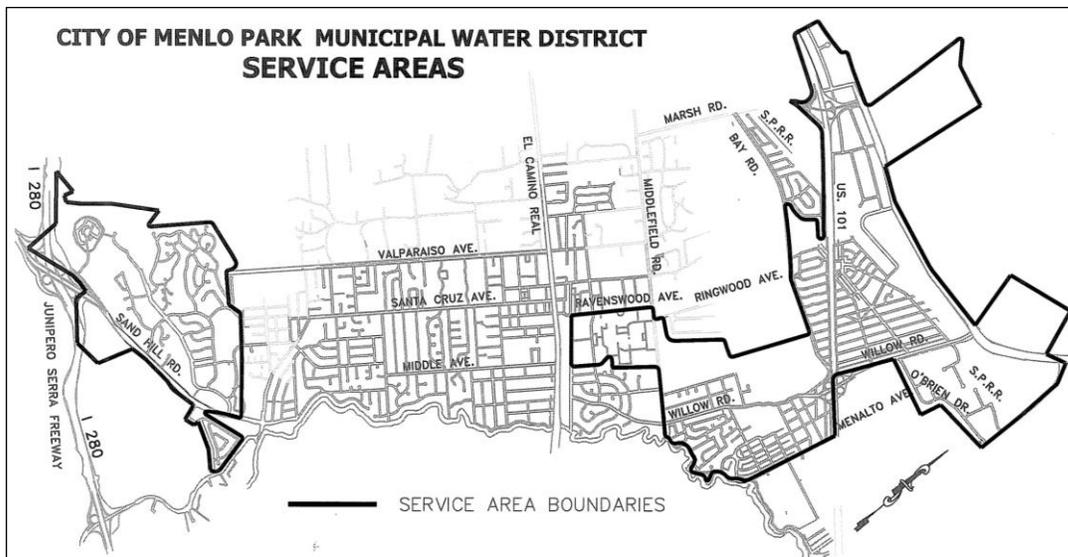
The Water District is committed to providing its customers with a safe and reliable supply of high-quality drinking water that meets Federal and State standards. Each year the District provides a summary of the water quality sampling results and other information through an Annual Water Quality Report.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

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

這是一份有關您飲用水的品質報告，內含重要資訊。若您對報告內容有不甚瞭解之處，請務必找人為您翻譯及詳細解釋。

Our Drinking Water Source

The District purchases all of its water from the San Francisco Public Utilities Commission (SFPUC). SFPUC water is primarily from the Hetch Hetchy watershed located in the Sierra Nevada Mountains and is supplemented by water from the Alameda watershed. In 2013, the District supplied an average of 3.26 million gallons of water per day to approximately 16,000 residents through two service areas; the eastern service area and the western service area (see map below). The eastern service area is primarily located east of El Camino Real and the western service area is in the Sharon Heights area of the City. The California Water Service Bear Gulch District provides water to the middle area of the City.



The Hetch Hetchy System

Water from SFPUC's Hetch Hetchy system originates from spring snowmelt flowing down the Tuolumne River to storage in Hetch Hetchy Reservoir. Our pristine, well protected Sierra water source is approved by the United States Environmental Protection Agency (USEPA) and California Department of Public Health (CDPH) so that no filtration is required. Hetch Hetchy water is supplemented with surface water from two local watersheds. Rainfall and runoff from the 35,000-acre Alameda Watershed spanning Alameda and Santa Clara counties—

are collected in the Calaveras Reservoirs and San Antonio Reservoir for filtration and disinfection at the Sunol Valley Water Treatment Plant. Rainfall and runoff from the 23,000-acre Peninsula Watershed in San Mateo County are stored in the Crystal Springs Reservoir, San

Andreas Reservoir, and Pilarcitos Reservoir, and are filtered and disinfected at the Harry Tracy Water Treatment Plant. As in the past, the Hetch Hetchy Watershed provided the majority of our total water supply, with the remainder contributed by the two local watersheds in 2013.

Protecting the SFPUC Water System from Seismic Disaster

More than \$4 billion is being invested in seismic-related water infrastructure repairs, replacements or retrofits to protect the SFPUC's regional water system in the event of an earthquake. [The SFPUC and the Water District are making this investment in the Water System Improvement Program \(WSIP\) to ensure that the regional water system will be able to deliver water for public health, fighting fires and disaster recovery as quickly as possible following a seismic event.](#) To date, almost 80% of the 84 water infrastructure projects have been completed.

The U.S. Geological Survey has commended the SFPUC and its regional partners for taking the initiative to address the seismic threats in the region with this massive water infrastructure program. However, despite these significant efforts to safeguard the Hetch Hetchy regional system from an earthquake, there is a chance that up to 30% of the regional turnouts that supply water to your service area could be without service for up to 60 days. There is no way to predict where the next earthquake might strike or what areas could be impacted.

Contaminants and Regulations

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, 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 may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
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- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, can 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.



Tap Versus Bottled: Water Quality Testing

Did you know that Tap water is more stringently regulated than Bottled water? Tap water is highly regulated by the EPA, and the Water District must meet all CA Department of Public Health testing requirements.



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

Special Health Needs

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 guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline **800-426-4791** or at www.epa.gov/safewater.

Fluoridation and Dental Fluorosis

Mandated by State law, water fluoridation is a widely accepted practice proven to be safe and effective for preventing and controlling tooth decay. Our water is optimally fluoridated at 1.0 mg/l. Infants fed formula mixed with water containing fluoride at the optimal level may have an increased chance of developing tiny white lines or streaks in their teeth. These marks are referred to as mild to very mild fluorosis, and are often only visible under a microscope. Even in cases where the marks are visible, they do not pose any health risk. CDC considers it safe to use optimally fluoridated water for preparing infant formula. To lessen this chance of dental fluorosis, you may choose to use low-fluoride bottled water to prepare infant formula. Nevertheless, children may still develop dental fluorosis due to fluoride intake from other sources such as food, toothpaste and dental products. Contact your health provider or CDPH if you have concerns about dental fluorosis. Additional information can be found at CDPH website www.cdph.ca.gov/certlic/drinkingwater/pages/fluoridation.aspx or CDC website www.cdc.gov/fluoridation.

Lead from Plumbing Fixtures

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. There are no known lead service lines in our water distribution system. We are responsible for providing high quality drinking water, but we cannot control the variety of materials used in plumbing components. It is possible that lead levels at your home may be higher than at others because of plumbing materials used on your property.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Infants and young children are typically more vulnerable to lead in drinking water than the general population. 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 levels in your water, you may wish to have your water tested. Additional information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the USEPA's Safe Drinking Water Hotline **800-426-4791**, or at www.epa.gov/safewater/lead



Tap Versus Bottled: Water Costs

Did you know that Bottled water is more than 300 times the cost of Tap water?

A gallon of Bottled water costs about \$7.50 compared to a gallon of Tap water which costs less than one penny.



Menlo Park Emergency Water Supply Project Update

The District has two reservoirs in the western service area for emergency storage; however the eastern service area does not have emergency storage or a dedicated secondary water supply. In May 2009, the City Council completed a feasibility study for the eastern service area which stated that multiple wells could provide about 3,000 gpm (gallons per minute) to meet average-day potable water needs. In January 2013, the City Council authorized design of the first emergency well to be constructed at the City's Corporation Yard located at 333 Burgess Drive.

Design and construction of the Corp Yard Well consists of design, environmental review, well drilling, and construction of the above-ground wellhead facilities. The design process is underway, and the City anticipates the environmental document will be available for public review later this year, with the well

drilling to occur in 2015 and construction of the wellhead facilities in 2016.

Later this year the City anticipates holding Community Meetings to obtain public feedback on additional emergency well locations. For more information, please visit <http://www.menlopark.org/141/Emergency-Water-Supply- Wells>

Managing our Water Wisely: Urban Water Management Planning

The California Water Code requires urban water suppliers 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 Menlo Park completed the most recent update in 2010. The City worked collaboratively with SFPUC to assess supplies and demands during normal precipitation year and reviewed shortage contingency plans for dry periods. The UWMP can be found on the City's website at <http://www.menlopark.org/150/Urban-Water-Management-Plan>.

2013 Annual Water Quality Report



**City of Menlo Park
Municipal Water District**
701 Laurel Street
Menlo Park, CA 94025

This annual report contains important information about the quality of your drinking water and our commitment to providing excellence in water quality.

FOR MORE INFO

Water Billing (650) 330-0385
Water Conservation (650) 330-6720
Water Quality (650) 330-6740

Water District Webpage:
www.menlopark.org/waterdistrict

Water Conservation Webpage:
www.menlopark.org/waterconservation

GET INVOLVED

We invite your input on important water issues. For information about upcoming public meetings, visit www.menlopark.org/publicmeetings

Prepare Yourself for Emergencies

Recent earthquakes in the news are fitting reminders to prepare ourselves with emergency provisions. Although the SFPUC and the Water District strive to ensure a reliable supply of water for our customers, a natural disaster such as a major earthquake could interrupt water delivery. As a result, **it is imperative that everyone be prepared for the unexpected both in your homes and place of business.**

- Store tap water in a dark, cool place — at least three to five days worth of water (one gallon of water per person, per day, including pets) in clean, plastic, airtight food grade containers, such as two-liter soda bottles.
- Label each container with a date, and replace the water every six months.
- At the time of usage, add 16 drops of bleach to each gallon to ensure disinfection. (Use pure household bleach only—not products with scents or other additives.) Mix and allow the water to stand for 30 minutes before use. If a camp stove is available, you can also disinfect the water by bringing water to a rolling boil for 5 to 10 minutes.
- If you run out of stored drinking water, strain and treat water from your water heater. To strain, pour it through a clean cloth or layers of paper towels. Treat with household bleach, as directed above. Other sources of water inside the home are ice cubes, and the reservoir tank of your toilet (not the bowl).
- If your water supply is not sufficient for hand washing, use antiseptic hand gel or wipes.

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.
- Install water-saving devices in faucets, toilets and appliances.



Ways to conserve outdoors:

- Use a broom instead of a hose to clean the driveway.
- 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.

Water Quality Data for Year 2013

The enclosed table lists all detected drinking water contaminants in calendar year 2013 and the information about their typical sources. Contaminants below detection limits for reporting are not shown, in accord with regulatory guidance. We received a monitoring waiver from the CDPH for some contaminants which reduces their monitoring frequencies.



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. The District sends out notifications and tracks the testing and repair of over 800 backflow devices each year.

Key Water Quality Terms

Following are definitions of key terms referring to standards and goals of water quality noted on the adjacent data table.

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.

Regulatory Action Level: 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.

Turbidity: A water clarity indicator that measures cloudiness of the water, and is also used to indicate the effectiveness of the filtration system. High turbidity can hinder the effectiveness of disinfectants.

Cryptosporidium is a parasitic microbe found in most surface water. We regularly test for this waterborne pathogen, and found it at very low levels in source water and treated water in 2013. 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.

City of Menlo Park - Water Quality Data for Year 2013 ⁽¹⁾

DETECTED CONTAMINANTS	Unit	MCL	PHG or (MCLG)	Range or Level Found	Average or [Max]	Major Sources in Drinking Water
TURBIDITY						
Unfiltered Hetch Hetchy Water	NTU	5	N/A	0.2 - 0.3 ⁽²⁾	[3.6] ⁽³⁾	Soil runoff
Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	NTU	1 ⁽⁴⁾	N/A	-	[0.98]	Soil runoff
	-	Min 95% of samples \leq 0.3 NTU ⁽⁴⁾	N/A	99.9%	-	Soil runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	NTU	1 ⁽⁴⁾	N/A	-	[0.13]	Soil runoff
	-	Min 95% of samples \leq 0.3 NTU ⁽⁴⁾	N/A	100%	-	Soil runoff
DISINFECTION BYPRODUCTS AND PRECURSOR						
Total Trihalomethanes	ppb	80	N/A	0.8 - 54.4	[32] ⁽⁵⁾	Byproduct of drinking water disinfection
Haloacetic Acids	ppb	60	N/A	2.1 - 43.8	[21] ⁽⁵⁾	Byproduct of drinking water disinfection
Total Organic Carbon ⁽⁶⁾	ppm	TT	N/A	1 - 3.4	2.2	Various natural and man-made sources
MICROBIOLOGICAL						
Total Coliform ⁽⁷⁾	-	NoP \leq 5.0% of monthly samples	(0)	-	[0%]	Naturally present in the environment
<i>Giardia lamblia</i>	cyst/L	TT	(0)	<0.01 - 0.04	<0.01	Naturally present in the environment
INORGANICS						
Fluoride (source water) ⁽⁸⁾	ppm	2.0	1	ND - 0.8	0.4 ⁽⁹⁾	Erosion of natural deposits; water additive to promote strong teeth
Chloramine (as chlorine)	ppm	MRDL = 4.0	MRDLG = 4	1.5 - 2.9	[2.4] ⁽¹⁰⁾	Drinking water disinfectant added for treatment
RADIONUCLIDES						
Gross Alpha Particle Activity	pCi/L	15	(0)	ND - 3.9	ND	Erosion of natural deposits

CONSTITUENTS WITH SECONDARY STANDARDS	Unit	SMCL	PHG	Range	Average	Major Sources of Contaminant
Aluminum ⁽¹¹⁾	ppb	200	600	ND - 52	ND	Erosion of natural deposits; some water treatment residue
Chloride	ppm	500	N/A	<3 - 18	10.2	Runoff / leaching from natural deposits
Color	unit	15	N/A	<5 - 6	<5	Naturally occurring organic materials
Specific Conductance	μ S/cm	1600	N/A	29 - 258	169	Substances that form ions when in water
Sulfate	ppm	500	N/A	0.8 - 33	16.6	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	<20 - 109	71	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	0.1 - 0.3	0.1	Soil runoff

LEAD AND COPPER	Unit	AL	PHG	Range	90th Percentile	Major Sources in Drinking Water
Copper	ppb	1300	300	<1.0 - 179 ⁽¹²⁾	76.9	Internal corrosion of household water plumbing systems
Lead	ppb	15	0.2	<1.0 - 10.5 ⁽¹³⁾	2.0	Internal corrosion of household water plumbing systems

OTHER WATER QUALITY PARAMETERS	Unit	ORL	Range	Average
Alkalinity (as CaCO ₃)	ppm	N/A	7 - 71	46
Bromide ⁽¹⁴⁾	ppb	N/A	17 - 24	21
Calcium (as Ca)	ppm	N/A	3 - 23	13
Chlorate ⁽¹⁵⁾	ppb	800 (NL)	39 - 690	303
Hardness (as CaCO ₃)	ppm	N/A	7 - 89	53
Magnesium	ppm	N/A	<0.2 - 8.3	5.3
pH	-	N/A	6.5 - 9.4	8.4
Silica	ppm	N/A	4.8 - 5.2	5
Sodium	ppm	N/A	3 - 18	12

KEY:
< / \leq = less than / less than or equal to
AL = Action Level
Max = Maximum
Min = Minimum
N/A = Not Available
ND = Non-detect
NL = Notification Level
NoP = Number of Coliform-Positive Sample
NTU = Nephelometric Turbidity Unit
ORL = Other Regulatory Level
pCi/L = picocurie per liter
ppb = part per billion
ppm = part per million
μ S/cm = microSiemens/centimeter

Footnotes:

- (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) The highest turbidity of the unfiltered water in 2013 was 3.6 NTU.
- (4) There is no turbidity MCL for filtered water. The limits are based on the TT requirements for filtration systems.
- (5) This is the highest locational running annual average value.
- (6) Total organic carbon is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from the SVWTP only.
- (8) The SFPUC adds fluoride to an optimum level of 0.9 ppm to help prevent dental caries in consumers. The CDPH specifies the fluoride levels in the treated water be maintained within a range of 0.8 ppm - 1.5 ppm. In 2013, the range and average of the fluoride levels were 0.7 ppm - 1.4 ppm and 0.9 ppm, respectively.
- (9) The natural fluoride level in the Hetch Hetchy supply was ND. Elevated fluoride levels in the SVWTP and HTWTP raw water were attributed to the transfer of fluoridated Hetch Hetchy water into the reservoirs.
- (10) This is the highest running annual average value.
- (11) Aluminum also has a primary MCL of 1000 ppb.
- (12) The most recent Lead and Copper Rule monitoring was in 2012. Of the 38 site samples collected at consumer taps none had copper concentrations above the AL.
- (13) The most recent Lead and Copper Rule monitoring was in 2012. Of 38 site samples collected at consumer taps none had lead concentrations above the AL.
- (14) Bromide was monitored at HTWTP treated water in 2013.
- (15) The detected chlorate in the treated water is a degradation product of sodium hypochlorite used by the SFPUC for water disinfection.