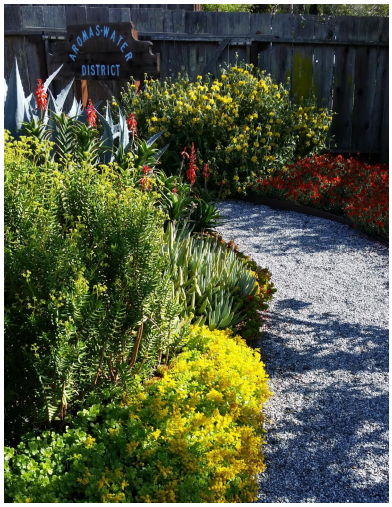
2017 Annual Water Quality Report

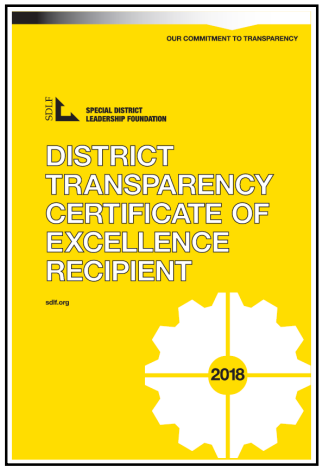
AROMAS WATER DISTRICT

www.aromaswaterdistrict.org

(Published June 2018)



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 from the Special District Leadership Foundation (SDLF) in recognition of its outstanding efforts to promote transparency and good governance.

This is our 59th 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 2017 (January 1 to December 31, 2017). 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

"The more things change, the more they stay the same…" - Jean-Baptiste Alphonse Karr

Well, here at AWD, there have been lots of changes recently; though with those changes, plenty of things have stayed the same.

So, what has changed? Iôm glad you askedé For starters, I am writing this article instead of Vicki Morris, who retired from AWD in September 2017, after working at AWD for 25 years, with the last 10 at the helm as General Manager. Vicki is a positive force in the community, and though we will still see her around, she will be missed here at AWD.

Who am I you ask? I am Robert Johnson, and I took over for Vicki as General Manager in September. I have been in the water world since the 1980s, in various roles. I am excited about this opportunity and look forward to working with this incredible community moving forward.

So, what remains the same? Though the faces have changed over the last few years; commitment to customer service has stayed the same, along with our dedication to delivering high-quality water to our customers.

AWDôs commitment to reducing costs through the use of alternative energy sources remains in place. In its third year of operation, the 94 kW solar field on Carpenteria Road has generated enough energy this past year to offset over $35,000 in pumping power costs; this savings is directly passed on to you the customer, by keeping our rates as low as possible while maintaining our robust and efficient system.

Public Board meetings remain at the same time; 7:00pm on the fourth Tuesday of each month. Know you are always welcome to attend.

We welcome your visit to our office where you can meet our staff, view our historical Aromas photo collection and stroll through the Drought Tolerant, Water Conserving Demonstration Garden of drought tolerant succulents and plants to see what grows well, here in Aromas, using very little water.

You can find helpful up-to-date information regarding AWD on our recently updated website: AromasWaterDistrict.org.

Thanks for doing your part to conserve wateré

Robert Johnson, General Manager

********** ***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 (µg/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 located within the Pajaro Basin:

- San Juan Well - located south of San Juan Road - provided 67% of total water production in 2017.
- Carpenteria Well - located east of Carpenteria Road - provided 19% of total water production in 2017.
- Pleasant Acres Well - located north of San Juan Road - provided less than 14% of total water production in 2017.

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	90th percentile level detected	No. sites exceeding AL	AL	PHG	No. Schools Requesting Sampling	Typical Source of Contaminant
Lead (ppb)	09/09/16	10	12	0	15	0.2	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	09/09/16	10	0.178	0	1.3	0.3	NA	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)	12/13/17	52.88	38-72	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	12/13/17	169.36	128-274	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)	12/13/17	2.0	2.0	10	0.004 (NA)	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	12/13/17	0.18	0.15-0.29	1	2 (NA)	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb)	12/13/17	0.52	ND-2	50	100 (NA)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm) *AWD does not add Fluoride*	12/13/17	0.08	ND-0.1	2.0	1 (NA)	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as N) (ppm)	12/13/17	0.19	0.1-0.2	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)	7/10/17	2.5	1-4	60	NA	Byproduct of drinking water disinfection
Trihalomethanes (ppb)	7/10/17	14	11-17	80	NA	Byproduct of drinking water disinfection
Chlorine (ppm)	Daily	1.24 Running annual average	0.95 - 1.57	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)	12/13/17	3.61	ND-19	300	NA	Leaching from natural deposits; industrial wastes
Manganese (ppb)	12/04/17	ND	ND	500	NA	Leaching from natural deposits
Turbidity (units)	12/13/17	0.26	0.2-0.65	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

TABLE 4 (CONTINUED): 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**
Total Dissolved Solids [TDS] (ppm)	12/13/17	375.24	317-503	1000	NA	Runoff/leaching from natural deposits
Specific Conductance (micro-ohms)	12/13/17	639	554-810	1600	NA	Substances that form ions when in water; seawater influence
Chloride (ppm)	12/13/17	59.95	53-76	500	NA	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	12/13/17	22.05	8-51	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 *E. coli* (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 *E. coli* positive	0	Human and animal fecal waste
E. coli (Federal Revised Total Coliform Rule)	(In the year) 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 7.5 to 8.0 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 (1-800-426-4791) 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 the District investigates 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 , and **(3)** naturally occurring sediment, iron and manganese has built up in the customer's lines and 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 website, under the "Water Quality" section, then click on "Tips for Private Plumbing".

- **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 occasionally makes it into 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 water quality section of our updated website for additional information including informational videos and water quality tips!!

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Making Water Conservation part of the California Lifestyle

Save Our Water

Make 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?

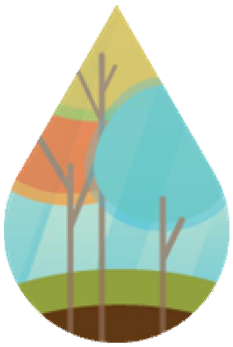
- Reduce outdoor watering to twice per week. Many owners are surprised to learn that their yard can tolerate reduced watering. Reduce your watering schedule gradually to find the lowest amount that still keeps your yard healthy.
- Sun and wind evaporate water during the afternoon; so watering during 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

INSTALL DRIP IRRIGATION

ADJUST SPRINKLERS & FIX LEAKS

USE A BROOM NOT A HOSE



USE MULCH TO REDUCE NEED TO WATER

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 954 connections in both in Monterey and San Benito Counties.

Aromas Water District Mission Statement:

The Aromas Water District is dedicated to providing 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, Robert Johnson 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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(Published June 2018)

2017 Water Quality Report

¡Este informe contiene información muy importante sobre su agua potable!

Important information about your water enclosed!

P.O. Box 388
Aromas, CA 95004

RETURN
SERVICE
REQUESTED

First Class Mail
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