

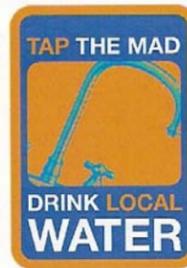
736 F STREET
ARCATA, CA 95521
www.cityofarcata.org

2010 Consumer Confidence Report
Information about where our community's water originates, what it may contain, and comparisons to State drinking water standards.

Landlords, tenants may not receive this report since they may not be direct customers of the City. You should make this report available to such people by posting it in a conspicuous place, distributing copies to all tenants or by directing tenants to the City's website at www.cityofarcata.org/document-center

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Do you have questions about your drinking water?

This pamphlet is provided to you annually to answer some of those questions. Contained within is information specifically required by California State Law and the Federal Safe Drinking Water Act. This report shows the results of drinking water monitoring for the period of January 1-December 31, 2010.

If you have any questions about your drinking water or this report call Erik C. Lust, Water/Wastewater Superintendent at (707) 822-8184. You may also attend a regularly scheduled City Council meeting held the **first and third Wednesday of each month at 6 p.m.** in the Council Chambers, 736 F Street, Arcata, CA 95521, to hear, discuss or deliberate upon any item or subject within the City's jurisdiction.

In 2010, as in past years, our local drinking water met all Environmental Protection Agency (EPA) and State drinking water health standards. The City of Arcata strives to provide excellent quality water and service to our customers.

Cross Connection Protection

Backflow prevention assemblies are designed to allow water to flow into your home or office from the public water system but not allow water to flow in the reverse direction, creating effective cross connection protection. Reverse flow can carry untreatable pollutants and contaminants into the public water system, compromising the water quality for all customers. Backflow prevention assemblies are required to be tested annually to ensure they are effectively protecting the public water system. If your residence has an active well on the premises or your business has fire sprinklers and/or landscaping, you probably have a backflow prevention assembly. For questions regarding annual testing requirements, call Erik C. Lust, Water/Wastewater Superintendent at (707) 822-8184.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Drinking Water Sources

The City of Arcata has two sources of drinking water. The primary source of Arcata's drinking water is purchased water from Humboldt Bay Municipal Water District (HBMWD). Drinking water purchased from HBMWD is drawn from Ranney wells located in the bed of the Mad River northeast of Arcata. A Drinking Water Source Assessment conducted by the California Department of Public Health (CDPH), completed August 2002, classified HBMWD's Ranney Wells as a groundwater source which is considered most vulnerable to the following activities not associated with any detected contaminants: lumber processing and manufacturing, and septic systems-low density.

The secondary source of drinking water is the City of Arcata's Heindon Well located near the northwest city limit. A Drinking Water Source Assessment completed in February 2002 classified Heindon Well as a groundwater source considered most vulnerable to the following activities not associated with any detected contaminants: septic systems-high density. Drinking Water Source Assessment reports are available at <http://swap.des.ucdavis.edu/TSinfo/TSsearch.asp> or you may request a summary of the assessment be sent to you by contacting: Craig Bunas, P.E., Associate Sanitary Engineer (530) 224-4800.

All water entering the City's drinking water distribution system undergoes chlorine and fluoride treatment. You may obtain more information about fluoridation, oral health, and current issues at www.cdph.ca.gov/certlic/drinkingwater/Pages/Fluoridation.aspx.

Water Quality in General

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or 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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, 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 State 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 provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. ***The presence of contaminants does not necessarily indicate that water poses a health risk.*** 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 and Copper Monitoring is conducted to determine whether there is any evidence of lead or copper in the tap water of our community. 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 City of Arcata 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>.

Analytical Results

The City performs monitoring and testing, in accordance with State regulations and requirements, to ensure its water is safe to drink. The City also voluntarily monitors for non-regulated contaminants that may indicate a health concern. In 2010 the City performed more than 1700 tests for 39 water quality parameters. HBMWD conducted more than 380 water quality tests for over 37 contaminants on the water it supplies to the City. Only contaminants present in detectable levels have been included. It is important to note that the presence of contaminants does not necessarily indicate that the drinking water poses a health risk.

The following definitions are provided:

- **Maximum Contaminant Level (MCL)** 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.
- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.
- **Public Health Goal (PHG):** 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.
- **Primary Drinking Water Standards (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- **Maximum Residual Disinfectant Level (MRDL):** 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.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** 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.
- **Secondary Drinking Water Standards (SDWS):** MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWS do not affect the health at the MCL levels.
- **Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **N/A:** not applicable
- **ND:** not detectable at testing limit
- **ppm:** parts per million or milligrams per liter (mg/L)
- **ppb:** parts per billion or micrograms per liter (µg/L)
- **µS/cm:** microSiemens per centimeter or micromho per centimeter (µmho/cm)
- **NTU:** Nephelometric Turbidity Units; a measure of clarity

TABLE 1. NON-REGULATED TESTING			
	HBMWD	Arcata	
Sodium (ppm)	Average = 3.6*	Average = 5.9 Range = 4.3 – 7.5	Sodium refers to the salt present in water and is generally naturally occurring.
Hardness (mg/L CaCO ₃)	Average = 67** Range = 57-80	Average = 117 Range = 74 - 160	Hardness is the sum of polyvalent cations present in the water, generally magnesium and calcium and usually naturally occurring.
Alkalinity (mg/L)	--	Average = 108 Range = 66 - 150	Alkalinity is a measure of the buffering capacity of water or its ability to resist change in pH
Corrosivity (Langelier Units)	--	Average = -0.44 Range = -0.092 to -0.78	Corrosivity values in this range indicate that the water is slightly corrosive on the Langelier Index

TABLE 2. REGULATED CONTAMINANTS					
Contaminant and Units	HBMWD	Arcata	MCL [MRDL for chlorine]	PHG/MCLG	Likely Source of Contaminant
MICROBIOLOGICAL CONTAMINANTS					
Total Coliform Bacteria	Zero positive	Zero positive	More than 1 positive sample monthly	Zero positive	Coliform bacteria are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.
Fecal Coliform and <i>E. coli</i>	Zero positive	Zero positive	A routine sample and a repeat sample are total coliform positive, and either sample is also fecal coliform or <i>E. coli</i> positive	Zero positive	Fecal coliforms and <i>E. coli</i> are bacteria whose presence indicates that the water may be contaminated with human or animal wastes
DISINFECTION BYPRODUCTS AND DISINFECTION RESIDUALS					
TTHMs (Total Trihalomethanes) (ppb)	Average = 7.5	Average = 5.7 Range = ND – 5.7	80	N/A	By-product of drinking water chlorination
HAA5s (Haloacetic Acids) (ppb)	Average = 3.0	Average = 1.5 Range ND – 1.5	60	N/A	By-product of drinking water chlorination
Chlorine (ppm)	Average = 0.68	Average = 0.5 Range = 0.5–1.0	MRDL = 4.0 (as Cl ₂)	MRDLG = 4 (as Cl ₂)	Drinking water disinfectant added for treatment
REGULATED CONTAMINANTS WITH PRIMARY DRINKING WATER STANDARDS					
Copper (ppm)	N/A	30 sites tested None were above the AL 90 th Percentile = 0.900	90 th Percentile AL = 1.3	0.3	Internal corrosion of household plumbing, erosion of natural deposits, leaching from wood preservatives
Lead (ppb)	N/A	30 sites tested None were above the AL 90 th Percentile = 5.4	90 th Percentile AL = 15	0.2	Internal corrosion of household plumbing, erosion of natural deposits, leaching from wood preservatives
Aluminum (ppm)	Average = 0.16 **** Range = N/A	Average = 0.0061* Range = N/A	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Fluoride (ppm)	N/A	Average = 0.80 Range = 0.01 – 1.45	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Barium (ppm)	N/A	Average = 0.13* Range = N/A	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
REGULATED CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARDS					
Chloride (ppm)	Average = 2.8*** Range = N/A	Average = 6.4 Range = 3.6 - 9.2	500 ppm	N/A	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	--	Average = 61 Range = N/A	300 ppb	N/A	Leaching from natural deposits; industrial wastes
Manganese (ppb)	--	Average = 9.5 Range = N/A	50 ppb	N/A	Leaching from natural deposits
Odor (units)	--	Average = 1.5 Range = 1.0 – 2.0	3	N/A	Naturally –occurring organic materials
Specific Conductance (µS/cm)	Average = 120 ** Range = N/A	Average = 285** Range = 160-340	1,600	N/A	Substances that form ions when in water; seawater influence
Sulfate (ppm)	Average = 9.5*** Range = N/A	Average = 8.4 Range = 8.0 – 8.9	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Turbidity (NTU, Nephelometric Turbidity Units)	Average = 0.17 Range = 0.05 – 0.73	Average = 0.11 Range = 0.04–0.74	5	N/A	Soil runoff. Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth
Total Dissolved Solids (ppm)	Average = 93*** Range = N/A	Average = 150 Range = 100 - 200	1000	N/A	Runoff/leaching from natural deposits
*samples taken in 2009, **samples taken in 2008, ***samples taken in 2007, ****samples taken in 2006; the State may require monitoring for certain contaminants less than once a year, results from prior years are included where appropriate					

