2023 Consumer Confidence Report

Londonderry

PWS # 1391010

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 there 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.

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 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?
Pennichuck Water Works purchases water from the City of Manchester. The source of the Londonderry water supply is Lake Massabesic located Auburn and East Manchester.

Treatment for Manchester Water Works consists of monochloramines for disinfection, fluoride for preventing tooth decay, ozone for organic removal and disinfection, granular active carbon for organic and particle removal, soda ash for corrosion control, phosphoric acid for corrosion control. Average use Londonderry in 2020 is 425,000 gallons per day (GPD) and the highest 625,000 GPD. Additional information regarding your water can be found by visiting Manchester's website: http://www.manchesternh.gov/website/Departments/WaterWorks/WaterQuality/tabid/420/Default.aspx.

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

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 *9/10/2002* are noted below.

Source Name	Low	Med	High
Lake Massabesic	5	4	4

Note: Due to the time when the assessments were completed, some of the ratings might be different if updated to reflect current information.

The complete Assessment Report is available for review. For more information, call Matt Day at 800-553-5191 or visit the NHDES website.

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. Although we do not have specific dates for public participation events, feel free to contact us with any questions.

Violations and Other information: We are pleased to report that your drinking water meets or exceeds all federal and state requirements.

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 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 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 1-800-426-4791 or at US EPA Basic Information about Lead in Drinking Water.

Fluoride: Your public water supply is fluoridated. According to the Centers for Disease Control and Prevention, if a child under the age of 6 months is exclusively consuming infant formula reconstituted with fluoridated water, there may be an increased chance of dental fluorosis. Consult your child's health care provider for more information.

Definitions

Ambient Groundwater Quality Standard or **AGQS**: The maximum concentration levels for contaminants in groundwater that are established under RSA 485-C, the Groundwater Protection Act.

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.

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

Abbreviations

NA: Not Applicable

ND: Not Detectable at testing limits

pCi/L: picoCurie per Liter

ppb: parts per billion

ppm: parts per million

ppt: parts per trillion

RAA: Running Annual Average

90th Percentile – Out of every 10 homes sampled, 9 were at or below this level

2022 Data

	Year Collected	90th Percentile	Action Level	MCLG	# of Sites Sampled	# Sites Above Action Level	Violation Yes/No	Typical Source of Contaminant
Lead (ppb)	1/14/21	4	15	0	29	0	No	Corrosion of household plumbing systems, erosion of natural deposits
Copper (ppm)	1/14/21	0.13	1.3	1.3	29	0	No	Corrosion of household plumbing systems, erosion of natural deposits; leaching from wood preservatives

Turbidity	TT	Lowest Monthly % of Samples	Highest Detected Daily Value	Violation Yes/No	Typical Source of Contaminant
Daily Compliance (NTU)	<1 NTU	----------	0.048 in 2022	No	Soil Runoff
Monthly Compliance*	At least 95%	100 % - All of the months of 2022	----------	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.					

Inorganic Contaminants	Year Collected	Detect	Range Detected	MCL	MCLG	Violation Yes/No	Typical Source of Contaminant
Barium (ppm)	8/24/22	0.0125	NA	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion or the natural deposits
Organic chemical contaminants							
Perfluorooctanoic acid (PFOA)(ppt)	1/12/22 7/12/22 10/24/22	4.60 6.54 5.69	4.60 – 6.54	12	0	No	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, runoff/leachate from landfills and septic systems
Disinfectants and Disinfection By-Products		**Average**					
Total Chlorine (ppm)	Monthly 2022	0.61	ND – 1.81	4-MRDL	4-MRDLG	No	Water additive used to control microbes
Chloramines (ppm)	Bi-Monthly	0.49	ND – 1.4	4	4	No	Water additive used to control microbes
Nitrite-Chloraminated (ppm)	Monthly 2022	0.14	ND - 0.34	1	1	No	By-product of drinking water chlorination
Total Trihalomethanes (ppb)	Quarterly 2022	RAA 28	3 - 88	80	0	No	By-product of drinking water disinfection
Haloacetic Acids (ppb)	Quarterly 2022	RAA 12	ND - 41	60	0	No	By-product of drinking water disinfection
Total Organic Carbon [TOC] (ppm)	Monthly	1.97	1.53 – 2.49	TT	NA	No	Naturally present in the environment
The value reported under Amount Detected for TOC is the lowest ratio of percentage of TOC actually removed to percentage of TOC required to be removed. A value of greater than 1 indicates that the water system is in compliance with TOC removal requirements. A value of less than 1 indicates a violation of the TOC removal requirements.							

Secondary MCLs (SMCL)	Date	Level Detected	Treatment technique	SMCL	50 % AGQS (Ambient groundwater quality standard)	AGQS (Ambient groundwater quality standard)	Specific contaminant criteria and reason for monitoring
Chloride (ppm)	8/24/22	52	NA	250	N/A	N/A	Wastewater, road salt, water softeners, corrosion
Fluoride (ppm)	8/24/22	0.59	Fluorosilicic acid	2	2	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Hardness (ppm)	8/24/22	17.2	NA	NA	NA	NA	Geological
Manganese (ppm)	8/24/22	0.0039	NA	0.05	0.15	0.3	Geological
pH (SU)	8/24/22	8.08	Soda Ash	6.5-8.5	N/A	N/A	Precipitation and geology
Sodium (ppm)	8/24/22	53	NA	100-250	N/A	N/A	Road salt, septic systems (salt from water softeners) We are required to regularly sample for sodium
Sulfate (ppm)	8/24/22	22	NA	250	250	500	Naturally occurring

Secondary Maximum Contaminant Level or **SMCL**: They identify acceptable concentrations of contaminants which cause unpleasant tastes, odors, or colors in the water.

UNREGULATED AND OTHER SUBSTANCES	Year Collected	Average Amount Detected	Range Low-High	Typical Source of Contaminant
Alkalinity (ppm)	2022	26.5	25 – 42	Naturally occurring and/or added for pH adjustment.
Aluminum (ppb)	2022	23.4	19 – 28.9	Erosion of natural deposits; Residual from some surface water treatment processes
Ammonia, as Nitrogen (ppm)	Monthly	0.30	ND – 0.75	By-product of drinking water disinfection.
Ammonia, Free (ppm)	Bi-Monthly	0.04	ND – 0.24	By-product of drinking water disinfection.
Calcium (ppm)	2022	5.18	4.7 – 5.7	Erosion of natural deposits
Magnesium (ppm)	2022	1.2	1.1 – 1.3	Erosion of natural deposits
Perfluorobutanoic Acid (ppt)	2022	2.38	2.05 – 3.03	Manufacturing-by-product
Perfluoroheptanoic Acid [PFHpA] (ppt)	2022	0.525	ND -2.1	Manufacturing-by-product
Perfluorohexanoic Acid [PFHxA] (ppt)	2022	0.5775	ND – 2.31	Manufacturing-by-product
Perfluoropentanoic Acid [PFPeA] (ppt)	2022	1.09	ND – 2.24	Manufacturing-by-product
Phosphate (ppm)	2022	0.48	0.41 – 0.58	Corrosion control additive
Silica (ppm)	2022	3.7	2.37 – 4.92	Naturally present in the environment

Manchester Water Works participated in the **4th stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4**) program by performing additional tests on our drinking water. UCMR4, benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminants monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800)426-4791.

Additional Testing	UCMR	Results	Range	Explain federal monitoring requirement
Bromochloroacetic Acid (ppb)	2018	1.1	0.682-1.680	Used as a food additive (antioxidant)
Butylated Hydroxyl Anisole (ppb)	2018	0.0297	NA	Used as a food additive (antioxidant)
o-Toluidine (ppb)	2018	0.00693	NA	Used in the production of dyes, rubber, pharmaceutical, and pesticides
Quinoline (ppb)	2018	0.0198	NA	Used as a pharmaceutical (antimalarial) and Flavoring agent; Produced as a chemical intermediate; Component of coal