

# 2010 Consumer Confidence Report

Water System Name: Bolinas Community Public Utility District Report Date: June 24, 2011

*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, 2010.*

**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: Surface water and stored water

Name & location of source(s): Arroyo Hondo Creek, Point Reyes National Seashore, California and Woodrat Reservoirs 1 & 2, Mesa Road, Bolinas, California

Drinking Water Source Assessment information: A source water assessment for the BCPUD water sources was prepared by the California Department of Public Health (CDPH) in May 2003. No contaminants were detected in the BCPUD water sources; however the sources are still considered vulnerable to activities located near the drinking water sources. The sources are considered most vulnerable to the following activities not associated with any detected contaminants: surface water – streams/lakes/rivers. A copy of the complete assessment is available from the CDPH, Drinking Water Field Operations Branch, 50 D Street, Suite 200, Santa Rosa, California 95404.

Time and place of regularly scheduled board meetings for public participation: Third Wednesday of every month at 7:30 p.m., 270 Elm Road, Bolinas

For more information, contact: Jennifer Blackman, General Manager Phone: (415) 868-1224

## 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.

**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)

**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.

**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 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.

**Tables 1, 2, 3, 4, 5, 7, and 8 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 Department 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.

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	0	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						
Lead and Copper (complete if lead or copper detected in the last sample set)	No. of samples collected	90 <sup>th</sup> percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	10	0	None	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Copper (ppm)	10	0.22	None	1.3	0.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
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**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)	5/4/10	19	N/A	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	5/4/10	82	N/A	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	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Fluoride	5/4/10	0.32	N/A	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	5/4/10	9.4	N/A	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Total Trihalomethanes (TTHM) (ppb)	2/9/10 3/16/10 5/4/10 6/15/10 8/10/10 9/14/10 11/9/10 12/14/10	56-120*	86.88*	80	N/A	Byproduct of drinking water disinfection.
Haloacetic Acids (HAA5) (ppb)	3/16/10 5/4/10 6/15/10 6/29/10 8/10/10 9/14/10 11/9/10 12/14/10	28.8 – 112*	59.96	60	N/A	Byproduct of drinking water disinfection.

**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
Sulfate (ppm)	5/4/10	32	N/A	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Chloride (ppm)	5/4/10	24	N/A	500	N/A	Runoff/leaching from natural deposits; seawater influence
Color (units)	5/4/10	<3	N/A	15	N/A	Naturally-occurring organic materials

Odor – Threshold (TON)	5/4/10	1.2	N/A	3	N/A	Naturally-occurring organic materials
Foaming Agents (MBAS) (mg/L)	5/4/10	<0.05	N/A	0.5	N/A	Municipal and industrial waste discharges
Specific Conductance (micromhos)	5/4/10	290	N/A	1600	N/A	Substances that form ions when in water; seawater influence.
Total Dissolved Solids (mg/L)	5/4/10	180	N/A	1000	N/A	Runoff/leaching from natural deposits.
Turbidity (units)	5/4/10	<0.10	N/A	5	N/A	Soil runoff.

**TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
N/A	N/A	N/A	N/A	N/A	N/A

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

### 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).

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. BCPUD is responsible for providing high quality drinking water, but cannot control the variety of materials used in customer 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>.

### Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
<p><i>Chlorine Disinfection Byproducts:</i> During 2010, the BCPUD water system violated the standard, or maximum contaminant level (MCL), for total trihalomethanes (TTHMs) and/or haloacetic acids (HAA5s).</p>	<p>TTHMs and HAA5s are disinfection byproducts (DBPs). Federal and state regulators have determined that a number of DBPs are a health concern at certain levels of exposure.</p>	<p>The BCPUD water system exceeded the MCL for TTHMs in lab tests performed in February (110 ppb), May (120 ppb), November (120 ppb) and December (110 ppb) of 2010. The BCPUD water system exceeded the MCL for HAA5s in lab tests performed in May (82.4 ppb), November (62.8 ppb) and December of 2010 (112 ppb).</p>	<p>The BCPUD installed a temporary aeration treatment unit at the Woodrat Treatment Plant in early 2010 and has commenced a pilot study to determine whether this treatment technology will successfully lower the TTHMs and HAA5s in the district's drinking water below the applicable MCLs.</p>	<p>Some people who drink water containing TTHMs 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. Some people who drink water containing HAA5s in excess of the MCL over many years may have an increased risk of getting cancer.</p>

### For Systems Providing Surface Water as a Source of Drinking Water

TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES	
Treatment Technique <sup>(a)</sup> (Type of approved filtration technology used)	Microfiltration
Turbidity Performance Standards <sup>(b)</sup> (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 0.1 NTU in 95% of measurements in a month. 2 – Not exceed 1.0 NTU for more than eight consecutive hours. 3 – Not exceed 1.0 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.06
Number of violations of any surface water treatment requirements	0

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

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

\* Any violation of a TT is marked with an asterisk. Additional information regarding the violation is provided below.