

# The North Charlestown Water System Quality Report 2009

This report is produced yearly by the Charlestown Water Department to keep our customers apprised of the quality of water in our system and how we operate.

## Who We Are:

Charlestown Water Department  
173 Main Street / 11 Depot Street  
Charlestown NH. 03603

Phone: 1-603-826-5535  
Office: 1-603-826-3179  
Fax 1-603-826-3709

## Mission Statement:

We are committed to providing you with safe, high quality drinking water and service to back it up. We monitor and control the systems 24 hours a day, 7 days a week, to ensure a quality product is produced and delivered to your home or business.

## Our Water Source:

All of North Charlestown's water is ground water. There are two wells supplying the system, they are located off Rt. 12A near the Little Sugar River. We also have a 250,000 gallon storage tank on Wheeler Rand Rd.

## Providing Safe Water:

We have some of the best water quality in the State of New Hampshire. We have passed all of our State and Federal water quality standards for the history of our testing. We test for various parameters on a regular basis, including chemicals, organic matter, bacteria, inorganic matter and radiological over two hundred tests are performed each year at different locations and for different parameters.

## Why do we test for contaminants?

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 Safe Drinking Water Hotline at 1-800-426-4791

## Are precautions necessary?

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, persons with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk for 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 microbial contaminants are available from the Safe Water Hotline.

## You can get Involved:

You may call your Water Department between 6:00 AM and 2:30 PM at 603-826-5535 or leave us a message.

You may attend a Selectboard meeting on the first and third Wednesday of each month.

You may call the Town Office at 603-826-4400.

North Charleston Water System # 0411020

| Contaminant     | Violation | Level Detection Site # 001 | Level Detection Site # 002 | Unit of Measure | MCLG | MCL    | Origin   |
|-----------------|-----------|----------------------------|----------------------------|-----------------|------|--------|--|
| Radon           | N         | 150                        | 160                        | pci/l           | 0    | 0      | Decay of natural and manmade deposits.   |
| Barium          | N         | 0.011                      | 0.009                      | mg/l            | 2    | 2      | Erosion of natural deposits, Discharge of drilling waste, Discharge of metal refineries                |
| Copper          | N         | 0.078                      | Not Required               | mg/l            | 1.3  | AL=1.3 | Corrosion of household plumbing systems, Erosion of natural deposit, leaching from wood preservatives. |
| Arsenic         | N         | 5                          | 6                          | ppb             | 0    | 10     | Erosion of natural deposits, runoff from orchards  |
| Combined Radium | N         | <0.7                       | 0.325                      | pci/l           | 0    | 5      | Erosion of natural deposits  |
| Gross Alpha     | N         | 0.32                       | 0.73                       | pci/l           | 0    | 15     | Erosion of natural deposits  |
| Uranium         | N         | 0.3                        | 1.17                       | pci/l           | 0    | 30     | Erosion of natural deposits  |
| Lead            | N         | 6                          | Not Required               | ppb             | 0    | AL=15  | Corrosion of household plumbing systems  |

This table shows all the chemicals we have detected in the water supply over the last five years of sampling hundreds of Parameters. These are not Violations or High Levels they are merely detects of a regulated substance in the past five years.

**Abbreviations:** PPM: parts per million, PPB: parts per billion, pci/l: picoCurie per liter, MCLG: maximum contaminant level goal, or the level of a contaminant in drinking water below which there is no known or expected risk to health. MCL: the highest allowable level of a contaminant in drinking water. AL: action level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirement which a water system must follow.

**Radon:** Presently the USEPA is determining a standard for radon in drinking water. Radon gas that is inhaled has been linked to lung cancer. However it is not clear at what level radon in your drinking water contributes to this health effect.

**Barium:** Some people who drink water containing barium in excess of the MCL over many years experience an increase in their blood pressure.

**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.

**Uranium:** Some people who drink water containing Uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.

**Gross Alpha:** Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of cancer and kidney toxicity.

**Combined Radium:** Some People who drink water containing radium 226 or 228 in excess of the MCL over years may have an increased risk of cancer.

**Lead:** (15 ppb in more than 5% of samples) Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791) (Above 15 ppb) Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

**Microbiological:** (Human and animal fecal waste) Total Coliform are bacteria naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.

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In 2008, the State of New Hampshire Department of Environmental Services tested North Charlestown's wells for contamination by volatile organic compounds. Most volatile organic compounds are manmade organic chemicals, many of which have been created in the last fifty years. Many are used as industrial solvents; trichloroethane would be an example. Hydrocarbons such as benzene and gasoline additives like MtBE are also in this group. Of the chemicals in this category that were tested for, all were below detectable levels.

### Arsenic Treatment:

The system was installed in November 2007, and has reduced the arsenic contamination to 6 ppb. Which is below the maximum allowed of 10 ppb.

Arsenic (5ppb-10ppb) While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

### Source Water Assessment Report:

The State of New Hampshire Department of Environmental Services has prepared a Source Water Assessment Report for the sources serving this communities water system and assessing the sources vulnerability to contamination. The results of the assessment, prepared on 4/12/02 are as follows:

Twelve susceptibility ranking criteria were used: Detects, Intake, KCSs, PCSs, Highway & Railroads, Pesticides, Septics, Urban Land, Agricultural Land, Animals, Lagoons, Dry Discharge, Sanitary Radius, Tropic Status.

Well 1 & 2 are at the same site:

Received 3 High ratings for: Highways, Septics, Agricultural Lands

Received 2 Medium ratings for: Possible Contamination Source, Animals

Received 7 Lows ratings for: Other Category's

The complete Assessment Report is available at the Water Department or Town office.

The State of New Hampshire Department of Environmental Services web site

[www.des.nh.gov/dwgb](http://www.des.nh.gov/dwgb)

### Water System Ordinance:

The Town of Charlestown has a document called the Water Use Ordinance. This document governs the water system and is used as a guide to protect the user/customer and the Town, copies available at the Water Department or Town office.