

2021 WATER QUALITY REPORT




OUR DRINKING WATER

The City of Hayward is pleased to present the 2021 Water Quality Report (Consumer Confidence Report), which helps keep our customers informed about where their drinking water comes from, how it is treated, and details about its quality.

The City of Hayward purchases its water supply from the San Francisco Public Utilities Commission (SFPUC), which delivers the water to Hayward through its Regional Water System (SFRWS), the wholesale customer system owned and operated by the SFPUC. The SFRWS supply is predominantly snowmelt from the Sierra Nevada Mountains, delivered through the Hetch Hetchy aqueducts, but it also includes treated water produced by the SFPUC from its local watersheds and facilities in Alameda and San Mateo Counties.

To meet drinking water standards for consumption, all surface water supplies, including upcountry non-Hetch Hetchy sources (UNHHS), undergo treatment by the SFRWS before its delivered. Although water from the Hetch Hetchy reservoir 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), it receives the following treatment processes: 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.

If Hetch Hetchy-sourced water is supplement by surface water from local watersheds and upcountry non-Hetch Hetchy sources UNHHS, this water is subject to filtration, disinfection, fluoridation, optimum corrosion control, and taste and odor removal to ensure it meets federal and state drinking water standards. In 2021, no UNHHS water was used.



Water quality is monitored by the SFPUC and the City of Hayward to ensure that it continues to meet and exceed all state and federal standards. Information regarding the findings of the 2021 water quality monitoring can be found in the following sections of this report.



WATERSHED PROTECTION

Watershed sanitary surveys for the Hetch Hetchy source are conducted annually, and for non-Hetch Hetchy surface water sources, every five years. The purpose of the surveys are to evaluate the sanitary conditions and water quality of the watersheds and to review results of watershed management activities conducted in the preceding years.

The latest sanitary surveys for the non-Hetch Hetchy watersheds were completed in 2021 for the years 2016 to 2020. With support from partner agencies, including the National Park Service and US Forest Service, the SFRWS's watershed protection management activities and surveys were completed. Wildfire, wildlife, livestock, and human activities continue to be potential contamination sources. For more information, contact the SWRCB-DDW at (510) 620-3474.

FLUORIDATION & 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 the 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 the 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.

WATER QUALITY

Together with the SFPUC, we regularly collect and test water samples from reservoirs and designated sampling points throughout the sources and the transmission system to ensure that the water delivered to customers meets or exceeds federal and State drinking water standards. In 2021, the SFPUC conducted more than 48,320 drinking water tests in the sources and the transmission system.

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 United States Environmental Protection Agency (USEPA) and the 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.

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 also 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 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, 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

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.

DRINKING WATER & LEAD

Elevated levels of lead, if present, 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.

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. The City of Hayward's policy is to remove and replace any lead user service lines promptly if it is discovered during pipeline repair and/or maintenance. Plumbing components in homes may still contain lead materials. You can minimize your risk of potential lead exposure by identifying and removing lead materials in your home. Before drinking tap water, flush your tap for several minutes (or until the water temperature has changed) before using water for drinking or cooking. You can also use a filter certified by an American National Standards Institute accredited certifier to remove lead from drinking water.

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 2019 and tested for lead in 60 residences, which were all below the AL.

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 schools. All public school sites in Hayward were tested and sampling was completed on schedule. All sampling sites were 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.

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.

TOTAL COLIFORM RULE

This report reflects changes in drinking water regulatory requirements during 2021, in which the SWRCB adopted California version of the federal Revised Total Coliform Rule. The revised rule, effective on July 1, 2021, protects public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria). Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, they must be corrected. During 2021, the City of Hayward did not detect the presence of microbials within the water system.

WATER QUALITY DATA

This report provides a snapshot of water quality during 2021. The data tables provided in this section provides detected contaminants in our drinking water and information about their typical sources.

The following are definitions of key terms referring to standards and goals of water quality noted on the data table on Page 6:

- **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 disinfectant allowed in drinking water. There is convincing evidence that addition of 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 2021. 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 for Year 2021

The table below lists all drinking water contaminants detected in 2021 and the information about their typical sources. Contaminants below detection limits for reporting are not shown in accordance with regulatory guidance. The SFPUC holds a State Water Resources Control Board's Division of Drinking Water (SWRCB-DDW) monitoring waiver for some contaminants in its surface water supply, and therefore the associated monitoring frequencies are less than annual.

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 - 0.4 ⁽¹⁾	[2.1]	Soil runoff
Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	NTU	1 ⁽²⁾	N/A	-	[1]	Soil runoff
Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	-	Min 95% of samples ≤ 0.3 NTU ⁽²⁾	N/A	99.8% - 100%	-	Soil runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	NTU	1 ⁽²⁾	N/A	-	[0.1]	Soil runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	-	Min 95% of samples ≤ 0.3 NTU ⁽²⁾	N/A	100%	-	Soil runoff
DISINFECTION BYPRODUCTS AND PRECURSOR						
Total Trihalomethanes	ppb	80	N/A	25.6 - 40.7	33.2 ⁽³⁾	Byproduct of drinking water disinfection
Five Haloacetic Acids	ppb	60	N/A	11.2 - 42.3	26.1 ⁽³⁾	Byproduct of drinking water disinfection
Bromate	ppb	10	0.1	ND - 1.9	2.1 ⁽⁴⁾	Byproduct of drinking water disinfection
Total Organic Carbon ⁽⁵⁾	ppm	TT	N/A	1.2 - 2.2	1.8	Various natural and man-made sources
MICROBIOLOGICAL						
Total Coliform ⁽⁶⁾	-	NoP ≤ 5.0% of monthly samples	(0)	-	< 5.0%	Naturally present in the environment
Fecal coliform and <i>E. coli</i> ⁽⁷⁾	-	0 Positive Samples	0	-	0	Human or animal fecal waste
<i>Giardia lamblia</i>	cyst/L	TT	(0)	0 - 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	0.0 - 3.2	2.8 ⁽⁴⁾	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 - 11	6.7	Runoff / leaching from natural deposits
Specific Conductance	µS/cm	1,600	N/A	34 - 217	135	Substances that form ions when in water
Sulfate	ppm	500	N/A	1.1 - 29	13	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1,000	N/A	<20 - 96	52	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	ND - 0.2	ND	Soil runoff

Lead & Copper	Unit	AL	PHG	Range	90th Percentile	Major Sources in Drinking Water
Copper	ppb	1,300	300	1.5 - 60.7 ⁽¹⁰⁾	41.4	Internal corrosion of household water plumbing systems
Lead	ppb	15	0.2	<1.0 - 6.1 ⁽¹⁰⁾	4.8	Internal corrosion of household water plumbing systems

Other Water Quality Parameters	Unit	ORL	Range	Average
Alkalinity (as CaCO ₃)	ppm	N/A	4.5 - 79	37
Calcium (as Ca)	ppm	N/A	28 - 420	162
Chlorate ⁽¹¹⁾	ppb	800 (NL)	7.7 - 60	34
Hardness (as CaCO ₃)	ppm	N/A	<0.2 - 5.5	3
Magnesium	ppm	N/A	8.6 - 9.7	9
pH	-	N/A	<0.3 - 0.3	<0.3
Potassium	ppm	N/A	0.4 - 1.1	1
Silica	ppm	N/A	3 - 5.9	5
Sodium	ppm	N/A	3.1 - 17	12
Strontium	ppb	N/A	14 - 181	83

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
pCi/L = picocurie per liter
ppb = part per billion
ppm = part per million
µS/cm = microSiemens/centimeter

Footnotes:

- (1) These are monthly average turbidity values measured every 4 hours daily.
- (2) There is no turbidity MCL for filtered water. The limits are based on the TT requirements for filtration systems.
- (4) This is the highest running annual average value.
- (5) Total organic carbon is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from the Sun Valley Water Treatment Plant (SVWTP) only.
- (6) Systems collecting < 40 coliform samples monthly should report the highest number (not the percentage) of total coliform positive samples collected in any one month. This MCL was no longer in effect on July 1, 2021.
- (7) The MCL was changed to *E. coli* based starting on July 1, 2021 when the State Revised Total Coliform Rule became effective. There were no positive *E. coli* samples collected in 2021.
- (8) The SWRCB recommended an optimal fluoride level of 0.7 ppm be maintained in the treated water. In 2021, the range and average of the fluoride levels were 0.6 ppm - 0.9 ppm and 0.7 ppm, respectively.
- (9) Natural fluoride in the Hetch Hetchy source was ND. Elevated fluoride levels in raw water at the SVWTP and Harry Tracy Water Treatment Plant (HTWTP) were attributed to the transfer of fluoridated Hetch Hetchy water into the local reservoirs.
- (10) 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 2019. In 2019, 0 of 60 sampled residences exceeded the Action Level at customer taps for copper and lead.
- (11) The detected chlorate in the treated water is a degradation product of sodium hypochlorite used by the San Francisco Regional Water System (SFRWS) for water disinfection.

WATER CONSERVATION & SUSTAINABILITY

The City of Hayward believes water is one of our most precious resources and is dedicated to water conservation.

In response to nearly three years of statewide drought, on November 2021, the SFPUC declared a Water Shortage Emergency to help extend water supplies. The City of Hayward has historically been a steward of our water resources and remains vigilant in using water wisely during current drought conditions. In an effort to assist our residents and businesses with water use efficiency, the City of Hayward offers the following water conservation programs:

- **Free low-flow water fixtures:** Low-flow faucet aerators and showerheads are available for pick up at Hayward City Hall from 8 AM to 5 PM, Monday to Friday. These water fixtures are provided at no cost to residents. For bulk requests, please email utilities.administration@hayward-ca.gov to arrange pick ups.
- **Rebate programs:** A variety of rebate programs are offered to help customers reduce their water use, including lawn conversions and rain barrel rebates. For more information and to learn how to apply for rebates, visit our website at: www.hayward-ca.gov/water-conservation.
- **Free water conservation classes:** Every spring and fall, the City of Hayward hosts free landscaping classes via Zoom. Classes provide instruction for a variety of topics, including sustainable garden design, lawn conversion, water-efficient irrigation systems, and composting. For more information on upcoming classes, visit www.bawsca.org/classes. Customers interested in email notifications of upcoming classes hosted by Hayward, can email utilities.administration@hayward-ca.gov with your request.
- **EarthCapades:** School assemblies are offered free-of-charge to increase student awareness of water conversation. 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 Education Program:** Water Conservation Kits are distributed to 5th grade students to empower them to install water-saving devices and perform water audits in their homes. The Kits include high-efficiency shower heads, low-flow faucet aerators, energy cost calculators, flow rate test bags, toilet leak detection kits, 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.





The 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 Regional 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's Water Distribution System, please contact:

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

Additional information is available on our website at www.hayward-ca.gov/wq.

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