

2014 Annual Drinking Water Quality Report

BADGER HILL MUTUAL WATER COMPANY

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, 2014.

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

We are pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide you with a safe and dependable supply of drinking water. Our water source comes from two groundwater wells.

A source water assessment was conducted for the water supply wells of the Company water system in July, 2002. The sources are considered most vulnerable to the following activities not associated with any detected contaminants: grazing animals; agricultural activity and drainage. Tulare County Environmental Health Services Division conducted a Sanitary Survey during August, 2010. At that time it was noted "Surrounding land around the wells are pastures used for grazing. Setback requirements are such that animal enclosures must be at least 100 feet away from any well site. The well sites are inside the animal enclosure, which is a violation of the setback requirement." Badger Hill Mutual Water Company has constructed a fence which complies with the County requirements around the well. A copy of the complete assessment may be viewed at the Company office. If you would like a summary of the assessment sent to you or if you have any questions about this report or concerning your water utility, please contact Kent McNiece, Water Committee Chairperson, at 559/592-5939.

If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the 4th Wednesday of each month at 7:30 p.m., at 1 High Sierra Dr. in Exeter.

The following are definitions of some of the TERMS USED IN THIS REPORT:

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

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).

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

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.

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

Variations and Exemptions: State Water Resources Control Board – Division of Drinking Water (DDW) permission to exceed an MCL, or comply with a treatment technique under certain conditions.

NA: 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 (ug/l).

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

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

In general, sources of drinking water (both tap water and bottled water) may 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.

Constituents that may be present in source water to contamination levels 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** 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 application and septic systems.
- **Radioactive contaminants** that can be naturally occurring or 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 Water Resources Control Board – Division of Drinking Water (DDW) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DDW regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

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. Badger Hill Mutual Water Company 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>.

The tables below and on the following page(s) list all the drinking water constituents that were detected during the most recent samplings for the constituent. The presence of these constituents in the water does not necessarily indicate that the water poses a health risk. The DDW requires us to monitor for certain constituents less than once per year because the concentrations of these constituents are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are therefore more than one year old.

SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA					
Microbiological Contaminants	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Contamination
Total Coliform Bacteria	3	1	More than 1 sample in a month with a detection	0	Naturally present in the environment
<p>Total Coliform: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.</p> <p>The new Federal Ground Water Rule (GWR) requires that each groundwater source must be sampled when a routine distribution bacteriological sample shows the presence of coliform bacteria. During the month of July, 2014, routine sampling of the distribution system showed the presence of total coliform bacteria. Repeat distribution sampling was conducted and where the presence of total coliform bacteria was again found in two of the five samples for total coliform bacteria. Follow-up sampling was done August 14, 2014 and all samples were found to be negative. The follow-up sampling on the well was also conducted, and the concentrations reported were < 1.1 MPN/100 mL for both total coliform and E. coli bacteria. However, the water system failed to comply with the Groundwater Rule as no source sample was collected during July 2014. This constitutes a monitoring and reporting violation under the GWR for the month of July, 2014.</p>					

TEST RESULTS (A)

Lead and Copper Rule	No. of samples collected	MCLG	Action Level	90 th percentile level detected	No. Sites Exceeding Action Level	Typical Source of Contamination
Lead (ppb) 2012	5	2	15	ND	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) 2012	5	0.3	1.3	0.28	0	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

RADIOACTIVE CONTAMINANTS (B)

Constituent	MCL	PHG (MCLG)	Sample Date	Average Level Detected	Range (B)	Likely Source of Contamination
Gross Alpha Activity (pCi/L)	15	(0)	2004 & 2013	2.1	ND to 2.59	Erosion of natural deposits
Uranium (pCi/L)	20	0.43	2004 & 2010	2.9	NA to 4.8	Erosion of natural deposits

SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Constituent	MCL	PHG [MCLG]	Sample Date	Average Level Detected	Range	Likely Source of Contamination
Hardness (ppm)	None	None	8/14/14	190	180 to 200	Generally found in ground and surface water
Sodium (ppm)	None	None	8/14/14	45	38 to 52	Generally found in ground and surface water

DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Arsenic (ppb)	10	0.004	8/14/14	2.65	2.3 to 3 (C)	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (ppm)	2	1	8/14/14	0.23	0.20 to 0.26	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as NO3 (ppm)	45	45	8/14/14	15.5	15 to 16	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD						
Constituent	MCL	Sample Date	Average Level Detected	Range	Likely Source of Contamination	
Chloride (ppm)	500	8/14/14	32	30 to 34	Runoff/leaching from natural deposits; seawater influence	
Color (Units)	15	8/14/14	ND	N/A	Naturally-occurring organic materials	
Specific Conductance (µS/cm)	1600	8/14/14	530	490 to 570	Substances that form ions when in water; seawater influence	
Sulfate (ppm)	500	8/14/14	27.5	26 to 29	Runoff/leaching from natural deposits; industrial wastes	
Total Dissolved Solids (TDS) (ppm)	1000	8/14/14	330	310 to 350	Runoff/leaching from natural deposits	
Turbidity (Units)	5	8/14/14	0.26	0.1 to 0.42	Soil runoff	

- (A) Results reported due to regulatory requirement or detection of a constituent.
- (B) Results reported include amounts that are less than the State Water Resources Control Board – Division of Drinking Water (DDW) required detection level for this constituent.
- (C) ABOUT ARSENIC: While your drinking water meets the current EPA standard for arsenic, it does contain low levels of arsenic. The standard balances the current understanding of arsenic’s possible health effects against the costs of removing arsenic from drinking water. The State Water Resources Control Board – Division of Drinking Water (DDW) continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Additional General Information On Drinking Water

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some constituents. The presence of constituents does not necessarily indicate that the water poses a health risk. More information about constituents, contaminant levels and potential health effects can be obtained by calling the Environmental Protection Agency’s Safe Drinking Water Hotline at 1/800/426-4791 or their website <http://www.epa.gov/safewater/hfacts.html>.

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 and 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 microbiological contaminants are available from the Safe Drinking Water Hotline 1/800/426-4791.