

# **Westford Fire District No. 1**

PO Box 103, Westford, VT 05494 ~ [www.wfd1.org](http://www.wfd1.org)

## **Consumer Confidence Report** **Water Quality Report - 2005**

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 January 1 through December 31, 2005. It 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 rock wells providing non-purchased ground water. The well designations are: Well #1, Well #2 & Well #3.

### **Source Protection Plan:**

The Water Supply Division approved our **updated** source protection plan on: 05/16/06. Our source protection plan is available to you at any time and provides specific information, such as 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 possible sources of drinking water 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 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.

**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 2005 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 2005

Type	Category	Analysis	Compliance Period
No Violations Occurred During Calendar Year 2005			

### Level of Detected Contaminants

Microbiological	Result	MCL	MCLG	Typical Source
No Violations Detected During Calendar Year 2005				

**Level of Detected Contaminants, Cont'd**

Regulated Contaminant	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Likely source of detected contaminant
Barium	10/27/2005	.051	.037 - .051	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Nitrate (as N)	3/25/2005	.034	.034	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Turbidity	4/1/2005	5.73	0.08 - 5.73	NTU	N/A		Soil Runoff/ Air Content See Note Below

**Turbidity Note:**

Turbidity has no health effects. However, turbidity can interfere with disinfection & provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include: bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and occasional headaches.

WFD #1's turbidity level is most likely the result of air in the water, as our pressure tanks are traditional hydro-pneumatic style. This style tank contains water, which is pressurized with compressed air. There is no buffer between the two; thus, they can mix during times of low pressure, causing 'cloudy' water. If you have concerns about cloudy water coming from a tap, fill a glass & let it sit for a few minutes. If the problem is air content, the cloudiness should subside.

As part of our on-going improvements, we will be switching to modern bladder-style tanks that keep the air & water in the tank separated by a rubber bladder. This should be complete by August 1, 2006.

**Level of Detected Contaminants, Cont'd**

Regulated Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Likely source of detected contaminant
Gross Alpha, including RA & U, excluding RN	4/1/2005	1.9	1.9	pCi/L	N/A	N/A	Erosion of natural deposits.
Gross Alpha, including RA, excluding RN & U	9/16/2002	1.9	1.9	pCi/L	10	0	
Radium, 226 & 228 Combined	9/16/2002	0.22	0.22	pCi/L	5	0	
Radium - 226	9/16/2002	0.06	0.06	pCi/L	5	0	
Radium - 228	9/16/2002	0.16	0.16	pCi/L	5	0	

**Level of Detected Contaminants, Cont'd**

Regulated Disinfection By-Products	Monitoring Period	RAA	Range	Unit	MCL	MCLG	Likely source of detected contaminant
No Violations Detected During Calendar Year 2005							

Regulated Secondary Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Likely source of detected contaminant
Iron	4/1/2005	0.141	0.141	mg/l	0.3	N/A	Erosion of natural deposits.

Lead / Copper Contaminant Detected	Action Level	90 <sup>th</sup> Percentile	Sampling Date	# of sites that exceeded the Action Level	Total # of sites sampled	Likely source of detected contaminant
No Violations Detected During Calendar Year 2005						

**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.

**Owner/Operator and Public Participation Opportunities**

If you have any questions about this report or concerning your water quality utility, please contact the person(s) listed below. We want you to be informed about your water quality. If you want to learn more, please attend any of our regularly scheduled meetings, which are held at 110 North Road, on the second Thursday of each month at 6:30 pm.

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