

*Quality on Tap...Our Commitment, Our Profession*

# Brandon Fire District No.1 2018 Water Quality Report

58 Franklin Street  
Brandon, Vermont 05733

1-802-247-3311

*Quality and service for 161 years.*

## Brandon Fire District No.1 Water Quality Report – 2018

This report is a snapshot of the quality of the water that we provided you in 2017. It is designed to inform you about the quality water and services we deliver to you every day. Our goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the excellent water and services we have provided in the past year. Included are details about where your water comes from, what it contains, and how it compares to U.S. Environmental Protection Agency (EPA) and state standards.

### Public Water System Name

Brandon Fire District No.1

Brandon, Vt. 05733

WSID# 5211

Date: June 11, 2018

### 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 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 cryptosporidium and other microbiological

contaminants are available from EPA's Safe Drinking Water Hotline (1-800-426-4791). All 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.

### Water Source Information

Our water sources are:

Vermont Source Type: **Gravel Well**

EPA Source Type: **Groundwater, non-purchased**

Source Name: **Well 1**

Source Name: **Well 2**

Source Name: **Well 3**

### Source Protection Plan

We have a source protection plan available from our office that provides information such as potential sources of contamination. Our water system's susceptibility to potential sources of contamination is from inadequate isolation control of wells, septic systems, manufacturers and agricultural uses.

The Drinking Water & Groundwater Protection Division approved our comprehensive source protection plan on March 31, 2003. An update of the plan was submitted and approved on August 10, 2015.

Brandon Fire District No 1 has the distinction of being the 1<sup>st</sup> and only groundwater system in the state to have its source designated as a Class 2 groundwater area.

This designation provides us with better protection of our aquifer and more public awareness of our water and its high quality. Copies of the Class 2 petition are available upon request or you may view it on the Drinking Water & Groundwater Protection Division website.

### **Owner/Operators and Public Participation Opportunities**

If you have any questions about this report or concerning your water utility, please contact Raymond Counter at the Brandon Fire District office at (802) 247-3311. We want our customers to be informed about their water quality. If you would like to learn more, please attend any of our regularly scheduled meetings.

Regularly scheduled meetings are held on:

**Date: First Wednesday of Month**

**Time: 5:30 PM**

**Location: 58 Franklin Street, Brandon**

### **Owner or Official**

Tom Whittaker, Prudential Committee  
Brandon Fire District No.1  
58 Franklin Street  
Brandon, Vermont 05733  
Phone: (802) 247-3311

### **Operator / Responsible Person**

Raymond Counter  
203 Rydon Acres  
Brandon, Vermont 05733  
Phone: (802) 247-3059

## **Sources of Drinking Water and Contaminants**

**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 human activity.

**Contaminants that may be present** in source water before we treat it 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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Synthetic Organic contaminants**, (pesticides and herbicides) which may come from a variety of sources such as agriculture, urban stormwater runoff, residential uses and careless disposal of household chemicals.
- **Volatile Organic contaminants**, which are by-products of industrial processes and petroleum production, and can, also, come from gas stations, urban stormwater runoff, septic systems and careless disposal of household chemicals.

- **Radioactive contaminants**, which 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, EPA and the State of Vermont prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) and state regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### **Water Quality Data**

**Brandon Fire District No.1** routinely monitors for contaminants in your drinking water according to Federal and State laws. The table below shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2017 unless otherwise noted.

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

- ◆ **Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- ◆ **Level 1 Assessment:** A Level 1 Assessment is a study of the water system to identify potential problems and determine (if possible), why total coliform bacteria have been found in our water system.
- ◆ **Level 2 Assessment:** A Level 2 Assessment is a very detailed study of the

- water system to identify potential problems and determine (if possible) why an E.coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
- Locational Running Annual Average:** The average of sample analytical results for samples taken at a particular monitoring location during four consecutive calendar quarters.
- Maximum Contaminant Level (MCL):** 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.
- Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. Addition of a disinfectant may help control microbial contaminants.
- Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of disinfectants in controlling microbial contaminants.
- 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.
- Parts per million (ppm) or Milligrams per liter (mg/l):** (one penny in ten thousand dollars)

- Parts per billion (ppb) or Micrograms per liter ( $\mu\text{g/l}$ ):** (one penny in ten million dollars)
- Picocuries per liter (pCi/L):** A measure of radioactivity in water.
- Running Annual Average:** The average of 4 consecutive quarters (when on quarterly monitoring): values in table represents the highest RAA for the year.
- Treatment Technique (TT):** A process aimed to reduce the level of a contaminant in drinking water.
- 90<sup>th</sup> Percentile:** Ninety percent of the samples are below the action level. (Nine of ten sites sampled were at or below this level).
- N/A:** Not applicable

Our water system is required to meet the rules that govern our operations. We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water **IS SAFE** at these levels.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

#### Level of Detected Contaminants

Radionuclides	Radium-226	Combined Radium
Highest Value	0.2	0.2
Range	0.2-0.2	0.2-0.2
Units	pCi/ L	pCi/L

<b>MCL</b>	5	5
<b>MCLG</b>	0	0
<b>Sample Date</b>	08/08/2012	3/17/04
<b>Violation Y/N</b>	No	No
<b>Likely source of Detected contaminant</b>	Erosion of natural deposits	Erosion of natural deposits

Chemical Contaminants	Iron	Nitrate
Highest Value	0.15	2.6
Range	0.12-0.15	0.5-2.6
Units	ppm	ppm
<b>MCL</b>		10.000
<b>MCLG</b>		10.000
<b>Sample Date</b>	03/13/2013	09/06/2017
<b>Violation Y/N</b>	No	No
<b>Likely source of Detected contaminant</b>		fertilizer use; leaching from septic, erosion of deposits

#### Lead and Copper Action Levels

Contaminant Detected	Copper	Lead
90 <sup>th</sup> Percentile	.46	7.90
Range	0.11-0.67	0-8
Sampling Date	2017	2017
Action Level	1.3 ppm	15 ppb
# of sites that exceeded the Action Level		
	0	0
Total # of Sites sampled	20	20
Likely source of detected contaminant	Corrosion of household plumbing systems; erosion of natural deposits	Corrosion of household plumbing systems; erosion of natural deposits

#### Health Effects Language

**Radium 226** – Some people who drink water containing radium 226 in excess of the MCL over many years may have an increased risk of getting cancer.

**Nitrate** – Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

**Fluoride** – Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

**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. Coliforms were found in more samples than allowed and this was a warning of potential problems.

**Copper** – Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

**Lead** – If present, elevated levels of lead can cause serious health problems. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. BRANDON FIRE DISTRICT NO 1 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 at 1(800)-426-4791 or at <http://www.epa/safewater/lead>.

### **Violations that occurred during 2017**

*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 2017.*

Type	Category	Analyte	Compliance Period
NONE			1/1/17-12/31/17

### **Revised Total Coliform Rule (RTCR) TT Violation(s)**

No RTCR TT Violations

### **Additional information (including steps taken to correct any violations listed above)**

#### **Level 1 Assessment(s)**

No Level 1 Assessment was required

#### **Level 2 Assessment(s)**

No Level 2 Assessment was required.

**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
8/11/2015	Operations & Maintenance(O&M) Manual Needed	

*Work is continuing to complete the operations and maintenance manual. Major changes in the water system are occurring and the manual is being updated as work progresses.*

### **Additional information:**

The Brandon Fire District works around the clock to provide top quality water to every tap. We ask that all of our customers help us to protect our water sources, which are the heart of our community, our way of life and our children's future. If you see something or someone around your drinking water supply that looks suspicious, please call the local police department (9-1-1).

If you would like further information about your water utility, please call the District office at **247-3311**.

### **Distribution information**

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place and distributing copies by hand or mail.*