



# Annual Water Quality Report 2010 (Prepared in 2011)

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 2010. 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, 2010.

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

**Letter from the Board:** The Board of Directors is committed to long-term strategic planning to insure we provide quality water to our customers. The last two years have seen major improvements to our water delivery infrastructure which continues this year with the replacement of our Carpenteria Well.

On a different front: The Board of Directors has watched the rent on our office space steadily increase over the years. In 2008 the Water District purchased adjacent property to our well, next to the fire station, that was large enough to build our own office. Since then we have developed building plans and gone through the approval process with San Benito County. We now have our permits and are ready to start once we have advantageous financing in place. This will be a win/win situation for the Water District. Not only will we have a roomier, more energy-efficient office; but money that was going to pay rent will now go toward a structure that is an asset to the District. A bonus is that our Tri County Sheriff Departments have expressed interest in a sub station space in our office. This has been designed into the plans, and rent for this space will partially offset the payment on our loan. As Board President, I am available through the AWD office to answer questions or hear your concerns.

Wayne Holman, Aromas Water District Board President

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### General Manager's Corner:

2010 came and went with an abundance of activity involving capital projects to replace infrastructure in our 50+ year old system. During this fiscal year the District replaced the last redwood storage tank in the system with a new steel-bolted 214,000 gallon tank. This improvement provides more emergency storage and fire safety for all of us, as well as reduced pumping costs by way of new efficient booster pump motors and utilization of 'off-peak' power costs. The 1976 Carpenteria Well is scheduled for replacement in 2011, this will increase our system reliability and redundancy. AWD is continually seeking ways to save costs, improve efficiency and deliver reliable and safe water.

The AWD, in conjunction with Monterey County and Environmental Health, is moving forward with the engineering and environmental planning to serve water to the drought stricken subdivisions of Oakridge, off of Dunbarton Road, and contiguous Via Del Sol. This project will bring improved water quality and quantity standards to our close neighbors; many of whom must truck in water during the summer months. The existing AWD customers will not bear any of their costs, but in the long term the addition of these existing residences will help spread the cost of service for all of us.

Cooler weather, late rains, economic setbacks and increased conservation have reduced water production to the lowest in over ten years. While this is great news for the over-drafted Pajaro Valley aquifer recovery; it has put a strain on anticipated revenue. Once again, the budget has been tightened to its lowest level of expenditures in many years. We are working hard to contain the costs to operate your water system. Thank you for all your efforts to conserve our precious resource; we welcome your voice and recommendations anytime.

Thank you for this continued opportunity to be your public servant,

Vicki Morris, General Manager

### 2010 WATER SOURCES USED:

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

The <u>Pleasant Acres Well</u> provided 0.75% of total water production in 2010. This well is located north of San Juan Road.

The <u>San Juan Well</u> provided 99% of total water production in 2010. This well is located south of San Juan Road.

The <u>Carpenteria Well</u> provided 0.25% of total water production in 2010. 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 2010.

TABLE 1 - SA	MPLING R	RESULTS S	HOWING T	THE DET	ΓΕCTION	OF COLIFO	ORM BACTERIA
Microbiological Contaminants	Highest No. of detections in 2010	No. of months in violation	MCL			MCLG	Typical Source of Bacteria
Total Coliform Bacteria (Total Coliform Rule)	(In a mo.)	0	More than 1 sample in a month with a detection  O  Naturally present in the environment				
Fecal Coliform and E. coli(Total Coliform Rule)	(In 2010) 0	0	A routine sample & repeat sample detect total coliform & Human and animal fecal either sample also detects fecal coliform or <i>E. coli</i>				
TABLE 2 - RESULT	S OF CON	SUMER TA	AP SAMPLIN	NG TO	SHOW DE	ETECTION (	OF LEAD OR COPPER
<b>Lead and Copper</b> Most recently tested in 2009	Number of sites sampled	90 <sup>th</sup> 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 - SA	AMPLING R	RESULTS V	VITH ADDI	TIONA	L 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)	7/1/09	63	49-63	none	none	Generally found in ground and surface water	
Hardness (ppm)	7/1/09	149	138-193	none	none	Generally found in ground and surface water	
pH (laboratory units)	7/1/09	7.8	7.6-7.8	none	none	Inherent characteristic of water	
Calcium	7/1/09	30	30-36	none	none	Erosion of natural deposits	
Magnesium	7/1/09	18	14-25	none	none	Erosion of natural deposits	
TABLE 4 - DETEC	TION OF C	ONTAMIN	NANTS WIT	TH A PR	IMARY D	RINKING	WATER STANDARD
Chemical or Constituent (and reporting units)	Latest Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Туріса	l Source of Contaminant
Arsenic (ppb)	7/1/09	3.9	2-4	10	.004 (NA)	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes	
Barium (ppm)	7/1/09	0.149	.072-0.15	1.00	2	Discharges of oil drilling wastes & from metal refineries; erosion of natural	

(NA) deposits

TABLE 4 (CONTIN	IUED) - DET	TECTION (	OF CONTAI STANI		rs with	A <u>PRIMARY</u> DRINKING WATER	
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant	
Fluoride (ppm)	7/1/09	0.15	0.14-0.17	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)	7/21/10	2	ND-6	45 (as nitrate)	45 (as NO3)	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	NA	ND- 0.583	5.0	NA (0)	Erosion of natural deposits	
TABLE 5 - DETECT	ION OF CO	NTAMINA	ANTS WITH	I A <u>SECC</u>	ONDARY	DRINKING WATER STANDARD	
Iron (ppb)	7/21/10	0	ND-379	300	NA	Leaching from natural deposits; industrial wastes	
Manganese (ppb)	7/21/10	0	ND-52	50	NA	Leaching from natural deposits	
Turbidity (units)	7/1/09	0.85	0.45-95	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)	7/1/09	331	290-366	1000	NA	Runoff/leaching from natural deposits	
Specific Conductance (microchip)	7/1/09	581	510-636	1600	NA	Substances that form ions when in water; seawater influence	
Chloride (ppm)	7/1/09	58	41-59	500	NA	Runoff/leaching from natural deposits; seawater influence	
Sulfate (ppm)	7/1/09	9	8-22	500	NA	Runoff/leaching from natural deposits' industrial wastes	
TABLE	6 - DISINFI	ECTION B	Y-PRODUC	TS:DIS	TRIBUTIO	ON 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	0.97 Running Annual Average	0.74-1.27	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. 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 <a href="https://www.aromaswaterdistrict.org">www.aromaswaterdistrict.org</a>.

## **Aromas Water District Averages**

2010 Water Production = 112,393,000 gallons for 890 households and businesses

February was the lowest month = 5,089,000 gallons

August was the highest month = 14,673,000 gallons

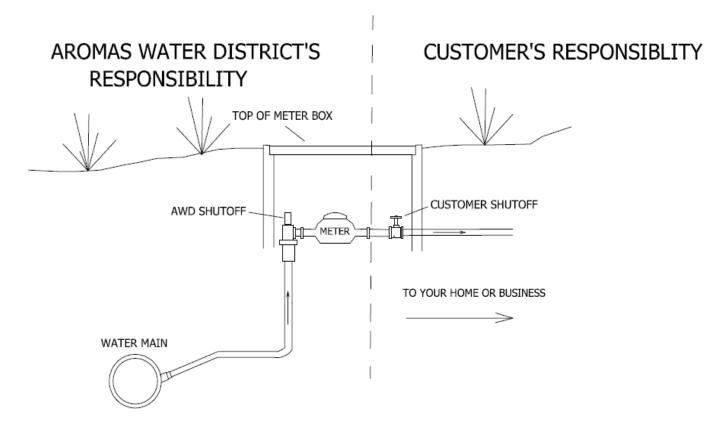
Average Single-family residence monthly usage overall: 1,348 cubic feet (10,083 gallons)

Lowest winter month in 2010: 663 cubic feet (4,959 gallons) average per single-family residence

Highest summer month in 2010: 1,897 cubic feet (14,190 gallons) average per single-family residence

### IMPORTANT INFORMATION CONCERNING YOUR WATER METER

Aromas Water District personnel read every meter every month. This is the basis for your water bill. 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-foothigh 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. 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.



# TYPICAL WATER SERVICE CONNECTION

\* 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.

### 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.

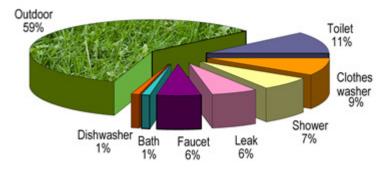
REMEMBER: WE ARE HERE TO HELP WITH ANY QUESTIONS, AND YOU CAN SCHEDULE AN APPOINTMENT IF YOU NEED INDIVIDUAL HELP UNDERSTANDING YOUR METER.

### For your information:

# Hydrology is the Study of Water

Water is one of our most important natural resources. Without it, there would be no life on earth. The supply of water available for our use is limited by nature. Although there is plenty of water on earth, it is not always in the right place, at the right time and of the right quality. Adding to the problem is the increasing evidence that chemical wastes improperly discarded yesterday are showing up in our water supplies today. Hydrology has evolved as a science in response to the need to understand the complex water systems of the Earth and help solve water problems. Hydrologists play a vital role in finding solutions to water problems, and interesting and challenging careers are available to those who choose to study hydrology.

# Residential Average Water Use



Source: American Water Works Association Research Foundation, End Uses of Water

This pie chart shows the way that a typical household uses water. You may be surprised to see how much water is used outdoors compared to, for example, taking showers. Although usage in every home is unique, the average Aromas Water District customer will use most of their water on their landscaping during the summer months. We encourage you to use California Native and/or drought tolerant plants. Come to the office for a free list of great plants!

### **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. 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 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 <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a>.

Aromas Water District P.O Box 388 Aromas, CA 95004 RETURN SERVICE REOUESTED

First Class Mail PRESORTED U. S. Postage Paid AROMAS, CA 95004

Permit #1

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

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