

# Consumer Confidence Report

## Pennichuck Water- Nashua Core

EPA # 1621010

### 2020

#### 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).

NOW IT COMES WITH A LIST OF INGREDIENTS.



**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**, the EPA prescribes regulations which limit the amounts 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?

Our watershed is a 27.5 square mile area from which rainfall drains, becoming a source for the Pennichuck Brook, and ultimately, the reservoir system. This is Pennichuck's primary source of water. The Merrimack River is a backup source and is used primarily during the summer months. Treatment consists of up-flow clarification using ferric chloride and a non-ionic polymer; pH adjustment using sodium hydroxide; Zinc Orthophosphate as a corrosion inhibitor; Poly Phosphate as a sequestering agent; and Liquid Chlorine as a disinfectant.

#### 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 *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

#### Source Water Assessment Summary

DES 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 are noted below.

Source Name	Summary of Susceptibility Factors			
	Date	Low	Med	High
Harris Pond Reservoir	7/5/01	6	3	2
Supply Pond / Springs	7/5/01	6	3	2
Merrimack River	10/25/01	2	4	5

Note: This information is over 15 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. For more information, call *Matt Day at 800-553-5191* or visit the DES Drinking Water Source Assessment website at <http://des.nh.gov/organization/divisions/water/dwgb/dwspp/dwsap.htm>.

#### How can I get involved?

For more information about your drinking water, please call our laboratory at 800-553-5191 or send an email to [customer-service@pennichuck.com](mailto:customer-service@pennichuck.com). Although we do not have specific dates for public participation events or meetings, feel free to contact us with any questions you may have.

**Violations: We are pleased to announce there were no violations.**

#### Health Effects

**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 cannot 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 to 2 minutes 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 at 800-426-4791 or at <http://water.epa.gov/drink/info/lead>.

**Sodium:** Sodium sensitive individuals such as those experiencing hypertension, kidney failure, or congestive heart failure, who drink water containing sodium, should be aware of levels where exposures are being carefully controlled.

**Definitions**

**Action Level or AL:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**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.

**Turbidity:** A measure of the cloudiness of the water. It is monitored by surface water systems because it is a good indicator of water quality and thus helps measure the effectiveness of the treatment process. High turbidity can hinder the effectiveness of disinfectants.

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

**Health Advisory:** An estimate of acceptable drinking water levels for a chemical substance based on health effects information; an HA is not a legally enforceable Federal standard, but serves as technical guidance to assist Federal, State, and local officials.

**Abbreviations**

- NA:** Not Applicable
- ND:** Not Detectable at testing limits
- NTU:** Nephelometric Turbidity Unit
- pCi/L:** picoCurie per Liter
- ppt:** parts per trillion
- ppb:** parts per billion
- ppm:** parts per million
- RAA:** Running Annual Average

**Pennichuck Water- Nashua Core- 2019 Results**

**EPA # 1621010**

<b>Turbidity</b>	<b>TT</b>	<b>Lowest Monthly % of Samples</b>	<b>Highest Detected Daily Value</b>	<b>Violation Yes/No</b>	<b>Typical Source of Contaminant</b>			
Daily Compliance (NTU)	5	-----	0.26 on 6/14/19	No	Soil Runoff			
Monthly Compliance*	At least 95%	100 % - all of 2019	-----	No				
Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality.								
*Monthly turbidity compliance is related to a specific treatment technique (TT). Our system filters the water so at least 95% of our samples each month must be below the turbidity limits specified in the regulations.								
<b>Detected Water Quality Results</b>	<b>Year Collected</b>	<b>Highest Detect</b>	<b>Range Detected</b>	<b>MCL</b>	<b>MCLG</b>	<b>Violation Yes/No</b>	<b>Typical Source of Contaminant</b>	
Barium (ppm)	2019	0.0123	NA	2	2	No	Geological; oil/gas drilling, painting, industrial waste	
Sodium (ppm)	2019	46.4	6.26 – 46.4	Not Regulated	100 - 250	NA	Road salts, septic systems (salt from water softeners)	
Total Organic Carbon (ppm)	2019	Average 0.69	ND – 1.17	TT	NA	No	Naturally present in the environment	
<b>Disinfectants and Disinfection By-Products</b>	<b>Year Collected</b>	<b>Level Detect</b>	<b>Range Detected</b>	<b>MCL</b>	<b>MCLG</b>	<b>Violation Yes/No</b>	<b>Typical Source of Contaminant</b>	
Chlorine (ppm)	2019	Average 0.79	0.01-1.82	4-MRDL	4-MRDLG	No	Water additive used to control microbes	
Total Trihalomethanes (ppb)	2019	RAA 41	9.0- 45.0	80	NA	No	By-product of drinking water chlorination	
Haloacetic Acids (ppb)	2019	RAA 41	5.0 – 22.0	60	NA	No	By-product of drinking water chlorination	
	<b>Year Collected</b>	<b>90th Percentile</b>	<b>Action Level</b>	<b>MCLG</b>	<b># of Sites Sampled</b>	<b># sites above Action Level</b>	<b>Violation Yes/No</b>	<b>Typical Source of Contaminant</b>
Copper (ppm)	2017	0.07	1.3	1.3	31	0	No	Corrosion of household plumbing system
Lead (ppb)	2017	2	15	0	31	2	No	Corrosion of household plumbing system
<b>Radiological Contaminants</b>	<b>Year Collected</b>	<b>Highest Detect</b>	<b>Range Detected</b>	<b>MCL</b>	<b>MCLG</b>	<b>Violation Yes/No</b>	<b>Typical Source of Contaminant</b>	
Radium 226 & 228 (pCi/L)	2015	0.5	NA	5	0	No	Erosion of natural deposits	

<b>Unregulated test</b>	<b>Date Collected</b>	<b>Average Detected</b>	<b>Range Detected</b>	<b>Health Advisory NH</b>	<b>Typical Source of Contaminant</b>
Perfluorooctanoic acid (PFOA) (ppt)*	2019	5.98	NA	70	Industrial processes, firefighting foam, landfills, wastewater treatment and septic systems

\*The state of NH Drinking Water and Groundwater Bureau requested that we voluntarily monitor these contaminants.

<b>Unregulated Contaminant Monitoring Regulation 3</b>	<b>Year Collected</b>	<b>Highest Detect</b>	<b>Range Detected</b>	<b>Reason for Monitoring</b>
Strontium (ppb)	2015	86	56 - 86	The elements listed in this section are contaminants that do not have a standard set. These contaminants are monitored in order to provide information to the US Environmental Protection Agency, while they conduct evaluation on whether these contaminants should have a standard established.
Chromium, Hexavalent (ppb)	2015	0.06	ND – 0.06	
Chlorate (ppb)	2015	100	72 - 100	

<b>Unregulated Contaminant Monitoring Regulation 4</b>	<b>Year Collected</b>	<b>Highest Detect</b>	<b>Range Detected in 2018</b>	<b>Reason for Monitoring</b>
Haloacetic Acids HAA5 (ppb)	2019	6.7	8 - 21.6	The elements listed in this section are contaminants that do not have a standard set. These con <i>taminants</i> are monitored in order to provide information to the US Environmental Protection Agency, while they conduct evaluation on whether these contaminants should have a standard established.
Haloacetic Acids HAA6Br (ppb)	2019	6.5	4.6 - 8.5	
Haloacetic Acids HAA9 (ppb)	2019	12.6	13.4 – 28.9	
Manganese (ppb)	2019	4.06	0.7 -2.8	