



# ANNUAL WATER QUALITY REPORT

*Water testing performed in 2015*

*Presented By*



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

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, 2015. AMWC's highly competent staff is constantly seeking the best approaches to delivering to 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.

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those 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 lessen 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>.



## 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](http://www.amwc.us)) to confirm the date. Agendas are available at the meetings and on our website. Public comment is welcome.

## 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 (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that must 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, that are by-products of industrial processes and petroleum production and that 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.

## What's the Source of My Water?

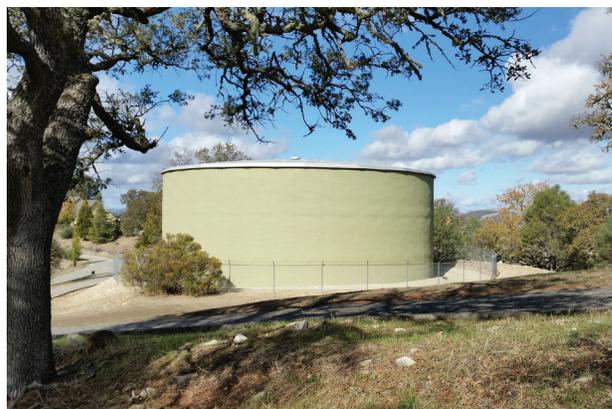
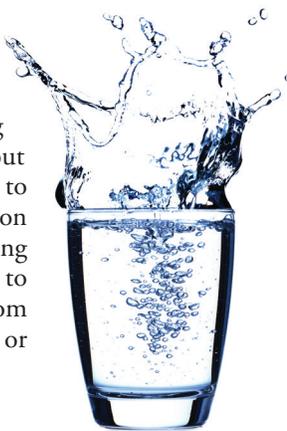
AMWC's water sources are the groundwater found in the Atascadero Basin, the underflow of the Salinas River, and Nacimiento Lake. Groundwater resides in the pore spaces of the sand and gravel that make up these geologic formations and is naturally filtered, clean, and clear. AMWC pumps the groundwater from 17 active wells, one of which is currently on standby status, into various portions of its distribution system. 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. Of that area, only a small percentage (about 550 acres) is owned by AMWC. The majority of the watershed is comprised of open space and residential/commercial development.

## 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. There are no lead service lines in AMWC's water system.

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. (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 or at [www.epa.gov/lead](http://www.epa.gov/lead).



## 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 gardens

### Tours

AMWC can 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 464-5351.

### Activities for Kids

- The Story of Our Water, a 45-minute presentation for 3rd and 5th grade classes, is open to all schools in Atascadero
- Water Cycle or Conservation bracelet activity for children's organizations, troops, and childcare facilities

Call 464-5347 or email [jhendrickson@amwc.us](mailto:jhendrickson@amwc.us) to schedule your presentation, talk, or tour (free of charge).

## 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](mailto:mstephens@amwc.us).

## Water Conservation

Did you know that 5 percent of AMWC's customers use over 25 percent of the water produced? You can play a role in conserving water (and save yourself money in the process!) by being conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle regardless of how many dishes are loaded, so get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances, and then check the meter after 15 minutes; if it moved, you have a leak.



## About Our Drinking Water Violation

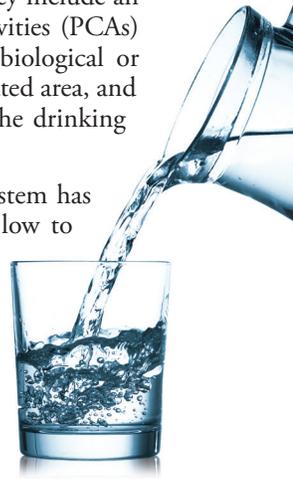
AMWC's June 2015 in-home sampling results for copper indicated that more than 10 percent of the first-draw samples were above the action level of 1.3 ppm, which is a violation of the EPA's Lead and Copper Rule. AMWC water contains very low levels of copper, but the water is aggressive and may contribute to the corrosion of the copper plumbing after it sits in the pipes for an extended time. To prevent this, AMWC adds 1 ppm of orthophosphate as a corrosion inhibitor to the water. Less than 10 percent of the December 2015 in-home samples were above the action level.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctors.

## 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, with the low ratings being associated with wells pumping from the Salinas River underflow. If you would like to review the DWSAPs, please feel free to contact our office during regular business hours.



## Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often 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 3rd stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us if you would like more information on this program.

### REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2015	10	0.004	2.1	ND–2.4	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chlorine (ppm)	2015	[4.0 (as Cl <sub>2</sub> )]	[4 (as Cl <sub>2</sub> )]	0.90	0.71–0.96	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2015	2.0	1	0.25	0.12–0.31	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2014	15	(0)	12.23	10.9–25.8	No	Erosion of natural deposits
Haloacetic Acids (HAAs) (ppb)	2015	60	NA	17.0	3.0–18.6	No	By-product of drinking water disinfection
Nitrate [as NO <sub>3</sub> ] (ppm)	2015	45	45	4.6	ND–9.3	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radium 226 (pCi/L)	2014	5	0.05	0.19	0.13–0.25	No	Erosion of natural deposits
Radium 228 (pCi/L)	2014	5	0.019	0.62	0.47–0.77	No	Erosion of natural deposits
Total Xylenes (ppb)	2015	1,750	1,800	1.9	NA	No	Erosion of natural deposits; discharge from mines and chemical manufacturers
TTHMs [Total Trihalomethanes] (ppb)	2015	80	NA	45.6	16.7–50.1	No	By-product of drinking water disinfection
Uranium (pCi/L)	2014	20	0.43	4.1	2.2–7.2	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% TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2015	1.3	0.3	1.86	13/60	Yes	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2015	15	0.2	ND	1/60	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

### SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Manganese (ppb)	2015	50	NS	97	ND–160	No	Leaching from natural deposits
Total Dissolved Solids (ppm)	2015	1,000	NS	638	260–1,000	No	Runoff/leaching from natural deposits

## UNREGULATED CONTAMINANT MONITORING RULE PART 3 (UCMR3)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
1,4-Dioxane (ppb)	2013	0.09	ND–0.114	Industrial discharges
Chlorate (ppb)	2013	191	64–410	Disinfection by-product
Molybdenum (ppb)	2013	4.53	2.8–6.5	Substances that form ions when in water
Perfluorooctanoic Acid (ppb)	2013	0.028	ND–0.028	Industrial manufacturing; persistent in the environment
Strontium (ppb)	2013	353	280–510	Naturally occurring in the environment
Vanadium (ppm)	2013	3.94	ND–6.4	Naturally occurring

## OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Alkalinity [Total, as CaCO <sub>3</sub> ] (ppm)	2015	231	150–380	Naturally occurring
Bicarbonate [HCO <sub>3</sub> ] (ppm)	2015	310	190–460	Naturally occurring
Calcium (ppm)	2015	74	38–130	Erosion of natural deposits
Chloride (ppm)	2015	109	6.9–240	Runoff/leaching from natural deposits; seawater influence
Hardness [Total, as CaCO <sub>3</sub> ] (ppm)	2015	317	180–460	The sum of the polyvalent cations present in the water, generally, magnesium and calcium; The cations are usually naturally occurring
Magnesium (ppm)	2015	34	21–48	Erosion of natural deposits
o-Phosphate (as PO <sub>4</sub> ) (ppm)	2015	1.1	0.8–1.5	Added as a corrosion inhibitor
Potassium (ppm)	2015	3.0	1.1–5.6	Erosion of natural deposits
Sodium (ppm)	2015	71.7	19–160	A measure of the salt present in the water; generally naturally occurring
Sulfate (ppm)	2015	103	54–160	Runoff/leaching from natural deposits; industrial wastes

## Definitions

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

**LRAA (Locational Running Annual Average):** The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as LRAAs.

**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).