

Town of Charlestown Water Quality Report 2016

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
Charlestown NH. 03603

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Fax 1-603-826-3709
www.charlestown-nh.gov

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 Charlestown's water is ground water. There are two wells supplying the system. One on North Hemlock Road, called Clay Brook (Reference # 001), produces about 380 gallons of water per minute.

The other wells are off Lovers Lane Road and are known as Bull Run (Reference # 002) producing 200 gallons per minute and Bull Run (Reference # 003) producing 500 gallons per minute

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 one 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 603-826-5387 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.

Please report any pollution situation you may know of, Groundwater protection is up to everyone. Keeping our wells safe from contaminates is a job we all should take part in.

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In 2015 the State of New Hampshire Department of Environmental Services tested Charlestown's wells for Nitrates; Bull Run Well 0.8mg/l and Clay Brook Well <0.05mg/l both are below limits.

Lead & Copper: Testing was performed in 2015 on ten prearranged sites throughout Charlestown with the highest results being well under the EPA limits.

Copper EPA Limit is 1.3mg/l Highest test result was 0.63mg/l.

Lead EPA Limit is 0.015mg/l Highest test result was 0.013mg/l.

We will test ten more sites in quarter three 2018.

The Graff is showing copper on the source wells.

Past Results: Calculated in a 90th percentile

<u>Year</u>	<u>Lead</u>	<u>Copper</u>	
2015	0.003	0.50	mg/l
2012	0.004	0.46	mg/l
2009	0.003	0.53	mg/l
2006	0.004	0.54	mg/l
2003	0.005	0.73	mg/l
2000	0.005	0.89	mg/l

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 and updated in 2015 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.

Clay Brook Well: North Hemlock Rd.

Ratings are high being; bad low being good

Received 2 high ratings for: agricultural land and pesticides

Received 1 medium rating for: animals

Received 9 low ratings for: other category

Bull Run Wells: Lovers Lane Rd.

Received 4 high ratings for: urban land, agriculture land, pesticides, sanitary radius

Received 3 medium ratings for: possible contamination source, highway/RR, pesticides

Received 5 low ratings for: other category

The Well Head Protection Program is active and we monitor activity within the Well Head Protective Radius. Maps are available at the town office.

PCS stands for Poetical Contamination Source; we have identified each source in our well head protection area and monitor them yearly or more as needed.

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

Water System Ordinance:

The Town of Charlestown has adopted a document called the Water Use Ordinance. This ordinance 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.

Town of Charlestown

PWS ID # 0411010

Contaminant	Level Detection Clay Brook	Level Detection Bull Run	Unit of Measure	Violation	MCL	MCLG	Date of Detect	Origin
Arsenic	<0.001	0.001	ppb	N	0	10	8/8/2012	Erosion of natural deposits, runoff from orchards
Nitrate	0.5	1	ppm	N	10	10	7/22/2015	Erosion of natural deposits, runoff from fertilizer, leaching from septic tanks, sewage
Copper	0.006	<0.001	ppm	N	1.3	AL=1.3	7/11/2013	Corrosion of household plumbing systems, Erosion of natural deposit, leaching from wood preservatives
Barium	0.006	0.003	ppm	N	2	2	7/11/2013	Erosion of natural deposits, Discharge of drilling waste, discharge from metal refineries
Chlorine	0.3	0.2	ppm	N	4	4	Daily	Water additive used to control microbes

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 millions, 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: = maximum contaminant 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.

Nitrate: Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and if untreated may die. Symptoms include shortness of breather and blue-baby syndrome.

Copper: Copper is an essential nutrient, but some people who drink 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 suffer liver or kidney damage. People with Wilsons Disease should consult their personal doctor.

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

Arsenic: (5 ppb – 10 ppb) While your drinking water meets EPA's standards for arsenic, it does contain very levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic form drinking water. EPA continues to research the health effects of lows levels of arsenic, which is 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 MCDL 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.