

# CHARLESTOWN WATER DEPARTMENT

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## North Charlestown Water Quality Report 2018 PWSID # 0411020

### Our Safe Water and It's Source

#### 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*

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

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

#### You Can Get Involved

Please report any pollution situation you may know of, Ground water protection is up to everyone. Keeping our wells safe from contaminates is a job we all should take part in. You can call the Water Department – 603-826-5387, attend a Selectboard meeting, which are held the 1<sup>st</sup> and 3<sup>rd</sup> Wednesday of each month, or call the Town Offices – 603-826-4400.

Past Results:  
Calculated in a 90<sup>th</sup> percentile

Year	Lead Copper
2018	1 ppb 0.020 mg/l

We will test ten more sites in quarter one 2021.

### Lead, Copper and Arsenic

Testing was performed in 2018 on five prearranged sites throughout North Charlestown with the highest results being well under the EPA limits.

Copper: EPA Action Limit is 1.3mg/l  
Lead: EPA Action Limit is 15 ppb  
Tests will be conducted in 2021

#### 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 community's 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, septic, urban land, agricultural land, animals, lagoons,

dry discharge, sanitary radius, tropic status.

#### Well 1 & 2

##### Located at the same site

Ratings are high being bad, low being good

Received 3 high ratings for: agricultural land, highways and septic.

Received 2 medium ratings for: animals, & possible contamination source

Received 7 low ratings for: other category

The Complete Assessment Report is available at the Water Department or Town Office.

You can also find it online at,

The State of New Hampshire Department of Environmental Services web site

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

#### Arsenic:

The reduction system has reduced the arsenic contamination to 8 ppb below the maximum allowed of 10 ppb. 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 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.

We test each quarter for arsenic at the source wells.

2017	Well # 1	Well # 2
Quarter 1	8 ppb	8 ppb
Quarter 2	7 ppb	9 ppb
Quarter 3	7 ppb	8 ppb
Quarter 4	7 ppb	7 ppb

Average for the year is 7 parts/ billion or 0.007mg/l

## Health Effects Language

### 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

#### Arsenic:

(5 ppb through 10 ppb) 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.

#### Chlorine:

Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

#### 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:

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 levels 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)

#### 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 are available at the Water Department or Town office.

### Radioactive Contaminants: Compliance Gross Alpha (pCi/L)

Level Detected 1.3 pCi/L, MCL 15, MCLG 0, Likely source of Contamination- Erosion of Natural Deposits, Health effects of Contaminant- Certain minerals are radioactive and may emit a form of radiation know 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 getting cancer.

## Town of North Charlestown PWS ID # 0411020

These tables show all the chemicals we have detected in the water supply over the last five years of sampling hundreds of parameters.

### Regulated Inorganic Contaminants

Contaminant	Level Detection Well # 1	Level Detection Well # 2	Unit of Measure	Violation	MCL	MCLG	Date of Detect	Origin
Arsenic	8	9	ppb	N	10	10	4/5/2017	Erosion of natural deposits, runoff from orchards
Nitrate	<0.5	<0.5	ppm	N	10	10	7/12/2017	Erosion of natural deposits, runoff from fertilizer, leaching from septic tanks, sewage
Barium	0.01	0.008	ppm	N	2	2	7/13/2016	Erosion of natural deposits, Discharge of drilling waste, discharge from metal refineries
Chlorine	0.25	0.25	ppm	N	4	4	Daily	Water additive used to control microbes

### Unregulated Contaminants

Contaminant	Level Detection Well # 1	Level Detection Well # 2	Unit of Measure	Violation	Reason for Sampling
Manganese	0.086	0.061	ppm	N	Yearly State Requirement
Sodium	8	7	ppm	N	Yearly State Requirement

**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.

**Contaminants that may be present** in source water 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 storm water 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 storm water 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 storm water runoff, and septic systems.

**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 which limit the amount of certain contaminants in water provided by public water systems. The US Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Abbreviations: ppm: = parts per million, ppb: = parts per billion

These are not violations or high levels they are merely detects of a regulated substance in the past 5 years.

MCLG: = Maximum contaminant level goal, or the level of a contaminant in drinking water below which there is no known or expected risk of health

MCL: = Maximum contaminant level the highest level 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.

pCi/L=picocurie Per Liter

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