

# ANNUAL WATER QUALITY REPORT

Reporting Year 2021



*Presented By*  
**Atascadero Mutual  
Water Company**



## Here When You Need Us

We are pleased to present our annual water quality report covering the period between January 1 and December 31, 2021. Atascadero Mutual Water Company (AMWC)'s highly competent staff is constantly seeking the best approaches to delivering you the highest quality water possible and dedicated to producing drinking water that meets all state and federal standards. We are committed to meeting the state's water source production, 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 voids between the sands and gravels 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.

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 or commercial development.

## 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.

“When the well is dry, we know the worth of water.”

—Benjamin Franklin

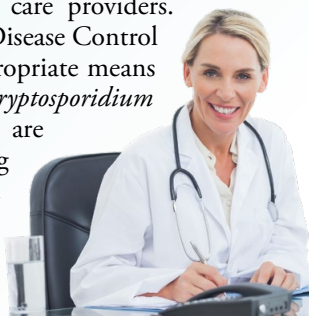
According to the DWSAP, our water system has a physical barrier effectiveness rating of low to moderate. It is important to understand that this susceptibility rating does not imply poor water quality, only the system's potential to become contaminated within the assessment area. If you would like to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

## Community Participation

AMWC holds monthly board meetings, typically on the second Wednesday of each month at 4:30 p.m. The meetings are held at the AMWC business office, 5005 El Camino Real, Atascadero, or can be attended remotely using the meeting webinar link at [www.amwc.us](http://www.amwc.us). Please call (805) 466-2428 or check our website 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>.



## Polyfluoroalkyl Substances

AMWC recently reactivated four of its wells that have levels of two polyfluoroalkyl substances (PFAS) above the response levels<sup>1</sup> established by the State Board. The two substances are perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS).

On January 21, 2021, the State Board approved AMWC's treatment of blending water from these wells with water from other wells that have PFOA and PFOS levels below the response levels of 10 parts per trillion (ppt) and 40 ppt, respectively. Recent sampling shows that the PFOA and PFOS levels in the blended water are consistently below the response levels and occasionally above the notification<sup>2</sup> levels of 5.1 ppt for PFOA and 6.5 ppt for PFOS.

<sup>1</sup>Water source must be taken out of service.

<sup>2</sup>State Board recommends water utility notify customers.

**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) 464-5361, or email him at [mstephens@amwc.us](mailto:mstephens@amwc.us).

## 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. 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.



## 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 in AMWC's service area.
- Water Cycle or Conservation bracelet activity: for children's organizations, troops, and childcare facilities

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

## 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](http://www.epa.gov/safewater/lead).

## 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. 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.

**Although E. coli was detected, the water system is not in violation of the E. coli maximum contaminant level (MCL).**

AMWC’s December 2021 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 parts per million (ppm), which is a violation of the U.S. EPA’s Revised Lead and Copper Rule. AMWC’s water contains very low levels of copper, but the aggressive nature of the water may contribute to the corrosion of the copper plumbing in your home after it sits in the pipes for an extended time. To prevent this, AMWC adds 2 ppm of orthophosphate as a corrosion inhibitor to 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 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 doctor.

| REGULATED SUBSTANCES                                                                                     |                 |                |                          |                                         |                                     |           |                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------|-----------------|----------------|--------------------------|-----------------------------------------|-------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SUBSTANCE<br>(UNIT OF MEASURE)                                                                           | YEAR<br>SAMPLED | MCL<br>[MRDL]  | PHG<br>(MCLG)<br>[MRDLG] | AMOUNT<br>DETECTED                      | RANGE<br>LOW-HIGH                   | VIOLATION | TYPICAL SOURCE                                                                                                                                                                  |
| Arsenic (ppb)                                                                                            | 2019–2021       | 10             | 0.004                    | 0.18                                    | ND–3.4                              | No        | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes                                                                                      |
| Chlorine (ppm)                                                                                           | 2021            | [4.0 (as Cl2)] | [4 (as Cl2)]             | 0.89                                    | 0.83–1                              | No        | Drinking water disinfectant added for treatment                                                                                                                                 |
| Fluoride (ppm)                                                                                           | 2019–2021       | 2.0            | 1                        | 0.15                                    | 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)                                                                    | 2019–2021       | 15             | (0)                      | 2.2                                     | ND–7.1                              | No        | Erosion of natural deposits                                                                                                                                                     |
| HAA5 [sum of 5 haloacetic acids]–Stage 2 (ppb)                                                           | 2021            | 60             | NA                       | 13.5                                    | 5.9–15.4                            | No        | By-product of drinking water disinfection                                                                                                                                       |
| Selenium (ppb)                                                                                           | 2019–2021       | 50             | 30                       | ND                                      | ND–0.01                             | 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]–Stage 2 (ppb)                                                              | 2021            | 80             | NA                       | 44.2                                    | 29.7–48.6                           | No        | By-product of drinking water disinfection                                                                                                                                       |
| Uranium (pCi/L)                                                                                          | 2019–2021       | 20             | 0.43                     | 6.2                                     | 3.6–9.3                             | No        | Erosion of natural deposits                                                                                                                                                     |
| Tap water samples were collected for lead and copper analyses from sample sites throughout the community |                 |                |                          |                                         |                                     |           |                                                                                                                                                                                 |
| SUBSTANCE<br>(UNIT OF MEASURE)                                                                           | YEAR<br>SAMPLED | AL             | PHG<br>(MCLG)            | AMOUNT<br>DETECTED<br>(90TH PERCENTILE) | SITES<br>ABOVE<br>AL/TOTAL<br>SITES | VIOLATION | TYPICAL SOURCE                                                                                                                                                                  |
| Copper (ppm)                                                                                             | 2021            | 1.3            | 0.3                      | 1.3                                     | 7/60                                | Yes       | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives                                                                 |
| Lead (ppb)                                                                                               | 2021            | 15             | 0.2                      | ND                                      | 1/60                                | No        | Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits                                                   |

## OTHER REGULATED SUBSTANCES

| SUBSTANCE<br>(UNIT OF MEASURE)                               | YEAR<br>SAMPLED | MCL<br>[MRDL]                                                                                                                            | PHG<br>(MCLG)<br>[MRDLG] | AMOUNT<br>DETECTED | RANGE<br>LOW-HIGH | VIOLATION | TYPICAL SOURCE                                                                                              |
|--------------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------|-------------------|-----------|-------------------------------------------------------------------------------------------------------------|
| <b>Conductivity</b> (µmho/cm)                                | 2019–2021       | NA                                                                                                                                       | NA                       | 749                | 540–1,100         | No        | Substances that form ions when in water; seawater influence                                                 |
| <b>Fecal Coliform or <i>E. coli</i></b> (# positive samples) | 2021            | A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive <sup>1</sup> | 0                        | 0                  | 0–1               | No        | Human or animal fecal waste                                                                                 |
| <b>Nitrate + Nitrite</b> (ppm)                               | 2019–2021       | 10                                                                                                                                       | 10                       | 1.3                | ND–2.8            | No        | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits |
| <b>Nitrate [as N]</b> (ppm)                                  | 2021            | 10                                                                                                                                       | 10                       | 1.25               | ND–3.4            | No        | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits |
| <b>pH</b> (units)                                            | 2019–2021       | NA                                                                                                                                       | NA                       | 7.5                | 7.1–7.9           | No        | NA                                                                                                          |
| <b>Total Coliform Bacteria</b> (# positive samples)          | 2021            | More than 1 positive monthly sample <sup>1</sup>                                                                                         | 0                        | 0                  | 0–1               | No        | Naturally present in the environment                                                                        |

## SECONDARY SUBSTANCES

| SUBSTANCE<br>(UNIT OF MEASURE)      | YEAR<br>SAMPLED | SMCL  | PHG<br>(MCLG) | AMOUNT<br>DETECTED | RANGE<br>LOW-HIGH | VIOLATION | TYPICAL SOURCE                                              |
|-------------------------------------|-----------------|-------|---------------|--------------------|-------------------|-----------|-------------------------------------------------------------|
| <b>Color</b> (units)                | 2019–2021       | 15    | NS            | 0.74               | ND–5              | No        | Naturally occurring organic materials                       |
| <b>Manganese</b> (ppb)              | 2019            | 50    | NS            | 12                 | ND–20             | No        | Leaching from natural deposits                              |
| <b>Odor, Threshold</b> (TON)        | 2021            | 3     | NS            | 3                  | 1–5               | No        | Naturally occurring organic materials                       |
| <b>Specific Conductance</b> (µS/cm) | 2021            | 1,600 | NS            | 759                | 570–1,300         | No        | Substances that form ions when in water; seawater influence |
| <b>Total Dissolved Solids</b> (ppm) | 2019–2021       | 1,000 | NS            | 580                | 320–840           | No        | Runoff/leaching from natural deposits                       |
| <b>Turbidity</b> (NTU)              | 2019–2021       | 5     | NS            | 0.17               | ND–1.7            | No        | Soil runoff                                                 |

## UNREGULATED SUBSTANCES

| SUBSTANCE<br>(UNIT OF MEASURE) | YEAR<br>SAMPLED | AMOUNT<br>DETECTED | RANGE<br>LOW-HIGH | TYPICAL SOURCE                                                               |
|--------------------------------|-----------------|--------------------|-------------------|------------------------------------------------------------------------------|
| <b>Boron</b> (ppb)             | 2019–2021       | 68                 | ND–230            | NA                                                                           |
| <b>Chloroform</b> (ppb)        | 2019–2021       | 0.14               | ND–2.7            | Runoff/leaching from natural deposits; seawater influence                    |
| <b>Sodium</b> (ppm)            | 2019–2021       | 48                 | 28–97             | Refers to the salt present in the water and is generally naturally occurring |
| <b>Vanadium</b> (ppm)          | 2019–2021       | 1.2                | ND–8.9            | Naturally occurring                                                          |

## OTHER UNREGULATED SUBSTANCES

| SUBSTANCE<br>(UNIT OF MEASURE)                       | YEAR<br>SAMPLED | AMOUNT<br>DETECTED | RANGE<br>LOW-HIGH | TYPICAL SOURCE                                                                                      |
|------------------------------------------------------|-----------------|--------------------|-------------------|-----------------------------------------------------------------------------------------------------|
| Alkalinity, Total [as CaCO <sub>3</sub> ] (ppm)      | 2019 -2021      | 238                | 160–330           | Naturally occurring                                                                                 |
| Bicarbonate [HCO <sub>3</sub> ] (ppm)                | 2019–2021       | 291                | 200–400           | Naturally occurring                                                                                 |
| Calcium (ppm)                                        | 2019–2021       | 78                 | 50–130            | Erosion of natural deposits                                                                         |
| Chloride (ppm)                                       | 2019–2021       | 85                 | 18–190            | Runoff/leaching from natural deposits; seawater influence                                           |
| Hardness, Total [as CaCO <sub>3</sub> ] (grains/gal) | 2019–2021       | 19                 | 13–29             | Sum of naturally occurring polyvalent cations present in the water, generally magnesium and calcium |
| Magnesium (ppm)                                      | 2019–2021       | 33                 | 24–49             | Erosion of natural deposits                                                                         |
| o-Phosphate [as PO <sub>4</sub> ] (ppm)              | 2021            | 2.1                | 1.7–2.5           | Added as a corrosion inhibitor                                                                      |
| Perfluorobutanesulfonic Acid [PFBS] (ppb)            | 2021            | 0.0030             | ND–0.0058         | Industrial manufacturing persistent in the environment                                              |
| Perfluorohexanesulfonic Acid [PFHxS] (ppb)           | 2021            | 0.0055             | 0.0032–0.0083     | Industrial manufacturing persistent in the environment                                              |
| Perfluorohexanoic Acid [PFHxA] (ppb)                 | 2021            | 0.0001             | ND–0.0022         | Industrial manufacturing persistent in the environment                                              |
| Perfluorononanoic Acid [PFNA] (ppb)                  | 2021            | 0.0001             | ND–0.0025         | Industrial manufacturing persistent in the environment                                              |
| Perfluorooctanesulfonic Acid [PFOS] (ppb)            | 2021            | 0.0071             | 0.0021–0.014      | Industrial manufacturing persistent in the environment                                              |
| Perfluorooctanoic Acid [PFOA] (ppb)                  | 2021            | 0.0038             | 0.0020–0.0066     | Industrial manufacturing persistent in the environment                                              |
| Potassium (ppm)                                      | 2019–2021       | 1.8                | 1.1–3.5           | Erosion of natural deposits                                                                         |
| Sulfate (ppm)                                        | 2019–2021       | 102                | 66–150            | Runoff/leaching from natural deposits; industrial wastes                                            |
| Total Organic Carbon [TOC] (ppb)                     | 2021            | 0.82               | 0.53–1.5          | Natural and human-made sources                                                                      |

<sup>1</sup> Federal Revised and state Total Coliform Rule.

## 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% 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.

**µmho/cm (micromhos per centimeter):** A unit expressing the amount of electrical conductivity of a solution.

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