



Borough of Milltown

Middlesex County, New Jersey

39 Washington Ave • Milltown, NJ 08850-1238
(732) 828-2100 Ext. 123

2019 WATER QUALITY REPORT PWSID # 1212001

Dear Customer,

The Borough of Milltown Water Department offers residents two vital services: A continuous supply of safe drinking water and the efficient removal of wastewater. In this mission we continue our efforts to provide safe drinking water of a quality that exceeds State/Federal standards for safety, while making improvements to our system. In an ongoing effort to keep the public informed, we are pleased to provide you with this Annual Report on our water.

I urge you to read this report carefully in order to be informed about the quality of your drinking water.

Thank you!
Sincerely,

A handwritten signature in black ink that reads 'Eric A. Steeber'.

Eric A. Steeber

ABOUT YOUR WATER SUPPLY

Milltown's water is purchased from the City of New Brunswick, which draws its water from the Lawrence Brook and Delaware/Raritan Canal. The water is treated at the New Brunswick treatment plant and is delivered to the Borough's Elkins Lane pumping station through a twenty (20) inch cement lined ductile iron pipe. Chlorine levels are monitored at this location.

The Borough, in addition to the City of New Brunswick, conducts our own water testing as required by State & Federal regulations. Independent certified laboratories approved by the State analyze all the tests.

WATER QUALITY REPORT 2019

SOURCE WATER ASSESSMENT PROGRAM

Milltown Borough Utilities Department purchases 100% of its water from New Brunswick Water Department. Since we do not have any of our own sources of water (wells or surface intakes), the below summary of susceptibility ratings represents the sources from New Brunswick Water Department. More information can be found at (https://www.state.nj.us/dep/swap/reports/sumdoc_1214001.pdf).

SUSCEPTIBILITY RATINGS FOR NEW BRUNSWICK WATER DEPARTMENT (PWSID# 1214001) SOURCES

The table below illustrates the susceptibility ratings for the seven contaminant categories (and radon) for each source in the system. The table provides the number of wells and intakes that rated high (H), medium (M), or low (L) for each contaminant category. For susceptibility ratings of purchased water, refer to the specific water system's source water assessment report.

The seven contaminant categories are defined at the bottom of this page. DEP considered all surface water highly susceptible to pathogens, therefore all intakes received a high rating for the pathogen category. For the purpose of Source Water Assessment Program, radionuclides are more of a concern for ground water than surface water. As a result, surface water intakes' susceptibility to radionuclides was not determined and they all received a low rating.

If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels. As a result of the assessments, DEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

Sources	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radionuclides			Radon			Disinfection Byproduct Precursors			
	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Wells - 0																									
GUDI - 0																									
Surface Water Intakes - 2	2			1	1			2			2		2				2			2		2			

DEFINITIONS

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

MCL - Maximum Contaminant Level: The highest level of a disinfectant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG - Maximum Contaminant Level Goal: The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Primary Standards: Federal drinking water regulations for substances that are health-related. Water suppliers must meet all primary drinking water standards.

MRDL - Maximum Residual Disinfectant Level: 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.

MRDLG - Maximum Residual Disinfectant Level Goal: 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.

Secondary Standards: Federal drinking water measurements for substances that do not have an impact on health. These reflect aesthetic qualities such as taste, odor and appearance. Secondary standards are recommendations, not mandates.

Nutrients: Compounds, minerals and elements that aid growth, that are both naturally occurring and man-made. Examples include nitrogen and phosphorous.

Volatile Organic Compounds: Man-made chemicals used as solvents, degreasers, and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.

Pathogens: Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.

Pesticides: Man-made chemicals used to control pests, weeds and fungus. Common sources include land application and manufacturing centers of pesticides. Examples include herbicides such as atrazine, and insecticides such as chlordane.

Inorganics: Mineral-based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead, and nitrate.

Disinfection Byproduct Precursors: A common source is naturally occurring organic matter in surface water. Disinfection byproducts are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example leaves) present in surface water.

Turbidity: Cloudiness in water. Turbidity can hinder the effectiveness of disinfectants.

Radionuclides: Radioactive substances that are both naturally occurring and man-made. Examples include radium and uranium.

Radon: Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information go to <http://www.nj.gov/dep/rpp/radon/index.htm> or call (800) 648-0394.

BOROUGH OF MILLTOWN WATER DEPARTMENT, PWSID NJ1212001 - 2019 (2018 DATA) CCR

ABBREVIATIONS

- AL = Action Level. 90% of samples must be below this level
- RUL = Recommended Upper Limit (a non-enforceable recommended level)
- MCL = Maximum Contaminant Level (an enforceable limit)
- TT = Treatment Technique
- MCLG = Maximum Contaminant Level Goal
- RAA = Running Annual Average
- LRAA = Locational Running Annual Average
- MRDL = Maximum Residual Disinfectant Level
- MRDLG = Maximum Residual Disinfectant Level Goal
- NTU = Nephelometric Turbidity Unit
- ppb = Parts per Billion
- ppm = Parts per Million
- N/A = Not Applicable
- ND = Not Detected

Lead & Copper	Units	MCLG	AL	Level Detected	Violation	Likely Source
Copper	ppm	1.3	1.3	90th Percentile: 0.2 ppm Samples > AL: 0 of 80	N	Corrosion of household plumbing systems and erosion of natural deposits
Lead	ppb	0	15	90th Percentile: 15 ppb Samples > AL: 6 of 80	N	Corrosion of household plumbing systems and erosion of natural deposits
Regulated Disinfectants	Units	MRDLG		Level Detected	Violation	Likely Source
Chlorine	ppm	4		Range: 0.10 to 1.97 Average: 0.84	N	Treatment Process
Volatile Organic Compounds/Disinfection By-products	Units	MCLG	MCL	Level Detected	Violation	Likely Source
HAA5 Haloacetic Acids	ppb	N/A	60	Range: 6.34 to 73.5 Highest LRAA: 42.27	N	By-product of drinking water disinfection
TTHM Total Trihalomethanes	ppb	N/A	80	Range: 35.9 to 83.9 Highest LRAA: 65.88	N	By-product of drinking water disinfection
Microbiological Revised Total Coliform Rule (RTCR)	Number Required	Number Completed	Corrective Actions Required	Corrective Actions Completed		
Coliform Bacteria	96	108	0	0		

Total Coliform bacteria are generally not harmful themselves. Coliforms are bacteria which are naturally present in the environment and used as an indicator that other potentially harmful bacteria may be present.

THE CITY OF NEW BRUNSWICK WATER UTILITY, PWSID NJ1214001 - 2019 (2018 DATA) CCR - WHOLESALE SUPPLY

Contaminant	Units	MCL	MCLG	Maximum Detected Level	Range	Compliance Achieved	Violation	Major Sources in Drinking Water
Turbidity ⁽¹⁾	NTU	TT: 1 NTU; 5% samples/month below 0.3 NTU	N/A	0.27	100% <0.3 Average = 0.08	Yes	No	Soil Runoff
Inorganic Contaminants								
Barium	ppm	2	2	Highest: 0.042		Yes	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nickel	ppb	N/A	N/A	Highest: 0.99		Yes	No	Erosion of natural deposits
Nitrate	ppm	10	10	Highest: 0.53		Yes	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	ppb	50	50	Highest: 0.59		Yes	No	Erosion of natural deposits; discharge from chemical and metal refineries, and mines
TOC Removal								
TOC Removal Ratio ⁽²⁾	N/A	RAA>1.0	N/A	Lowest Ratio (RAA) = 1.31	Range of Ratios: 1.14 - 1.65	Yes	No	Naturally present in the environment. The removal ratio is a measure of organic material removal which can serve as precursors to disinfection by products
Organic Contaminants								
Perfluoro nonanoic acid (PFNA) ⁽³⁾	ppb	0.013	N/A	0.0022	0.0010 - 0.0022	Yes	No	Used in the manufacture of fluoropolymers
Unregulated Contaminants ⁽⁴⁾								
Bromide	ppb	N/A	N/A	Finished water: 25.2 Untreated water: 34.6		Yes	No	Naturally present in the environment; road salts
Chlorate	ppb	N/A	N/A	180	84 - 180	Yes	No	By-product of drinking water disinfection
Chromium (total)	ppb	N/A	N/A	0.47	ND - 0.47	Yes	No	Erosion of natural deposits
Perfluoro butanoic acid (PFBA)	ppb	N/A	N/A	0.011	N/A	Yes	No	Used in products to make them stain, grease, heat, and water resistant
Perfluoro butane sulfonic acid (PFBS)	ppb	N/A	N/A	0.0021	N/A	Yes	No	Used in products to make them stain, grease, heat, and water resistant
Perfluoro heptanoic acid (PFHpA)	ppb	N/A	N/A	0.004	0.0021 - 0.0040	Yes	No	Used in products to make them stain, grease, heat, and water resistant
Perfluoro octane sulfonic acid (PFOS)	ppb	N/A	N/A	0.0072	N/A	Yes	No	Surfactant or emulsifier; used in fire-fighting foam, circuit board etching acids, alkaline cleaners, floor polish, and as a pesticide active ingredient
Perfluoro octanoic acid (PFOA)	ppb	N/A	N/A	0.008	N/A	Yes	No	Surfactant or emulsifier; used in Teflon, firefighting foam, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives, and photographic films.
Strontium	ppb	N/A	N/A	95	84 - 95	Yes	No	Erosion of natural deposits
Vanadium	ppb	N/A	N/A	0.7	ND - 0.70	Yes	No	Erosion of natural deposits
Bromochloroacetic acid (BCAA)	ppb	N/A	N/A	3.4	1.1 - 3.4	Yes	No	By-product of drinking water disinfection
Bromodichloroacetic acid (BDCAA)	ppb	N/A	N/A	6.8	3.7 - 6.8	Yes	No	By-product of drinking water disinfection
Chlorodibromoacetic acid (CDBAA)	ppb	N/A	N/A	0.5	ND - 0.5	Yes	No	By-product of drinking water disinfection
Dichloroacetic acid (DCAA)	ppb	N/A	N/A	20	5.9 - 20	Yes	No	By-product of drinking water disinfection
Trichloroacetic acid (TCAA)	ppb	N/A	N/A	40	17 - 40	Yes	No	By-product of drinking water disinfection
Total Organic Carbon (TOC)	ppb	N/A	N/A	Finished water: 4.6 Untreated water: 6.6		Yes	No	Naturally present in the environment
Secondary Contaminants ⁽⁵⁾								
Aluminum	ppb	200	200	62.4	N/A	Yes	No	Treatment Process
Manganese ⁽⁶⁾	ppb	50	50	11.3	6.0 - 11.3	Yes	No	Erosion of natural deposits
Sodium	ppb	50	50	34	N/A	Yes	No	Naturally present in the environment; road salts
Zinc	ppb	5000	5000	5.5	N/A	Yes	No	Erosion of natural deposits; industrial discharge
Source Water Data (LT2ESWTR)								

In 2018, New Brunswick monitored for Cryptosporidium, a microbial parasite commonly found in surface water, and found some evidence of these microbes in the raw, untreated source water. Although this organism is present, it is at levels low enough that no supplemental treatment is required by the New Brunswick water treatment facility, per USEPA standards. Current test methods do not enable us to determine if these organisms are capable of causing disease. We are not aware of a specific source of Cryptosporidium. Please contact your water supplier for additional information. Source Water Data (LT2ESWTR)

Footnotes

1. Turbidity is a measure of the cloudiness in the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.
2. "Maximum Detected Level" indicated is the maximum running annual average (RAA) or Locational running annual average (LRAA). "Range" indicates the range of individual sample results.
3. Results for PFNA were obtained from voluntary monitoring efforts performed by New Brunswick, and were well below the current NJDEP Maximum Contaminant Level (MCL).
4. Unregulated contaminants are those which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. PFOA, PFOS, PFBA and PFHA are a group of Perfluorinated compounds widely found in the environment. EPA has identified a guidance level of 0.070 ppb for PFOA/PFOS (combined), and NJDEP New Jersey Department of Environmental Protection (NJDEP) has proposed to issue new drinking water Maximum Contaminant Level (MCL) standards for PFOA and PFOS of 14 ng/L (0.014 ppb) and 13 ng/L (0.013 ppb), respectively. It is likely that NJDEP will adopt a final rule regarding the new MCLs before the end of 2019. New Brunswick's results for unregulated contaminants are from 2013, 2014 and 2018.
5. Secondary standards are non-mandatory guidelines to assist public water systems in managing their drinking water for aesthetic considerations such as taste, color and odor. These contaminants are not considered to present a threat to human health.
6. New Brunswick had a reporting violation in 2018. Results for Manganese and Iron were reported late to NJDEP due to a sample shipping error. Iron was not detected in the sample.

WATER QUALITY REPORT 2019

HOW DOES DRINKING WATER BECOME CONTAMINATED?

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 radio-active materials, and can pick up substances resulting from human or animal 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 may be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil or 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.

Radioactive contaminants, which may be naturally-occurring or be the result of oil and gas production and mining activities.

Organic chemical contaminants, including synthetic or 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.

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. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 the 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.

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. The Borough of Milltown is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 second to 2 minutes before using 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: www.epa.gov/safewater/lead

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 advice from your health care provider.

THM: 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 system, and may have increased risk of getting cancer.

We constantly monitor the water supply for various contaminants. We detected radon in 2006 in the finished water supply at 160 pCi/L. There is no federal regulation for radon levels in drinking water. Exposure to air transmitted radon over a long period of time may cause adverse health effects.

FOR YOUR SAFETY

A MESSAGE FOR PEOPLE WITH COMPROMISED IMMUNE SYSTEMS

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 healthcare providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

SPECIAL CONSIDERATION REGARDING CHILDREN, PREGNANT WOMEN, NURSING MOTHERS, AND OTHERS

Children may receive a slightly higher amount of a contaminant present in the water than do adults, on a body weight basis, because they may drink a greater amount of water per pound of body weight than 90 adults. For this reason, reproductive or developmental effects are used for calculating a drinking water standard if these effects over a lower levels than other health effects of concern. If there is insufficient toxicity information for a chemical (for example, lack of data on reproductive or developmental effects), an extra uncertainty factor may be incorporated in the calculation of the drinking water standard, thus making the standard more stringent, to account for additional uncertainties regarding these effects. In cases of lead and nitrate, effects on infants and children are the health endpoints upon which standards are based.

WHERE TO DIRECT QUESTIONS

If you have any questions about this report or concerning your water utility, please call the Milltown Water Department at 732-828-2100, ext. 137. We want our valued customers to be informed about their drinking water; if you want to learn more, please attend our regularly scheduled public meetings.

We at the Borough of Milltown work hard to provide top quality water to every tap. We ask that all our customers help us protect our water sources; they are the heart of our community, our way of life, and our children's future.

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