

Lead in Drinking Water

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; however, 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 2 minutes before using water for drinking or cooking. 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/safewater/lead.



Where Does My Water Come From?

AMWC's water source is the groundwater found in the Atascadero Sub-basin of the Paso Robles Groundwater Basin and the underflow of the Salinas River. The water 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 in various portions of its distribution system. AMWC currently has one well on standby status; it is located in the Summit Hills subdivision.

The watershed that replenishes the groundwater 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.

Water Conservation

Did you know that 20 percent of AMWC's customers use almost 50 percent of the water AMWC produces? You can play a role in conserving water, and save yourself money in the process, by becoming 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 and then watching for a few minutes to see if the color shows up in the bowl. Fix it and you can save more than 30,000 gallons a year. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak.
- 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.

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.

Meeting the Challenge

We are proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2011. Over the years, Atascadero Mutual Water Company (AMWC) has been dedicated to producing drinking water that meets all state and federal standards. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Our mission is to supply you with the highest quality drinking water at a reasonable cost.

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 6:30 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.

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 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>.



Presented By



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Annual WATER QUALITY REPORT

Reporting Year 2011



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

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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 Department of Public Health (DOPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DOPH 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, which are by-products of industrial processes and petroleum production and 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.

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 table below shows only those contaminants that were detected in the water. We feel it is important that you know exactly what was detected and how much of the substance was present in the water. The state requires us to monitor 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.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2011	1	2	0.01	ND-0.11	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Cadmium (ppb)	2011	5	0.04	0.10	ND-1.5	No	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories, and metal refineries; runoff from waste batteries and paints
Chlorine (ppm)	2011	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.90	0.80-1.12	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2011	2.0	1	0.22	0.13-0.35	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids (ppb)	2011	60	NA	18.4	4.4-41.5	No	By-product of drinking water disinfection
Nickel (ppb)	2011	100	12	9.3	ND-14	No	Erosion of natural deposits; discharge from metal factories
Nitrate [as nitrate] (ppm)	2011	45	45	6.86	ND-14	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	2011	50	30	0.41	ND-6.1	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)	2011	80	NA	50.48	12.9-74.4	No	By-product of drinking water disinfection
Uranium (pCi/L)	2011	20	0.43	0.8	ND-1.6	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	EXCEEDANCE	TYPICAL SOURCE
Copper (ppm)	2011	1.3	0.3	1.5	9/63	Yes	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

SECONDARY SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Anionic Surfactants (MBAS) (ppb)	2011	500	NS	14	ND-210	No	Municipal and industrial waste discharges
Chloride (ppm)	2011	500	NS	91	19-210	No	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	2011	300	NS	17.3	ND-260	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2011	50	NS	2.5	ND-48	No	Leaching from natural deposits
Specific Conductance (µS/cm)	2011	1,600	NS	794.1	570-1,500	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2011	500	NS	114.2	76-160	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2011	1,000	NS	614.1	320-930	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2011	5	NS	0.26	ND-2.43	No	Soil runoff

UNREGULATED SUBSTANCES				
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Alkalinity [Total, as CaCO ₃] (ppm)	2011	234.4	170-350	NA
Bicarbonate [as HCO ₃] (ppm)	2011	321.6	210-430	Naturally occurring
Boron (ppm)	2011	197.1	ND-500	Naturally occurring
Calcium (ppm)	2011	86.4	53-140	Erosion of natural deposits
Hardness (grains/gal)	2011	21.8	14.0-27.5	The sum of the polyvalent cations present in the water, generally, magnesium and calcium. The cations are usually naturally occurring
Magnesium (ppm)	2011	35.3	28-47	Erosion of natural deposits
Nitrate + Nitrite [as N] (ppb)	2011	140	ND-2,100	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
o-Phosphate [as PO ₄] (ppm)	2011	1.35	0.88-2.0	NA
Potassium (ppm)	2011	1.8	1.0-4.3	NA
Sodium (ppm)	2011	45.3	28-140	Refers to the salt present in the water and is generally naturally occurring
Vanadium (ppb)	2011	2.0	ND-7.4	Naturally present in the environment

Definitions

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

µS/cm (microsiemens per centimeter): A unit for reporting the specific electrical conductance of the water.

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.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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).

Drinking Water Source Assessment and Protection Program

Drinking Water Source Assessment Plans (DWSAPs) are available at our office. These plans assess the possible sources of contaminants that could potentially reach our source of supply. They include an inventory of potential sources of contamination within delineated areas and determinations of the water supply's susceptibility to contamination by the identified potential sources.

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.

Copper Exceedance

AMWC's wells consistently produce water with lead and copper levels well below acceptable levels established by the EPA. However, water tested at the faucets in the homes of some customers revealed elevated levels of copper. Brass and copper plumbing fixtures in the customers' homes are the source of the copper in the tap water. Nine of the 63 in-home copper samples collected on 12/14/2011 exceeded the action level of 1.3 ppm. In no case did the lead found in water at the customers' faucets exceed the action level established by the EPA. If you are concerned about elevated copper levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using the water.

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 could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

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 nearly 100-year history of AMWC
- Production, treatment, and the Nacimiento recharge basin
- Water conservation
- Plants for Atascadero gardens

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 daycare facilities

Tours

AMWC can schedule tours of its facilities for interested shareholders. These tours last approximately 2 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 461-7217 x21.

Call 461-7217 x17 or email jhendrickson@amwc.us to schedule your presentation, talk, or tour (free of charge).