

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2019

Presented By



Este informe contiene información muy importante sobre su agua potable. Por favor tradúzcala o hable con alguien que la entienda.

PWS ID#: 4010002

Here When You Need Us

We are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2019. AMWC's highly competent staff is constantly seeking the best approaches to delivering you the highest-quality water possible and is dedicated to producing drinking water that meets all state and federal standards. We are committed to meeting the state's water source protection, water conservation, and community education goals and serving the needs of all our water users.

What's the Source of My Water?



AMWC's water sources are the groundwater found in the Atascadero Basin, the underflow of the Salinas River, and Nacimiento Lake. Groundwater resides in the pore spaces of the sand and gravel that make up these geologic formations and is naturally filtered, clean, and clear. AMWC pumps the

groundwater from 15 active wells into various portions of its distribution system. When needed, AMWC discharges water from the Nacimiento Water Project into a recharge basin to replenish the groundwater it pumps.

The watershed that replenishes the Atascadero Basin encompasses a 247-square-mile area along the Salinas River, extending to its headwaters. Only a small percentage of that area (about 550 acres) is owned by AMWC. The majority of the watershed is comprised of open space and residential/commercial development.

Perfluoroalkyl Substances (PFAS)

Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) are in a group of man-made chemicals known as perfluoroalkyl substances (PFAS). These chemicals have been used since the 1940s in a variety of industries around the globe, including the United States. Both are very persistent in the environment and the human body – meaning they don't break down and can accumulate over time.

In 2019, AMWC received the results of water samples that were analyzed for PFOA and PFOS under an SWRCB order. The sampling results showed that four of AMWC's water supply wells had levels of PFOA between 3.8 and 26 parts per trillion (ppt) and PFOS between 4 and 32 ppt. The highest combined level of these contaminants detected in one well was 53 ppt.

None of the wells had combined levels of these contaminants above the 70 ppt health advisory level established by the U.S. EPA. The U.S. EPA's health advisory level for PFOA and PFOS offers a margin of protection for all Americans throughout their life from adverse health effects resulting from exposure to PFOA and PFOS in drinking water.

One ppt is equivalent to one ounce in 7.8 billion gallons, one drop in 13.2 million gallons, or one second in 32,000 years.



AMWC Wants To Share What We Do

Need a guest speaker? If your group would like to learn more about AMWC water resources, topics include:

- The 100+ year history of AMWC
- Water production, treatment facilities, and the Nacimiento recharge basin
- Water conservation
- Appropriate plants for Atascadero home gardens

Tours

AMWC will schedule tours of its facilities for interested shareholders. These tours last approximately two hours. On the tour, you will visit wells, treatment facilities, the Nacimiento Water Project recharge basin, and AMWC's corporate yard, booster stations, and tanks. To arrange a tour, call John Neil at (805) 464-5351.

Activities for Kids

- The Story of Our Water: a 45-minute presentation for third- and fifth-grade classes in Atascadero
- Water Exploration field trip: provides students with a terrific firsthand investigation of the Salinas River and explains how this water source is managed to provide a safe, reliable water supply to residents of the Atascadero area
- Water Cycle or Conservation bracelet activity: for children's organizations, troops, and childcare facilities

Call (805) 464-5347 or email jhendrickson@amwc.us to schedule your free presentation, talk, or tour.

Community Participation

AMWC holds monthly board meetings, typically on the second Wednesday of each month. The meetings are held at the AMWC business office at 5005 El Camino Real, Atascadero, at 5:30 p.m. Please call (805) 466-2428 or check our website (www.amwc.us) to confirm the date. Agendas are available at the meetings and on our website. Public comment is welcome.



QUESTIONS?

Should you ever have questions regarding this report or the quality of your drinking water, please call Mike Stephens, AMWC's Chief Operator, at (805) 466-2428, or email him at mstephens@amwc.us.

Drinking Water Source Assessment and Protection Program

Drinking Water Source Assessment Plans (DWSAP) assess the area around a drinking water source through which contaminants might move and reach that drinking water supply. They include an inventory of possible contaminating activities (PCAs) that might lead to the release of microbiological or chemical contaminants within the delineated area and a determination of the PCAs to which the drinking water source is most vulnerable.

According to the DWSAPs, our water system has a physical barrier effectiveness rating of low to moderate. It is important to understand that this susceptibility rating does not imply poor water quality, only the system's potential to become contaminated within the assessment area. If you would like to review the DWSAPs, please feel free to contact our office during regular business hours.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as 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.

Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, 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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (SWRCB) 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. 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.

Contaminants that may be present in 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 can 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 which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems; Radioactive Contaminants that can be naturally occurring or can 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 U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to reduce the risk of infection by *cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. The information in the tables represents only those substances that were detected; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the fourth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AVERAGE AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2019	10	0.004	0.3	ND–3.4	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chlorine (ppm)	2019	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.89	0.79–0.98	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2019	2.0	1	0.20	ND–0.29	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2019	15	(0)	4.5	2.1–7.8	No	Erosion of natural deposits
Haloacetic Acids (ppb)	2019	60	NA	13.6	ND–17.5	No	By-product of drinking water disinfection
Nickel (ppb)	2019	100	12	0.77	ND–10	No	Erosion of natural deposits; discharge from metal factories
Nitrate + Nitrite (ppm)	2019	10	10	1.63	ND–2.6	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate [as N] (ppm)	2019	10	10	1.67	ND–3.2	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	2019	50	30	6.2	ND–8.2	No	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
TTHMs [Total Trihalomethanes] (ppb)	2019	80	NA	48.7	18.5–60.7	No	By-product of drinking water disinfection
Uranium (pCi/L)	2019	20	0.43	4.7	3.6–8.9	No	Erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH PERCENTILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2019	1.3	0.3	0.98	0/62	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2019	15	0.2	ND	0/62	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

OTHER REGULATED SUBSTANCES ¹

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AVERAGE AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Fecal Coliform or <i>E. coli</i> (# positive samples)	2019	A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive ¹	0	ND	NA	No	Human or animal fecal waste
Total Coliform Bacteria (# positive samples)	2019	More than 1 positive monthly sample ¹	0	ND	NA	No	Naturally present in the environment
pH (Units)	2019	NA	NA	7.51	7.2–8.0	No	NA

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Manganese (ppb)	2019	50	NS	12	ND–29	No	Leaching from natural deposits
Odor–Threshold (TON)	2019	3	NS	2.0	1.0–4.0	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2019	1,600	NS	715	540–1,200	No	Substances that form ions when in water; seawater influence
Total Dissolved Solids (ppm)	2019	1,000	NS	573	320–790	No	Runoff/leaching from natural deposits
Turbidity (Units)	2019	5	NS	0.13	ND–5.68	No	Soil runoff

UNREGULATED SUBSTANCES ²

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Boron (ppb)	2019	130	ND–230	NA
Sodium (ppm)	2019	48	28–97	Refers to the salt present in the water and is generally naturally occurring
Vanadium (ppm)	2019	6.2	ND–8.9	Naturally occurring

Definitions

90th percentile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90 percent of our lead and copper detections.

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

grains/gal (grains per gallon): Grains of compound per gallon of water.

MCL (Maximum Contaminant Level): 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.

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 are set by the U.S. EPA.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard

pCi/L (picocuries per liter): A measure of radioactivity.

PDWS (Primary Drinking Water Standard): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

PHG (Public Health Goal): 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 EPA.

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

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

TON (Threshold Odor Number): A measure of odor in water.

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

OTHER UNREGULATED SUBSTANCES²

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Alkalinity [Total, as CaCO₃] (ppm)	2019	220	160–330	Naturally occurring
Bicarbonate [HCO₃] (ppm)	2019	282	200–400	Naturally occurring
Bromide (ppm)	2018	113	79–180	Naturally occurring
Calcium (ppm)	2019	72	49–120	Erosion of natural deposits
Chloride (ppm)	2019	84	19–160	Runoff/leaching from natural deposits; seawater influence
HAA6Br³ (ppb)	2018	21	15–23	By-product of drinking water disinfection
HAA9³ (ppb)	2018	30	18–33	By-product of drinking water disinfection
Hardness [Total, as CaCO₃] (grains/gal)	2019	19	13–27	The sum of the polyvalent cations present in the water, generally, magnesium and calcium. The cations are usually naturally occurring.
Magnesium (ppm)	2019	32	25–42	Erosion of natural deposits
O-Phosphate [as PO₄] (ppm)	2019	2.3	1.2–2.6	Added as a corrosion inhibitor
Perfluorobutanesulfonic Acid [PFBS] (ppb)	2019	0.0113	ND–0.014	Industrial manufacturing persistent in the environment
Perfluoroheptanoic Acid [PFHpA] (ppb)	2019	0.0045	ND–0.0070	Industrial manufacturing persistent in the environment
Perfluorohexanesulfonic Acid [PFHxS] (ppb)	2019	0.0207	ND–0.023	Industrial manufacturing persistent in the environment
Perfluorohexonic Acid [PFHxA] (ppb)	2019	0.007	ND–0.010	Industrial manufacturing persistent in the environment
Perfluorononanoic Acid [PFNA] (ppb)	2019	0.0077	ND–0.0085	Industrial manufacturing persistent in the environment
Perfluorooctanesulfonic Acid [PFOS] (ppb)	2019	0.035	ND–0.039	Industrial manufacturing persistent in the environment
Perfluorooctanoic Acid [PFOA] (ppb)	2019	0.020	ND–0.026	Industrial manufacturing persistent in the environment
Potassium (ppm)	2019	1.8	1.1–3.2	Erosion of natural deposits
Sulfate (ppm)	2019	100	72–140	Runoff/leaching from natural deposits; industrial wastes
Total Germanium³ (ppb)	2018	0.32	0.32–0.32	Naturally occurring
Total Organic Carbon [TOC]³ (ppb)	2018	1.1	0.67–1.7	Natural and man-made sources

¹Federal revised and state total coliform rule

²Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

³UCMR4 Sampling Results

