

# 2016 Water Quality Report



HAYWARD

Utilities & Environmental Services Department ■ 777 B Street ■ Hayward, CA 94541-5007

## The CITY of HAYWARD

is pleased to present the **2016 Water Quality Report (Consumer Confidence Report)** to let the City water customers know where Hayward drinking water comes from, how it is treated, the results of water quality monitoring, and other important information about water quality.

The City of Hayward purchases all of its water from the San Francisco Public Utilities Commission (SFPUC). The results of water quality monitoring by the SFPUC and City of Hayward confirm that the water delivered to Hayward customers in 2016 met all state and federal standards. Important information about any contaminants that were detected in the drinking water in 2016 can be found in this report.



### WHAT IS THE SOURCE OF OUR DRINKING WATER?

SFPUC is the sole supplier of water to Hayward. The Hetch Hetchy watershed, an area located in Yosemite National Park, provides the majority of water delivered by SFPUC to Hayward.

Spring snow melt runs down the Tuolumne River and is stored in the Hetch Hetchy Reservoir.

SFPUC provides a small amount of water from the Alameda watershed, which is located in the East Bay and stored in the Calaveras and San Antonio Reservoirs. The two local reservoirs hold rain, local runoff, and some Hetch Hetchy water. This surface water source is supplemented by a small amount of ground water from Sunol Filter Galleries near the town of Sunol.

### IS OUR WATER FILTERED AND TREATED?

The Hetch Hetchy reservoir water supply meets all federal and state requirements for watershed protection, disinfection treatment, bacteriological quality, and operational standards. As a result, the U.S. Environmental Protection Agency and the State Water Resources Control Board (SWRCB) have granted the Hetch Hetchy water supply an exemption from filtration requirements. SFPUC monitors the Hetch Hetchy watershed weather conditions, water turbidity levels, microbial contaminants, maintains aqueduct disinfection levels in the water, and complies with reporting requirements. This enables SFPUC to maintain a filtration exemption for the Hetch Hetchy source.

That portion of the water that is stored locally in the Calaveras and San Antonio reservoirs, including stored Hetch Hetchy water, is treated and filtered. SFPUC adds fluoride to all water delivered to all its whole sale customers including Hayward.



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 SFPUC and its partner agencies, including the National Park Service, to reduce or eliminate contamination sources. 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 SWRCBs San Francisco District office (510-620-3474).

## PUBLIC PARTICIPATION

The Hayward City Council is the governing authority of the Hayward Water System. The City Council meets at 7:00 p.m. on Tuesday evenings, except for the second and fifth Tuesday of each month, at the Hayward City Hall. The San Francisco Public Utilities Commission (SFPUC) is the governing authority of the sole wholesale water supplier to Hayward. 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.

## WHO SHOULD SEEK ADVICE ABOUT DRINKING WATER?

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, as well as 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 and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA Safe Drinking Water Hotline (1-800-426-4791) or at [www.epa.gov/safewater](http://www.epa.gov/safewater).

## HOW DO DRINKING WATER SOURCES BECOME POLLUTED?

Sources of drinking water (both tap water and bottled water) typically include rivers, lakes, oceans, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in the 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, which 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, which 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, USEPA and the SWRCB prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. SWRCB regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

## FOR MORE INFORMATION...

If you would like more information about Hetch Hetchy water or water quality monitoring, please contact the SFPUC Water Quality Bureau at 877-737-8297 or visit its website at [www.sfwater.org](http://www.sfwater.org). For information about the City of Hayward Water Distribution System, please call Alicia Sargiotto at 510-583-4727 or visit [www.hayward-ca.gov](http://www.hayward-ca.gov).

**Este aviso contiene información muy importante sobre su agua potable. Si no lo entiende, por favor hable con una persona que si lo entienda.**

Ang ulat na ito ay naglalaman ng mahalagang impormasyon ukol sa iyong inuming tubig. Isalin-wika mo ito, o di kaya'y makipag-usap sa isang nakakaintindi nito.

Báo cáo này chứa đựng tin tức quan trọng về nước uống của quý vị. Xin phiên dịch ra, hay nói chuyện với người hiểu vấn đề này.

ਇਸ ਰਿਪੋਰਟ ਵਿੱਚ ਤੁਹਾਡੇ ਪੀਣ ਵਾਲੇ ਪਾਣੀ ਸੰਬੰਧੀ ਜ਼ਰੂਰੀ ਜਾਣਕਾਰੀ ਮੌਜੂਦ ਹੈ। ਇਸਦਾ ਅਨੁਵਾਦ ਕਰਾਓ ਜਾਂ ਇਸ ਬਾਰੇ ਉਸ ਵਿਅਕਤੀ ਨਾਲ ਗੱਲ ਕਰੋ ਜਿਹੜਾ ਇਸਨੂੰ ਸਮਝਦਾ ਹੋਵੇ।

इस रिपोर्ट में आपके पीने के पानी के बारे में महत्वपूर्ण जानकारी दी गई है। इसका अनुवाद करें, या जो कोई इसे समझते हैं उनसे बात करें।



# WATER QUALITY DATA

The tables below and on the following page provide important information about contaminants that were detected in the water in 2016. You may be unfamiliar with the terms and abbreviations, so here are definitions to help you understand the water quality summary:

## ■ 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 (USEPA).

## ■ 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 (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.

## ■ 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 Standards:

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 (AL):

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

## ■ Secondary Maximum Contaminant Level (SMCL):

Standards set by the USEPA/California Department of Public Health to protect the odor, taste, and appearance of drinking water.

## ■ Unregulated Contaminants (UCMR):

A federal rule that requires monitoring for contaminants that don't have drinking water standards set by the USEPA. The purpose of monitoring for these contaminants is to help the USEPA decide whether the contaminants need to be regulated.

Contaminants listed in the following tables were detected in 2016 drinking water samples. The tables contain the name of each substance, the highest level allowed by regulation (MCL), if applicable, the ideal goal for public health (PHG), if applicable, the amount detected, typical sources of the contamination, a key to the units of measurement, and notes to explain the findings. Laboratory staff analyzed the water samples for other contaminants. These contaminants, including MTBE, perchlorate, arsenic, herbicides and pesticides, were not detected.

## PRIMARY DRINKING WATER STANDARDS

### Mandatory Health-Related Standards

(See key and notes on next page)

Detected Contaminants	Unit	MCL	PHG (MCLG)	Range	Average (Maximum)	Typical Sources in Drinking Water
<b>TURBIDITY (SFPUC Treated Water)<sup>(1)</sup></b>						
Unfiltered Hetch Hetchy Water	NTU	TT = 5	N/A	0.3 – 0.5 <sup>(2)</sup>	(3.2)	Soil Runoff
Filtered Water –Sunol Valley WTP	NTU	TT = 1 <sup>(3)</sup>	N/A	-	(1)	Soil Runoff
	%	95% ≤0.3 <sup>(3)</sup>	N/A	98% - 100%	-	Soil Runoff
<b>DISINFECTION BY-PRODUCTS AND PRECURSORS (SFPUC Regional System)</b>						
Total Organic Carbon <sup>(5)</sup>	ppm	TT	N/A	1.6 - 5.3	2.4	Various natural and man-made sources
<b>DISINFECTION BY-PRODUCTS AND PRECURSORS (City of Hayward Distribution System)</b>						
Total Trihalomethanes (TTHMs)	ppb	80	N/A	45.1 - 72.3	(57) <sup>(4)</sup>	By-product of drinking water disinfection
Total Haloacetic Acids	ppb	60	N/A	16.0 - 55.9	(42) <sup>(4)</sup>	By-product of drinking water disinfection
<b>MICROBIOLOGICAL (SFPUC Regional System)</b>						
Giardia lamblia	cysts/L	TT	(0)	0 - 0.11	0.03	Naturally present in the environment
<b>MICROBIOLOGICAL (City of Hayward Distribution System)</b>						
Total Coliform	%	5	(0)	0.0 – 0.6 <sup>(6)</sup>	0.1 <sup>(6)</sup>	Naturally present in the environment
<b>INORGANIC CHEMICALS</b>						
Fluoride <sup>(7)</sup>	ppm	2	1	ND - 0.8	0.3 <sup>(8)</sup>	Erosion of natural deposits
<b>DISINFECTANT RESIDUALS (City of Hayward Distribution System)</b>						
Chlorine <sup>(9)</sup>	ppm	MRDL=4	MRDLG=4	0.0 - 3.4	2.4	Drinking water disinfectant for treatment
<b>LEAD AND COPPER RULE STUDY (City of Hayward Tap Water)</b>						
	Unit	AL <sup>(10)</sup>	PHG	Range	90th Percentile	Typical Sources in Drinking Water
Copper	ppb	1300	300	1.1 - 906	56.6 <sup>(11)</sup>	Corrosion of household plumbing systems
Lead	ppb	15	0.2	<1.0 - 32.1	2.3 <sup>(11)</sup>	Corrosion of household plumbing systems



## SECONDARY MAXIMUM CONTAMINANT LEVELS

### Consumer Acceptance Limits

Detected Contaminant	Unit	SMCL	Range	Average	Typical Sources in Drinking Water
Aluminum	ppb	200	ND - 55	ND	Erosion of natural deposits
Chloride	ppm	500	<3 - 16	8.8	Runoff/leaching from natural deposits
Color	unit	15	<5 - 11	<5	Naturally-occurring organic materials
Specific Conductance	µS/cm	1600	31 - 218	146	Substances that form ions when in water
Sulfate	ppm	500	1 - 30	16	Runoff/leaching from natural deposits
Total Dissolved Solids	ppm	1000	<20 - 95	63	Runoff/leaching from natural deposits
Turbidity	NTU	5	ND - 0.5	0.2	Soil runoff

### KEY TO UNITS OF MEASUREMENT

NTU	Nephelometric Turbidity Unit, which is a measurement of the clarity of water.
ppb	Parts per billion (or micrograms per liter), which is equivalent to one penny in \$10,000,000.
ppm	Parts per million (or milligrams per liter), which is equivalent to one penny in \$10,000.
cysts/L	Cysts per liter, which is a measurement of some microorganisms in water
<	Less than the stated detection limit.
µS/cm	MicroSiemens per centimeter.
ND	Non-detected
NL	Notification Level

### UNREGULATED CONTAMINANTS

Detected Contaminant	Unit	Year Sampled	MCL	PHG (MCLG)	Range	Average	Typical Sources in Drinking Water
Chlorate	ppb	2013-2016	800 (NL)	N/A	63 - 130	81	By-product of drinking water disinfection
Chromium-6	ppb	2013-2016	10	0.02	<0.03 - 0.7	0.15	Erosion of natural deposits; industrial discharges
Strontium	ppb	2013-2016	N/A	N/A	13 - 53	27	Erosion of natural and pipe deposits
Vanadium	ppb	2013-2016	50 (NL)	N/A	0.2 - 0.3	0.24	Erosion of natural and pipe deposits

### NOTES

- (1) Turbidity is the water clarity indicator, it also indicates the quality of the water and the treatment system efficiency.
- (2) These are monthly average turbidity values measured very 4 hours daily.
- (3) There is no turbidity MCL for filtered water. The limits are based on the TT requirements for filtration systems.
- (4) This is the highest locational running annual average value.
- (5) Total organic carbon is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from SVWTP only.
- (6) Percent of monthly samples that are positive in Hayward tap water.
- (7) In May 2015, the SWRCB recommended a fluoride level in the treated water be maintained at 0.7 ppm. In 2016, the range and average of the fluoride levels were 0.5 ppm - 0.8 ppm and 0.6 ppm, respectively.
- (8) The natural fluoride level in the Hetch Hetchy was ND. Elevated fluoride levels in the SVWTP raw water were attributed to the transfer of fluoridated Hetch Hetchy water into the reservoirs.
- (9) Water is disinfected with chloramine, a combination of chlorine and ammonia. Residual chlorine is measured.
- (10) The 90th percentile level of lead and copper must be less than the action level.
- (11) In 2016, 0 out of 59 sampled residences exceeded the Action Level at consumer taps for copper and 2 out of 59 sampled residences exceed the Action Level at consumer taps for lead.
- (12) Other Regulatory Level.
- (13) The detected chlorate in treated water is a degradation byproduct of sodium hypochlorite used by SFPUC for water disinfection.

### OTHER WATER QUALITY PARAMETERS

Parameter	Unit	ORL <sup>(12)</sup>	Range	Average
Alkalinity (as CaCO <sub>3</sub> )	ppm	N/A	7 - 112	39
Boron	ppb	1000 (NL)	ND - 123	ND
Bromide	ppb	N/A	<5 - 19	8
Calcium (as Ca)	ppm	N/A	2 - 18	10
Chlorate <sup>(13)</sup>	ppb	800 (NL)	47 - 250	143
Hardness (as CaCO <sub>3</sub> )	ppm	N/A	8 - 76	44
Magnesium	ppm	N/A	0.2 - 6	3.6
pH	unit	N/A	8.2 - 9.8	9.4
Phosphate (Ortho)	ppm	N/A	<0.03 - 0.11	0.04
Potassium	ppm	N/A	0.2 - 1	0.6
Silica	ppm	N/A	5.1 - 5.7	5.3
Sodium	ppm	N/A	2.6 - 17	11
Strontium	ppb	N/A	13 - 204	95

## CRYPTOSPORIDIUM AND GIARDIA

*Cryptosporidium* and *Giardia*, parasitic microbes found in most surface water supplies, can pose a potential health threat. If swallowed, either may produce symptoms of diarrhea, stomach cramps, upset stomach, and slight fever. Some people, including those with compromised immune systems, are more vulnerable to *Cryptosporidium* and *Giardia* than others and should seek advice about drinking water from their health care providers. SFPUC tests regularly for *Cryptosporidium* and *Giardia* in both source and treated water supplies. In 2016, very low levels of *Cryptosporidium* and *Giardia* were occasionally detected in source and treated water.

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 small amounts of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the USEPA Safe Drinking Water Hotline at (800) 426-4791 or visiting [www.epa.gov/safewater](http://www.epa.gov/safewater).

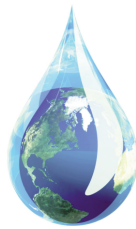
## LEAD IN YOUR DRINKING WATER

In 2016, the City of Hayward tested for lead in the tap water of 59 residences. Lead sampling is required every three years and will be performed again in 2019.

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 Hayward Water System 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 (use this water for other purposes – like watering plants). 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 at (800) 426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## SAVING WATER... MAKE IT A HABIT

*There are many simple steps that residents and businesses can take to save water.*



## WATER CONSERVATION STARTS WITH YOU

- Replace old toilets with new, water-saving models.
- Replace old fixtures with new, water saving models.
- Turn off the faucet when you are brushing your teeth, shaving, and doing the dishes.
- Take shorter showers. Each minute you cut from your shower saves 2.5 gallons of water.
- Don't hose down sidewalks, driveways and pavement. Use a broom to clean these areas.
- Wash only full loads in your dishwasher and clothes washer.
- Repair leaks. To check for toilet leaks, place a few drops of food coloring in the toilet tank. If color appears in the bowl, there is a leak and you probably need a new flapper.
- Give your landscaping only the water it needs. For example, most established lawns need water only once or twice a week. Water only at night or very early in the morning in order to reduce evaporation and use water more effectively. Placing mulch around your plants also reduces evaporation.
- Replace your lawn with water efficient and drought tolerant landscaping.
- Install faucet aerators in your kitchen and bathroom. Aerators reduce the volume of water coming from faucets, but because a little air is mixed into the water, you will feel like the flow is just as strong.
- Don't wash your car at home. Use a commercial car wash that recycles water.