

BRATTLEBORO WATER DEPT – VT0005290

Consumer Confidence Report – 2014

This report is a snapshot of the quality of the water that we provided in 2014. 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 meetings which are held the first and third Tuesday 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
LANGUILLE BROOK DIVERSION	Surface Water
KELLY BROOK DIVERSION	Surface Water
STICKNEY BROOK DIVERSION	Surface Water
WELL #1	Groundwater
WELL #2	Groundwater
WELL #3	Groundwater
PLEASANT VALLEY RESERVOIR	Surface Water

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.

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.

Locational Running Annual Average (LRAA): The average of sample analytical results for samples taken at a particular monitoring location during four consecutive calendar quarters.

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

Detected Contaminants BRATTLEBORO WATER DEPT

NEW inclusion for 2014 CCRs – Disinfection Residual

To be completed by the water system: Water Systems who chlorinated at any time during the year must report the RAA and range of chlorine residual detections. Values used to determine the RAA and range should be collected from the reported chlorine residual values taken at the time when routine coliform samples were collected (e.g. the RAA for a system which chlorinates and whose monitoring schedule requires one coliform sample per month, will be the average of 12 chlorine residual values; a system whose monitoring schedule requires two coliform sample per month, will be the average of 24 chlorine residual values). This table can be deleted if the water system did not chlorinate at any time during the year.

<u>Disinfection Residual</u>	<u>RAA</u>	<u>Range</u>	<u>Unit</u>	<u>MRDL</u>	<u>MRDLG</u>	<u>Typical Source</u>
Chlorine	0.80	1.60-0.13	mg/l	4.0	4.0	Water additive to control microbes

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2014				

Chemical Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Bromochloroacetic Acid	03/05/2013	4.9	2.1 – 4.9	ppb	n.a.	n.a.	By-product of drinking water disinfection

Nitrate	09/16/2014	0.3	0 - 0.3	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
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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	LRAA	Range	Unit	MCL	MCLG	Typical Source
Total Haloacetic Acids (HAA5)	2014	29.6	14.2 - 44.3	ppb	60	0	By-product of drinking water disinfection
Total Trihalomethanes	2014	33.4	9.2 - 64.7	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Date	90 th Percentile	95 th Percentile	Range	Unit	AL	Sites Over AL	Typical Source
Copper	2014	0.26	0.28	0.038 - 0.42	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead	2014	2	3	0 - 5	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

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 below table lists any drinking water violations we incurred during 2014. 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
MONITORING, ROUTINE (DBP), MAJOR	Failure to Monitor	Disinfection Byproducts	11/1/14 to 11/30/14

Samples for Disinfection Byproducts were not collected in November as required, but were collected as soon as possible in December, arriving at the laboratory on December 9th. The test results were reported to the Brattleboro Water Department on December 16, 2014.

Health information regarding drinking water

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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:

1. 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 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.

Date Identified	Deficiency	Facility
No Significant Deficiencies		

WATER DEPARTMENT NEWS

Pleasant Valley Reservoir Dam Toe Drain Project

This project was completed in 2014 coming in under budget. The toe drain should improve the integrity and stability of the dam that impounds Brattleboro's surface water supply.

BLACK MOUNTAIN WATER STORAGE TANK

Plans are still moving forward with the contract and replacement of this storage tank. Additional funding has been set aside in the capital plan for this project.

RETREAT WELL #2

Bids have been received, and the contract has been awarded for the redevelopment of this key well at the Route 30 site. This is work necessary to return the water yield from the well to its design flow. This well was last redeveloped in 2007.

PUBLIC NOTICE
IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Availability of Monitoring Data for Unregulated Contaminants for BRATTLEBORO WATER DEPT

Our Water System has sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by EPA. The purpose of monitoring for these contaminants is to help the EPA decide whether the contaminants should have a standard. As our customers, you have a right to know that these data are available. If you are interested in examining the results, please contact STEPHEN P BARRETT at 802-254-4255 Ext. 101 or 211 FAIRGROUND ROAD, BRATTLEBORO, VT 05301.

This notice is being sent to you by BRATTLEBORO WATER DEPT.

State Water System ID#: VT0005290

Date distributed: June 2015

In completion of this Consumer Confidence Report is this State of Vermont required report of the current contaminant levels through this third round of sampling for the Unregulated Contaminant Monitoring Regulation or the UCMR3. We have one more sample event to complete before the study is over.

The UCMR program benefits the environment and public health by providing EPA and other interested parties with scientific data on the occurrence of these contaminants in drinking water. This data provides a basis for assessing the population potentially being exposed and the levels of that exposure. This is the primary source of drinking water occurrence and exposure data the Agency uses to determine whether to regulate these contaminants in the interest of protecting public health. Brattleboro has participated in this process since its implementation in 2002. Simply put, every five years, the UCMR program looks for the presence of potential contaminants in drinking water that to this point have not been regulated by the EPA, and risk assessments have not been developed. This study process will ultimately lead to regulations, rules, and contamination limits to better protect public health. We are showing all contaminants detected above the reporting limit, and their range of detection in parts per billion. The first sampling occurred in September of 2014 and this study will conclude with the last sampling in June of 2015.

Brattleboro - WSID #5290 UCMR3 9/14 - 9/15			
Contaminant	Range (PPB)	Average (PPB)	Reporting Limit (PPB)
Chlorate	1770 - 64.9	327.55	20
Chromium VI	0.15 - 0.03	0.08	0.03
Chromium	0.4 - 0.2	0.27	0.2
Strontium	112 - 41.5	62.12	0.3
Vanadium	0.4 - < 0.2	0.22	0.2
Note: Samples collected from four (4) sample points system wide			