

WATER QUALITY REPORT

2018



OUR DRINKING WATER



The City of Hayward is pleased to present the 2018 Water Quality Report (Consumer Confidence Report) to inform water customers about where Hayward drinking water comes from, how it is treated, the results of water quality monitoring, and other important information regarding water quality.

The City of Hayward purchases all of its drinking water from the San Francisco Public Utilities Commission (SFPUC). The results of the water quality monitoring performed by the SFPUC and the City of Hayward confirm that water delivered to Hayward water customers met all state and federal standards. Important information regarding any contaminants that were detected in the drinking water in 2018 can be found in this report.



Drinking Water Sources & Treatment

The Hetch Hetchy watershed, an area located in the Yosemite National Park, provides the majority of water delivered by the SFPUC to Hayward. Spring snowmelt runs down the Tuolumne River and is stored in the Hetch Hetchy Reservoir. The well-protected Sierra water source is exempt from filtration requirements by the United States Environmental Protection Agency (USEPA) and the State Water Resources Control Board's Division of Drinking Water (SWRCB-DDW). SFPUC provides the water from the Hetch Hetchy Reservoir following treatment to meet the appropriate drinking water standards for consumption: ultraviolet light and chlorine disinfection, pH adjustment for optimum corrosion control, fluoridation for dental health protection, and chloramination for maintaining disinfectant residual and minimizing the formation of regulated disinfection byproducts.

The Hetch Hetchy water is supplemented with some surface water from local watersheds and upcountry non-Hetch Hetchy sources (UNHHS). Rainfall and runoff from the 35,000-acre Alameda Watershed and Tuolumne River are collected in Calaveras Reservoir and San Antonio Reservoir before delivery to the Sunol Valley Water Treatment Plant (SVWTP). Rainfall and runoff from the 23,000-acre Peninsula Watershed are stored in Crystal Springs Reservoir, San Andreas Reservoir and Pilarcitos Reservoir, and are delivered to the Harry Tracy Water Treatment Plant. In 2018, the UNHHS was not used. Water at the two treatment plants is subject to filtration, disinfection, fluoridation, optimum corrosion control, and taste and odor removal.

Watersheds Protection

Watershed sanitary surveys for the Hetch Hetchy source are conducted annually. For local water sources, including UNHHS, surveys are conducted every five years. The latest local sanitary survey was completed in 2016 for the period of 2011-2015. The last watershed sanitary survey for UNHHS was conducted in 2015 as part of the SFPUC's drought response plan efforts. These surveys evaluate the sanitary conditions, water quality, potential contamination sources and the results of watershed management activities. With support from partner agencies including the National Park Service and US Forest Service, these surveys identified wildlife, stock, and human activities as potential contamination sources. For a review of these reports, contact the SWRCB-DDW at (510) 620-3474.

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. The SFPUC's fluoride target level in the water is 0.7 milligram per liter (mg/L, or part per million, ppm), consistent with the May 2015 State regulatory guidance on optimal fluoride level. Infants fed formula mixed with water containing fluoride at this level may still have a 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. The Centers of Disease Control (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 healthcare provider or SWRCB-DDW if you have concerns about dental fluorosis. For additional information about fluoridation or oral health, visit the CDC website at www.cdc.gov/fluoridation.

How do drinking water sources become polluted?

Sources of drinking water (both tap and bottled water) include rivers, lakes, oceans, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material. Water can pick up substances from the presence of animal or human activity. Such substances are called contaminants and may be present in source water as:

- **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 viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife
- **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, which 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

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 to provide the same protection for public health.

Drinking Water & Lead

The City of Hayward regularly tests for lead in drinking water in compliance with the USEPA's Lead and Copper Rule (LCR), which requires water agencies to test for lead at customer taps every three years. If lead concentrations exceed the Regulatory Action Level (AL) of 15 parts per billion in more than 10% of customer taps sampled, the agency must take action to notify the public and reduce corrosion of lead within the distribution system. Since the LCR's inception in 1991, the City of Hayward has always been below the AL threshold for lead. The most recent lead sampling in Hayward was performed in 2016 and tested for lead in 59 residences. The overall results were below the AL.

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. You can minimize the potential for lead exposure, when your water has been sitting for several hours, by flushing your tap for 30 seconds to 2 minutes (or until the water temperature has changed) 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/lead.

In 2017, a new law passed that required water systems to test for lead in drinking water at all public K-12 school by July 1, 2019. The City of Hayward provides water to thirty-four public K-12 school sites. All public school sites in Hayward have been tested and sampling results have been below the AL for lead, with the exception of one school, where a single water fountain exceeded the standard. Corrective action was immediately taken to remove the non-conforming tap from service. Complete lead testing results are available online at www.waterboards.ca.gov/leadsamplinginschools.

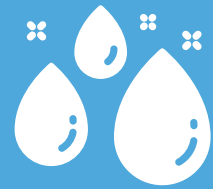
Who Should Seek Advice About Drinking Water?

Some people may be more vulnerable to contaminants in drinking water than the general population. Elderly, infants, and people with immune system disorders are particularly at risk from infections. These individuals and their caretakers should seek advice about drinking water from their healthcare providers. The Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to reduce the risk of infection from *Cryptosporidium* and other microbial contaminants are available from the USEPA Safe Drinking Water Hotline, (800) 426-4791, or at www.epa.gov/safewater.

Cryptosporidium and Giarda

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 2018. 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.

WATER QUALITY DATA



The following are definitions of key terms referring to standards and goals of water quality noted on the data table on Page 5:

- **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 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.
- **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.

The SFPUC's Water Quality Division (WQD) regularly collects and tests water samples from reservoirs and designated sampling points throughout the system to ensure the water delivered to you meets or exceeds federal and state drinking water standards. In 2018, WQD staff conducted more than 57,690 drinking water tests in the source, transmission, and distribution system. This is in addition to the extensive treatment process control monitoring performed by the SFPUC's certified operators and online instruments.

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. In order to ensure that tap water is safe to drink, the USEPA and SWRCB-DDW prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

City of Hayward - Water Quality Data for Year 2018 ⁽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	0.3 - 0.8 ⁽²⁾	[1.8]	Soil runoff
Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	NTU	1 ⁽³⁾	N/A	-	[1]	Soil runoff
Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	-	Min 95% of samples ≤ 0.3 NTU ⁽³⁾	N/A	99.96% - 100%	-	Soil runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	NTU	1 ⁽³⁾	N/A	-	[0.07]	Soil runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	-	Min 95% of samples ≤ 0.3 NTU ⁽³⁾	N/A	100%	-	Soil runoff
DISINFECTION BYPRODUCTS AND PRECURSOR						
Total Trihalomethanes	ppb	80	N/A	36.0 - 78.0	50.0 ⁽⁴⁾	Byproduct of drinking water disinfection
Haloacetic Acids	ppb	60	N/A	24.0 - 49.0	32.9 ⁽⁴⁾	Byproduct of drinking water disinfection
Total Organic Carbon ⁽⁵⁾	ppm	TT	N/A	1.2 - 2.9	2.2	Various natural and man-made sources
MICROBIOLOGICAL						
Total Coliform ⁽⁶⁾	-	NoP ≤ 5.0% of monthly samples	(0)	-	< 5.0%	Naturally present in the environment
<i>Giardia lamblia</i>	cyst/L	TT	(0)	0 - 0.24	0.03	Naturally present in the environment
INORGANICS						
Fluoride (source water) ⁽⁷⁾	ppm	2.0	1	ND - 0.7	0.3 ⁽⁸⁾	Erosion of natural deposits; water additive to promote strong teeth
Chloramine (as chlorine)	ppm	MRDL = 4.0	MRDLG = 4	0.1 - 3.8	2.5 ⁽⁹⁾	Drinking water disinfectant added for treatment

Constituents with Secondary Standards	Unit	SMCL	PHG	Range	Average	Major Sources of Contaminant
Chloride	ppm	500	N/A	<3 - 17	8.9	Runoff / leaching from natural deposits
Color	unit	15	N/A	<5 - 7	<5	Naturally-occurring organic materials
Specific Conductance	µS/cm	1600	N/A	29 - 221	154	Substances that form ions when in water
Sulfate	ppm	500	N/A	0.9 - 29	16	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	<20 - 144	82	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	ND - 0.3	0.1	Soil runoff

Lead & Copper	Unit	AL	PHG	Range	90th Percentile	Major Sources in Drinking Water
Copper	ppb	1300	300	1.1 - 906 ⁽¹⁰⁾	56.6	Internal corrosion of household water plumbing systems
Lead	ppb	15	0.2	<1.0 - 32.1 ⁽¹⁰⁾	2.3	Internal corrosion of household water plumbing systems

Other Water Quality Parameters	Unit	ORL	Range	Average
Alkalinity (as CaCO ₃)	ppm	N/A	<3 - 132	51
Boron	ppb	1000 (NL)	ND - 104	ND
Bromide	ppb	N/A	<5 - 27	7
Calcium (as Ca)	ppm	N/A	2.9 - 18	11
Chlorate ⁽¹¹⁾	ppb	800 (NL)	42 - 230	124
Chromium (VI) ⁽¹²⁾	ppb	NA	0.031 - 0.1	0.068
Hardness (as CaCO ₃)	ppm	N/A	15 - 68	47
Magnesium	ppm	N/A	<0.2 - 6.2	4.0
pH	-	N/A	8.6 - 9.8	9.4
Potassium	ppm	N/A	0.2 - 1.0	0.6
Silica	ppm	N/A	2.8 - 7.1	5.0
Sodium	ppm	N/A	2.3 - 20	14
Strontium	ppb	N/A	12 - 199	99

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
NoP = Number of Coliform-Positive Sample
NTU = Nephelometric Turbidity Unit
ORL = Other Regulatory Level
ppb = part per billion
ppm = part per million
µS/cm = microSiemens/centimeter

Footnotes:

- All results met State and Federal drinking water health standards.
- These are monthly average turbidity values measured every 4 hours daily.
- There is no turbidity MCL for filtered water. The limits are based on the TT requirements for filtration systems.
- This is the highest locational running annual average value.
- Total organic carbon is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from the SVWTP only.
- Percent of monthly samples that are positive in Hayward tap water. There was no E. Coli positive samples collected in 2018.
- In May 2015, the SWRCB recommended an optimal fluoride level of 0.7 ppm be maintained in the treated water. In 2018, the range and average of the fluoride levels were 0.6 ppm to 1.0 ppm and 0.7 ppm, respectively.
- The natural fluoride level in the Hetch Hetchy supply was ND. Elevated fluoride levels in the SVWTP and HTWTP raw water are attributed to the transfer of fluoridated Hetch Hetchy water into the local reservoirs.
- This is the highest running annual average value.
- The 90th percentile level of lead and copper must be less than the action level. The most recent Lead and Copper Rule monitoring was in 2016. In 2016, 0 of 59 sampled residences exceeded the Action Level at customer taps for copper, and 2 out of 59 sampled exceeded the Action Level at customer taps for lead.
- The detected chlorate in the treated water is a degradation product of sodium hypochlorite used by the SFPUC for water disinfection.
- Chromium (VI) has a PHG of 0.02 ppb but no MCL. The previous MCL of 10 ppb was withdrawn by the SWRCB-DDW on September 11, 2017. Currently, the SWRCB-DDW regulates all chromium through a MCL of 50 ppb for Total Chromium, which was not detected in our water in 2018.

WATER CONSERVATION & SUSTAINABILITY



The City of Hayward believes water is one of our most precious resources and is dedicated to water conservation. In effort to assist our residents and businesses to conserve water, the City of Hayward offers the following water conservation programs:

- **Free low-flow water fixtures:** Pick up low-flow faucet aerators and showerheads at our office at Hayward City Hall, 777 B Street, from 8 AM to 5 PM, Monday to Friday. These water fixtures are provided at no cost to residents.
- **Rebate programs:** The City of Hayward offers a variety of rebate programs to encourage water conservation, including lawn conversions, high-efficiency toilets, and rain barrels. For more information and to learn how to apply for rebates, visit our website at www.hayward-ca.gov/water-conservation.
- **Free sustainability-focused landscaping classes:** Every spring and fall, the City of Hayward hosts free landscaping classes at City Hall. Classes have previously provided instruction and materials for sustainable garden design, lawn conversion, water-efficient irrigation systems, and composting! For more information on upcoming classes, visit www.bawsca.org/classes. To be on the email list for notifications of upcoming classes in Hayward, email utilities.administration@hayward-ca.gov with your request.
- **EarthCapades:** The City of Hayward offers school assemblies, free-of-charge, to schools to increase student awareness of water conservation. EarthCapades performances combine age-appropriate state science standards with circus skills, juggling, music, storytelling, comedy, and audience participation to teach environmental awareness, water science and conservation.
- **WaterWise School Education Program:** Through this program, "water conservation kits" are distributed to 5th grade students to empower them to install water-saving devices and perform a water audit in their home. The kit includes high-efficiency shower heads, low-flow faucet aerators, an energy cost calculator, a flow rate test bags, a toilet leak detection kit, and more. The water conservation curriculum can be easily implemented by teachers and includes methods to quantify the water savings as a result of taking the actions in the curriculum.





Hayward City Council is the governing authority of the Hayward Water System. City Council meets the first, third, and fourth Tuesday every month at 7 PM at Hayward City Hall, 777 B Street. The SFPUC is the governing authority of the wholesale water system that supplies water to Hayward. SFPUC meets on the second and fourth Tuesdays of the month at 1:30 PM at San Francisco City Hall, Room 400. The public is invited to participate in these meetings.

If you would like more information regarding the City of Hayward Water Distribution system, or would like to contact our office, please contact:

City of Hayward, Public Works & Utilities
777 B Street
Hayward, CA 94541
(510) 583-4700
utilities.administration@hayward-ca.gov

We also provide additional information on our website at www.hayward-ca.gov/ues.

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

此份水質報告，內有重要資訊。請找他人為你翻譯和解說清楚。

このレポートには、飲料水に関する重要な情報が含まれています。通訳を依頼するか、これを理解している人に相談してください。

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.

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