

BRATTLEBORO WATER DEPT – VT0005290
Consumer Confidence Report – 2013

This report is a snapshot of the quality of the water that we provided in 2012. Included are the details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and State standards. We are committed to providing you with information because informed customers are our best allies. This report is designed to inform you about the quality water and services we deliver to you every day. To learn more, please attend any of our regularly scheduled Selectboard meetings, which are held the first and third Tuesday evenings of each month. Meetings take place at 230 Main Street. Please check the local newspaper for exact times and locations.

The person who can answer questions about this report is:
Stephen Barrett, Director of Public Works
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Water Source Information

Your water comes from

Source Name	Source Water Type
LANGLIE BROOK DIVERSION	Surface Water
KELLY BROOK DIVERSION	Surface Water
STICKNEY BROOK DIVERSION	Surface Water
PLEASANT VALLEY RESERVOIR	Surface Water
WELL #1, Retreat Wells	Groundwater
WELL #2, Retreat Wells	Groundwater
WELL #3, Retreat Wells	Groundwater

The State of Vermont Water Supply Rule requires Public Community Water Systems to develop a Source Protection Plan. This plan delineates a source protection area for our system and identifies potential and actual sources of contamination. Please contact us if you are interested in reviewing the plan.

Drinking Water Contaminants

The sources of drinking water (both tap water and bottled water) include surface water (streams, lakes) and ground water (wells, springs). As water travels over the land’s surface or through the ground, it dissolves naturally occurring minerals. It also picks up substances resulting from the presence of animals and human activity. Some “contaminants” may be harmful. Others, such as iron and sulfur, are not harmful. Public water systems treat water to remove contaminants, if any are present.

In order to ensure that your water is safe to drink, we test it regularly according to regulations established by the U.S. Environmental Protection Agency and the State of Vermont. These regulations limit the amount of various contaminants:

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, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

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Pesticides and herbicides may come from a variety of sources such as storm water run-off, agriculture, and residential users.

Radioactive contaminants, which can be naturally occurring or the result of mining activity.

Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water run-off, and septic systems.

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the past year. It also includes the date and results of any contaminants that we detected within the past five years if tested less than once a year. The presence of these contaminants in the water does not necessarily show that the water poses a health risk.

Terms and abbreviations - In this table, you may find terms you might not be familiar with. To help you better understand these terms we have provided the following definitions:

Maximum Contamination Level Goal (MCLG): The “Goal” is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLG’s allow for a margin of safety.

Maximum Contamination Level (MCL): The “Maximum Allowed” MCL is the highest level of a contaminant that is allowed in drinking water. MCL’s are set as close to the MCLG’s as feasible using the best available treatment technology.

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 disinfectants in controlling microbial contaminants.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. Addition of a disinfectant may help control microbial contaminants.

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

90th Percentile: Ninety percent of the samples are below the action level. (Nine of ten sites sampled were at or below this level.)

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

Parts per million (ppm) or Milligrams per liter (mg/l): (one penny in ten thousand dollars)

Parts per billion (ppb) or Micrograms per liter (µg/l): (one penny in ten million dollars)

Picocuries per liter (pCi/L): a measure of radioactivity in water

Nephelometric Turbidity Unit (NTU): NTU is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Running Annual Average (RAA): The average of 4 consecutive quarters (when on quarterly monitoring); values in table represent the highest RAA for the year.

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Detected Contaminants BRATTLEBORO WATER DEPT

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2012				

Chemical Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Nitrate	08/14/2012	0.8	0.69 - 0.8	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Combined Radium	03/09/2011	0.2	0.08 - 0.2	pCi/L	5	0	Erosion of natural deposits
Radium-226	03/09/2011	0.2	0.08 - 0.2	pCi/L	5	0	Erosion of natural deposits

Disinfection ByProducts	Monitoring Period	RAA	Range	Unit	MCL	MCLG	Typical Source
Total Haloacetic Acids (HAA5)	2012	21	11 - 27	ppb	60	0	By-product of drinking water disinfection
Total Trihalomethanes	2012	27	11 - 49.6	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Date	90th Percentile	95th Percentile	Range	Unit	AL	Sites Over AL	Typical Source
Copper	2011 to 2013	0.23	0.25	0 - 0.31	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead	2011 to 2013	2	5	0 - 53	ppb	15	1	Corrosion of household plumbing systems; Erosion of natural deposits

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Violation(s) that occurred during the year

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. The table below lists any drinking water violations we incurred during 2012. A failure to perform required monitoring means we cannot be sure of the quality of our water during that time.

Type	Category	Analyte	Compliance Period
No Violations Occurred in the Calendar Year 2012			

Health information regarding drinking water

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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 Safe Drinking Water Hotline.

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. BRATTLEBORO WATER DEPT 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 drinking 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>.

Public Notice - Permit to Operate Issued January 14, 2013

The Water System is required to notify all users of the following compliance schedule contained in the Permit to Operate issued by the State of Vermont Agency of Natural Resources:

On or before January 1, 2016, the Permittee shall replace the interior coating for the Black Mountain Storage Tank with a new coating that meets the requirements of the Rule and any necessary cathodic protection, *or* replace the storage tank with a new storage tank that meets the requirements of the Rule.

Public Notice - Uncorrected Significant Deficiencies: The water system is required to inform the public of any significant deficiencies identified during a sanitary survey conducted by the Drinking Water and Groundwater Protection Division that have not yet been corrected. For more information, please refer to the schedule for compliance in the system's Operating Permit.

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Date Identified	Deficiency	Facility
No Significant Deficiencies		

Water Department News

Black Mountain Tank

This past year the Town entered into an agreement with Dufresne Group for inspection services, and to help the Town decide whether to replace or rehabilitate the existing tank. We had a visual inspection by Utility Service Company and an underwater inspection and cleaning by Underwater Solutions. D&E Tree Service removed 16 trees from around the tank this winter allowing room for future work.

We now have estimated costs for rehabilitation and for replacement. All options are very expensive.

Guilford, Village of Algiers Water

The Guilford Fire District has connected to our water system and installed a water line to the center of Algiers. They now have a half dozen fire hydrants in Town and the core area of Algiers has the ability to connect to Brattleboro's water supply. All users will pay the same connection fees as in Brattleboro and billing to be based on a master meter, which will measure all water flow into Guilford. They plan to meter residents who connect for their own billing system. Brattleboro will read their meters and provide system maintenance for a fee. The system goes on line this spring.

Pleasant Valley Reservoir

We are working with Dubois and King Engineering to install a toe drain at the base of the Pleasant Valley Dam. This is a recommendation of the State Dam Safety Engineer and prevents movement of any soil due to small water movement through the dam embankment. The town may do the installation ourselves, with guidance from Dubois and King.

This past year the State hired Dubois and King to conduct a breach analysis of our dam and put together an Emergency Action Plan. We are reviewing this now.



For information on water and energy saving tips and ideas, visit the EPA's WaterSense web site at <http://www.epa.gov/watersense/>