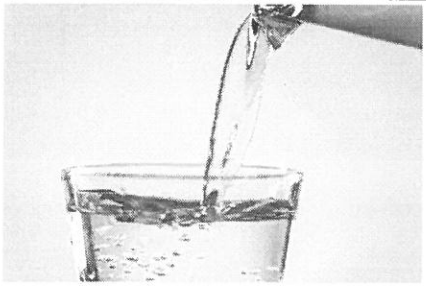


2024 Consumer Confidence Report

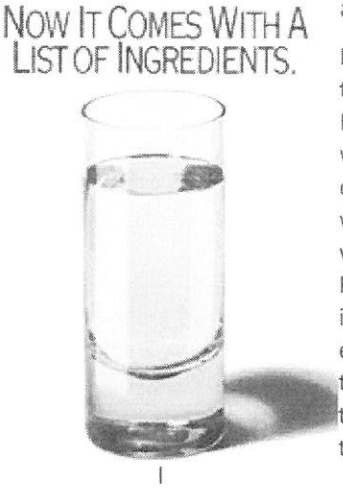
Charlestown Water

PWSID #0411010

As a responsible public water system, our mission is *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*

Aging infrastructure presents challenges to drinking water safety, and continuous improvement is needed to maintain the quality of life we desire for today and for the future.
The Water Interconnect is completed, connecting North Charlestown water user to the Charlestown well.
These investments along with ongoing operation and maintenance costs are supported by water users and fees When considering the high value we place on water, it is truly a bargain to have water service that protects public health, fights fires, supports businesses and the economy, and provides us with the high-quality of life we enjoy.

What is a Consumer Confidence Report?
The Consumer Confidence Report (CCR) details the quality of your drinking water, where it comes from, and where you can get more information. This annual report documents all detected primary and secondary drinking water parameters, and compares them to their respective standards known as Maximum Contaminant Levels (MCLs).



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 stormwater runoff, and residential uses.

Organic chemical contaminants, including per- and polyfluoroalkyl substances, 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 prescribe 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.

What is the source of my drinking water?

All of Charlestown's water is ground water. There are three wells supplying the system. One on North Hemlock Road is called Clay Brook (Reference # 001) it produces about 380 gallons of water per minute.
The other wells are off Lovers Lane Road and are known as Bull Run#1 (Reference # 002) producing 200 gallons per minute and Bull Run # 2 (Reference # 005) producing 500 gallons per minute

Charlestown has 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 are contaminants in my 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 Safe Drinking Water Hotline at 1-800-426-4791.

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/CDC guidelines on appropriate means to lessen the risk of infection by *Cryp-*

tosporidium and other microbial contaminants are available from the Safe

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

Source Water Assessment Summary
NHDES prepared drinking water source assessment reports for all public water systems between 2000 and 2003 in an effort to assess the vulnerability of each of the state's public water supply sources. Included in the report is a map of each source water protection area, a list of potential and known contamination sources, and a summary of available protection options. The results of the assessment, prepared on April 12, 2022 and updated in 2015 are noted below.
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
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

Note: This information is over 6 years old and includes information that was current at the time the report was completed. Therefore, some of the ratings might be different if updated to reflect current information. At the present time, DES has no plans to update this data.

The complete Assessment Report is available for review at the Charlestown Water Department. For more information, call 603-286-5821 or visit the NHDES website.

How can I get involved?

For more information about your drinking water, please Charlestown Water Department at 603-826-5387. Feel free to contact us with any questions you may have or attend a Water Commissioners Meeting held the fourth Wednesday of each month or call the Town Office at 603-826-5821.

Violations and Other information:

No Violations in 2023

Definitions

Maximum Contaminant Level or **MCL**: 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.

Maximum Contaminant Level Goal or **MCLG:** 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.

Maximum Residual Disinfectant Level or **MRDL:** 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.

Maximum Residual Disinfectant Level Goal or **MRDLG:** 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.

Treatment Technique or **TT:** A required process intended to reduce the level of a contaminant in drinking water.

Abbreviations

BDL: Below Detection Limit

mg/L: milligrams per Liter

NA: Not Applicable

ND: Not Detectable at testing limits

NTU: Nephelometric Turbidity Unit

pCi/L: picoCurie per Liter

ppb: parts per billion

ppm: parts per million

RAA: Running Annual Average

TTHM: Total Trihalomethanes

UCMR: Unregulated Contaminant Monitoring Rule

ug/L: micrograms per Liter

The following statement must be included.

Drinking Water Contaminants:

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. This water system is responsible for high quality drinking water, but can not control the variety of materials used in your plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing cold water from your tap for at least 30 seconds before using water for drinking or cooking. Do not use hot water for drinking and cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://water.epa.gov/drink/info/lead/index.cfm

System Name: Charlestown Water Works PWS ID: 0411010

2024 Report (2023 Data)

LEAD AND COPPER							
Contaminant (Units)	**Action Level (AL)**	**90th percentile sample value ***	**Date**	**# of sites above AL**	**Violation Yes/No**	**Likely Source of Contamination**	**Health Effects of Contaminant**
Copper (ppm)	1.3	0.21	10/05/23	0	NO	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	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 (ppb)	15	2	10/05/23	0	NO	Corrosion of household plumbing systems, erosion of natural deposits	(15 ppb in more than 5%) 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). (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.

Site 004= GPW/BULL RUN WELL 1

Site 005= GRW/BULL RUN WELL 2

Site 502= CLAY BROOK WELL/PUMPHOUSE

Site 322= Main St Water Dept

Site 323= 58 Michael Ave

DETECTED WATER QUALITY RESULTS

Inorganic Contaminants

Contaminant (Units)	Level Detected*	Date	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Arsenic (ppb)	Site 004: 1.1 Site 005: 1.3 Site 502: 1.1	9/13/22 4/20/22 9/13/22	5	0	NO	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	(2.5 ppb through 5 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 costs 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. (Above 5 ppb) 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.
Barium (ppm)	Site 004: 0.0028 Site 005: 0.0026 Site 502: 0.0027	9/13/22 4/20/22 9/13/22	2	2	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Contaminant (Units)	**Level Detected***	**Date**	**MCL**	**MCLG**	**Violation YES/NO**	**Likely Source of Contamination**	**Health Effects of Contaminant**
Chlorine (ppm)	RAA= 0.193 Range= 0.12-0.32	2023	MRDL= 4	MRDLG= 4	No	Water additive used to control microbes	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.
Contaminant (Units)	**Level Detected***	**Date**	**MCL**	**MCLG**	**Violation YES/NO**	**Likely Source of Contamination**	**Health Effects of Contaminant**
Nitrate (as Nitrogen) (ppm)	Site 004: 1.0 Site 005: 1.0	8/16/23 5/28/23	10	10	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	(5 ppm through 10ppm) Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider. (Above 10 ppm) 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 breath and blue baby syndrome.

Contaminant (Units)	Level Detected*	Date	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Haloacetic Acids (HAA) (ppb)	1.2	8/8/23	60	N/A	NO	By-product of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Total Trihalomethanes (TTHM) (Bromodichloro-methane Bromoform Dibromochloro-methane Chloroform) (ppb)	Site 322: 9.02 Site 323: 2.23	8/8/23 8/8/23	80	N/A	NO	By-product of drinking water chlorination	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

SECONDARY CONTAMINANTS

Secondary MCLs (SMCL)	Level Detected	Date	Treatment technique (if any)	SMCL	50 % AGQS (Ambient groundwater quality standard)	AGQS (Ambient groundwater quality standard)	Specific contaminant criteria and reason for monitoring
Chloride (ppm)	Site 004: 81 Site 005: 130 Site 502: 110	9/13/22 4/20/22 9/13/22	N/A	250	N/A	N/A	Wastewater, road salt, water softeners, corrosion
Iron (ppm)	Site 502: 0.075	9/13/22	N/A	0.3	N/A	N/A	Geological
Nickel (ppm)	Site 005: 0.0017	4/20/22	N/A	Not established; reporting is required for detections	0.05	0.1	Geological; electroplating, battery production, ceramics
PH (ppm)	Site 004: 7.83 Site 005: 7.34 Site 502 7.85:	9/13/22 4/20/22 9/13/22	N/A	6.5-8.5 (Normal Range)	N/A	N/A	Precipitation and geology
Sodium (ppm)	Site 004: 32 Site 005: 41 Site 502:	9/13/22 4/20/22 9/13/22	N/A	100-250	N/A	N/A	We are required to regularly sample for sodium

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Sulfate (ppm)	Site 004: 11 Site 005: 23 Site 502: 12	9/13/22 4/20/22 9/13/22	N/A	250	250	500	Naturally occurring
Zinc (ppm)	Site 004: 0.008 Site 005: 0.075	9/13/22 4/20/22	N/A	5	N/A	N/A	Galvanized pipes