



Rea Tank: 214,000 gallons built in 2009



Annual Water Quality Report

2011 (Prepared in 2012)

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

This report gives you information on the Aromas Water District water quality monitoring done during the year 2011. It includes details about where your water comes from, what it contains, and how it compares to State Standards. We take pride in providing you with a safe and dependable supply of drinking water. We are pleased to report that our water meets all primary and secondary drinking water standards. We test our water quality for many constituents as required by State and Federal Regulations. This report shows the results of our testing for the period of January 1 - December 31, 2011.

Note: For those samples which the district is allowed to monitor less often than once a year, the most recent testing has been used.

Contacting Your Water District

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

Mail: PO Box 388 Aromas, 95004 or email aromaswd@aol.com.

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

General Manager's Corner:

2011 was our District's 52nd year of providing the drinking water needs of our small community. The staff here at AWD is proud to work for you. There are six of us on your District Team. Three are part-time in office administration, two are full-time operators and I am your full time General Manager. We have a combined 62 years of service at AWD! Aromas is a wonderful place to live and work.

This year we completed the replacement of the 1976 Carpenteria Well located by the Fire Department. We have restored its original production capacity to 400 gallons per minute. This infrastructure improvement increases our system reliability and redundancy. The new submersible pump motor is more energy efficient and the water quality is excellent. Did you know the water costs you an average of less than one cent per gallon?

With the current real estate prices at a low, the Board of Directors voted to purchase the old Ducky Deli Building. We have begun a minor remodel to move our District office across the street sometime this summer. While we are disappointed to not follow through with our original plans to build the new office building next to the Fire Department, we are pleased to be saving the District several hundred thousand dollars!

In cooperation with Monterey County and the California Department of Public Health, we are helping the residents of Oakridge and Via del Sol to be served by Aromas Water because of their long standing water quantity and quality issues. Those residents will be responsible for all costs to bring water to their homes. The new service line will better utilize some of our other facilities, and is therefore expected to benefit all of our customers and service.

We welcome your comments and recommendations, please watch for the new office opening and stop by for a visit. Thank you for continuing to conserve water, your efforts are commendable.

Vicki Morris, General Manager

2011 WATER SOURCES USED:

Your water comes from 3 Ground Water Wells named and located as follows:

The Pleasant Acres Well provided 0.62% of total water production in 2011. This well is located north of San Juan Road.

The San Juan Well provided 95.96% of total water production in 2011. This well is located south of San Juan Road.

The Carpenteria Well provided 3.42% of total water production in 2011. It is located east of Carpenteria Road.

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 (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

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.

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 Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

The following tables list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these constituents in the water does not necessarily indicate that the water poses a health risk. The Department requires us to monitor for certain contaminants less than once per year because the concentrations of them are not expected to vary significantly from year to year. Therefore, some of the data is more than one year old, but representative of the water quality. Our system had no violations in 2011.

TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants	Highest No. of detections in 2011	No. of months in violation	MCL (Highest Level Allowed)	MCLG (Ideal Goal)	Typical Source of Bacteria
Total Coliform Bacteria (Total Coliform Rule)	(In a mo.) 0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform and <i>E. coli</i> (Total Coliform Rule)	(In 2011) 0	0	A routine sample & repeat sample detect total coliform & either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

TABLE 2 - RESULTS OF CONSUMER TAP SAMPLING TO SHOW DETECTION OF LEAD OR COPPER

Lead and Copper Most recently tested in 2009	Number of sites sampled	90 th percentile level detected	Number of Sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	10	10	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm)	10	0.266	0	1.3	0.17	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.

TABLE 3 - SAMPLING RESULTS WITH ADDITIONAL WATER QUALITY INFORMATION

Chemical or Constituent (and reporting units)	Latest Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	7/6/11	74	48-104	NA	NA	Generally found in ground and surface water
Hardness (ppm)	7/6/11	130	111-152	NA	NA	Generally found in ground and surface water
pH (laboratory units)	7/6/11	7.7	7.4-7.8	NA	NA	Inherent characteristic of water
Calcium (ppm)	7/6/11	29	28-30	NA	NA	Erosion of natural deposits
Magnesium (ppm)	7/6/11	14	10-20	NA	NA	Erosion of natural deposits

TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Latest Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Arsenic (ppb)	7/6/11	2	1-3	10	.004 (NA)	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	7/6/11	0.105	0.053-0.133	1.0	2 (NA)	Discharges of oil drilling wastes & from metal refineries; erosion of natural deposits

TABLE 4 (CONTINUED) - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Fluoride (ppm)	7/6/11	0.14	0.13-0.16	2.0	1 (NA)	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. (AWD does not add Fluoride.)
Nitrate (ppm)	7/6/11	3	ND-10	45 (as nitrate)	45 (as NO ₃)	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radium 228 (pCi/L)	1/22/07 Average of qtrly testing	ND	ND-0.583	5.0	NA (0)	Erosion of natural deposits

TABLE 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Iron (ppb)	7/6/11	35	ND-106	300	NA	Leaching from natural deposits; industrial wastes
Manganese (ppb)	7/6/11	3	ND-10	50	NA	Leaching from natural deposits
Turbidity (units)	7/6/11	0.73	0.4-1.0	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)	7/6/11	333	282-383	1000	NA	Runoff/leaching from natural deposits
Specific Conductance (microchip)	7/6/11	581	486-678	1600	NA	Substances that form ions when in water; seawater influence
Chloride (ppm)	7/6/11	65	49-89	500	NA	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	7/6/11	8	4-10	500	NA	Runoff/leaching from natural deposits' industrial wastes

TABLE 6 - DISINFECTION BY-PRODUCTS : DISTRIBUTION SYSTEM RESULTS

TTHMs (ppb) [total trihalomethanes]	7/7/10	10	ND-10	80	NA	By-product of drinking water disinfection.
HAA5 (ppb) [Haloacetic Acids]	8/4/10	3.6	ND-3.6	60	NA	By-product of drinking water disinfection.
Chlorine (ppm)	Daily	1.06 Running Annual Average	0.79-1.24	MRDL 4.0	NA	Drinking Water disinfectant added for treatment

Source Water Assessment

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.

A study 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. A study of the aquifer feeding the Carpenteria Well identifies residential septic systems 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.

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 387 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.

Aromas Water District Averages

2011 Water Production = 96,835,000 gallons for 892 households and businesses

February was the lowest month of production = 5,433,000 gallons

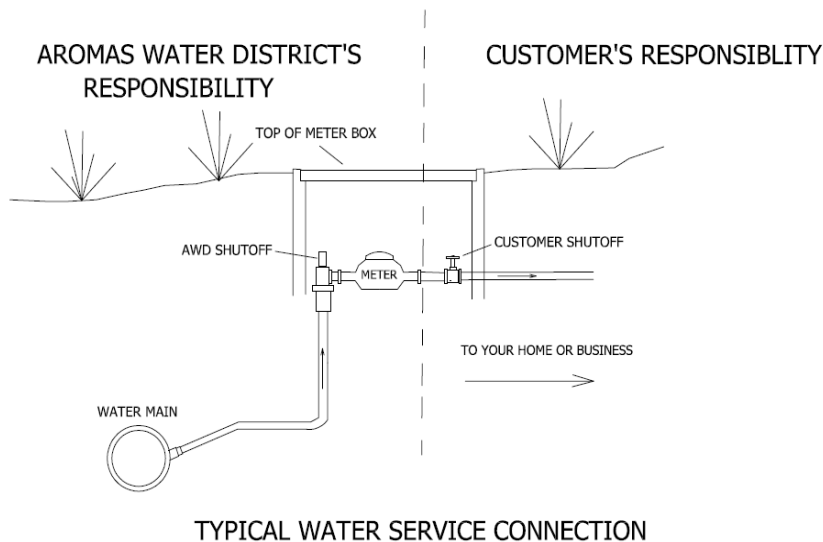
July was the highest month of production = 13,414,000 gallons

Average Single-family residence monthly usage overall: 1,144 cubic feet (8,557 gallons)

Lowest winter usage month in 2011: 628 cubic feet (4,696 gallons) average per single-family residence

Highest summer usage month in 2011: 1,834 cubic feet (13,718 gallons) average per single-family residence

Important Information about your Water Meter



* Note the location of the customer shutoff valve in the above diagram. The ideal location is as close to the meter as possible so that your entire system can be turned off during repairs or emergencies.

Aromas Water District personnel read **every meter every** month. Maintenance is done by District personnel for any problems that occur on the District side of the meter (including the meter). Service personnel must have a 3-foot wide by 6-foot-high unobstructed path to access the water meter. This is a condition of service and, if necessary, access will be made by the District if "Request to Clear" notices are ignored by the customer.

The customer is responsible for all repairs necessary to their side of the meter. This includes the service line to the house, landscape pipes, pressure boosters or pressure reducers. A suitable pressure regulating valve must be installed and maintained to protect your system from high pressure, which can result in broken lines, flooding, and loss of water. AWD takes no responsibility for damage resulting from a malfunctioning or missing pressure regulating valve. It is recommended you check these items regularly to avoid leaks and expense. **Please make sure that you have a shutoff valve*** near the beginning of your system for repairs and emergencies. If your system is equipped with a Pressure Booster Pump, please call the District office for additional information that will be helpful to you.

CHECKING YOUR OWN METER: MANAGING YOUR USAGE



Many of our meters are now equipped with a radio read feature which makes hard-to-access meters easy to read. You may call our office to find out which kind you have. We will be happy to help you with information on how to read it.

CHECKING FOR INDICATION OF A LEAK

Method 1

Turn off all water taps inside and outside your home. Record the meter reading and return in two to three hours to check for movement. If the meter reading has changed, you may have a leak.

Method 2

Many meters have a small red (or blue) triangle on the meter face, designed to detect even small leaks. If this red triangle is moving when you have all water off inside and outside your home, you may have a leak.

Common sources of leaks are a **toilet** that is running, a constant drip in a **sink or outdoor faucet**, a loose or dripping **washing machine hose** connection, a **home water treatment unit**, or a **sprinkler system**.

REMEMBER: WE ARE HERE TO HELP WITH ANY QUESTIONS, AND YOU CAN SCHEDULE AN APPOINTMENT IF YOU NEED INDIVIDUAL HELP UNDERSTANDING YOUR METER.

Where do I find my home's master valve?

The most common locations for the master valve in your house or apartment (have your landlord show you how to do this) are:

- where the water supply enters your home
- next to your side of the water meter
- near your clothes-washer hook-up
- near your water heater

To determine if the valve is the correct one, turn it off and see if it shuts off all water faucets in your home. If not, repeat this process with each valve until you find the correct one. If you are unable to find it, or it is inoperable, contact a plumber for assistance. Once you've found the valve, mark it with something distinctive like bright paint, a tag or a ribbon so you can locate it quickly in case of an emergency.

Excerpted from Plain Talk About Drinking Water by Dr. James M. Symons.

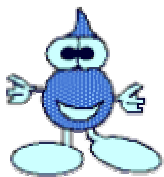
Once again, If you do not have a master valve (shut-off) on your side of the meter, you should have a plumber install one for your convenience. Thank you!



Hurray for Mulch!

Mulch serves a variety of beneficial purposes in your flower or vegetable garden but here we would like to emphasize the water saving benefits of using mulch. Mulch in your garden helps retain soil moisture by cutting down on surface evaporation. It can reduce evaporation from soil by up to 70%! Mulch is like a blanket on the soil. It keeps the soil cool and it reduces evaporation because the soil is not exposed to dry air and drying winds.

A practical mulch should be easily obtained, inexpensive and simple to apply. There are many forms of mulch available in both organic and inorganic types. Locally available organic mulches include pine bark, wood chips, dead leaves or straw. Apply about 2-3 inches for best results. You may need to apply some nitrogen-rich fertilizer to the soil before applying the mulch because the mulch tends to deplete the soil of this nutrient as it breaks down. Inorganic mulch such as pebbles or a plastic covering may also be used. A black plastic can also help prevent weeds. So go ahead and MULCH your way to water savings and enjoy gardening this summer!



For your information: How Do Hydrologists Locate Groundwater?

Using Scientific Methods to Locate Water

To locate groundwater accurately and to determine the depth, quantity, and quality of the water, several techniques must be used, and a target area must be thoroughly tested and studied to identify hydrologic and geologic features important to the planning and management of the resource. The landscape may offer clues to the hydrologist about the occurrence of shallow groundwater. Conditions for large quantities of shallow groundwater are more favorable under valleys than under hills. In some regions--in parts of the arid Southwest, for example--the presence of "water-loving" plants, such as cottonwoods or willows, indicates groundwater at shallow to moderate depth. Areas where water is at the surface as springs, seeps, swamps, or lakes reflect the presence of groundwater, although not necessarily in large quantities or of usable quality.

Geology is the key

Rocks are the most valuable clues of all. As a first step in locating favorable conditions for ground-water development, the hydrologist prepares geologic maps and cross sections showing the distribution and positions of the different kinds of rocks, both on the surface and underground. Some sedimentary rocks may extend many miles as aquifers of fairly uniform permeability. Other types of rocks may be cracked and broken and contain openings large enough to carry water. Types and orientation of joints or other fractures may be clues to obtaining useful amounts of groundwater. Some rocks may be so folded and displaced that it is difficult to trace them underground.

Existing wells provide clues

Next, a hydrologist obtains information on the wells in the target area. The locations, depth to water, amount of water pumped, and types of rocks penetrated by wells also provide information on groundwater. Wells are tested to determine the amount of water moving through the aquifer, the volume of water that can enter a well, and the effects of pumping on water levels in the area. Chemical analysis of water from wells provides information on quality of water in the aquifer.

Additional General Information on Drinking Water

All 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).

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. 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 <http://www.epa.gov/safewater/lead>.

Aromas Water District
P.O Box 388
Aromas, CA 95004

RETURN
SERVICE
REQUESTED

First Class Mail
PRESORTED
U. S. Postage Paid
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Permit #1

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

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