



City of Arcata 2011 Consumer Confidence Report

Report Date: June 20, 2012

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2011.

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

Type of water source(s) in use:

The City of Arcata has two sources of drinking water. The primary source of Arcata's drinking water is groundwater purchased from Humboldt Bay Municipal Water District (HBMWD). The secondary source of drinking water is the City of Arcata's Heindon Groundwater Well. All drinking water entering the City's 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.

Name & location of source(s):

Drinking water purchased from HBMWD is drawn from wells located in the bed of the Mad River northeast of Arcata. These wells, called Ranney Wells, draw water from the sands and gravel of the riverbed at depths of 60 to 90 feet. Treated drinking water is delivered to the City of Arcata via transmission lines to the Alliance Road Transfer Station. The Heindon Groundwater Well, located near the northeast city limit, draws from a deep aquifer of the Mad River Lowland Basin.

Drinking Water Source Assessment Information:

A Drinking Water Source Assessment conducted by the California Department of Public Health (CDPH) and completed in August 2002 classified HBMWD's Ranney Wells as a groundwater source which is most vulnerable to the following activities not associated with any detected contaminants; lumber processing and manufacturing, low density septic systems, wood preserving/treating and wood/pulp/paper processing and mills. Due to the detection of aluminum, the Ranney Wells are considered vulnerable to activities that may have contributed to or caused the release of aluminum. In particular, aluminum is believed to be associated with the residue from some surface water treatment processes and erosion of natural deposits. Due to the detection of barium, Ranney Wells are considered vulnerable to activities that may have contributed to or caused the release of barium. In particular, barium is believed to be associated with discharges of oil drilling wastes and metal refineries, and erosion of natural deposits.

A Drinking Water Source Assessment completed by CDPH in February 2002 classified City of Arcata's Heindon Well as a groundwater source which is considered most vulnerable to the following activities not associated with any detected contaminants; high density septic systems. Due to the detection of barium, Heindon Groundwater Well is considered vulnerable to activities that may have contributed to or caused the release of barium. In particular, barium is believed to be associated with discharges of oil drilling wastes and metal refineries, and erosion of natural deposits.

Drinking Water Source Assessment reports are available at www.cdph.ca.gov/certlic/drinkingwater/Pages/DWSAP.aspx. You may request a summary of the Assessment be sent to you by contacting: Craig Bunas, P.E., Associate Sanitary Engineer (530) 224-4800, California Department of Public Health, 415 Knollcrest Drive, Suite 110, Redding, CA 96002.

Time & place of regularly scheduled board meetings for public participation:

You may 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, to hear, discuss or deliberate upon any item or subject within the City's jurisdiction.

If you have any questions about your drinking water or this report call Rachel Hernandez, Environmental Compliance Officer at (707) 822-8184.

TERMS USED IN THIS REPORT

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 U.S. Environmental Protection Agency (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.

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.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variations and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

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 USEPA and CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that 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 contaminants in the water does not necessarily indicate that the water poses a health risk. The CDPH allows us to monitor for certain contaminants less than once per year because the concentrations

of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

SAMPLE RESULTS OF NON-REGULATED TESTING			
Constituent (and reporting units)	Sample Date	Level Detected	
Alkalinity (ppm as CaCO ₃)	11/2/2011	150	Alkalinity is a measure of the buffering capacity of water or its ability to resist change in pH
Corrosivity (Langlier Units)	11/2/2011	- 0.17	Corrosivity values in this range indicate that the water is slightly corrosive on the Langlier Index

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA					
Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	1	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER (testing conducted in 2010)						
Lead and Copper (complete if lead or copper detected in the last sample set)	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	30	5.4	1	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	30	0.9	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	7/1/2010	5.9	4.3 – 7.5	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	7/1/2010	117	74 - 160	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided later in this report.

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

Chemical or Constituent (and reporting units)	Sample Date ¹	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Turbidity (NTU)	Daily	0.14	0.05 – 0.68	TT	N/A	Soil runoff
INORGANIC CONTAMINANTS						
Aluminum (ppm)	2006-2009	0.88	0.061-0.16	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Barium (ppm)	4/15/2009	0.13		1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (ppm)	Daily	0.6	ND – 1.3	2.0	1	
DISINFECTION BYPRODUCTS AND DISINFECTANT RESIDUALS						
TTHMs (Total Trihalomethanes) (ppb)	9/14/2011	8.2	2.3 – 14	80	n/a	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.
HAA5 (Haloacetic Acids) (ppb)	9/14/2011	1.9	ND – 3.8	60	n/a	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Chlorine (ppm)	Daily	0.5	0.1 – 1.0	[MRDL= 4.0 (as CL ₂)]	[MRDLG= 4.0 (as CL ₂)]	Drinking water disinfectant added for treatment

TABLE 5 – 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
Chloride (ppm)	2005 -2007	5.2	2.8 – 7.5	500	n/a	Runoff/leaching from natural deposits; seawater influence
Color (color units)	11/9/2005	3.0		15	n/a	Naturally-occurring organic materials
Iron (ppb)	11/9/2005	89		300	n/a	Leaching from natural deposits; industrial wastes
Manganese (ppb)	11/9/2005	15		50	n/a	Leaching from natural deposits
Odor Threshold @ 60°C (TON)	11/9/2005	1.0		3	n/a	Naturally-occurring organic materials
Specific Conductance (µS/cm)	2007-2011	225	120 - 330	500	n/a	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2005-2008	8.2	6.9 -9.5	1600	n/a	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2007-2011	93	93 -200	1000	n/a	Runoff/leaching from natural deposits

*Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

¹ Sample dates spanning multiple years indicate chemicals or constituents which were sampled once from each water source on different years; results are averaged (level detected) for reporting purposes. The range of detections reflects the results of testing from each water source.

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 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 your exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead



Conserve Water & Save Money

(Indoors)

- **Washing clothes: Wash full loads only and save 15-50 gallons per load.**
- **Your dishwasher: Run it only when it’s full. You’ll save 2-4.5 gallons per load.**
- **Showers: By shortening them, you can save 2.5 gallons per minute.**
- **Brushing your teeth: Turn the water off. You’ll smile big when you save 2 gallons per minute.**

(Outdoors)

- **Native plants: Replacing a portion of your lawn with Northern California friendly plants requires less water.**
- **Adjust your sprinklers: To prevent wasting water and reduce runoff.**
- **Reduce evaporation: Water plants and lawns only before 6 a.m. and after 8 p.m.**



Get The Most Out of Your Curbside Recycling

Throw These Clean & Rinsed Items Right On In:

- **Cans; Aluminum, Steel and Tin (Remove Food, NO Aerosol)**
- **Milk and Juice Cartons**
- **Glass Bottles (Remove Caps)**
- **Plastic Containers #1 - #7 (Remove Caps)**
- **Clean Aluminum Foil (Remove Food Waste)**
- **Newspaper and Mixed Paper**
- **Cardboard (NO Food Waste)**



NO: Plastic Bags, Toys, or Utensils, Take Out Containers, Polystyrene Styrofoam Items, Straws, Plastic Coated/ Carbon Paper, Used Paper Plates or Cups, Metal Clips, Heavy Binders, Hard Bound Books, Chip Bags, Snack Wrappers, Bath Tissues, Paper Towels or Paper Coated with Foil, Wax, Food.





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

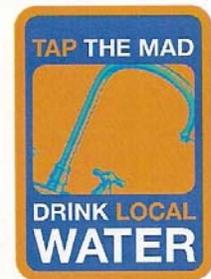
2011 Consumer Confidence Report

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

PRESORTED
STANDARD
US POSTAGE
PAID
ARCATA, CA
PERMIT NO. 152

Printed on Recycled
Content Paper



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, 2011.

In 2011, 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.