



Humboldt Community Services District 2012 Consumer Confidence Report

Introduction and Background

For a number of years, California State Law has required that water systems prepare an Annual Water Quality Report for its customers providing information regarding the quality of water delivered to them. The 1996 amendments to the federal Safe Drinking Water Act introduced new reporting requirements - namely preparation of a Consumer Confidence Report - with essentially the same purpose as that of the California report. This report represents Humboldt Community Services District's 2012 Consumer Confidence Report. It is a snapshot of the quality of the water that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or the quality of your drinking water, please call David Hull at (707) 443-4558. You may also attend a regularly scheduled meeting of our Board of Directors, which are held the second and fourth Tuesday of each month at 5:00 p.m. at our office located at 5055 Walnut Dr. in Cutten.

Water Sources:

Humboldt Bay Municipal Water District (HBMWD)

Approximately sixty percent of the drinking water delivered by the District is drawn from HBMWD wells located in the bed of the Mad River, northeast of Arcata, along Highway 299. These wells, called Ranney Wells, draw water from the sands and gravel of the riverbed at depths of 60 to 90 feet, thereby providing a natural filtration process. In summer, this naturally-filtered water is disinfected via chlorination. In the winter, it is further treated at a regional Turbidity Reduction Facility which reduces the occasional turbidity (cloudiness) in the source water. While turbidity itself is not a health concern, the California Department of Health (CDPH) is concerned that at elevated levels, turbidity could potentially interfere with the disinfection process. Disinfected water is then delivered to HCSD retail customers in the northeastern portion of HCSD, which includes the areas commonly known as Cutten, Rosewood, Ridgewood, Westgate, Elk River, Myrtle town, Mitchell Rd., Pigeon Pt., and Freshwater. HBMWD's source water has been classified by the CDPH as groundwater. The classification is important with respect to the regulations that a water system must follow to ensure water quality.

HCSD Wells

The District's three deep wells located at the foot of Humboldt Hill supply the remaining HCSD customers in the areas commonly known as Humboldt Hill, Fields Landing, and King Salmon. These wells are both partially or completely artesian and lightly chlorinated at the well head. This deep well water is also classified as groundwater. A blend of HCSD well water and HBMWD water is supplied to the Pine Hill area.

Water Quality in General

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and well. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or human activity. Therefore, drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. 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, which can be naturally occurring or result from urban storm water runoff, or industrial processes.
- Pesticides and herbicides which may come from a variety of sources such as agriculture and residential uses. These are radioactive contaminants which are naturally occurring.
- Organic chemical contaminants, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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 EPA's Safe Drinking Water Hotline at (1-800) 426-4791 or visiting their website at <http://water.epa.gov/drink/>.

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, persons with HIV/AIDS or other immune system disorders, some elderly people and infants, may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. Furthermore, the Center for Disease Control has guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants which may be obtained by calling the Safe Drinking Water Hotline: (1-800-426-4791). The District's Water has been consistently and frequently monitored for the presence of giardia and cryptosporidium. Since the mid-1990's, when the EPA approved the testing technique for these contaminants, HCSD has never had a confirmed detection of either contaminant.

Water Production and Distribution

Last year HCSD produced 248 million gallons and purchased 516 million gallons to fulfill the needs of our customers. To keep pace with increasing water demand, improve fire hydrant flows, reduce the amount of water lost to leakage and stabilize pressure, the District has been replacing older steel water mains that are undersized and deteriorated.

The water delivered to you not only meets, but significantly surpasses, state and federal standards for quality and safety. The Humboldt Community Services District uses chlorine treatment to disinfect the water to insure that the microbiological quality of the water meets these high standards. The District does not currently fluoridate the water; all fluoride is naturally occurring. We continually test your water using the most sophisticated equipment and advanced procedures. A summary of our most recent laboratory test results is presented in this report. HCSD provides this information so that you can be aware of the quality of the water you drink. The District employs certified water treatment operators that help monitor and maintain your water system. They are licensed by the State Department of Health Services, at or above the certification level required by law.

Humboldt Community Services District's Water Quality Results

In order to ensure that tap water is safe to drink, the CDPH prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The District treats its water and performs annual monitoring and testing, in accordance with the CDPH regulations and requirements, to ensure its water is safe to drink. In 2012, we performed 301 water quality tests. The results from our 2012 monitoring and testing program indicate that our water quality is very high, with no coliform bacteria detected.

The following table lists all the drinking water contaminants detected during 2012. Additionally, the CDPH requires that we monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Therefore, results from prior years are included if such a contamination was detected. As you can see, there are very few entries in the table because very few contaminants were actually detected in 2012 and prior years. It is once again important to note that the presence of these contaminants does not necessarily indicate that the water poses a health risk.

Sodium, Hardness, and pH— although sodium, hardness, and pH have no maximum contaminate levels, they are of interest to customers:

	<u>HBMWD</u>	<u>HCSD</u>
Sodium (mg/l)	3.6	13-16
Hardness (mg/l)	avg 67	49-54
pH	7.4	7.8

You will find many terms and abbreviations in the included table. To help you understand these terms, the following definitions are provided:

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 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.

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 cover the aesthetic quality of the water such as odor, taste, and appearance.

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

N/A - not applicable

ND - not detectable at testing limit

ppb - parts per billion or micrograms per liter ($\mu\text{g/L}$) ($1,000 \mu\text{g/L} = 1 \text{ mg/L}$)

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

$\mu\text{g/L}$ - micrograms per liter

pCi/l - Pico curies per liter (a measure of radiation)

Contaminant and Units	Level Detected at HBMWD	Level Detected in HCS D Well Water	MCL	PHG (or MCLG)	Likely Source and Potential Effects (if above MCL)
Disinfection By-Products and Residuals					
TTHMs - Total Trihalomethanes ($\mu\text{g/L}$) (2012)	Average = 7.8	3.6	80 $\mu\text{g/L}$	N/A	By-product of drinking water chlorination.
HAA5 (Haloacetic Acid) ($\mu\text{g/L}$) (2012)	Average = 1.2	ND	60 $\mu\text{g/L}$	N/A	By-product of drinking water chlorination.
Chlorine (mg/L)	Average = 0.68		4 mg/L	4 mg/L	Drinking Water Disinfectant added for treatment
Inorganic Contaminants					
Aluminum (ppm) (HBMWD Test 2006) (HCS D Test 2009)	0.16	Range = ND-0.0084 Average = 0.0042	1 mg/L	0.6 mg/L	Discharges from industrial manufacturers, erosion of natural deposits
Arsenic (ppb) (2009 test)	N/A	Range = ND-5.5 Average = 2.75	10	0.004	Erosion of natural deposits; runoff from orchards, glass and electronics wastes.
Copper (mg/L)	5 sites tested (2011) None above the AL 90th = 0.965	32 sites tested (2010)/ None above the AL 90th % = 0.905	AL = 1.3 mg/L	0.3 mg/L	Internal corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives.
Lead ($\mu\text{g/L}$)	5 sites tested (2011) None above the AL 90th = 8	32 sites tested (2010)/ None above the AL 90th % = 4.55	AL = 15 $\mu\text{g/L}$	0.2 $\mu\text{g/L}$	Internal corrosion of household water plumbing systems; discharges from industrial manufactures, erosion of natural deposits.
Fluoride (ppm) (2009 test)	N/A	Range .16-.22 Average = .185	2	1	Erosion of natural deposits.
Nitrite (N, ppm) (2009 test)	N/A	ND	1	1	Runoff and leaching from fertilizer use; leaching from septic tanks/sewage; natural deposit erosion.
Perchlorate (PPb) (2011)	N/A	ND	6	6	Explosives manufacturing
Regulated Contaminants with Secondary MCLs					
Chloride (mg/L) (2007)	Average = 2.8	N/A	500 mg/L	n/a	Runoff/leaching from natural deposits, or seawater influence
Sulfate (mg/L) (2007)	Average = 9.5	N/A	500 mg/L	n/a	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (mg/L)(HBMWD 2007) (HCS D 2010 Test)	Average = 93	Range 100 -230 Average = 175	1000 mg/L	N/A	Run-off/Leaching from Natural Deposits
Specific Conductance (uS/cm) (HBMWD 2008) (HCS D 2011)	Average = 120	Range 160-210 Average = 185	1,600 uS/cm	N/A	Substances that form ions when in water
Turbidity (NTU)	Range = 0.05-0.55 Average = 0.14	Range ND—2.6 Average 1.3	5 NTU	N/A	No health effects. High levels can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate presence of disease-causing organisms such as bacteria, viruses, and parasites.