



2017 Annual

Water Quality Report

City of East Palo Alto
PWS ID: CA4110024



This report contains important information about your drinking water. If you do not understand it, please have someone explain or translate it for you.

Este informe contiene información muy importante sobre su agua potable. Si no lo comprende, favor acudir a alguien que se lo pueda traducir o explicar.

The City of East Palo Alto and American Water Message

The City of East Palo Alto's water system is under a 25 year agreement with American Water. In this agreement with the City of East Palo Alto, American Water provides all operations and maintenance works for the system. American Water reads all meters, provides customer service and billing, and payment collection. With a history dating back to 1886, American Water is the largest and most geographically diverse U.S. publicly traded water and wastewater utility company. The company employs more than 6,700 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 47 states and Ontario, Canada. More information can be found by visiting www.amwater.com.

As a trusted leader in the industry, American Water places a strong emphasis on sharing water quality information with our customers.

The customers of the City of East Palo Alto and American Water are our top priority, and we are committed to providing them with the highest quality drinking water and service possible now and in the years to come. In addition to this report, you can view information about your water system at www.ci.east-palo-alto.ca.us.

Please review this Consumer Confidence Report, which outlines information applicable to your local water system for testing completed between January 2017 through December 2017.

The web sites of United States Environmental Protection Agency's (USEPA)Office of Water, the Centers for Disease Control and Prevention (CDC), and California State Water Resources Control Board (SWRCB) provide a substantial amount of information on many issues relating to water resources, water conservation and public health.

How to Contact Us

For more information about the contents of this report, please contact the American Water Project Manager at (650) 322-2083 or visit us online at www.ci.east-palo-alto.ca.us.

Water quality policies are decided at public hearings held at the East Palo Alto Government Center 2415 University Ave- First Floor- City Council Chamber. For more information, visit www.ci.east-palo-alto.ca.us.

Water Quality: Contaminants and Regulations

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. Such substances are called contaminants. 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's Division of Drinking Water (DDW) 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 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 800-426-4791.

Special Health Information

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/CDC 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.

Water Information Sources

The City of East Palo Alto is supplied water by the San Francisco Regional Water System (SFRWS), which is owned and operated by the San Francisco Public Utilities Commission (SFPUC). Its major water source originates from spring snowmelt flowing down the Tuolumne River to storage in Hetch Hetchy Reservoir. The well protected Sierra water source is exempt from filtration requirements by the USEPA and SWRCB-DDW. Water from the Hetch Hetchy reservoir receives the following treatment to meet appropriate drinking water standards: disinfection by ultraviolet light and chlorine, corrosion control by adjustment of the water pH value, fluoridation for dental health protection, and chloramination for maintaining disinfectant residual and minimizing disinfection byproduct formation.

Hetch Hetchy water is supplemented with surface water from two local watersheds. Rainfall and runoff from the 35,000-acre Alameda Watershed in Alameda and Santa Clara counties are collected in the Calaveras and San Antonio reservoirs, and delivered to the Sunol Valley Water Treatment Plant (SVWTP). Rainfall and runoff from the 23,000-acre Peninsula Watershed in San Mateo County are stored in the Crystal Springs, San Andreas and Pilarcitos reservoirs, and are delivered to the Harry Tracy Water Treatment Plant. In addition to these local sources, the SWRCB-DDW approved the SFPUC to use the surface water in Lake Eleanor, Lake Cherry and the associated creeks all conveyed via the Lower Cherry Aqueduct, Early Intake Reservoir and Tuolumne River (collectively known as Upcountry Non-Hetch Hetchy Sources, or UNHHS) as additional drinking water sources to the SFRWS. The UNHHS water, if used, will be treated at the SVWTP prior to service to customers. In 2017, the SFRWS did not use UNHHS. Water at the two local treatment plants is subject to filtration, disinfection, fluoridation, and pH adjustment for corrosion control optimization.

Protecting Our Watersheds

The SFPUC conducts watershed sanitary surveys for the Hetch Hetchy source annually and local water sources every five years. The last local sanitary survey was done in 2016. The SFPUC conducted a special watershed sanitary survey for UNHHS in 2015 as part of its drought response plan efforts. These surveys evaluate the sanitary condition, water quality, potential contamination sources and the results of watershed management activities, and were completed with support from partner agencies including National Park Service and US Forest Service.

These surveys identified wildlife, stock, and human activities as potential contamination sources. You may contact the San Francisco District office of SWRCB-DDW at 510-620-3474 to review these reports.

What is a Water Quality Report?

To comply with SWRCB and USEPA regulations, American Water issues a report annually describing the quality of your drinking water. The purpose of this report is to provide you an overview of last year's (2017) drinking water quality. It includes details about where your water comes from and what it contains. We hope the report will raise your understanding of drinking water issues and awareness of the need to protect your drinking water sources. For more information, please contact the Project Manager at (650) 322-2083

You may visit these sites as well as American Water's website at the following addresses:

Centers for Disease Control and Prevention

www.cdc.gov

California State Water Resource Control Board

http://www.waterboards.ca.gov/drinking_water/programs/index.shtml

United States Environmental Protection Agency

www.epa.gov/safewater

American Water

www.amwater.com

American Water Works Association

www.awwa.org

Safe Drinking Water Hotline: (800) 426-4791

How is Your Water Treated?

Your water receives the following treatment to meet appropriate drinking water standards: disinfection by ultraviolet light and chlorine, corrosion control by adjustment of the water pH value, fluoridation for dental health protection, and chloramination for maintaining disinfectant residual and minimizing disinfection byproduct formation.

Share This Report

Landlords, businesses, schools, hospitals and other groups are encouraged to share this important information with water users at their location who are not billed customers of the City of East Palo Alto and therefore do not receive this report directly.

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, 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 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 SWRCB-DDW if you have concerns about dental fluorosis. For additional information about fluoridation or oral health, visit the CDC website www.cdc.gov/fluoridation or SWRCB-DDW website www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml

Cryptosporidium

Cryptosporidium is a single cell microbial organism found in surface water throughout the US. During its life cycle it matures into resistant cells called oocysts that can be shed in feces. The disease caused by *Cryptosporidium* is called Cryptosporidiosis and is caused by infection with oocysts. People can be exposed to oocysts from other people, animals, water, swimming pools, fresh food, soils, and any surface that has not been sanitized after exposure to feces. Symptoms range from a mild to incapacitating diarrhea, cramps, loss of appetite, weight loss, nausea, and low-grade fever.

Cryptosporidium can be removed through commonly-used filtration methods, US EPA issued a new rule in January 2006 that requires systems with higher *Cryptosporidium* levels in their source water to provide additional treatment. The EPA created this rule (Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) to provide for increased protection against microbial pathogens, such as *Cryptosporidium*, in public water systems that use surface water sources.

Substances Expected to be in Drinking Water

Generally, the sources of drinking water (both tap water and bottled water) 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. 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.

More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline 800-426-4791, or at www.epa.gov/safewater.

Information about Lead

Is there lead in my water?

Although we regularly test lead levels in your drinking water, it is possible that lead and/or copper levels at your home are higher because of materials used in your plumbing. If present, elevated levels of lead can cause serious 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 City of East Palo Alto is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead and copper exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. You can also use cold water for cooking, drinking, or making baby formula; use low lead containing faucets; and when replacing or working on pipes, use lead-free solder. If you are concerned about lead in your drinking 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 National Lead Information Center (800-LEAD-FYI) or the EPA Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

How to Read the Data Tables

The City of East Palo Alto conducts extensive monitoring to ensure that your water meets all water quality standards. The results of our monitoring are reported in the following tables. While most monitoring was conducted in 2017, certain substances are required to be monitored less than once per year and represent the most current results available. For help with interpreting this table, see the “Table Definitions” section.

Starting with **Detected Contaminants**, please read across:

Year Sampled is usually in 2017 or year prior

MCL shows the highest level of substance (contaminant) allowed.

MCLG is the goal level for that substance (this may be lower than what is allowed).

Average Amount Detected represents the measured amount (less is better).

Range tells the highest and lowest amounts measured.

A **Yes** under **Compliance Achieved** means the amount of the substance met government requirements.

Typical Source tells where the substance usually originates.

Unregulated substances are measured, but maximum allowed contaminant levels have not been established by the government.

Table Definitions and Abbreviations

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

BPQL (Below Practical Quantitative Limit): Below the minimum concentration of a substance can be measured and reported with 99 percent confidence that the true value is greater than zero.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level): The highest level of disinfectant routinely allowed in drinking water. Addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of 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 contamination.

mrem/year: Millirems per year (a measure of radiation absorbed by the body).

NA: Not applicable.

ND: Not detected.

NTU - Nephelometric Turbidity Units: Measurement of the clarity, or turbidity, of water.

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

pCi/L (picocuries per liter): Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).

pH: A measurement of acidity, 7.0 being neutral.

PHG (Public Health Goal): the level of a chemical contaminant in drinking water that does not pose a significant risk to health. PHGs are not regulatory standards.

ppm (parts per million): One part substance per million parts water, or milligrams per liter.

ppb (parts per billion): One part substance per billion parts water, or micrograms per liter.

ppt (parts per trillion): One part substance per trillion parts water, or nanograms per liter.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

Water Quality Statement

The City of East Palo Alto is required to sample for many different contaminants in your drinking water annually. The tables below only contain sample results for contaminants that were detected in your drinking water. Some contaminants are required to be sampled for less than annually and in these cases, the most recent sample results are provided below and the year they were collected.

REGULATED CONTAMINANTS FROM SAN FRANCISCO PUBLIC UTILITIES COMMISSION (PURCHASED WATER)

Detected Contaminants	YEAR	UNIT	MCL	PHG OR (MCLG)	Range or Level Found	Average OR [Max]	Major Sources in Drinking Water
TURBIDITY							
Unfiltered Hetch Hetchy Water	2017	NTU	5	N/A	0.3- 1.1 ⁽¹⁾	[2.7]	Soil Runoff
Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	2017	NTU	1 ⁽²⁾ Min 95% of samples ≤ 0.3 NTU ⁽²⁾	N/A	- 99% - 100%	[1] -	Soil Runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	2017	NTU	1 ⁽²⁾ Min 95% of samples ≤ 0.3 NTU ⁽²⁾	N/A	- 100%	[0.1] -	Soil Runoff
DISINFECTANT BYPRODUCTS AND PRECURSOR							
Total Organic Carbon ⁽³⁾	2017	ppm	TT	N/A	1.0 - 3.7	2.4	Various natural and man-made sources
MICROBIOLOGICAL							
Giardia lamblia	2017	cyst/L	TT	(0)	0 - 0.22	0.05	Naturally present in the environment
INORGANICS							
Fluoride (source water) ⁽⁴⁾	2017	ppm	2.0	1	ND - 0.6	0.2 ⁽⁵⁾	Erosion of natural deposits; water additive to promote strong teeth
<p>1. These are monthly average turbidity values measured every 4 hours daily</p> <p>2. There is no turbidity MCL for filtered water. The limits are based on the TT requirements for filtration systems.</p> <p>3. Total organic carbon is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from the SVWTP only.</p> <p>4. In May 2015, the SWRCB recommended an optimal fluoride level of 0.7 ppm be maintained in the treated water. In 2016, the range and average of the fluoride levels were 0.5 ppm - 0.8 ppm and 0.6 ppm, respectively.</p> <p>5. 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.</p>							

CONSTITUENTS WITH SECONDARY STANDARDS							
	YEAR	UNIT	SMCL	PHG	Range	Average	Major Sources of Contaminant
Aluminum ⁽⁶⁾	2017	ppb	200	600	ND - 99	ND	Erosion of natural deposits; some surface water treatment residue
Chloride	2017	ppm	500	N/A	<3 - 17	9.0	Runoff / leaching from natural deposits
Color	2017	unit	15	N/A	<5 -13	<5	Naturally-occurring organic materials
Specific Conductance	2017	µS/cm	1600	N/A	29 - 256	168	Substances that form ions when in water
Sulfate	2017	ppm	500	N/A	0.9 - 34	17	Runoff / leaching from natural deposits
Total Dissolved Solids	2017	ppm	1000	N/A	<20 - 122	76	Runoff / leaching from natural deposits
Turbidity	2017	NTU	5	N/A	0.1 - 1	0.4	Soil runoff
6. Aluminum also has a primary MCL of 1,000 ppb.							

OTHER WATER QUALITY PARAMETERS					
	YEAR	UNIT	ORL	Range	Average
Alkalinity (as CaCO ₃)	2017	ppm	N/A	6 - 131	52
Boron	2017	ppb	1000 (NL)	ND - 203	ND
Bromide	2017	ppb	N/A	<5 - 30	13
Calcium (as Ca)	2017	ppm	N/A	2 - 31	16
Chlorate ⁽⁷⁾	2017	ppb	800 (NL)	51 - 180	86
Hardness (as CaCO ₃)	2017	ppm	N/A	7 - 82	51
Magnesium	2017	ppm	N/A	0.2 - 11	6.2
pH	2017	-	N/A	7.4 - 9.8	9.2
Phosphate (Ortho)	2017	ppm	N/A	<0.03 - 0.11	0.04
Potassium	2017	ppm	N/A	0.2 - 2	1.0
Silica	2017	ppm	N/A	4.6 - 12	7.6
Sodium	2017	ppm	N/A	2.3 - 31	18
Strontium	2017	ppb	N/A	12 - 234	111

7. The detected chlorate in the treated water is a degradation product of sodium hypochlorite used by the SFPUC for water disinfection.

REGULATED CONTAMINANTS FROM THE CITY OF EAST PALO ALTO DISTRIBUTION SYSTEM

Substance (units)	Year Sampled	UNIT	MCL	PHG OR (MCLG)	Range OR Level Found	Average OR Max	Major Sources of Contaminant
DISINFECTANT AND DISINFECTION BY-PRODUCTS							
Total Trihalomethanes	2017	ppb	80	N/A	37.5 - 64.8	53.5 ⁽⁸⁾	Byproduct of drinking water disinfection
Haloacetic Acids	2017	ppb	60	N/A	15.3 - 45.6	34.9 ⁽⁸⁾	Byproduct of drinking water disinfection
Chloramines	2017	ppm	MRDL = 4.0	MRDLG = 4.0	1.3 - 3.6	2.81 ⁽⁹⁾	Drinking water disinfectant added for treatment

8. This is the highest locational running annual average value.

9. This is the highest running annual average value.

MICROBIOLOGICAL CONTAMINANTS

Substance (units)	Year Sampled	UNIT	MCL	MCLG	Tested Positive	Typical Source
Coliform, Total	2017	-	Present in no more than 5% of monthly samples	0	0	Naturally present in the environment

LEAD AND COPPER

Substance (units)	Year Sampled	UNIT	AL	PHG	90th Percentile	Sites Above AL	Typical Source
Lead	2017	ppb	15	0.2	0	0	Corrosion of household plumbing; Erosion of natural deposits
Copper	2017	ppm	1.3	0.3	0.0505	0	Corrosion of household plumbing; Erosion of natural deposits

Unregulated Contaminant Monitoring Rule (UCMR3)

In May 2012, USEPA published the third Unregulated Contaminant Monitoring Rule (UCMR3) that lists a total of 28 chemical contaminants and two viruses for monitoring by some public water systems between 2013 and 2015. USEPA uses the UCMR to collect data for contaminants suspected to be present in drinking water to help determine if drinking water standards need to be developed in the future. East Palo Alto is required to monitor the 28 chemical contaminants, and completed four quarters of UCMR3 monitoring in 2013. Only 4 of the 28 contaminants were detected at very low levels as reported in the following table. In the absence of identifiable industrial sources other than chlorate, these contaminants are naturally occurring in our watersheds. Chlorate is a degradation product of the disinfectant used by SFPUC for water disinfection, and is a common contaminant found in water treatment facilities throughout the nation.

UCMR3 Sampling Results

Detected Contaminants	Unit	MCL	PHG or (MCLG)	Range	Average	Typical Sources in Drinking Water
Chlorate	ppb	800 (NL)	N/A	44 – 130	88	Degradation of disinfectant
Chromium-6	ppb	10	0.02	<0.03 – 0.03	< 0.03	Erosion of natural deposits; industrial discharges
Strontium	ppb	N/A	N/A	14.3 – 50.5	30.3	Erosion of natural and pipe deposits
Vanadium	Ppb	50 (NL)	N/A	<0.2 – 0.3	0.23	Erosion of natural and pipe deposits

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