



# Francestown Village Water Company



## Consumer Confidence Report - 2009

### **Is my water safe?**

Last year, we conducted tests for contaminants in accordance with a sampling schedule required by the New Hampshire Department of Environmental Services, Drinking Water and Ground Water Bureau. One of those contaminants, arsenic, was found at a level higher than the EPA allows. Late last year, a monthly sample for total coliform tested positive. For detailed information see the section labeled Violations at the end of the report. This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with information about all aspects of our water system operation because informed customers are our best allies.

### **Do I need to take special precautions?**

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

### **Where does my water come from?**

We have two bedrock wells both located near the junction of Oak Hill and Perley Roads. The wells are about 400 feet deep and produce about 10 gallons per minute (gpm) and 7gpm respectively. The wells run simultaneously, filling two 18,000 gallon concrete tanks. This water is then pipe fed by gravity to all users. Some members nearer to the source of the water, those on Oak Hill Road, use booster pumps to increase their water pressure. The Board would be interested in hearing from members about the level of water pressure in their houses. If pressure is low throughout the system, the Company would explore installing a booster pump in the Pump House to increase water pressure and obviate the need for the installation of booster pumps by Members in their houses.

### **Source water assessment and its availability**

NH Department of Environmental Services has prepared a Source Assessment Report for the sources serving this public water system. The results of the assessments were as follows: for both BRW1 and BRW2 (our two wells), two susceptibility factors were rated high (one or more numbered state highways within 1000' of a wellhead and 10% or more agricultural land cover in a wellhead protection zone), two were rated medium and eight were rated low. The current Assessment Report is available for inspection by contacting Ron Cheney at 547-2696 or by visiting the DES website at <http://des.nh.gov/organization/divisions/water/dwgb/dwspp/reports/part1.htm>. For additional information visit the NH DES Drinking Water Source Assessment Program web site at

[www.des.state.nh.us/dwspp](http://www.des.state.nh.us/dwspp).

### **Why are there contaminants in my drinking water?**

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791). 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 from human activity; microbial contaminants, such as viruses and bacteria, that 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; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and 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 prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### **How can I get involved?**

Francetown Village Water Company is a cooperative venture whose mission is to provide high-quality water at the lowest cost to its members. We minimize expenses by operating the Company on a volunteer basis. Nine members serve on our Board of Directors for a three-year term. Three directors are elected each year at our Annual Meeting. The Board makes the major decisions of the Company including the fixing of rates, determination of the annual budget and capital improvements. The officers - President, Vice President, Treasurer and Secretary - are volunteers. You are invited and always welcome to attend the Annual Meeting of the Company which occurs on the first Saturday in April, as well as monthly meetings of the Board of Directors held on the third Monday. Contact a director to find out the place of the meeting.

Each year three directors stand for election. The Board invites any member interested in serving as a director to contact the Company for further information. Running small, all volunteer water company generally consists of three activities: operations and sampling, regulatory compliance and financial. Water is a basic need and working at the Company offers a variety of opportunities to learn more about all aspects of water in our environment and in our lives and to develop and hone skills in running a small business. Anyone interested in our water works should talk to a director. The work of the Company

is both challenging and satisfying. Some tasks take considerable time, others only a few hours a month.

### **Conservation Tips**

Did you know that the average U.S. household uses approximately 350 gallons of water per day? Luckily, there are many low-cost or no-cost ways to conserve water. Water your lawn at the least sunny times of the day. Fix toilet and faucet leaks. Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath. Turn the faucet off while brushing your teeth and shaving; 3-5 gallons go down the drain per minute. Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!

### **Other Information**

The Company since last October has been participating in a pilot project jointly administered by the EPA, USGS and DES. The purpose of the project is to find ways for small water companies whose arsenic results are slightly over the MCL to achieve compliance at a reasonable cost. The focus of this effort is to learn about a well and determine if fracture areas delivering water into the borehole with high concentrations of arsenic can be sealed off so as to lower the total arsenic content to levels below the MCL. Our well #1 was found not to present characteristics that would permit us to seal off a fracture area and decrease arsenic below the 10ppb MCL.

So we are now working with the DES to come into compliance by pursuing three options:

First, we will blend from well #2 more aggressively. Well #2 delivers water with only 3ppb but is not a strong well. We will install instruments into the Well #2 to monitor it closely to see if it can stand up to the increased demand put on it.

Second, we are pursuing the deepening of one of our wells to achieve greater production and to see if the quality of the water improves enough so that we comply with the arsenic MCL. There is no guarantee. All drillers tell us the same thing. "Who knows what we'll find!"

Third, if neither of the first two options brings us into compliance with the arsenic MCL, we will bite the bullet and install arsenic remediation equipment at the point of entry of the water from well #1. This is expensive, anywhere up to \$15,000, to install a system and one to two thousand dollars annually thereafter to maintain the system with the replacement of the filter medium and the disposal of the toxic arsenic.

### **Monitoring and reporting of compliance data violations**

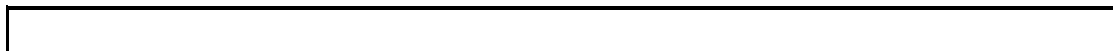
In December of 2008, a sample for total coliform tested positive. This required repeat samples to be taken. However the samples were not taken within the prescribed period resulting in a reporting violation. In January, 2009 another sample was taken which again tested positive. Shortly thereafter multiple samples were taken from various sites in the distribution system and tested negative, showing the absent of total coliform, except for the sample taken directly at the entry point from well #1. This well had been worked on in

the fall of 2008 just before the positive tests appeared. The well was immediately taken off the system and chlorinated. All subsequent samples have tested negative showing the absence of coliform and the Company is now in compliance with monitoring and reporting requirements.

**Additional Information for 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. Frankestown Village Water Company 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.

Three years ago, a member’s house was tested for lead and copper and the results exceeded the MCL for both metals. The member replaced old expansion and holding tanks and the subsequent samples of water were well within the MCLs. Some older plumbing components leached these metals into the water within that house. We have installed back flow preventers in all members’ houses so there is no danger of water from any house on the system to flow back into the system. But concentrations of lead exceeding the MCL do present a danger to children especially. If you are concerned about lead in your water, you may wish to have your water tested. The Company would be happy to assist any member in doing that. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA’s Safe Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater/lead>.



**Water Quality Data Table**

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

|                               | MCLG         | MCL,        |              |            |             |             |                  |                       |
|-------------------------------|--------------|-------------|--------------|------------|-------------|-------------|------------------|-----------------------|
|                               | or           | TT, or      | Your         | Range      | Sample      |             |                  |                       |
| <u>Contaminants</u>           | <u>MRDLG</u> | <u>MRDL</u> | <u>Water</u> | <u>Low</u> | <u>High</u> | <u>Date</u> | <u>Violation</u> | <u>Typical Source</u> |
| <b>Inorganic Contaminants</b> |              |             |              |            |             |             |                  |                       |

|               |   |    |      |    |      |     |  |
|---------------|---|----|------|----|------|-----|--|
| Arsenic (ppb) | 0 | 10 | 11.7 | NA | 2008 | Yes | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes |
|---------------|---|----|------|----|------|-----|--|

### Microbiological Contaminants

|   |   |   |   |    |      |     |                                      |
|---|---|---|---|----|------|-----|--------------------------------------|
| Total Coliform (positive samples/month) | 0 | 1 | 5 | NA | 2008 | Yes | Naturally present in the environment |
|---|---|---|---|----|------|-----|--------------------------------------|

| Unit Descriptions      |  |
|------------------------|--|
| <u>Term</u>            | <u>Definition</u>  |
| ppb                    | ppb: parts per billion, or micrograms per liter (µg/L)                                 |
| positive samples/month | positive samples/month: Number of samples taken monthly that were found to be positive |
| NA                     | NA: not applicable   |
| ND                     | ND: Not detected   |
| NR                     | NR: Monitoring not required, but recommended.  |

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| Important Drinking Water Definitions |   |
|--------------------------------------|---|
| <u>Term</u>                          | <u>Definition</u>   |
| MCLG                                 | MCLG: Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.                    |
| MCL                                  | MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. |
| TT                                   | TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.  |
| AL                                   | AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a   |

|                           |   |
|---------------------------|---|
|                           | water system must follow.   |
| Variations and Exemptions | Variations and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.  |
| MRDLG                     | MRDLG: Maximum residual disinfection level goal. 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 the use of disinfectants to control microbial contaminants. |
| MRDL                      | MRDL: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.                              |
| MNR                       | MNR: Monitored Not Regulated  |
| MPL                       | MPL: State Assigned Maximum Permissible Level   |

## Violations and Exceedances

### Arsenic

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. In 2006, the EPA lowered the maximum contamination level (MCL) for arsenic from 50ppb to 10ppb. The Company's water is tested quarterly and results are in the range of 10ppb to 11.7ppb. As a result, the Company is in violation of the MCL for arsenic. This marginal violation of the arsenic MCL continues. The Company has been blending water from well #2 which shows arsenic containing 3ppb with well #1 which has a higher level of arsenic. This blending has not achieved compliance. In October, 2008, the Company participated in a pilot program sponsored by the EPA/USGS/DES to determine if fractures in well #1 containing higher levels of arsenic could be sealed off and thus lower the arsenic content to under the MCL. The conclusion of the study was that the character of the borehole of well #1 did not lend itself to this solution. The Company is now pursuing (1) more aggressive blending and monitoring well #2 to determine if it can sustain the necessary production, (2) deepening one of our wells to obtain greater production and hopefully less arsenic and (3) the installing arsenic remediation equipment. The Company is working with DES and will come into compliance by implementing one or more of the above options by the spring of 2010.

### 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. The first monthly sample that tested positive was taken on November 24, 2008. The December sample tested negative. However, required multiple samples taken in January showed the absence of Total Coliform except for the sample taken from well #1. The well was chlorinated

immediately and sampled again, showing the absence of Total Coliform. Monthly samples tested subsequently through the current month of June have all shown the absence of Total Coliform.

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**For more information please contact:**

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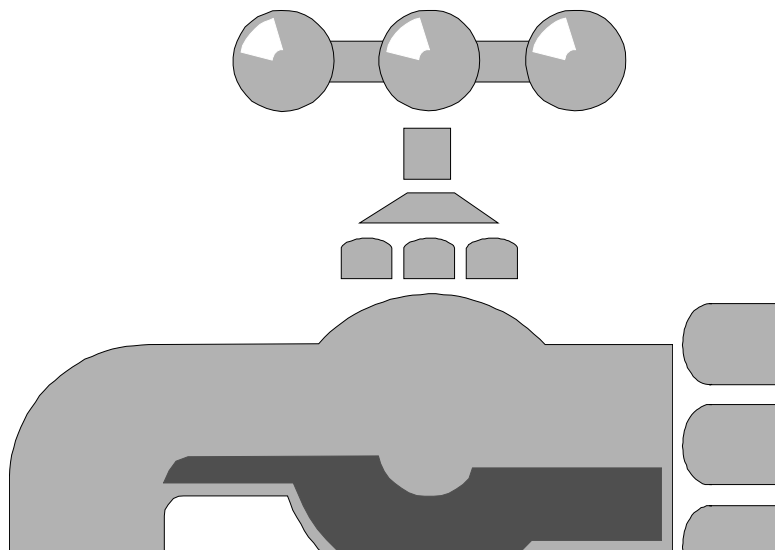
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## Frankestown Village Water Company

EPA # 831010

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