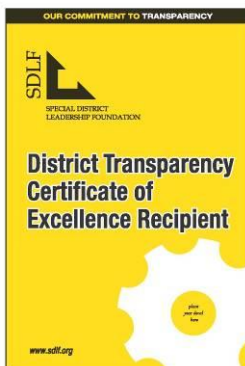


2016 Annual Water Quality Report

(Published June 2017)

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien, o llame a nuestra oficina: (831) 726-3155



The Aromas Water District received the District Transparency Certificate of Excellence by the Special District Leadership Foundation (SDLF) in recognition of its outstanding efforts to promote transparency and good governance.

This is our 58th year providing clean water to our unique and wonderful community. We take pride in providing you with a safe and dependable supply of drinking water. This required annual report gives you information on the Aromas Water District's water quality monitoring completed during 2016 (January 1 to December 31, 2016). It includes details about where your water comes from, what it contains and how it compares to stringent Federal and State Standards.

We are pleased to report that our water meets all drinking water standards.

General Manager's Corner

Well... if there is one thing we learned from the drought, it is that water conservation really works!

In 2015 the Governor issued mandatory restrictions to achieve a 25% statewide reduction in use. You rallied to the request and conserved nearly 30%! **This proves that individuals making little changes adds up to a community making big changes.** How big? The picture here shows one of our 200,000 gallon tanks. In 2016 we saved 35 million gallons of water compared to the 2013 baseline... enough to fill this tank 175 times!



While the wet winter of 2016-17 made headlines, ongoing water conservation is now becoming part of the California lifestyle. When the next drought hits we will be ahead of the curve. Thank you all for doing your part and please see the end of this report and our website for more conservation tips and advice.

The 2015 installation of the 94 kW solar field on Carpenteria Road keeps paying dividends. For the second year in a row it generated enough energy to offset over \$35,000 in annual pumping power costs. This savings is directly passed on to you the customer by allowing our rates to remain as low as possible while maintaining a robust system and planning for future maintenance.

As a final note we made a major upgrade to our website. The user-friendly format adapts to your smart phones or tablets and helps you navigate to related articles. It also includes a new water quality section which covers common water quality questions. Visit our website at: <https://www.AromasWaterDistrict.org> for more information.

Thanks again for doing your part!

Vicki Morris, GM

***** *Beginning of Water Quality Report* *****

GENERAL STATEMENT ON SOURCES OF CONTAMINANTS

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, reservoirs, ponds, 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. Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, which 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 that are byproducts 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 be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California State Water Resources Control 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. These regulations require reporting as found in the tables below.

DEFINITIONS AND TERMS USED IN THIS REPORT:

- **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 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. Environmental Protection Agency (USEPA).
- **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 Environmental Protection Agency.
- **AL (Regulatory Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **PDWS (Primary Drinking Water Standards):** MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- **SDWS (Secondary Drinking Water Standards):** MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect health at the MCL levels.
- **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.
- **TT (Treatment Technique):** A required process to reduce the level of a contaminant in drinking water.
- **NA:** Not Applicable in this situation.
- **ND:** Not detectable at testing limit.
- **Micro-ohms:** Measure of electric conductance.
- **ppm:** parts per million or milligrams per liter (mg/L)
- **ppb:** part per billion or micrograms per liter (ug/L)
- **pCi/L:(picocuries per liter):** A measure of radioactivity.
- **90th percentile:** Action Level is exceeded if the concentration in more than 10% of samples is greater than the AL
- **Level Detected:** a flow-weighted calculation based on the percentage of water from each of the three wells.

TYPE OF WATER SOURCES IN USE

Your water comes from three ground water wells from within the Pajaro Basin named and located as follows:

- ❖ San Juan Well - located south of San Juan Road - provided 46% of total water production in 2016.
- ❖ Carpenteria Well - located east of Carpenteria Road - provided 51% of total water production in 2016.
- ❖ Pleasant Acres Well - located north of San Juan Road - provided less than 3% of total water production in 2016.

Tables 1, 2, 3, and 4 list all of the drinking water contaminants that were detected during the most recent sampling for that constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. In these cases the most recent sample date is shown. **The water delivered to customers was below all maximum contamination levels.**

TABLE 1: SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER (samples taken at customer's tap)

| Lead and Copper | Sample Date | No. of samples collected | 90 th percentile level detected | No. sites exceeding AL | AL | PHG | Typical Source of Contaminant |
|-----------------|-------------|--------------------------|--------------------------------------------|------------------------|-----|-----|-------------------------------------------------------------------------------------------------------------------------------|
| Lead (ppb) | 9/9/2016 | 10 | 12 | 0 | 15 | 0.2 | Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits |
| Copper (ppm) | 9/9/2016 | 10 | 0.178 | 0 | 1.3 | 0.3 | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |

TABLE 2: SAMPLING RESULTS FOR SODIUM, HARDNESS (No health effects- required for consumer information)

| Chemical or Constituent (and reporting units) | Sample Date | Level Detected | Range of Detections | MCL | PHG (MCLG) | Typical Source of Contaminant |
|-----------------------------------------------|-------------|----------------|---------------------|------|------------|----------------------------------------------------------------------------------------------------------------------|
| Sodium (ppm) | 7/13/15 | 81 | 48-100 | none | none | Salt present in the water and is generally naturally occurring |
| Hardness (ppm) | 7/13/15 | 187 | 111-323 | none | none | Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring |

TABLE 3: DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

| Chemical or Constituent (and reporting units) | Sample Date | Level Detected | Range of Detections | MCL [MRDL] | PHG (MCLG) [MRDLG] | Typical Source of Contaminant |
|-----------------------------------------------------------|-------------|----------------|---------------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------|
| Arsenic (ppb) | 7/13/15 | 3 | 2-4 | 10 | 0.004 (NA) | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes |
| Barium (ppm) | 7/13/15 | 0.175 | 0.127 - 0.262 | 1 | 2 (NA) | Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits |
| Chromium (ppb) | 7/13/15 | 10 | 6-13 | 50 | 100 (NA) | Discharge from steel and pulp mills and chrome plating; erosion of natural deposits |
| Fluoride (ppm) <i>AWD does not add Fluoride</i> | 7/13/15 | 0.2 | 0.2-0.2 | 2.0 | 1 (NA) | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. |
| Nitrate (ppm) | 7/11/16 | 0.1 | 0-0.1 | 10 | 10 | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits |

DISTRIBUTION SYSTEM DISINFECTION BYPRODUCTS and DISINFECTION RESIDUALS

| | | | | | | |
|-------------------------------|---------|--------------------------------|-------------|------------------------|------------------------|-------------------------------------------------|
| Haloacetic acids (ppb) | 7/25/16 | 5 | 5 | 60 | NA | Byproduct of drinking water disinfection. |
| Trihalomethanes (ppb) | 7/25/16 | 28.2 | 18.1 - 28.2 | 80 | NA | Byproduct of drinking water disinfection. |
| Chlorine (ppm) | Daily | 1.17 Running annual average | 0.96 - 1.39 | 4.0 as Cl ₂ | 4.0 as Cl ₂ | Drinking water disinfectant added for treatment |

TABLE 4: DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

| Chemical or Constituent (and reporting units) | Sample Date | Level Detected | Range of Detections | MCL | PHG (MCLG) | Typical Source of Contaminant |
|-----------------------------------------------|-------------|----------------|---------------------|------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Iron (ppb) | 3/16/15 | 22 | ND-43 | 300 | NA | Leaching from natural deposits; industrial wastes |
| Turbidity (units) | 7/13/15 | 0.22 | 0.2-0.7 | 5.00 | NA | Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants |
| Total Dissolved Solids [TDS] (ppm) | 7/13/15 | 432 | 375-488 | 1000 | NA | Runoff/leaching from natural deposits |
| Specific Conductance (micro-ohms) | 7/13/15 | 724 | 593-790 | 900 | NA | Substances that form ions when in water; seawater influence |

TABLE 4 (CONTINUED): DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

| | | | | | | |
|----------------|---------|----|-------|-----|----|-----------------------------------------------------------|
| Chloride (ppm) | 7/13/15 | 81 | 46-88 | 500 | NA | Runoff/leaching from natural deposits; seawater influence |
| Sulfate (ppm) | 7/13/15 | 17 | 3-43 | 500 | NA | Runoff/leaching from natural deposits; industrial wastes |

ADDITIONAL BACTERIAL SAMPLING RESULTS**SAMPLING RESULTS FOR BACTERIA (COLIFORM, E. COLI)**

| Microbiological Contaminants | Highest No. of Detections | No. of months in violation | MCL | MCLG | Typical Source of Bacteria |
|------------------------------------------------------------------------|-----------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------|--------------------------------------|
| Total Coliform Bacteria (state Total Coliform Rule) | (In a mo.) 0 | 0 | 1 positive monthly sample | 0 | Naturally present in the environment |
| Fecal Coliform or <i>E. coli</i> (state Total Coliform Rule) | (In the year) 0 | 0 | A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive | 0 | Human and animal fecal waste |
| <i>E. coli</i> (federal Revised Total Coliform Rule) | (from 4/1/16-12/31/16) 0 | 0 | (a) | 0 | Human and animal fecal waste |

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

ITEMS OF INTEREST

- The District does not fluoridate (does not add fluoride to) the water.
- No Perchlorate or Hexavalent Chromium VI was detected in the most recent samples.
- pH (acidity) ranges from 7.4 to 8.1 with a system-wide average of 7.8

ADDITIONAL GENERAL INFORMATION ON DRINKING WATER

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead-Specific Language for Community Water Systems: 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. The Aromas Water District 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 exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. [Optional: 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 (1-800-426-4701) or at <http://www.epa.gov/lead>.

SOURCE WATER ASSESSMENTS

Assessments of the drinking water sources for the District were completed in 2002 and 2012. A source water assessment lists possible contaminating activities that might affect the quality of your water sources. The assessment also identifies the susceptibility of the District’s drinking water wells to identified contamination threats.

The assessment of the aquifer feeding the Pleasant Acres Well identifies residential septic systems, other animal operations and agricultural irrigation as the greatest threat to the District’s drinking water. The San Juan Well is in the same aquifer and in close proximity to the Pleasant Acres Well and, therefore, has the same threats. The Assessment of the aquifer feeding the Carpenteria Well identifies residential septic systems as the greatest threat to this well.

Copies of the Executive Summary for each assessment are available free-of-charge at the District office. The full reports are available upon request or can be viewed at the District’s office located at 388 Blohm Ave., Aromas. For information about these Source Water Assessments, or your water quality in general, please contact the District at (831) 726-3155 or visit our web site at www.aromaswaterdistrict.org.

-- End of Water Quality Report --

FREQUENTLY ASKED QUESTIONS ABOUT WATER COLOR

One of the more common complaints received by systems of our size is "brown water." This section explains why discolored water is normal; why the water is still safe; and how we investigate whether the cause is in our water mains or in the customer's private lines. Some tips are included to deal with color problems.

Q: What causes the water to be discolored (brown or yellowish)?

In general there are two causes of discoloration. (1) either it is coming from the customer's private water lines, or **(2)** it is coming from the District's water mains. So investigating the location of the problem is key.

Investigating a color complaint. Whenever we receive a complaint about discolored water we will first check if there are other customer's nearby with the same problem. If it is just one customer then the problem is likely in the customer's private water lines. We can physically confirm this by pulling out the water meter and checking the water color coming from our mains before it gets to the customer's pipes. If the water is clear at the meter then the problem is in the private lines.

- **The top three reasons water becomes discolored in a customer's private lines are: (1)** the customer's plumbing is made of galvanized (steel) pipes which are rusting on the inside. **(2)** the customer's hot water heater is rusting , **(3)** naturally occurring sediment, iron and manganese has built up in the customer's lines and it was stirred up by heavy usage in or around the home. While we cannot work on a customer's private water lines, we can often offer tips to help diagnose where the problem may be. More information can be found on our "Tips for Private Plumbing" web page under the "Water Quality" section.
- **Water can also become discolored in the District's water mains.** This can happen when heavy usage in an area stirs up naturally occurring sediment, iron and manganese in the District's lines. The water in our system comes from groundwater wells which pull in water at hundreds of gallons per minute. So some sediment (fine grained mud/clay) will also get pulled into the system. This is true for any system using groundwater wells. Naturally occurring iron and manganese is also in the our local groundwater. Once in the system most of it is filtered out or settles in the bottom of our ten storage tanks. The tanks are regularly cleaned. However, some sediment or iron/manganese still makes it into in the water mains.

Most of the time the water in our mains moves slow enough that the particles settle onto the inside lining of the mains. The particles will sit in the mains until high water use causes the water to flow so fast that it stirs up the particles. When this happens many customers in the same area can have discolored water. **Examples of this are:** when the Fire Department fills equipment or tests a fire hydrant; or when someone nearby fills a pool/pond or irrigates a large pasture, etc.

Q: OK, but is it safe to drink?

Yes, it is safe. All the sediment or iron/manganese has been continuously disinfected by chlorine, and there is always a minimal amount of chlorine kept in the system at all times. Consuming water with iron and manganese does not have any health impacts. So while the water may be discolored it is still safe to use or drink.

Q: But what if I still do not want to drink it?

It is **natural** that we do not want to drink discolored water, so here are a few options:

- You can fill a clear container and allow the water to settle/clear and then use the water off the top of the container
- You can use a simple filter at your drinking water tap (reverse osmosis is not necessary)
- You can flush the discolored water from the house. The location to flush will vary depending on how your plumbing is connected. Typical flushing tips are to fill an upstairs bathtub (with cold water) and also open an outside faucet on the far side of the house.
- If the colored water came from the District's water mains and you need to flush it out of your home, simply call us at 726-3155 and we will gladly apply a "flushing credit" to your account on the next monthly bill.

Please see the new water quality section of our updated website for additional information including informational videos and water quality tips!!

Making Water Conservation part of the California Lifestyle



Is outdoor water conservation part of your summer plans?

Outdoor watering accounts for 30% to 60% total water use around the average home. So what are some key steps to reduce outdoor water use?

- Reduce outdoor watering to twice per week. Many owners are surprised to learn that their yard can tolerate reduced watering. Reduce your watering schedule gradually to find the lowest amount that still keeps your yard healthy.
- Sun and wind evaporate water during the afternoon; so watering during the evening or morning hours allows the water to make it to the roots where your plants need it.
- Plant drought resistant trees and plants. Once these hardy plants get established they need only occasional watering which saves water every day for the life of the plant.

For more tips please visit www.saveourwater.com

| | | |
|----------------------------------------------------|--------------------------------------------------------------------|--------------------------------------|
| | | |
| <p>DROUGHT RESISTANT TREES & PLANTS</p> | <p>INSTALL DRIP IRRIGATION & ADD A SMART CONTROLLER</p> | <p>SET MOWER BLADES TO 3"</p> |

The Aromas Water District is a non-profit Multi-County Special District governed by five elected members of the AWD community, each serving a four-year term. AWD was formed in 1959 and today we serve 953 connections in both in Monterey and San Benito Counties.

The Mission of Aromas Water District: To provide a reliable supply of high quality water.

Contacting your Aromas Water District

388 Blohm Avenue Phone: (831) 726-3155 Fax: (831) 726-3951

Mail: P.O. Box 388 Aromas, 95004 or email admin@aromaswaterdistrict.org

Public participation is encouraged at our regularly scheduled Board meetings held the fourth Tuesday of every month, at 7:00 p.m. at the District Office. General Manager, Vicki Morris can be reached at the office phone or email listed above. Office hours are Monday, Wednesday, and Friday 9:00am to 5:00pm. In case of an after-hours emergency, we have a 24-hour Answering Service available by following the directions in our voice message. More information is available on our website. It contains Board Agendas and Minutes, Water Quality information, conservation tips and much more: www.aromaswaterdistrict.org



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Important information about your water enclosed!
Este informe contiene información muy importante sobre su agua potable!

2016 Water Quality Report

(Published June 2017)

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