

Westford Fire District #1 ~ Consumer Confidence Report

Water Quality Report - 2014

Westford Fire District #1 (WFD #1) is classified and permitted as a groundwater, non-purchased public water system, operating under the Vermont State Water System Identification Number of:

WSID #5450

Our goal is to provide you with a safe and dependable supply of drinking water.

This report is a snapshot of the quality of water that we provided for 2014, and is also available on our website www.wfd1.org or at using the following direct link:

http://www.wfd1.org/uploads/1/9/7/8/19787215/ccr_2014.pdf

This report also includes the date and results of any contaminants that we detected within the past five years, of those that require testing less than once a year. Any contaminants detected within the past five years are listed along with the date of detection and concentration. This report is designed to inform you about the quality water and services we deliver to you every day.

Water Source Information:

The source(s) of our drinking water are 3 state-approved ground water wells. The well designations are: Well #1, Well #2 & Well #3.

Source Protection Plan:

Our source protection plan is available to you at any time and provides specific information about our water system, including potential sources of contamination. For more information about contaminants and potential health effects, please contact the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

An overview of drinking water sources and the contaminants they may contain:

Possible 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 human activity and the presence of animals. Some of these "contaminants" may be harmful. Others, such as iron and sulfur, are not.

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 organisms** (viruses and bacteria) may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic chemicals - 'IOC'** (salts and metals) can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, or farming.
- **Synthetic Organic chemicals - 'SOC'** (pesticides and herbicides) may come from agriculture, urban storm water runoff, residential uses, and careless disposal of household chemicals.
- **Volatile Organic chemicals - 'VOC'** (gasoline and solvents) may come from gas stations, urban storm water runoff, septic systems, industrial process, and careless disposal of household chemicals.
- **Naturally occurring radioactivity**

WATER QUALITY DATA

Terms and Abbreviations:

In the following tables 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 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 Contamination 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 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.

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: 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 an 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): Annual Level of Disinfection By-products (i.e. chlorination)

N/A: Not applicable

The table(s) below lists all the drinking water contaminants that were detected during the 2014 calendar year. It also includes the date and results of any contaminants that we detected within the past five years, of those which require testing less than once a year. The presence of these contaminants in the water does not necessarily show that our water poses a health risk.

Violation(s) that occurred during Calendar Year 2014

Type	Category	Analyte	Compliance Period
Monitoring, Routine (DBP), Major	Failure To Monitor	Disinfection Byproduct	07/01/2014 - 09/30/2014

We are required to monitor our 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 above indicates 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 in which we did not perform required monitoring. The violation noted was the result of sampling at a time not in accordance with the state-mandated window of time. The results of the sample, although slightly late, were satisfactory & no danger to the community was posed as a result of this oversight. WFD #1 has an excellent history of adhering closely to the rules & regulations regarding required water testing.

WATER QUALITY DATA - Level of Detected Contaminants

<u>Microbiological</u>	Result	MCL	MCLG	Typical Source
No Detected Results During Calendar Year 2014				

<u>Chemical Contaminant</u>	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Likely source of detected contaminant
Iron	09/27/2011	.11	.11 - .11	ppm			
Nitrate	03/25/2014	.054	.054 - .054	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

<u>Radionuclides</u>	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Likely source of detected contaminant
Combined Radium	03/25/2014	0.809	0.809-0.809	pCi/L	5	0	Erosion of natural deposits
Radium - 226	03/25/2014	0.322	0.322-0.322	pCi/L	5	0	Erosion of natural deposits
Radium - 228	03/25/2014	0.487	0.487-0.487	pCi/L	5	0	Erosion of natural deposits

<u>Disinfection Residual</u>	Monitoring Period	RAA	Range	Unit	MRDL	MRDLG	Typical Source
Chlorine	2014	0.32	0.20-0.59	mg/l	4.0	4.0	Water additive to control microbes

<u>Disinfection By-Products</u>	Monitoring Period	LRAA	RAA	Range	Unit	MCL	MCLG	Likely source of detected contaminant
Total Trihalomethanes	2014	*	2	2.0-2.0	ppb	80	0	By-product of drinking water chlorination

*LRAA not determined for compliance because collection of the sample was not done during the required month.
A monitoring violation was issued to the system.

<u>Lead & Copper</u>	Sampling Date	90 th Percentile	95 th Percentile	Range	Action Level	No. of Sites Exceeding Action Level	Likely source of detected contaminant
Copper	2013	0.064	0.065	0.031-0.067	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead	2013	0	0	0-0	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Health Information Regarding Lead:

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. Westford Fire District #1 is responsible for providing high quality drinking water, but cannot control the variety of materials used in household 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>

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) or at

<http://www.epa.gov/safewater/lead>.

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.

Public Notice - Permit to Operate Issued June 24, 2013:

WFD #1 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 December 31, 2013, the Permittee shall submit an electronic copy of an O&M Manual for review and approval by the Secretary.
 - **STATUS: Completed 2014, Updated version completion date 12/2015**
2. On or before December 31, 2013, the Permittee shall locate and modify the water storage tank overflow pipe so that it terminates 12 to 24 inches above the ground surface and any discharge is visible.
 - **STATUS: Completed 2014**
3. On or before December 31, 2013, the Permittee shall safely remove all potentially damaging growth from the top of the water storage tank using a nontoxic method and ensuring no damage to the integrity of the tank.
 - **STATUS: Completed 2013**
4. On or before December 31, 2013, the Permittee shall submit a Source Protection Plan Update to the Secretary for review and approval.
 - **STATUS: Completed 2014**
5. On or before August 10, 2013 and no later than the 10th day of each subsequent month, the Water System shall submit a monthly operating report including daily meter readings in accordance with Chapter 21, section 9.1.2 of the Rule and Section IV, Part B of this Permit.
 - **STATUS: Completed 2014**

Public Notice - Uncorrected Significant Deficiencies:

WFD #1 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.

<u>Date Identified</u>	<u>Deficiency</u>	<u>Facility</u>
07/28/2014	Operation and Maintenance (O&M) Manual Needed	Pump House

WFD #1 has recently rebuilt our pump house structure & is in the process of making systemic upgrades & improvements. This process will mandate the review & update of the current O & M manual. Expected completion date is December 2015.

Owner/Operator and Public Participation Opportunities

If you have any questions about this report or concerning your water quality, please contact the person(s) listed below. We want you to be informed about your water quality, if you want to learn more, please visit our website at www.wfd1.org or attend any of our regularly scheduled meetings, which are held at board member's homes. Please contact R.J. Moore for meeting locations and times.

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