Drinking Water Quality in My Community

New Nouveau
Brunswick

Drinking Water Quality in My Community

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Executive Summary

Through the *Water Strategy for New Brunswick 2018-2028,* the Government of New Brunswick committed to publicly report on the quality of drinking water provided by local governments. This report was developed as a first step to meet that commitment, to help residents understand the water quality in their community, and how we use water quality test results to ensure safe and reliable drinking water provided by local governments.

Since 1994, the *Potable Water Regulation – Clean Water Act* has required that all regulated drinking water systems in New Brunswick be tested regularly for bacteria and chemistry according to approved sampling plans. The water is tested to ensure it is safe, by comparing test results to health-based guidelines, and that it has acceptable taste, odour, and appearance, by comparing test results to aesthetic guidelines, as per the *New Brunswick Drinking Water Quality Guidelines* (NBDWQG). The NBDWQG are based upon the *Guidelines for Canadian Drinking Water Quality* (Canadian Guidelines) established by Health Canada. The government reviews changes to the Canadian Guidelines to determine the best approach for their adoption in New Brunswick. It is important to note that drinking water guidelines can evolve over time with scientific evidence, and that several Canadian Guidelines have been updated or are in the process of being updated.

This report is the result of a comprehensive review of past water quality data for every regulated drinking water system that is owned or operated by a local government in New Brunswick. It describes the overall quality of water delivered to users before (raw water) and after (distribution system water) any treatment or disinfection. Appendices A and B present the detailed findings for each individual water distribution system (Appendix A) and raw water source (Appendix B).

There are many important steps to prevent contamination, such as harmful bacteria or chemicals, from getting into a drinking water system. These include source water protection, appropriate water treatment, proper operations and maintenance, a secure distribution system, monitoring and alarms, and emergency response protocols. Together these steps make up an approach that is widely-used by regulators and water suppliers called "the multi-barrier approach to drinking water protection". This report focuses on the results of drinking water quality monitoring, which can tell us whether the water is safe and whether the other steps to prevent contamination are working properly.

The bacteria findings show that the water provided by water systems owned or operated by local governments in New Brunswick was generally very good and rarely had harmful bacteria present. However, some raw water sources often had bacteria present before treatment was applied.

The chemistry findings show that the most common exceedances of the health-based guidelines were for turbidity and lead. Less often, exceedances were found for arsenic, uranium, selenium, and fluoride, as well as a few other parameters on rare occasions. There were also occasional exceedances of the health-based guidelines for some disinfection by-products in particular water systems.

For those chemistry-based parameters with aesthetic guidelines, the most common exceedances were for manganese and iron, and less often copper, chloride, and sodium.

The bacteria and chemistry test results highlight that proper water treatment, disinfection, and operations are key to ensuring safe and good quality drinking water.

This report will increase the transparency of drinking water quality data available to the public and can also help government to prioritize which water systems may need additional support to ensure even more consistent, safe and reliable drinking water in the future.

1.0 Introduction

The year 2019 marked the 25th anniversary of the *Potable Water Regulation – Clean Water Act*, which requires that all regulated drinking water systems in New Brunswick (those that are owned or operated by a local government or the province) be tested regularly for bacteria and chemistry according to sampling plans approved by the Department of Environment and Local Government and the Department of Health.

Water samples are collected by the water system operator and sent to an accredited laboratory for analysis. These results have been used regularly to confirm that drinking water from the regulated water systems is safe by comparing test results to health-based guidelines, and that it has acceptable taste, odour, and appearance, by comparing test results to aesthetic guidelines. These guidelines are described in the *New Brunswick Drinking Water Quality Guidelines[1]*. The results also allow regulators and water system owners and operators to take appropriate actions when the guidelines are not met.

This report is the result of water quality data reviews for every regulated drinking water supply system that is owned or operated by a local government in New Brunswick[2], which included a review of:

- Available bacteria data (between 2008 to 2014)[3] and all available chemistry data (dating back to 1994 in some cases and up to 2016 or 2017) for 73 separate water distribution systems serving 70 communities (see Map 1).
- Each individual raw water source (before any disinfection or treatment) was also reviewed separately (see Figure 1).

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[1] www2.gnb.ca/content/gnb/en/departments/ocmoh/healthy_environments/content/drinking_water_guidelines.html
[2] While the *Potable Water Regulation – Clean Water Act* also regulates drinking water supply systems owned or operated by the Crown in right of the Province, these were not included in this review, as most of them serve institutional buildings rather than a community.
[3] Although some older data for bacteria testing exist, analysis of the data was limited to 2008 to 2014 to ensure a consistent basis for comparison, as 2008 was the earliest full year for which there was a complete historical data set available for microbiology test results in all municipal drinking water systems. 2014 was the end date because the microbiology data analyses were done in 2015.

- o This included 207 groundwater wells[4], 12 surface water supplies, 6 infiltration galleries and 4 springs (these types of raw water sources are defined in the Glossary).

This report summarizes the most important water quality issues that affect water quality delivered to New Brunswick communities by regulated water supply systems. The detailed findings for each individual water distribution system are presented in Appendix A, and those for raw water sources are presented in Appendix B.

Note that because this report is based on a review of past data, more recent data should always be consulted as part of any investigation or action prompted by the findings, as the current water quality results may have changed since the review was done.

This report compares water quality results to the current *New Brunswick Drinking Water Quality Guidelines.*[5] Note that the guidelines include 2 types: Maximum Acceptable Concentrations (MAC) for preventing adverse effects on human health, and Aesthetic Objectives (AO) for avoiding unpleasing aesthetic impacts – see the Glossary for definitions.

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[4] These are the numbers for the bacteria data reviews: an additional 28 wells, 1 spring and 1 infiltration gallery were captured in the chemistry data reviews, and 5 retired wells found in the bacteria data reviews had no chemistry data available. The difference in numbers arises because these additional water sources were not in use during the limited date range (2008-2014 inclusive) of test results considered in the microbiology data reviews.
[5] The *New Brunswick Drinking Water Quality Guidelines* (NBDWQG) are adopted from the *Guidelines for Canadian Drinking Water Quality* established by Health Canada. Health Canada has updated various drinking water guidelines and government is in the process of reviewing the changes to determine the best approach for their adoption in New Brunswick.

Map 1: Local Governments with Regulated Drinking Water Systems Included in this Report

Eel River Crossing
Campbellton
Dalhousie
Tide Head
Charlo
Atholville
Belledune
Caraquet
Bas-Caraquet
Balmoral
Petit-Rocher
Lamèque
Kedgwick
Shippagan
Bathurst/Beresford
Saint-Quentin
Saint-François-de-Madawaska
Tracadie-Sheila
Clair
Edmundston
Rivière-Verte
Sainte-Anne-de-Madawaska
Saint-Léonard
Saint-Hilaire
Saint-André
Baker Brook
Miramichi
St. Margarets
Drummond
Grand-Sault/Grand Falls
Plaster Rock
Aroostook
Saint-Louis-de-Kent
Richibucto
Perth-Andover
Bath
Doaktown
Bouctouche
Saint-Antoine
Hartland
Shediac
Woodstock
Moncton/Dieppe/Riverview
Port Elgin
Nackawic
Memramcook
Fredericton
Sackville
New Maryland
Hillsborough
Oromocto
Dorchester
Penobsquis
Fredericton Junction
Sussex
Alma
McAdam
Sussex Corner
Riverside-Albert
Hampton
Quispamsis
Rothesay
Saint John
St. Stephen
St. George
Saint Andrews
Blacks Harbour

0   25   50   100 Kilometers/Kilomètres

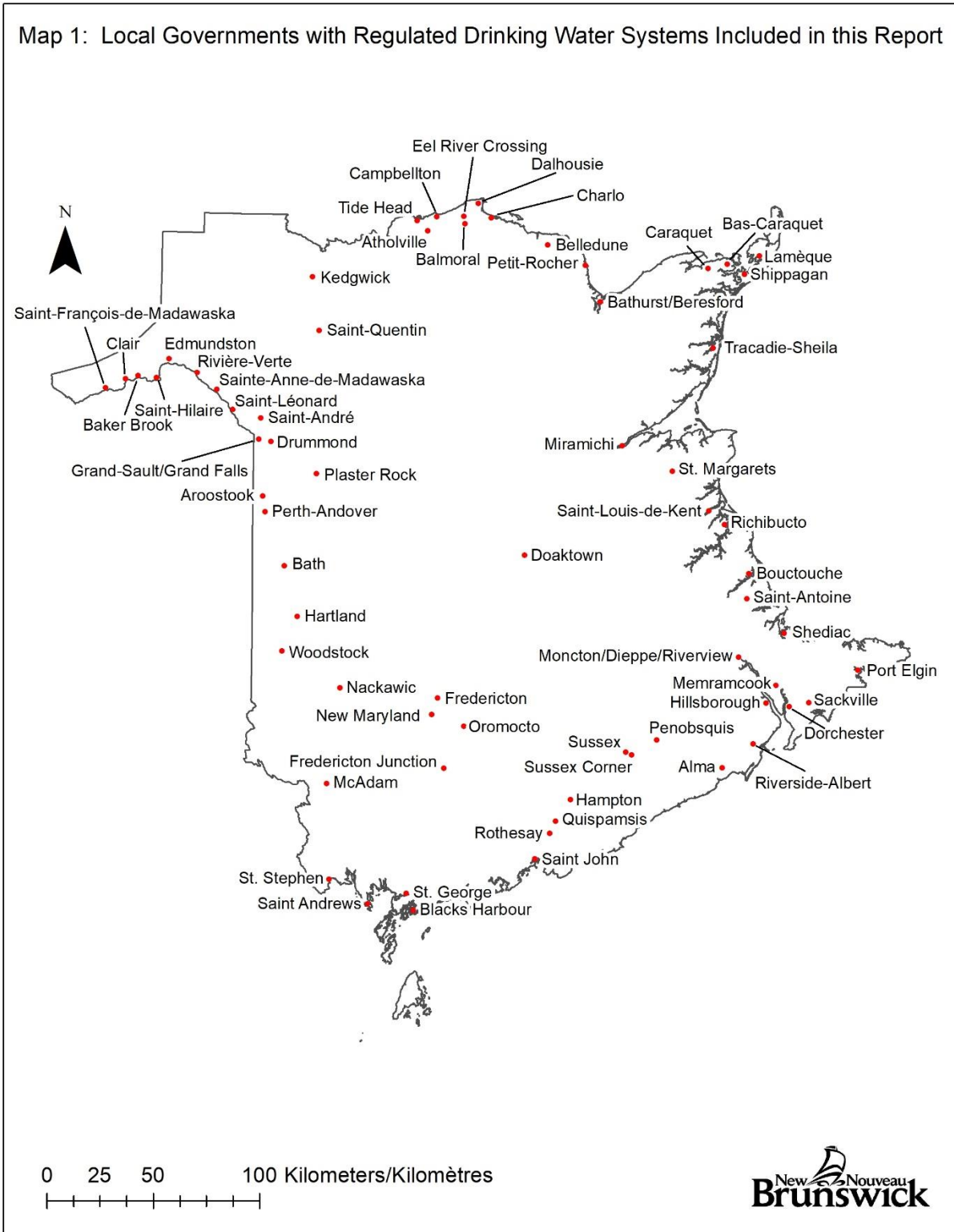New Nouveau
Brunswick

Figure 1: Number of New Brunswick Drinking Water Systems Reviewed

207 Groundwater Wells

12 Surface Water Supplies

4 Springs

6 Infiltration Galleries
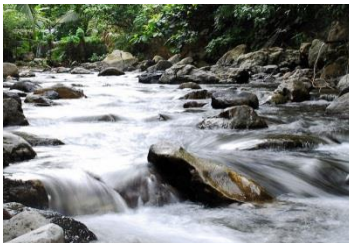
73 Drinking Water Distribution Systems serving 70 Communities

2.0 Water Quality Testing – One of Many Steps to Safe Drinking Water

Drinking water quality testing is an important step needed to properly manage drinking water systems that serve the public, and to make sure the water delivered to users is safe. There are many important steps to prevent contamination (such as harmful bacteria or chemicals) from getting into a drinking water system. These include source water protection, appropriate water treatment, proper operations and maintenance, a secure distribution system, monitoring and alarms, and emergency response protocols. Together these steps make up an approach that is widely-used by regulators and water suppliers called "the multi-barrier approach to drinking water protection" (see Figure 2 below). This report focuses on the results of drinking water quality monitoring, which can tell us whether the water is safe and whether the other steps to prevent contamination are working properly.

Figure 2: Multi-Barrier Approach to Drinking Water Protection

Source Protection   Treatment & Disinfection   Operations & Maintenance

Distribution System   Monitoring & Alarms   Emergency Response
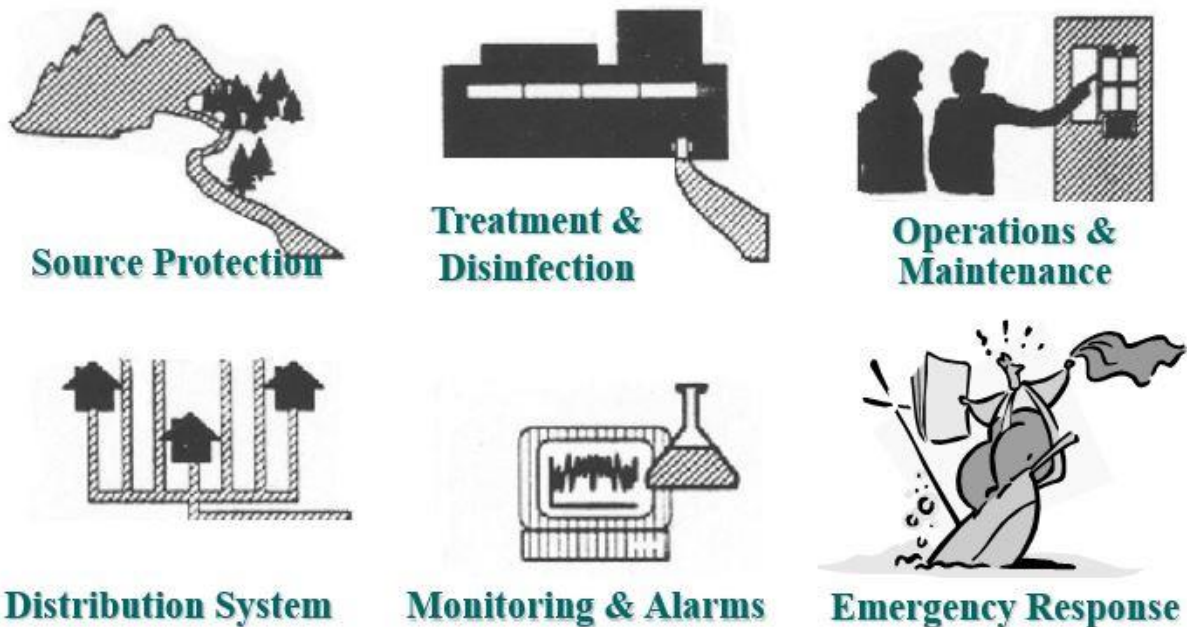
New Brunswick has many regulations in place to support the multi-barrier approach including:

- *Potable Water Regulation* that requires regulated water supplies to sample and test water according to an approved sampling plan;
- *Watershed and Wellfield Protected Area Designation Orders* that allow for source water protection;
- *Clean Environment Act* and *Water Quality Regulation* that require water supply systems to have Approvals to Operate (which set conditions for operating and maintaining a safe water supply); and
- *Public Health Act* that allows for issuing advisories or actions to limit health hazards, such as boil-water orders.

Monitoring water quality is a very important step because it confirms that the water is safe for drinking and that steps to prevent contamination are working properly. The findings in this report are useful because they will increase the transparency of drinking water quality data that is available to the public and can help government to:

- Prioritize water systems to determine which ones may need improvements in treatment, disinfection, or distribution system operations;
- Prioritize wells that should be investigated as possible Groundwater Under Direct Influence of surface water (GUDI) sources, which are more likely to become contaminated by surface water, and so require additional water treatment;
- Inform funding priorities for infrastructure improvements;
- Assist in evaluating which infrastructure investments are working to improve or maintain water safety;
- Provide information about the success and / or challenges of the source water protection programs (*Watershed and Wellfield Protected Area Designation Orders*);
- Provide information about the success and / or challenges of the multi-barrier approach to drinking water protection used in the Approvals to Operate; and
- Identify bacteria or chemistry parameters that should be tested more (or less) often to be sure the right testing is being done to address potential problems in a water system.

3.0 Water Quality Test Results Reviewed

Laboratory test results were reviewed for the following parameters:

- ***Escherichia coli* (*E. coli*)** is one of the most common types of bacteria found in the faeces of animals and humans. If *E. coli* is found in drinking water, that means the water was recently in contact with sewage or other sources of faecal matter, and that treatment and / or disinfection was not working properly to make the water safe for drinking.

  Some strains of *E. coli* can cause serious or even fatal gastrointestinal illness and other complications such as kidney damage.

  When *E. coli* is found in a water sample, then other kinds of harmful bacteria, viruses and parasites can also be present. The water should not be used for drinking, cooking, food preparation, juice and drink mix preparation, making ice, washing fruits and vegetables or brushing teeth. In this case, since boiling water with bacteria present will make it safe for drinking, a boil order will be issued to a water system. Boil orders can remain in place until the problem causing the *E. coli* to get into the water system is corrected, and resampling has shown that the water is safe again.

- **Total Coliforms** are a group of bacteria[6] often found in the natural environment. Most Total Coliforms are not harmful and do not pose a risk to health. However, Total Coliforms are a good indicator of overall cleanliness in water systems. They should normally not be found in disinfected water distribution systems. If Total Coliforms are often found in distribution system samples, this might mean that:
  - the treatment and / or disinfection steps are not working properly,
  - that proper operations and maintenance are not being followed, or
  - that the distribution system is not secure against intrusion (i.e. there are leaks or cross-connections that allow contaminants to enter)

  Also, when Total Coliforms are found in raw water from groundwater wells, this may mean that water from the surface, which may contain bacteria or chemicals, is getting into the groundwater well.

- **Chemistry tests** include both Inorganic Chemistry and Organic Chemistry:
  - Inorganic tests include substances (e.g.: lead, arsenic, copper, etc.) that are found in the natural environment, or which can get into a water system through non-natural sources such as leaching from plumbing materials or chemical spills.
  - Organic tests include substances (all of which are small molecules based on carbon atoms) that can get into a water system through by-products of disinfection, chemical spills, or contact with certain kinds of materials.

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[6] The Total Coliform group includes the genera *Escherichia* (of which *E. coli* is a member species), *Klebsiella*, *Enterobacter*, *Citrobacter*, *Serratia*, and many others. They were originally defined as a group of bacteria that can grow by fermenting the sugar lactose, producing acid and gas in the process.

The list of chemistry tests required (Table 1) or occasionally tested voluntarily (Table 2) in drinking water in New Brunswick is shown below, including the symbols used in the tables in the Appendices and the *New Brunswick Drinking Water Quality Guideline* value and whether it is a Maximum Acceptable Concentration (MAC) or an Aesthetic Objective (AO) for each:

Table 1: Chemistry Tests Required by Drinking Water Sampling Plans

Inorganic Chemistry			Organic Chemistry		
Symbol	Name	NB Guideline	Symbol	Name	NB Guideline
Al	Aluminum	--	1,2-DCB	1,2-Dichlorobenzene	MAC 0.20 mg/L
As	Arsenic	MAC 0.01 mg/L	1,2-DCE	1,2-Dichloroethane	MAC 0.005 mg/L
B	Boron	MAC 5.0 mg/L	1,4-DCB	1,4-Dichlorobenzene	MAC 0.005 mg/L
Ba	Barium	MAC 1.0 mg/L	5-Cl-PH	Pentachlorophenol	MAC 0.06 mg/L
Cd	Cadmium	MAC 0.005 mg/L	B(a)P	Benzo(a)pyrene	MAC 0.00001 mg/L
Cr	Chromium	MAC 0.05 mg/L	BENZ	Benzene	MAC 0.005 mg/L
Cu	Copper	AO 1.0 mg/L	CCl4	Carbon Tetrachloride	MAC 0.005 mg/L
F	Fluoride	MAC 1.5 mg/L	DCM	Dichloromethane	MAC 0.05 mg/L
Fe	Iron	AO 0.3 mg/L	EBENZ	Ethylbenzene	AO 0.0024 mg/L
Hg	Mercury	MAC 0.001 mg/L	PCE	Perchloroethylene (aka Tetrachloroethylene)	MAC 0.03 mg/L
Mn	Manganese	AO 0.05 mg/L			
NO3-	Nitrate	MAC 45 mg/L	TCE	Trichloroethylene	MAC 0.005 mg/L
Pb	Lead	MAC 0.01 mg/L	THM	Trihalomethanes (2)	MAC 0.100 mg/L
Sb	Antimony	MAC 0.006 mg/L	TOL	Toluene	AO 0.024 mg/L
Se	Selenium	MAC 0.01 mg/L	XYL	Xylenes	AO 0.30 mg/L
Tl	Thallium	--	VINYL	Vinyl Chloride	MAC 0.002 mg/L
TURB	Turbidity	MAC, see note (1)			
U	Uranium	MAC 0.02 mg/L			

(1) The Turbidity guideline is quite complex – see the entry for Turbidity in the Glossary for full details.

(2) Total THM is the sum of four related compounds that are disinfection by-products: chloroform, bromodichloromethane, dibromochloromethane, and bromoform. To account for seasonal variations and differences in levels throughout the distribution system, the MAC is based on the annual running average of at least four quarterly samples at specific locations in the extremities of the system and not single test results.

Table 2: Other Chemistry Tests that are Sometimes Reported

Inorganic Chemistry			Organic Chemistry		
Symbol, Name		**NB Guideline**	**Symbol, Name**		**NB Guideline**
ALK	Alkalinity	--	HAA	Haloacetic Acids (3)	--
Cl	Chloride	AO 250 mg/L	PAH	Polycyclic Aromatic Hydrocarbons	B(a)P only (4)
COND	Conductivity	--	VOC	Volatile Organic Compounds	various
HARD	Hardness	--			
K	Potassium	--			
NO2-	Nitrite	--			
Na	Sodium	AO 200 mg/L			
pH	pH	--			
SO4--	Sulphate	AO 500 mg/L			
Zn	Zinc	--			

(3) HAA includes up to nine related compounds that are all disinfection by-products. It is most commonly reported as HAA5 (sum of the five most common HAAs: monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, dibromoacetic acid) but is also occasionally reported as HAA6 (HAA5 plus one additional HAA, bromochloroacetic acid), or rarely as HAA9 (sum of all 9 related compounds).

(4) B(a)P (Benzo(a)pyrene) is a PAH. There are many other related PAH compounds, but none have NB Guidelines.

4.0 Water Quality Test Results Across the Province

The overall findings for water distribution systems (drinking water quality delivered to users) are shown in Figure 3, and those for water quality in sources of raw water (before treatment or disinfection) are shown in Figure 4. Table 3 describes the percentages of samples in which bacteria were found and describes the overall, minimum and maximum values for the bacteria findings in individual distribution systems or raw water sources.

Further details about these findings are provided in the Appendices.

4.1. Bacteria Findings

Water systems in New Brunswick are typically required to test for both *E. coli* and Total Coliforms weekly in distribution systems, and monthly in raw water supplies.

The bacteria test findings show that the water provided by water systems owned or operated by local governments in New Brunswick was generally very good and rarely had harmful bacteria present.

More than 68,000 distribution system samples were tested for bacteria in the 7-year period studied and it was found that:

- 64 of 73 water distribution systems met the *E. coli* guideline in 100% of their samples. Those that did not nevertheless met the guideline in at least 99.6% of samples; and

- 9 of 73 water distribution systems met the Total Coliforms guideline in 100% of samples. Those that did not nevertheless met the guideline in at least 89% of samples.

E. coli and Total Coliforms are found much more often in raw source waters than in the distribution system, which highlights the importance of proper treatment and disinfection in maintaining safe drinking water. Table 3 illustrates this by showing the overall detection percentages[7] from all distribution systems or all raw water sources of each type, and the lowest (Min) and highest (Max) percentages for any individual water distribution system or raw water source of each type.

Table 3: Percentages of Samples in which Bacteria were Detected[8]: Overall and Minimum-Maximum for Individual Distribution Systems or Raw Water Sources

	Samples from:	*E. coli*			Total Coliforms		
		Overall	Min	Max	Overall	Min	Max
Treated	Distribution Systems	0.015%	0%	0.42%	0.60%	0%	11%
Raw	Groundwater Wells	1.0%	0%	25%	13%	0%	91%
Raw	Infiltration Galleries	49%	4.7%	91%	90%	73%	100%
Raw	Springs	12%	3.5%	37%	73%	24%	93%
Raw	Surface Water Supplies	52%	10%	100%	92%	50%	100%

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[7] Overall percentage = number of samples where bacteria were detected divided by the total number of samples tested, from all distribution systems or all raw water sources in each category x 100

[8] Results for *E. coli* and Total Coliforms in distribution systems are expressed elsewhere in this report as percentages of samples that met the guidelines (that is, the percentage of samples in which these bacteria were not detected), but these results were converted to detection frequencies (percentage of samples in which the bacteria were detected) in Table 3 for comparison to the raw water results

4.2.   Chemistry Findings

Water systems in New Brunswick are typically required to test for organic chemistry four times per year (those with surface water supplies) or twice per year (those with groundwater supplies), and for inorganic chemistry twice per year (surface water) or once per year (groundwater). Testing frequencies may be different if sampling plan modifications have been approved.

19 of 73 water distribution systems met the *New Brunswick Drinking Water Quality Guidelines* for all chemistry parameters in 100% of available testing results. Those that did not are discussed in the overview below and in detail for each individual water distribution system in Appendix A.

Organic Chemistry Tests

The results show that the most common exceedances for organic chemistry were due to the disinfection by-products trihalomethanes (THMs) in certain water systems.

Results exceeding the guidelines for other organic chemistry parameters with a Maximum Acceptable Concentration (MAC, a health-based guideline) were rare [9].   Many of these exceedances likely occurred due to conditions at the sampling site, such as from vapours due to fuels, paints, or adhesives, cleaning products, inappropriate sampling techniques such as flaming the tap before taking water samples, and other sources of false positives.

The findings for raw water sources as compared to those for distribution systems indicate that exceedances of the guidelines for organic chemistry parameters were even rarer in raw water, which further suggests that many of the exceedances found in distribution system samples were not due to contamination of the water sources.

Inorganic Chemistry Tests

The inorganic chemistry results show that the most common exceedances of the health-based guidelines were for turbidity and lead. Less often, exceedances were found for arsenic, uranium, selenium, and fluoride, as well as a few other parameters on rare occasions.

For inorganic chemistry parameters with Aesthetic Objectives (AO), the most common exceedances were for manganese and iron, and less frequently, copper, chloride, and sodium.

The findings for raw water sources as compared to those for distribution systems indicate that exceedances of parameters like manganese, iron and turbidity occur more often in raw water than in distribution systems. This shows the importance of water treatment that is already in place in some water systems, but also shows that such types of water treatment may need to be improved in other systems.

Water quality results for each individual drinking water system are found in Appendices A and B.

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[9] Benzo(a)pyrene, carbon tetrachloride and 1,4-dichlorobenzene all exceeded their MACs in more than one water system, but these were all isolated occurrences rather than being found in many samples and were possibly due to false positives – see Appendix A for more details.

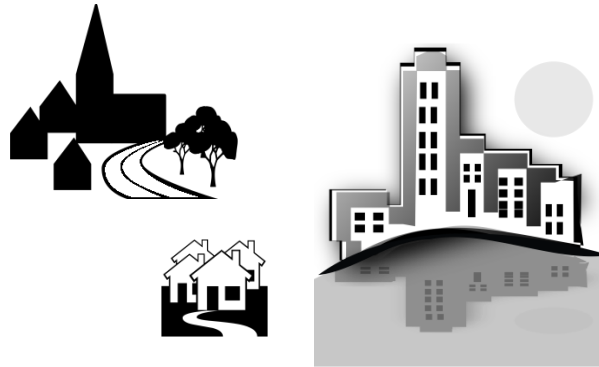# Figure 3: Drinking Water Quality Delivered to Users

E. coli

99.985% of samples met the Guideline

(Best systems 100%; worst 99.6%)

Total Coliforms

99.4% of samples met the Guideline

(Best systems 100%; worst 89%)

73 Drinking Water Distribution Systems serving 70 Communities

Inorganic Chemistry

(Number of systems with any exceedances*, out of 73 systems in total)

Health Guidelines: *Turbidity (41)**, Lead (14), Arsenic (4), Uranium (3), Fluoride (2), Selenium (2), Antimony (1), Barium (1), Chromium (1), Nitrate (1)*

Aesthetic Guidelines: *Manganese (34), Iron (23), Copper (6), Chloride (3), Sodium (1)*

Organic Chemistry

(Number of systems with any exceedances*, out of 73 systems in total)

Health Guidelines: *Trihalomethanes (7), Benzo(a)pyrene (3), 1,4-Dichlorobenzene (2), Carbon Tetrachloride (2), Tetrachloroethylene (1)*

Aesthetic Guidelines: *Ethylbenzene (6)*

* "Exceedances" means that the named parameter surpassed its NB guideline in at least 1 sample from a given water system. Repeated exceedances were generally a small portion of these totals – see Appendix A for details.

** The Turbidity guideline is quite complex, so a screening-level value was used, which may overestimate the number of actual exceedances – see the entry for Turbidity in the Glossary for full details.

Figure 4: Water Quality in Sources of Raw Water

207 Groundwater Wells

E. coli
Found in 1% of all samples
Best: Never found
Worst: 25% of samples

Total Coliforms
Found in 13% of all samples
Best: Never found
Worst: 91% of samples

12 Surface Water Supplies

E. coli
Found in 52% of all samples
Best: 10% of samples
Worst: 100% of samples

Total Coliforms
Found in 92% of all samples
Best: 50% of samples
Worst: 100% of samples

6 Infiltration Galleries

E. coli
Found in 49% of all samples
Best: 4.7% of samples
Worst: 91% of samples

Total Coliforms
Found in 90% of all samples
Best: 73% of samples
Worst: 100% of samples

4 Springs

E. coli
Found in 12% of all samples
Best: 3.5% of samples
Worst: 37% of samples

Total Coliforms
Found in 73% of all samples
Best: 24% of samples
Worst: 93% of samples

Inorganic Chemistry *(Numbers of raw water sources, out of 255, with at least one result that exceeded the Guideline)*
Health Guidelines: Turbidity (148), Lead (21), Arsenic (13), Uranium (6), Fluoride (5), Antimony (2), Barium (2), Selenium (2), Chromium (1), Nitrate (1), Mercury (1) **Aesthetic Guidelines:** Manganese (143), Iron (84), Chloride (7), Sodium (2), Copper (1)

Organic Chemistry *(Numbers of raw water sources, out of 255, with at least one result that exceeded the Guideline)*
Health Guidelines: Benzo(a)pyrene (2) **Aesthetic Guidelines:** Toluene (1)

5.0 Other Considerations

The *New Brunswick Drinking Water Quality Guidelines* (NBDWQG) have been adopted from the *Guidelines for Canadian Drinking Water Quality* (Canadian Guidelines) established by Health Canada. New Brunswick participates in the development of the Health Canada guidelines through the Federal-Provincial-Territorial Committee for Drinking Water. Health Canada updates various drinking water guidelines on an ongoing basis as new science and evidence becomes available. The government reviews changes to the Canadian Guidelines to determine the best approach for their adoption in New Brunswick.

This means that there are some Canadian Guidelines that are not yet included in the NBDWQG, and in some cases, the guideline values may differ.

Examples of differences between the current NBDWQG and the Canadian Guidelines are:

- **Manganese**: the Canadian Guideline was updated in 2019 to include a MAC (health-based guideline) for the first time ever, and the AO was also lowered. The NBDWQG do not currently have a MAC and the AO is higher than the new value in the Canadian Guideline. The presence of manganese is very common in New Brunswick drinking water.
- **Haloacetic Acids (HAA)**: there is currently no NBDWQG, but some voluntary testing has shown that it is possible for water systems with a surface water supply to potentially have results that exceed the Canadian Guideline MAC.
- **Lead**: the Canadian Guideline was updated in 2019 to have a lower MAC (health-based guideline), and to specify different sample collection considerations. The current NBDWQ MAC for lead is higher than the new Canadian Guideline value.
- **Copper**: the Canadian Guideline was updated in 2019 to include a MAC (health-based guideline) for the first time ever, although there has been an AO for a long time. The NBDWQG do not currently have a MAC for copper.

A summary of the differences between the current Canadian Guidelines and the NBDWQG is provided below in Table 4.

The government is evaluating these differences to determine what updates to the NBDWQG may be required moving forward.

Table 4 – Comparison of NBDWQG and Canadian Guideline Exceedances for Parameters Tested in NB

(Note that the guideline values are the same for any parameters not appearing in this table)

Parameter (Type of guideline)	# distribution systems that had at least one result above the NBDWQG[10]	# distribution systems that had at least one result above the current Canadian Guidelines
Parameters for which there is currently no corresponding NBDWQG		
Aluminum (OG) (Note 1)	--	16
Copper (MAC) (Note 2)	--	5
Manganese (MAC)	--	28
1,2-Dichlorobenzene (AO) (Note 3)	--	1
1,4-Dichlorobenzene (AO) (Note 3)	--	14
Ethylbenzene (MAC)	--	0
Pentachlorophenol (AO) (Note 3)	--	0
Toluene (MAC) (Note 2)	--	0
Xylenes (MAC)	--	0
Parameters for which the Canadian Guideline is currently lower than the NBDWQG		
Lead (MAC)	14	19
Manganese (AO)	34	44
Carbon Tetrachloride (MAC)	2	4
Ethylbenzene (AO)	6	9
Tetrachloroethylene (MAC)	1	1
Xylenes (AO)	0	5
Parameters for which the NBDWQG is currently lower than the Canadian Guideline		
Selenium (MAC)	2	0
Benzo(a)pyrene (MAC)	3	1
Current Voluntary Testing Parameters (see Table 2) with a Canadian Guideline only		
Haloacetic Acids (MAC)	--	3, but testing rare
Hardness (Note 4)	--	17
Nitrite (MAC)	--	0, but testing rare
pH (OG) (Note 1)	--	19 Low pH, 0 High pH
Zinc (AO)	--	0

(1) OG = Operational Guideline (this type of guideline does not exist in the NBDWQG)
(2) The NBDWQG do not have a MAC for Copper or Toluene but the AOs for them are the same as in the Canadian Guidelines
(3) The NBDWQG do not have an AO for 1,2-Dichlorobenzene, 1,4-Dichlorobenzene or Pentachlorophenol but the MACs for them are the same as in the Canadian Guidelines
(4) Although there is no guideline limit value for Hardness in the Canadian Guidelines, the guideline technical document states that *"Water supplies with a hardness greater than 200 mg/L are considered poor but have been tolerated by consumers."* The number of water distribution systems with at least 1 Hardness result above this level is presented here for information only.

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[10] NBDWQG = *New Brunswick Drinking Water Quality Guidelines*

6.0 Conclusion

This report provides a review of past water quality data for every regulated drinking water system that is owned or operated by a local government in New Brunswick and compares the results to the *New Brunswick Drinking Water Quality Guidelines*. Detailed findings for each individual water distribution system are available in Appendix A.

The bacteria findings show that the water provided by these water systems was generally very good and rarely had harmful bacteria present. However, some raw water often had bacteria present.

The chemistry findings show that the most common exceedances of the health-based guidelines were for turbidity and lead. Less often, exceedances were found for arsenic, uranium, selenium, and fluoride, as well as a few other parameters on rare occasions. There were also occasional exceedances of the health-based guidelines for some disinfection by-products in particular water systems.

For those chemistry-based parameters with aesthetic guidelines, the most common exceedances were for manganese and iron, and less often copper, chloride, and sodium.

The bacteria and chemistry test results highlight that proper water treatment, disinfection, and operations are key to ensuring safe and good quality drinking water.

The findings in this report are useful because they will increase the transparency of drinking water quality data that is available to the public and can help government to prioritize which water systems may need additional support to ensure even more consistent, safe and reliable drinking water in the future.

7.0 Glossary

AO (Aesthetic Objective) – a maximum concentration of a substance in drinking water, established to prevent impairment of the taste, smell, or colour of water; or to prevent conditions that may interfere with the supply of good quality water. AOs are specified in the *New Brunswick Drinking Water Quality Guidelines*.

Boil Order – an Order issued by a Regional Medical Officer of Health under the *Public Health Act*, requiring a water system owner to advise consumers to boil water before use. Boiling water according to the directions is designed to kill any potentially disease-causing microorganisms, making it safe to drink.

Coliform bacteria – see **Total coliforms**

Disinfection – inactivation or destruction of pathogens in drinking water by chlorination, ultraviolet light or other methods.

Disinfection by-products – substances that form as a result of the drinking water disinfection process (e.g. due to the chemical reaction of chlorine with naturally-occurring organic compounds in water).

Distribution system – the storage tanks, water towers, pipes, etc. that are involved in carrying drinking water to the users after treatment.

E. coli – the most abundant microorganism in mammalian faeces. Its presence in drinking water always indicates recent contact with sewage or other sources of faecal matter, and signals a health risk due to the likely presence of pathogens that can be present in faeces.

Exceedance – when a test result value is greater than the Guideline value (or outside the range in a few cases where the Guideline is a range rather than a maximum). An exceedance in a test sample indicates that the water quality was not acceptable due to the affected parameter.

Guideline – refers to the *New Brunswick Drinking Water Quality Guidelines*, except where noted.

Genera – plural of **genus**, a part of the classification and naming system of living organisms, e.g. *Escherichia coli* (*E. coli*) is the name of one particular species of bacteria belonging to the genus *Escherichia*. Similarly, *Escherichia* and *Klebsiella* are two genera belonging to the Total Coliforms group.

Groundwater Well – a drilled well that draws water from an underground aquifer.

Infiltration Gallery – a man-made water intake structure with perforated pipes and gravel filter beds built into a river bank.

Inorganic Chemistry – the study of elements and chemical compounds that do not contain carbon. Examples of inorganic chemistry parameters typically tested in drinking water include metals, sodium, chloride and nitrate.

MAC (Maximum Acceptable Concentration) – a maximum concentration of a substance in drinking water, established to prevent adverse health effects. MACs are specified in the *New Brunswick Drinking Water Quality Guidelines.*

Microbiology – the study of living **microorganisms** such as bacteria, viruses and microscopic parasites. In the context of drinking water testing, the Microbiology parameters tested are typically *E. coli* and Total Coliforms.

Multi-Barrier Approach – a framework for ensuring the safety of drinking water that forms the basis for regulating drinking water systems in New Brunswick. The barriers that prevent contamination of water are: source water protection, appropriate water treatment, proper operations and maintenance, a secure distribution system, monitoring and alarms, and emergency response protocols.

mg/L (**milligrams per litre**) **-** 1 mg/L is equivalent to 1 ppm (part per million)

µg/L (**micrograms per litre**) **-** 1 µg/L is equivalent to 1 ppb (part per billion)

NBDWQG - New Brunswick Drinking Water Quality Guidelines

NTU (Nephelometric Turbidity Unit) - a measure of the cloudiness of water based on the scattering of a beam of light, which indicates the amount of suspended particles in water. NTUs are the units used for Turbidity measurements.

OG (Operational Guideline) – a maximum concentration or acceptable range of a substance in drinking water established to avoid adverse affects on processes at a water treatment plant or in the drinking water distribution system. OGs are specified in the *Guidelines for Canadian Drinking Water Quality.*

Organic Chemistry – the study of chemical compounds that contain carbon (except for simple salts such as carbonates, which are considered to be part of inorganic chemistry). Examples of organic chemistry parameters typically tested in drinking water include ethylbenzene and trihalomethanes.

Parameters – the specific types of metals, chemicals, bacteria, etc. that are tested in a water sample.

Pathogens – living microorganisms such as bacteria and viruses that can cause disease in humans. (Also, when used as an adjective: **pathogenic**).

Raw water – source water before it is treated to remove contaminants or disinfected to destroy/inactivate microorganisms.

Spring – a groundwater source that reaches the land surface naturally rather than via drilled wells.

Surface Water Supply – a lake, river or dammed reservoir that supplies water via an intake pipe.

Total coliforms – include bacteria of the genera *Escherichia*, *Klebsiella*, *Enterobacter*, *Citrobacter*, *Serratia*, and many others that occur commonly in the natural environment. Most total coliforms are not disease-causing (pathogenic). However, their presence in drinking water can indicate that conditions exist where a health risk from other organisms might occur.

Trace metals – metallic elements normally present in water in small but measurable amounts.

Turbidity – a measure of cloudiness in water caused by tiny suspended particles. Although turbidity can sometimes be caused by benign substances (such as clay or silt), increases in turbidity may indicate a serious water quality issue such as surface water getting into a well, excess runoff into a surface water supply, or a breakdown of filter performance in cases where treatment for lowering turbidity is already in place. Because of the accompanying risk of microbiological contamination, there is a Maximum Acceptable Concentration (health-based guideline) assigned for turbidity, but it is quite complex. The complete *New Brunswick Drinking Water Quality Guideline* for Turbidity is:

Private wells	1.0 NTU	For private wells, determine the source of the problem and necessary corrective actions
Unfiltered surface water or ground water under direct influence of surface water	1.0 NTU	In at least 95% of the measurements made, or at least 95% of the time each calendar month, and shall not exceed 3.0 NTU at any time
Chemically assisted filtration	0.3 NTU	In at least 95% of the measurements made, or at least 95% of the time each calendar month, and shall not exceed 1.0 NTU at any time
Slow sand or diatomaceous earth filtration	1.0 NTU	In at least 95% of the measurements made, or at least 95% of the time each calendar month, and shall not exceed 3.0 NTU at any time
Membrane filtration	0.1 NTU	In at least 99% of the measurements made, or at least 99% of the time each calendar month, and shall not exceed 0.3 NTU at any time

Because of the complexity of applying this guideline across all water systems, a threshold screening value of 1.0 NTU was used throughout this report to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances of the guideline, and may miss some exceedances in systems where filtration is in place.

VOCs (Volatile Organic Compounds) – a group of Organic compounds that evaporate easily. All of the Organic compounds tested under municipal sampling plans and included in this report

are VOCs except benzo(a)pyrene and pentachlorophenol, but there are many other VOCs other than the ones that are required test parameters.

Watershed Protected Area Designation Order – a legislative instrument under the *Clean Water Act* that enables the protection of surface waters that serve as public drinking water supplies. The Designation Order establishes appropriate restrictions on land use in a watershed.

Wellfield Protected Area Designation Order – a legislative instrument under the *Clean Water Act* that enables the protection of water wells that serve as public drinking water supplies. The Designation Order establishes appropriate restrictions on land use near the wells.

≤ – less than or equal to the number stated

< – less than the number stated

> – greater than the number stated

Appendix A – Drinking Water Quality Delivered to Users Listed by Water System (Treated Water)

Overview for Context

Microbiology and Chemistry of Water in Distribution Systems: Summary of Guideline Exceedances

Individual water system findings in the pages that follow can be compared to these totals to indicate how common or uncommon each finding was.

Range of *E. coli* and Total Coliforms Detection Frequencies in Distribution Systems		
Detection Frequency	***E. coli***	**Total Coliforms**
Not Detected in Any Sample	In 64 of 73 systems	In 9 of 73 systems
Median Detection Frequency	--	0.50% of samples
System with Most Frequent Detection	0.42% of samples	11% of samples

Key[11]	Number of Distribution Systems (out of 73) with at Least One Result that Exceeded the NB Guideline																	
Blank = the guideline was never exceeded	As	B	Ba	Cd	Cr	Cu	F	Fe	Hg	Mn	NO3-	Pb	Sb	Se	TURB	U	Cl	Na	SO4
The guideline was exceeded in at least 10% of samples (or in at least 2 samples when 10 or fewer total samples)	1		1			1		10		23		1		1	18	2	2	1	
The guideline was exceeded in less than 10% of samples (or in only 1 sample when 10 or fewer total samples)	3				1	5	2	13		11	1	13	1	1	23	1	1		
Total	4	0	1	0	1	6	2	23	0	34	1	14	1	2	41	3	3	1	0

Key[11]	Number of Distribution Systems (out of 73) with at Least One Result that Exceeded the NB Guideline														
Blank = the guideline was never exceeded	1,2-DCB	1,2-DCE	1,4-DCB	5-Cl-PH	B(a)P	BENZ	CCl4	DCM	EBENZ	PCE	TCE	THM	TOL	XYL	VINYL
The guideline was exceeded in at least 10% of samples (or in at least 2 samples when 10 or fewer total samples)									1			5			
The guideline was exceeded in less than 10% of samples (or in only 1 sample when 10 or fewer total samples)			2		3		2		5	1		2			
Total	0	0	2	0	3	0	2	0	6	1	0	7	0	0	0

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[11] See Table 1 for definitions of the symbols used for each test parameter

Alma

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 373

E. coli	Total coliforms
Not detected	Detected in 2 samples (0.54% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994[1] - January 24, 2017)
Total Number of Samples = 12 Inorganic and 46 Organic

The guideline was exceeded in at least 10% of samples[2]

	Maximum result	Guideline
Turbidity	1.9 NTU	1.0 NTU[3]

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[4]

	Maximum result	Guideline
Ethylbenzene[5]	0.0094 mg/L	AO = 0.0024 mg/L

Ethylbenzene is a component of petroleum products such as gasoline, diesel fuel, solvents, and adhesives. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Notes:
1. The earliest available data were from 2005.
2. Or in at least 2 samples when there were 10 or fewer samples in total.
3. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
4. Or in only 1 sample when there were 10 or fewer samples in total.
5. All Ethylbenzene detections (and Xylenes, which were detected but at levels below the NB guideline) occurred on the same day in May 2005. This was the first ever sampling day under the *Clean Water Act* for this system when it was newly constructed, so these detections may have been a result of construction. It is also possible that these detections could have been an artifact due to sampling or analysis methods.

Aroostook

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008- December 31, 2014) Total Number of Samples = 357	
E. coli	**Total coliforms**
Not detected	Detected in 1 sample (0.28% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - January 27, 2017) Total Number of Samples = 4 Inorganic and 33 Organic
No Exceedances of NB Guidelines

Notes:

1. The earliest available data were from 2007. Very few inorganic chemistry results were available.

For questions about current water quality please contact your local government.

Atholville

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines **(January 1, 2008 - December 31, 2014)** Total Number of Samples = 714	
E. coli	**Total coliforms**
Not detected	Detected in 1 sample (0.14% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines   **(January 1, 1994 - January 30, 2017)**   Total Number of Samples = 34 Inorganic and 62 Organic
No Exceedances of NB Guidelines

For questions about current water quality please contact your local government.

Baker Brook

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 415

E. coli	Total coliforms
Not detected	Detected in 7 samples (1.68% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - January 30, 2017)
Total Number of Samples = 19 Inorganic and 133 Organic

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	Guideline
Manganese	0.25 mg/L	AO = 0.05 mg/L

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[2]

	Maximum result	Guideline
Lead	0.012 mg/L	MAC = 0.01 mg/L
Turbidity	4.3 NTU	1.0 NTU[3]

Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety.

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. Or in only 1 sample when there were 10 or fewer samples in total.
3. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

Balmoral

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 365

E. coli	Total coliforms
Not detected	Detected in 2 samples (0.55% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - February 14, 2017)
Total Number of Samples = 15 Inorganic and 32 Organic

The guideline was exceeded in less than 10% of samples[1]

	Maximum result	Guideline
Turbidity	2.2 NTU[2]	1.0 NTU[3]
Iron	0.347 mg/L[4]	AO = 0.3 mg/L

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

For questions about current water quality please contact your local government.

Notes:
1. Or in only 1 sample when there were 10 or fewer samples in total.
2. This was the only exceedance of this parameter, and the sample was taken in 1999.
3. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
4. This was the only exceedance of this parameter, and the sample was taken in 1999.

Bas-Caraquet

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 361	
E. coli	**Total coliforms**
Not detected	Detected in 3 samples (0.83% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994 - February 15, 2017) Total Number of Samples = 13 Inorganic and 43 Organic
No Exceedances of NB Guidelines

For questions about current water quality please contact your local government.

Bath

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 366	
E. coli	**Total coliforms**
Not detected	Detected in 2 samples (0.55% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - February 16, 2017) Total Number of Samples = 14 Inorganic and 38 Organic
No Exceedances of NB Guidelines

Notes:
1. The earliest available data were from 2004.

For questions about current water quality please contact your local government.

Bathurst / Beresford

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 1296 (Bathurst); 446 (Beresford)		
	E. coli	Total coliforms
Bathurst	Detected in 2 samples (0.15% of all samples)	Detected in 12 samples (0.93% of all samples)
Beresford	Not detected	Detected in10 samples (2.24% of all samples)

E. coli (Escherichia coli) is a species of bacteria that is naturally found in the intestines of humans and warm-blooded animals. As it is not usually found naturally in soils or water, the presence of *E. coli* in a water sample is a good indicator of recent faecal contamination. Drinking water should not contain any *E. coli*. It is monitored regularly in drinking water to ensure public health and safety.

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - February 17, 2017)

Total Number of Samples = Bathurst: 126 Inorganic and 239 Organic; Beresford: 50 Inorganic and 100 Organic

Bathurst

The guideline was exceeded in at least 10% of samples[2]

	Maximum result	Guideline
Turbidity	28.7 NTU	1.0 NTU[3]

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[4]

	Maximum result	Guideline
Trihalomethanes[5]	0.117 mg/L	MAC = 0.1 mg/L
Iron[6]	0.94 mg/L	AO = 0.3 mg/L
Lead[6]	0.018 mg/L	MAC = 0.01 mg/L
Manganese[6]	0.76 mg/L	AO = 0.05 mg/L

Trihalomethanes (THM) are a group of four related compounds that are disinfection by-products: that is, they are formed from the reaction between natural organic matter present in raw source waters and the chlorine used for disinfection. They are monitored regularly in drinking water to ensure public health and safety.

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety.

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

For questions about current water quality please contact your local government.

Beresford	The guideline was exceeded in less than 10% of samples[4] **Maximum result** **Guideline** Manganese 0.226 mg/L AO = 0.05 mg/L Lead[7] 0.014 mg/L MAC = 0.01 mg/L Turbidity 1.2 NTU 1.0 NTU[3] Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety. Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:
1. The earliest available data were from 2003, except for a few organic chemistry samples from 1996.
2. Or in at least 2 samples when there were 10 or fewer samples in total.
3. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
4. Or in only 1 sample when there were 10 or fewer samples in total.
5. Trihalomethanes exceeded the guideline (as locational running averages) only at the Industrial Park Zone sampling location, near 1960 Connolly Drive sampling location in 2006-07.
6. High variability with repeated high result values (e.g. Pb had 24 detections >1 µg/L including 1 MAC exceedances in 126 samples).
7. Results are less variable and generally lower than the Bathurst distribution system (Pb had 7 detections >1 µg/L including 1 MAC exceedance in 50 samples).

Belledune

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2010 – December 31, 2014)[1] Total Number of Samples = 239	
E. coli	**Total coliforms**
Detected in 1 sample (0.42% of all samples)	Detected in 1 sample (0.42% of all samples)

Notes

1. Only 5 years of data were available (2010 to 2014).

E. coli (Escherichia coli) is a species of bacteria that is naturally found in the intestines of humans and warm-blooded animals. As it is not usually found naturally in soils or water, the presence of *E. coli* in a water sample is a good indicator of recent faecal contamination. Drinking water should not contain any *E. coli*. It is monitored regularly in drinking water to ensure public health and safety.

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - February 22, 2017) Total Number of Samples = 10 Inorganic and 37 Organic
No Exceedances of NB Guidelines

Notes:

1. The earliest available data were from 2010.

For questions about current water quality please contact your local government.

Blacks Harbour

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 468

E. coli	Total coliforms
Not detected	Not detected

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - February 27, 2017)
Total Number of Samples = 102 Inorganic and 67 Organic

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	Guideline
Iron	6.26 mg/L	AO = 0.3 mg/L
Manganese	0.297 mg/L	AO = 0.05 mg/L
Turbidity	7.14 NTU	1.0 NTU[2]

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[3]

	Maximum result	Guideline
Arsenic[4]	0.017 mg/L	MAC = 0.010 mg/L
Fluoride[5]	32 mg/L	MAC = 1.5 mg

Arsenic detected in drinking water is almost always due to natural sources in the rock and soil surrounding a well, and this can be common in some areas of NB. It is monitored regularly in drinking water to ensure public health and safety.

Fluoride is sometimes used in large public water supply systems for its public health benefits, but it also often occurs naturally in well water and the amounts can vary greatly from one well to another. Fluoride levels are monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Notes:

1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
3. Or in only 1 sample when there were 10 or fewer samples in total.
4. Arsenic was detected in 83 of 102 samples, including three samples that exceeded the MAC
5. Fluoride maximum value of 32 mg/L is an unexplained outlier (the next highest recorded value was 0.6 mg/L)

Bouctouche

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines **(January 1, 2008 - December 31, 2014)** Total Number of Samples = 535	
E. coli	**Total coliforms**
Not detected	Detected in 3 samples (0.56% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines **(January 1, 1994 - February 27, 2017)** Total Number of Samples = 21 Inorganic and 85 Organic
No Exceedances of NB Guidelines

For questions about current water quality please contact your local government.

Campbellton

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples =1070	
E. coli	**Total coliforms**
Not detected	Detected in 3 samples (0.28% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994 - February 28, 2017) Total Number of Samples = 20 Inorganic and 146 Organic
No Exceedances of NB Guidelines

For questions about current water quality please contact your local government.

Caraquet

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 566	
E. coli	Total coliforms
Not detected	Detected in 2 samples (0.35% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - March 1, 2017) Total Number of Samples = 20 Inorganic and 56 Organic
The guideline was exceeded in less than 10% of samples[2]

	Maximum result	Guideline
Chromium[2]	0.12 mg/L	MAC = 0.05 mg/L

Chromium is a common element in nature. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:
1. Data were available back to 1994, but there were no data available between 1996 and 2002 inclusive.
2. Or in only 1 sample when there were 10 or fewer samples in total.
3. Chromium exceedance (0.12 mg/L) is an outlier; it was the only sample with a detectable level.

Charlo

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 – March 1, 2017)
Total Number of Samples = 426

E. coli	**Total coliforms**
Detected in 1 sample (0.23% of all samples)	Detected in 2 samples (0.47% of all samples)

E. coli (Escherichia coli) is a species of bacteria that is naturally found in the intestines of humans and warm-blooded animals. As it is not usually found naturally in soils or water, the presence of *E. coli* in a water sample is a good indicator of recent faecal contamination. Drinking water should not contain any *E. coli*. It is monitored regularly in drinking water to ensure public health and safety.

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - March 1, 2017)
Total Number of Samples = 10 Inorganic and 25 Organic
No Exceedances of NB Guidelines

For questions about current water quality please contact your local government.

Clair

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 419	
E. coli	**Total coliforms**
Not detected	Detected in 5 samples (1.19% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - March 2, 2017) Total Number of Samples = 12 Inorganic and 49 Organic	
Clair **(2002 to 2017)**	The guideline was exceeded in at least 10% of samples[2] **Maximum result** **Guideline** Manganese 0.23 mg/L AO = 0.05 mg/L Lead[3] 0.02 mg/L MAC = 0.01 mg/L Turbidity 4.19 NTU 1.0 NTU[4] Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety. Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Clair
 	
(1997 to 1999)[5]
	The guideline was exceeded in at least 10% of samples[2]
	
	          Maximum result **Guideline**
	
	Manganese 0.23 mg/L AO = 0.05 mg/L
	
	Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.
	
	The guideline was exceeded in less than 10% of samples[6]
	
	          Maximum result **Guideline**
	
	Arsenic[7] 0.0196 mg/L MAC = 0.01mg/L
	
	Iron 2.17 mg/L AO = 0.3 mg/L
	
	Turbidity 10.8 NTU 1.0 NTU[4]
	
	Arsenic detected in drinking water is almost always due to natural sources in the rock and soil surrounding a well, and this can be common in some areas of NB. It is monitored regularly in drinking water to ensure public health and safety.
	
	Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).
	
	Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.
	
	For questions about current water quality please contact your local government.

Notes:

1. The earliest available data were from 1997
2. Or in at least 2 samples when there were 10 or fewer samples in total.
3. From 2002 to 2015, lead was frequently detected (8 of 12 samples, including 2 that exceeded the guideline).
4. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
5. The water chemistry appeared to be considerably different during this time period compared to later data, likely due to a change in water source(s).
6. Or in only 1 sample when there were 10 or fewer samples in total.
7. From 1997 to 1999 only, arsenic was present at significant levels (range 2.9 to 19.6 µg/L) including 1 exceedance.

Dalhousie

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 510	
E. coli	**Total coliforms**
Detected in 1 sample (0.20% of all samples)	Detected in 4 samples (0.78% of all samples)

E. coli (Escherichia coli) is a species of bacteria that is naturally found in the intestines of humans and warm-blooded animals. As it is not usually found naturally in soils or water, the presence of *E. coli* in a water sample is a good indicator of recent faecal contamination. Drinking water should not contain any *E. coli*. It is monitored regularly in drinking water to ensure public health and safety.

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - December 10, 2015)
Total Number of Samples = 44 Inorganic and 336 Organic

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	Guideline
Trihalomethanes[2]	0.135 mg/L	MAC = 0.1 mg/L
Turbidity	17.5 NTU	1.0 NTU[3]

Trihalomethanes (THM) are a group of four related compounds that are disinfection by-products: that is, they are formed from the reaction between natural organic matter present in raw source waters and the chlorine used for disinfection. They are monitored regularly in drinking water to ensure public health and safety.

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[4]

	Maximum result	Guideline
Tetrachloroethylene[5]	0.054 mg/L	MAC = 0.03 mg/L
Ethylbenzene[5]	0.0049 mg/L	AO = 0.0024 mg/L
Iron	12.8 mg/L	AO = 0.3 mg/L
Lead[6]	0.0158 mg/L	MAC = 0.01 mg/L
Manganese	3.22 mg/L	AO = 0.05 mg/L

Tetrachloroethylene (also called Perchloroethylene or Perc) is used as a dry-cleaning solvent. It is monitored regularly in drinking water to ensure public health and safety.

Ethylbenzene is a component of petroleum products such as gasoline, diesel fuel, solvents, and adhesives. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety.

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. Trihalomethane exceedances all occurred prior to start-up of the new Water Treatment Plant in March 2009.
3. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
4. Or in only 1 sample when there were 10 or fewer samples in total.
5. Organic contaminants were detected in distribution system samples in the past, including several exceedances, but more recent data have fewer detections (none since 2010).
6. Lead was detected in 16 of 44 samples, including 1 exceedance.

Doaktown

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 537	
E. coli	**Total coliforms**
Not detected	Detected in 15 samples (2.79% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - March 8, 2017) Total Number of Samples = 64 Inorganic and 94 Organic

The guideline was exceeded in less than 10% of samples[2]

	Maximum result	Guideline
Turbidity	2 NTU	1.0 NTU[3]

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:

1. The earliest available data were from 2002.
2. Or in only 1 sample when there were 10 or fewer samples in total.
3. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

Dorchester

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 539	
E. coli	**Total coliforms**
Detected in 1 sample (0.19% of all samples)	Detected in 1 sample (0.19% of all samples)

E. coli (Escherichia coli) is a species of bacteria that is naturally found in the intestines of humans and warm-blooded animals. As it is not usually found naturally in soils or water, the presence of *E. coli* in a water sample is a good indicator of recent faecal contamination. Drinking water should not contain any *E. coli*. It is monitored regularly in drinking water to ensure public health and safety.

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - January 7, 2016) Total Number of Samples = 11 Inorganic and 49 Organic

The guideline was exceeded in at least 10% of samples[2]

	Maximum result	Guideline
Manganese	0.958 mg/L	AO = 0.05 mg/L

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[3]

	Maximum result	Guideline
Benzo(a)pyrene[4]	0.00012 mg/L	MAC = 0.00001 mg/L
Turbidity	1.3 NTU	1.0 NTU[5]

Benzo(a)pyrene can be present in fire residues, creosote, and heavy oil products. It is monitored regularly in drinking water to ensure public health and safety.

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Notes:
1. The earliest available data were from 2002.
2. Or in at least 2 samples when there were 10 or fewer samples in total.
3. Or in only 1 sample when there were 10 or fewer samples in total.
4. Benzo(a)pyrene exceeded the MAC in 1 sample.
5. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

Drummond

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 415	
E. coli	**Total coliforms**
Detected in 1 sample (0.24% of all samples)	Detected in 5 samples (1.20% of all samples)

E. coli (Escherichia coli) is a species of bacteria that is naturally found in the intestines of humans and warm-blooded animals. As it is not usually found naturally in soils or water, the presence of *E. coli* in a water sample is a good indicator of recent faecal contamination. Drinking water should not contain any *E. coli*. It is monitored regularly in drinking water to ensure public health and safety.

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - January 8, 2016) Total Number of Samples = 6 Inorganic and 8 Organic
The guideline was exceeded in less than 10% of samples[2]

	Maximum result	**Guideline**
Nitrate[3]	10.4 mg/L	MAC = 10 mg/L as N

Nitrate sometimes occurs naturally in groundwater at low levels, but higher levels may indicate impacts to the water due to fertilizer runoff or sewage. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:
1. The earliest available data were from 1997, but there were no inorganic chemistry data available from 1999 to 2005 inclusive, and no organic chemistry data available from 1998 to 2008 inclusive.
2. Or in only 1 sample when there were 10 or fewer samples in total.
3. Nitrate exceeded the guideline in 1 of 6 samples but was detected at significant levels in all of them (range 5.6 to 10.4 mg/L as N), which suggests that Nitrite could potentially also be present. Nitrite does not have a *New Brunswick Drinking Water Quality Guideline* and is not a required sampling plan test parameter in New Brunswick, but the *Guidelines for Canadian Drinking Water Quality* have a Nitrite MAC of 1 mg/L as N. For this water system, Nitrite data were available for 2 distribution system samples, as well as from 7 and 9 samples from the two raw water sources: all results were non-detect (<0.05 mg/L), well below the *Guidelines for Canadian Drinking Water Quality* Nitrite MAC.

Edmundston

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 2070	
E. coli	**Total coliforms**
Not detected	Detected in 9 samples (0.43% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994 - January 19, 2016) Total Number of Samples = Iroquois Blanchette: 6 Inorganic and 93 Organic; St. Basile: 9 Inorganic and 103 Organic; St. Jacques: 14 Inorganic and 136 Organic; Verret: 26 Inorganic and 34 Organic	
Edmundston (Iroquois Blanchette distribution)	The guideline was exceeded in less than 10% of samples[1] **Maximum result** **Guideline** Lead[2] 0.040 mg/L MAC = 0.01 mg/L Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.
Edmundston (St. Basile distribution)	The guideline was exceeded in less than 10% of samples[1] **Maximum result** **Guideline** 1,4-Dichlorobenzene[3] 0.0098 mg/L MAC = 0.005 mg/L 1,4-Dichlorobenzene is commonly used in deodorizer products and mothballs but can also be a component of a release or spill of some industrial effluents. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.
Edmundston (St. Jacques distribution)	**No Exceedances of NB Guidelines**
Edmundston (Verret distribution)	**No Exceedances of NB Guidelines**

Notes:
1. Or in only 1 sample when there were 10 or fewer samples in total.
2. Lead was detected in 5 of 7 samples, including 1 exceedance.

3. 1,4-Dichlorobenzene was detected in 4 of 103 samples, including 1 exceedance of the MAC.

Eel River Crossing

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 434	
E. coli	Total coliforms
Not detected	Not detected

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - January 21, 2016)
Total Number of Samples = 35 Inorganic and 153 Organic

The guideline was exceeded in less than 10% of samples[1]

	Maximum result	Guideline
Manganese[2]	0.368 mg/L	AO = 0.05 mg/L
Turbidity	1.3 NTU	1.0 NTU[3]
Ethylbenzene	0.004 mg/L	AO = 0.0024 mg/L

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

Ethylbenzene is a component of petroleum products such as gasoline, diesel fuel, solvents, and adhesives. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

For questions about current water quality please contact your local government.

Notes:
1. Or in only 1 sample when there were 10 or fewer samples in total.
2. All exceedances Manganese were from two samples in 1995.
3. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

Fredericton

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 4464

E. coli	**Total coliforms**
Not detected	Detected in 11 samples (0.25% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - January 26, 2016)
Total Number of Samples = 356 Inorganic and 504 Organic

The guideline was exceeded in less than 10% of samples[1]

	Maximum result	**Guideline**
Lead[2]	0.044 mg/L	MAC = 0.01 mg/L
Turbidity	3.4 NTU	1.0 NTU[3]

Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety.

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Notes:
1. Or in only 1 sample when there were 10 or fewer samples in total.
2. Pb had 39 detections >1 µg/L including 2 MAC exceedances in 355 samples.
3. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

Fredericton Junction

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 399

E. coli	Total coliforms
Detected in 1 sample (0.25% of all samples)	Detected in 2 samples (0.50% of all samples)

E. coli (Escherichia coli) is a species of bacteria that is naturally found in the intestines of humans and warm-blooded animals. As it is not usually found naturally in soils or water, the presence of *E. coli* in a water sample is a good indicator of recent faecal contamination. Drinking water should not contain any *E. coli*. It is monitored regularly in drinking water to ensure public health and safety.

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - March 4, 2016)
Total Number of Samples = 46 Inorganic and 102 Organic

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	Guideline
Manganese	0.118 mg/L	AO = 0.05 mg/L
Turbidity	3.38 NTU	1.0 NTU[2]

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[3]

	Maximum result	Guideline
Iron	0.36 mg/L	AO = 0.3 mg/L

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
3. Or in only 1 sample when there were 10 or fewer samples in total.

Grand Falls

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 712

E. coli	Total coliforms
Detected in 1 sample (0.14% of all samples)	Detected in 3 samples (0.42% of all samples)

E. coli (Escherichia coli) is a species of bacteria that is naturally found in the intestines of humans and warm-blooded animals. As it is not usually found naturally in soils or water, the presence of *E. coli* in a water sample is a good indicator of recent faecal contamination. Drinking water should not contain any *E. coli.* It is monitored regularly in drinking water to ensure public health and safety.

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - March 20, 2017)
Total Number of Samples = 46 Inorganic and 102 Organic

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	Guideline
Manganese	0.071 mg/L	AO = 0.05 mg/L

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.

Hampton

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines[1] (January 1, 2008 - December 31, 2014) Total Number of Samples = 126	
E. coli	**Total coliforms**
Not detected	Detected in 14 samples (11.1% of all samples)

Notes:
1. The distribution system was sampled approximately 1.5 times per month

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - March 14, 2016) Total Number of Samples = 12 Inorganic and 17 Organic
The guideline was exceeded in at least 10% of samples[2]

	Maximum result	**Guideline**
Chloride	552 mg/L	AO = 250 mg/L
Sodium	287 mg/L	AO = 200 mg/L
Uranium[3]	0.026 mg/L	MAC = 0.02 mg/L

Chloride occurs in nature as part of many salts (e.g. table salt is pure sodium chloride) and it typically occurs in all waters to some degree. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Sodium occurs in nature as part of many minerals and salts (e.g. table salt is pure sodium chloride) and it typically occurs in all waters to some degree. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Uranium detected in drinking water is almost always due to natural sources in the rock and soil surrounding a well. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Notes:
1. The earliest data were from 2001, except for 1 Organic sample from 1998.
2. Or in at least 2 samples when there were 10 or fewer samples in total.
3. U was detected in 10 of 12 samples, of which 8 exceeded the MAC.

Hartland

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines **(January 1, 2008 - December 31, 2014)** Total Number of Samples =375	
E. coli	**Total coliforms**
Not detected	Detected in 1 sample (0.27% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines **(January 1, 1994 - March 15, 2016)** Total Number of Samples = 10 Inorganic and 79 Organic
No Exceedances of NB Guidelines

For questions about current water quality please contact your local government.

Hillsborough

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 559

E. coli	Total coliforms
Not detected	Detected in 2 samples (0.36% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - March 15, 2016)
Total Number of Samples = 27 Inorganic and 83 Organic

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	Guideline
Turbidity	2.12 NTU	1.0 NTU[2]

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[3]

	Maximum result	Guideline
Antimony[4]	0.0066 mg/L	MAC = 0.006 mg/L

Antimony can be leached from some plumbing materials, and it occurs naturally in soil and can enter water supplies during runoff. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
3. Or in only 1 sample when there were 10 or fewer samples in total.
4. Antimony was detected at >1 µg/L (>0.001 mg/L) in only 1 sample in March 1997, but it exceeded the MAC. It was not detected (<1 µg/L) in a resample taken 1 month later.

Kedgwick

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines **(January 1, 2008 - December 31, 2014)** Total Number of Samples = 934	
E. coli	**Total coliforms**
Not detected	Detected in 5 samples (0.54% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - March 16, 2016)[1]
Total Number of Samples = 11 Inorganic and 16 Organic

The guideline was exceeded in less than 10% of samples[2]

	Maximum result	**Guideline**
Copper	2.0 mg/L	AO = 1.0 mg/L

Copper in drinking water almost always results from corrosion of copper pipes or other plumbing components, such as faucets and valves. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Notes:
1. The earliest available data are from 1994, but there are some gaps in the data history: there were no data available from 2001 to 2006 inclusive, plus a few other years.
2. Or in only 1 sample when there were 10 or fewer samples in total.

Lamèque

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 363	
E. coli	**Total coliforms**
Not detected	Not detected

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - March 16, 2016) Total Number of Samples = 11 Inorganic and 53 Organic

The guideline was exceeded in less than 10% of samples[2]

	Maximum result	Guideline
Iron	0.829 mg/L	AO = 0.3 mg/L
Manganese	0.056 mg/L	AO = 0.05 mg/L
Turbidity	1.9 NTU	1.0 NTU[3]

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Notes:
1. The earliest available data were from 2003, except for some additional organic chemistry samples from 1994 to 1996.
2. Or in only 1 sample when there were 10 or fewer samples in total.
3. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

McAdam

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014)[1] Total Number of Samples = 746	
E. coli	**Total coliforms**
Not detected	Detected in 3 samples (0.40% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994 - March 16, 2016)[1] Total Number of Samples = 41 Inorganic and 103 Organic
No Exceedances of NB Guidelines

Notes:
1. The water chemistry in McAdam was quite different between the periods 1994-2002 and 2005-2016 due to changes in raw water sources (the old wells were replaced by new wells), but there were no exceedances of the *New Brunswick Drinking Water Quality Guidelines* for chemistry parameters during either period (note there were no data available from 2003-2004, however).

For questions about current water quality please contact your local government.

Memramcook

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 382

E. coli	Total coliforms
Not detected	Detected in 1 sample (0.26% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - March 21, 2016)
Total Number of Samples = 16 Inorganic and 65 Organic

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	Guideline
Manganese	0.2 mg/L	AO = 0.05 mg/L
Turbidity	1.4 NTU	1.0 NTU[2]

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[3]

	Maximum result	Guideline
Lead[4]	0.0106 mg/L	MAC = 0.01 mg/L
Ethylbenzene	0.0037 mg/L	AO = 0.0024 mg/L

Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety.

Ethylbenzene is a component of petroleum products such as gasoline, diesel fuel, solvents, and adhesives. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
3. Or in only 1 sample when there were 10 or fewer samples in total.

4. Pb had 7 detections >1 µg/L, including 1 MAC exceedance, in 30 samples (there were more samples taken for Pb than the other inorganic chemistry parameters). There were also 2 MAC exceedances in 2 additional samples at a temporary sampling site.

Miramichi

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 1181 (Chatham); 435 (Douglastown); 797 (Newcastle)

	E. coli	Total coliforms
Miramichi (Chatham)	Not detected	Detected in 6 samples (0.51% of all samples)
Miramichi (Douglastown)	Not detected	Detected in 14 samples (3.22% of all samples)
Miramichi (Newcastle)	Not detected	Detected in 10 samples (1.25% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - April 1, 2016)
Total Number of Samples = Chatham: 71 Inorganic and 189 Organic; Douglastown: 43 Inorganic and 84 Organic; Newcastle: 25 Inorganic and 91 Organic

Miramichi (Chatham)

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	Guideline
Manganese	0.194 mg/L	AO = 0.05 mg/L

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[2]

	Maximum result	Guideline
1,4-Dichlorobenzene	0.0077 mg/L	MAC = 0.005 mg/L
Turbidity	1.4 NTU	1.0 NTU[3]

1,4-Dichlorobenzene is commonly used in deodorizer products and mothballs but can also be a component of a release or spill of some industrial effluents. It is monitored regularly in drinking water to ensure public health and safety.

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Miramichi (Douglastown)	**The guideline was exceeded in at least 10% of samples[1]** **Maximum result** **Guideline** Manganese 0.14 mg/L AO = 0.05 mg/L Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government. **The guideline was exceeded in less than 10% of samples[2]** **Maximum result** **Guideline** Iron 1.06 mg/L AO = 0.3 mg/L Turbidity 2.3 NTU 1.0 NTU[3] Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.
Miramichi (Newcastle)	**The guideline was exceeded in at least 10% of samples[1]** **Maximum result** **Guideline** Iron 0.561 mg/L AO = 0.3 mg/L Manganese 0.198 mg/L AO = 0.05 mg/L Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government. **The guideline was exceeded in less than 10% of samples[2]** **Maximum result** **Guideline** Benzo(a)pyrene[4] 0.000014 mg/L MAC = 0.00001 mg/L Benzo(a)pyrene can be present in fire residues, creosote, and heavy oil products. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:

1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. Or in only 1 sample when there were 10 or fewer samples in total.
3. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

4. Benzo(a)pyrene exceeded the MAC in 1 sample and was detected at trace levels in 6 other samples at the 279 Troy Avenue or Troy Avenue Hydrant locations during the Newcastle PAH Monitoring Program 1999-2011. This compound was not detected in any routine *Clean Water Act* compliance testing sample.

Moncton / Dieppe / Riverview

For questions about current water quality please contact your local government.

The following chemistry results represent the water quality pre (January 1, 1994 - December 31, 1999) and post (January 1, 2000 - April 18, 2016) commissioning of a new Water Treatment Facility in the City of Moncton.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 12,233 (Dieppe/Riverview); 360 (Mapleton Place)		
	E. coli	**Total coliforms**
Moncton/Dieppe/ Riverview	Not detected	Detected in 7 samples (0.06% of all samples)
Moncton (Mapleton Place)	Not detected	Not detected

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994 - December 31, 1999)[1]
Total Number of Samples = Moncton/Dieppe/Riverview: 92 Inorganic and 223 Organic; Mapleton Place: 9 Inorganic and 11 Organic

Moncton/Dieppe/ Riverview

The guideline was exceeded in at least 10% of samples[2]

	Maximum result	Guideline
Trihalomethanes	0.147 mg/L[3]	MAC = 0.1 mg/L
Iron	1.26 mg/L	AO = 0.3 mg/L
Manganese	0.462 mg/L	AO = 0.05 mg/L
Turbidity	12.9 NTU	1.0 NTU[4]

Trihalomethanes (THM) are a group of four related compounds that are disinfection by-products: that is, they are formed from the reaction between natural organic matter present in raw source waters and the chlorine used for disinfection. They are monitored regularly in drinking water to ensure public health and safety.

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[5]

	Maximum result	Guideline
Copper	2.41 mg/L	AO = 1.0 mg/L
Lead	1.86 mg/L	MAC = 0.01 mg/L

Copper in drinking water almost always results from corrosion of copper pipes or other plumbing components, such as faucets and valves. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Moncton (Mapleton Place)	The guideline was exceeded in at least 10% of samples[2]

	Maximum result	Guideline
Turbidity	3.7 NTU	1.0 NTU[4]

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:

1. In late 1999, the city of Moncton installed a new water treatment plant. Therefore, the data was split using a date range to reflect the changes in water quality after the water treatment plant was installed. This is the date range for before the new water treatment plant was installed.
2. Or in at least 2 samples when there were 10 or fewer samples in total.
3. A Locational Running Annual Average was calculated to compare Trihalomethanes to the guideline.
4. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
5. Or in only 1 sample when there were 10 or fewer samples in total.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 2000 - April 18, 2016)[1]
Total Number of Samples = Moncton/Dieppe/Riverview: 383 Inorganic and 797 Organic; Mapleton Place: 29 Inorganic and 63 Organic

Moncton/Dieppe/ Riverview	The guideline was exceeded in less than 10% of samples[2]

	Maximum result	Guideline
Lead	0.320 mg/L[3]	MAC = 0.01 mg/L
Manganese	1.23 mg/L[4]	AO = 0.05 mg/L
Turbidity	43.6 NTU[5]	1.0 NTU[6]
Iron	2.08 mg/L[7]	AO = 0.3 mg/L

Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety.

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

For questions about current water quality please contact your local government.

Moncton (Mapleton Place)	The guideline was exceeded in at least 10% of samples[8]
	
	               Maximum result **Guideline**
	
	Manganese 0.088 mg/L AO = 0.05 mg/L
	
	Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.
	
	The guideline was exceeded in less than 10% of samples[2]
	
	               Maximum result **Guideline**
	
	Turbidity 1.83 NTU[9] 1.0 NTU[6]
	
	Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:

1. This is the date range for after the new water treatment plant was installed.
2. Or in only 1 sample when there were 10 or fewer samples in total.
3. Lead exceeded the guideline in 60 of 2519 samples.
4. Manganese exceeded the guideline in 14 of 2421 samples.
5. Turbidity exceeded the guideline in 224 of 14,683 samples.
6. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
7. Iron exceeded the guideline in 156 of 2421 samples.
8. Or in at least 2 samples when there were 10 or fewer samples in total.
9. Turbidity exceeded the guideline in 1 of 401 samples.

Nackawic

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 450	
E. coli	**Total coliforms**
Not detected	Detected in 11 samples (2.44% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry[1] of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[2] - June 7, 2016) Total Number of Samples = 8 Inorganic and 13 Organic[3]
No Exceedances of NB Guidelines

Notes:
1. No general chemistry parameters were tested (only specified sampling plan parameters were tested). Thus, there were no data available on major ions (e.g. sodium, chloride), Alkalinity, Hardness, pH, etc.
2. The earliest available data were from 2004 (Organic) and 2005 (Inorganic).
3. There were also an additional 45 samples tested for THMs only.

For questions about current water quality please contact your local government.

New Maryland

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines **(January 1, 2008 - December 31, 2014)** Total Number of Samples = 845	
E. coli	**Total coliforms**
Not detected	Detected in 8 samples (0.95% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - June 9, 2016)
Total Number of Samples = 99 Inorganic and 126 Organic

The guideline was exceeded in less than 10% of samples[1]

	Maximum result	**Guideline**
Copper	>1.0 mg/L	AO = 1.0 mg/L
Fluoride[2]	1.87 mg/L	MAC = 1.5 mg/L
Lead[3]	>0.25 mg/L	MAC = 0.01 mg/L
Manganese	0.899 mg/L	AO = 0.05 mg/L
Turbidity	2.5 NTU	1.0 NTU[4]

Copper in drinking water almost always results from corrosion of copper pipes or other plumbing components, such as faucets and valves. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Fluoride is sometimes used in large public water supply systems for its public health benefits, but it also often occurs naturally in well water and the amounts can vary greatly from one well to another. Fluoride levels are monitored regularly in drinking water to ensure public health and safety.

Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety.

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Notes:
1. Or in only 1 sample when there were 10 or fewer samples in total.
2. Fluoride exceeded the guideline in 6 samples, all of which occurred between 1994 and 1996.
3. Pb was detected in 9 of 99 samples and exceeded the MAC in 3 of them.
4. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

Oromocto

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 1434	
E. coli	**Total coliforms**
Not detected	Detected in 4 samples (0.28% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - June 29, 2016) Total Number of Samples = 64 Inorganic and 130 Organic

The guideline was exceeded in at least 10% of samples[2]

	Maximum result	Guideline
Iron	0.908 mg/L	AO = 0.3 mg/L

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[3]

	Maximum result	Guideline
Turbidity	1.9 NTU	1.0 NTU[4]

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:
1. The earliest available data were from 2006.
2. Or in at least 2 samples when there were 10 or fewer samples in total.
3. Or in only 1 sample when there were 10 or fewer samples in total.
4. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

Penobsquis Regional Water Supply

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines	
(January 1, 2008 - December 31, 2014)[1]	
Total Number of Samples = 131	
E. coli	**Total coliforms**
Not detected	Not detected

Notes
1. Data were only available from May 20, 2009 to January 30, 2012.

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994[1] - August 5, 2016)
Total Number of Samples = 3 Inorganic and 12 Organic
No Exceedances of NB Guidelines

Notes:
1. The earliest available data were from 2009 (Organic) and 2010 (Inorganic).

For questions about current water quality please contact your local government.

Perth-Andover

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 386	
E. coli	**Total coliforms**
Not detected	Detected in 1 sample (0.26% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - August 8, 2016) Total Number of Samples = 14 Inorganic and 10 Organic[2]
No Exceedances of NB Guidelines

Notes:
1. The earliest available data were from 2002 (Inorganic) and 2006 (Organic), except for 1 Inorganic sample from 1997.
2. There were also an additional 40 Organic samples with THMs data only.

For questions about current water quality please contact your local government.

Petit-Rocher

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 674	
E. coli	**Total coliforms**
Not detected	Detected in 3 samples (0.45% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - August 8, 2016) Total Number of Samples = 32 Inorganic and 98 Organic[2]
The guideline was exceeded in at least 10% of samples[3]

	Maximum result	**Guideline**
Trihalomethanes[4]	0.189 mg/L	MAC = 0.1 mg/L

Trihalomethanes (THM) are a group of four related compounds that are disinfection by-products: that is, they are formed from the reaction between natural organic matter present in raw source waters and the chlorine used for disinfection. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:
1. The earliest available data were from 2002 (Inorganic) and 2003 (Organic), except for some Organic data from 1994 to 1996.
2. There were also an additional 120 samples tested for THMs only.
3. Or in at least 2 samples when there were 10 or fewer samples in total.
4. All Trihalomethane sampling locations had frequent exceedances except Zone Est (sampled 2003 to 2011) and Edifice Municipal (sampled during 1994-96 only).

Plaster Rock

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 404	
E. coli	**Total coliforms**
Not detected	Detected in 4 samples (0.99% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - August 9, 2016) Total Number of Samples = 12 Inorganic and 52 Organic
The guideline was exceeded in less than 10% of samples[2]

	Maximum result	**Guideline**
Manganese[3]	0.157 mg/L	AO = 0.05 mg/L

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Notes:
1. The earliest available data were from 1998 (Inorganic) and 2005 (Organic).
2. Or in only 1 sample when there were 10 or fewer samples in total.
3. Manganese exceedance occurred in 1 sample. Manganese was not detected in any other samples.

Port Elgin

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 443	
E. coli	**Total coliforms**
Not detected	Detected in 3 samples (0.68% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994 - August 9, 2016) Total Number of Samples = 28 Inorganic and 99 Organic	
Port Elgin **2004 to 2016 data**	The guideline was exceeded in at least 10% of samples[1]
			Maximum result	**Guideline**
	Turbidity	3.4 NTU	1.0 NTU[2]

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[3]

	Maximum result	**Guideline**
Manganese	0.157 mg/L	AO = 0.05 mg/L

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Port Elgin

1995 to 2003 data

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	**Guideline**
Ethylbenzene[4]	0.0038 mg/L	AO = 0.0024 mg/L

Ethylbenzene is a component of petroleum products such as gasoline, diesel fuel, solvents, and adhesives. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Notes:

1. Or in at least 2 samples when there were 10 or fewer samples in total.

2. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
3. Or in only 1 sample when there were 10 or fewer samples in total.
4. Ethylbenzene was detected in 6 of 48 samples between 1995 and 2003, and exceeded the AO in 2 of them, but it has also been repeatedly detected since then (in 11 of 55 samples taken between 2004 and 2016). However, none of these more recent samples exceeded the New Brunswick guideline.

Quispamsis

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines **(January 1, 2008 - December 31, 2014)** Total Number of Samples = 340 (Downeast); 317 (Ridgewood)		
	E. coli	**Total coliforms**
Quispamsis (Downeast)	Not detected	Detected in 2 samples (0.59% of all samples)
Quispamsis (Ridgewood)	Not detected	Detected in 1 sample (0.32% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines **(January 1, 1994[1] - August 11, 2016)** Total Number of Samples = Downeast: 20 Inorganic and 37 Organic; Ridgewood: 23 Inorganic and 37 Organic	
Quispamsis (Downeast)	**No Exceedances of NB Guidelines**

Quispamsis (Ridgewood)	The guideline was exceeded in at least 10% of samples[2]
	
	                    Maximum result **Guideline**
	
	Arsenic[4] 0.011 mg/L MAC = 0.010 mg/L
	
	Uranium[5] 0.025 mg/L MAC = 0.020 mg/L
	
	Arsenic detected in drinking water is almost always due to natural sources in the rock and soil surrounding a well, and this can be common in some areas of NB. It is monitored regularly in drinking water to ensure public health and safety.
	
	Uranium detected in drinking water is almost always due to natural sources in the rock and soil surrounding a well. It is monitored regularly in drinking water to ensure public health and safety.
	
	For questions about current water quality please contact your local government.
	
	The guideline was exceeded in less than 10% of samples[3]
	
	                    Maximum result **Guideline**
	
	Iron 0.98 mg/L AO = 0.3 mg/L
	
	Turbidity 2.2 NTU 1.0 NTU[6]
	
	Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).
	
	Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.
	
	For questions about current water quality please contact your local government.

Notes:
1. The earliest available data were from 2002 (Organic) and 2003 (Inorganic), except for 1 Organic sample from 1996.
2. Or in at least 2 samples when there were 10 or fewer samples in total.
3. Or in only 1 sample when there were 10 or fewer samples in total.
4. Arsenic exceeded the guideline in 3 of 25 samples.
5. Uranium exceeded the guideline in 15 of 23 samples.
6. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

Richibucto

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines **(January 1, 2008 - December 31, 2014)** Total Number of Samples = 372	
E. coli	**Total coliforms**
Not detected	Not detected

For questions about current water quality please contact your local government.

	Chemistry of Water in Distribution System: Exceedances of Guidelines **(January 1, 1994 - August 15, 2016)** Total Number of Samples = 24 Inorganic and 148 Organic
Richibucto 2006 to 2016 data	**No Exceedances of NB Guidelines**

	The guideline was exceeded in at least 10% of samples[1]		
		Maximum result	**Guideline**
	Barium[2]	1.39 mg/L	MAC = 1.0 mg/L
	Chloride	507 mg/L	AO = 250 mg/L
	Iron	1.07 mg/L	AO = 0.3 mg/L
	Manganese	1.50 mg/L	AO = 0.05 mg/L
	Selenium[4]	0.025 mg/L	MAC = 0.01 mg/L
	Turbidity	8.2 NTU	1.0 NTU[3]
	Trihalomethanes[5]	0.195 mg/L	MAC = 0.1 mg/L

Richibucto

1994 to 2005 data

Barium is a common trace element in rocks and minerals that is typically found at low levels in New Brunswick well water. It is monitored regularly in drinking water to ensure public health and safety.

Chloride occurs in nature as part of many salts (e.g. table salt is pure sodium chloride) and it typically occurs in all waters to some degree. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Selenium occurs naturally in soil and certain plumbing components (non-leaded brass). It is monitored regularly in drinking water to ensure public health and safety.

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

Trihalomethanes (THM) are a group of four related compounds that are disinfection by-products: that is, they are formed from the reaction between natural organic matter present in raw source waters and the chlorine used for disinfection. They are monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. Barium exceeded the MAC in 6 samples, all of them between 1999 and 2003 inclusive.
3. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
4. Selenium exceeded the MAC in 13 of 26 samples during this time period (there were additional samples tested for selenium only besides the full inorganic chemistry test samples).
5. THM levels have declined over time. This was due in part to a change in raw water sources and in part to changes in operations. There have been no exceedances of the MAC since 2005.

Riverside-Albert

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 492	
E. coli	**Total coliforms**
Not detected	Detected in 4 samples (0.81% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994 - September 8, 2016) Total Number of Samples = 41 Inorganic and 164 Organic	
Riverside-Albert (excluding outliers)[1]	**No Exceedances of NB Guidelines**
Riverside-Albert (outliers only)	**No Exceedances of NB Guidelines**

Notes:
1. Five samples (out of 41 inorganic chemistry samples in total) were rejected as outliers due to vastly different levels of many parameters compared to typical levels found in most samples from this water system. The parameters that showed statistically significant differences between the two groups of samples included: Alkalinity, Calcium, Chloride, Hardness, Potassium, Magnesium, Sodium, Nitrate, Sulphate and Saturation Index; there were also differences in the trace metal profiles. In general, the water chemistry of the outlier samples was more typical of groundwater than of the surface water that supplies this system. The affected sampling dates were in 1999, 2000, 2001, and 2003.

For questions about current water quality please contact your local government.

Rivière-Verte

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 489	
E. coli	**Total coliforms**
Not detected	Detected in 14 samples (2.86% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - October 3, 2016)
Total Number of Samples = 14 Inorganic and 70 Organic

The guideline was exceeded in at least 10% of samples[1]		
	Maximum result	**Guideline**
Turbidity	9.79 NTU	1.0 NTU[2]

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[3]		
	Maximum result	**Guideline**
Copper	1.4 mg/L	AO = 1.0 mg/L

Copper in drinking water almost always results from corrosion of copper pipes or other plumbing components, such as faucets and valves. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
3. Or in only 1 sample when there were 10 or fewer samples in total.

Rothesay

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 1200	
E. coli	**Total coliforms**
Not detected	Detected in 5 samples[1] (0.42% of all samples)

Notes:
1. 1 of the 5 detections was from the West distribution system prior to joining the two water systems together; the other 4 detections occurred after it became a single combined system in 2011.

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994 - October 6, 2016) Total Number of Samples = West: 29 Inorganic and 107 Organic; East: 31 Inorganic and 72 Organic	
Rothesay **(West Distribution)[1]**	The guideline was exceeded in less than 10% of samples[2] **Maximum result** **Guideline** Turbidity 1.27 NTU 1.0 NTU[3] Trihalomethanes[4] 0.127 mg/L MAC = 0.1 mg/L Carbon Tetrachloride[5] 0.042 mg/L MAC = 0.005 mg/L Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. Trihalomethanes (THM) are a group of four related compounds that are disinfection by-products: that is, they are formed from the reaction between natural organic matter present in raw source waters and the chlorine used for disinfection. They are monitored regularly in drinking water to ensure public health and safety. Carbon Tetrachloride was phased out in Canada in 1996 but can still be imported for limited use in chemical production and may become a component of Industrial effluents. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Rothesay **(East Distribution)**[1]	**The guideline was exceeded in less than 10% of samples**[2] **Maximum result** **Guideline** Manganese 0.066 mg/L AO = 0.05 mg/L Uranium[6] 0.028 mg/L MAC = 0.02 mg/L Carbon Tetrachloride[5] 0.029 mg/L MAC = 0.005 mg/L Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). Uranium detected in drinking water is almost always due to natural sources in the rock and soil surrounding a well. It is monitored regularly in drinking water to ensure public health and safety. Carbon Tetrachloride was phased out in Canada in 1996 but can still be imported for limited use in chemical production and may become a component of Industrial effluents. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:

1. Rothesay formerly had 2 separate water distribution systems, with the West system supplied by water from the City of Saint John and the East system supplied by the Carpenter's Pond wellfield. In November 2011 the two systems were connected into one, which is supplied by the wellfield only.
2. Or in only 1 sample when there were 10 or fewer samples in total.
3. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
4. Trihalomethanes exceeded the guideline at one location (Pumping Station, 70 1/2 Elizabeth Parkway, in the West Distribution System) in 2007, when the Rothesay West distribution system was still supplied by water from the City of Saint John's East distribution system.
5. Carbon Tetrachloride exceedances all occurred on the same day in January 2006, in both the East and West distribution systems (which were not connected until November 2011), so these were likely the result of external contamination during sampling or due to lab error.
6. Uranium exceeded the MAC in 2 samples, both taken on the same day in 1999.

Sackville

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 994	
E. coli	**Total coliforms**
Not detected	Detected in 1 sample (0.10% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994 - October 28, 2016) Total Number of Samples = 94 Inorganic and 180 Organic

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	Guideline
Iron	1.49 mg/L	AO = 0.3 mg/L
Manganese	2.5 mg/L	AO = 0.05 mg/L
Turbidity	14.4 NTU	1.0 NTU[2]

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

Saint Andrews

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 376	
E. coli	Total coliforms
Not detected	Not detected

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994 - December 14, 2016)
Total Number of Samples = 50 Inorganic and 167 Organic

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	Guideline
Iron	0.563 mg/L	AO = 0.3 mg/L

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[2]

	Maximum result	Guideline
Copper	2.99 mg/L	AO = 1.0 mg/L
Lead[3]	0.0253 mg/L	MAC = 0.01 mg/L
Turbidity	1.0 NTU	1.0 NTU[4]

Copper in drinking water almost always results from corrosion of copper pipes or other plumbing components, such as faucets and valves. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety.

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. Or in only 1 sample when there were 10 or fewer samples in total.
3. Lead was detected in 42 of 50 samples and exceeded the MAC in 2 of them.
4. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

Saint John

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples =10368 (Saint John); 246 (Harbourview Subdivision)		
	E. coli	Total coliforms
Saint John	Detected in 1 sample (0.01% of all samples)	Detected in 93 samples (0.90% of all samples)
Saint John (Harbourview system)[1]	Not detected	Detected in 3 samples (1.22% of all samples)

Notes:

1. Only 3 years of data were available for the Harbourview system (February 2012 to December 2014)

E. coli (Escherichia coli) is a species of bacteria that is naturally found in the intestines of humans and warm-blooded animals. As it is not usually found naturally in soils or water, the presence of *E. coli* in a water sample is a good indicator of recent faecal contamination. Drinking water should not contain any *E. coli.* It is monitored regularly in drinking water to ensure public health and safety.

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - October 31, 2016)

Total Number of Samples = West: 199 Inorganic and 363 Organic[2]; East: 234 Inorganic and 520 Organic[2]; Harbourview: 14 Inorganic and 34 Organic

Saint John

West Distribution System

The guideline was exceeded in at least 10% of samples[3]

	Maximum result	Guideline
Trihalomethanes[4]	0.196 mg/L	MAC = 0.1 mg/L

Trihalomethanes (THM) are a group of four related compounds that are disinfection by-products: that is, they are formed from the reaction between natural organic matter present in raw source waters and the chlorine used for disinfection. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[5]

	Maximum result	Guideline
Iron	0.59 mg/L	AO = 0.3 mg/L
Manganese	0.092 mg/L	AO = 0.05 mg/L
Turbidity	4 NTU	1.0 NTU[6]
Ethylbenzene	0.064 mg/L	AO = 0.0024 mg/L

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

Ethylbenzene is a component of petroleum products such as gasoline, diesel fuel, solvents, and adhesives. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

For questions about current water quality please contact your local government.

Saint John
 	
East Distribution System
	The guideline was exceeded in at least 10% of samples[3]
	
	                        Maximum result **Guideline**
	
	Turbidity 3.84 NTU 1.0 NTU[6]
	
	Manganese 0.805 mg/L AO = 0.05 mg/L
	
	Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.
	
	Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).
	
	For questions about current water quality please contact your local government.
	
	The guideline was exceeded in less than 10% of samples[5]
	
	                        Maximum result **Guideline**
	
	Lead[7] 0.0155 mg/L MAC = 0.01 mg/L
	
	Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Saint John **(Harbourview Distribution System)**	**The guideline was exceeded in less than 10% of samples[5]** **Maximum result** **Guideline** Turbidity 1.4 NTU 1.0 NTU[6] Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:

1. The earliest available data were from 1999 (West and East Distribution Systems) and 2012 (Harbourview).
2. There are also hundreds of other samples for subsets of the full Organic parameter list, including THMs only, benzo(a)pyrene and pentachlorophenol, etc.
3. Or in at least 2 samples when there were 10 or fewer samples in total.
4. Trihalomethanes frequently exceeded the guidelines at all sampling locations in the West distribution system. Results sometimes approached the guideline at some locations in the East distribution system, but there were no exceedances in the East system (based on annual running average).
5. Or in only 1 sample when there were 10 or fewer samples in total.
6. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
7. Pb had 69 detections, including 4 MAC exceedances, in 219 samples.

Saint John

For questions about current water quality please contact your local government.

The following represents the water quality results post commissioning of the new Loch Lomond Drinking Water Treatment Facility and commissioning of the new groundwater system that services part of west Saint John. It also includes the groundwater system that services the Harbourview Subidivision.

Bacteria in Water Distribution System: Exceedances of Guidelines (September 1, 2018 - March 31, 2021) Total Number of Samples =4329 (Saint John); 258 (Harbourview Subdivision)		
	E. coli	Total coliforms
Saint John	Detected in 1 sample[1] (0.02% of all samples)	Detected in 16 samples (0.37% of all samples)
Saint John (Harbourview system)	Not detected	Not detected

Notes:

1. Sample location was retested for two consecutive days and results were 0 cfu for E.coli.

E. coli (Escherichia coli) is a species of bacteria that is naturally found in the intestines of humans and warm-blooded animals. As it is not usually found naturally in soils or water, the presence of *E. coli* in a water sample is a good indicator of recent faecal contamination. Drinking water should not contain any *E. coli.* It is monitored regularly in drinking water to ensure public health and safety.

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (September 1, 2018 - March 31, 2021) Total Number of Samples = East: 4664 Inorganic and 3012 Organic; Harbourview: 364 Inorganic and 210 Organic	
Saint John **West Distribution System**	**No Detections**
Saint John **East Distribution System**	The guideline was exceeded in less than 10% of samples[1] <table><tr><td></td><td>**Maximum result**</td><td>**Guideline**</td></tr><tr><td>Turbidity</td><td>4.67 NTU</td><td>1.0 NTU[2]</td></tr></table> Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.
Saint John **(Harbourview Distribution System)**	The guideline was exceeded in at least 10% of samples[3] <table><tr><td></td><td>**Maximum result**</td><td>**Guideline**</td></tr><tr><td>Turbidity</td><td>1.81 NTU</td><td>1.0 NTU[2]</td></tr></table> Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. The guideline was exceeded in less than 10% of samples[1] <table><tr><td></td><td>**Maximum result**</td><td>**Guideline**</td></tr><tr><td>Iron</td><td>0.6 mg/L[4]</td><td>AO = 0.3 mg/L</td></tr></table> Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Notes:
1. Or in only 1 sample when there were 10 or fewer samples in total.
2. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
3. Or in at least 2 samples when there were 10 or fewer samples in total.
4. Iron exceeded the guideline in 1 of 20 samples.

Saint-André

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines **(January 1, 2008 - December 31, 2014)** Total Number of Samples = 498	
E. coli	**Total coliforms**
Not detected	Detected in 11 samples (2.21% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines   **(January 1, 1994[1] - December 13, 2016)**   Total Number of Samples = 6 Inorganic and 27 Organic
No Exceedances of NB Guidelines[2,3]

Notes:
1. The earliest available data were from 2003 (Inorganic) and 2004 (Organic).
2. Although its MAC was never exceeded, Nitrate was present at significant levels in all samples (range 1.45 to 7.8 mg/L as N), which suggests that Nitrite could potentially also be present. Nitrite does not have a *New Brunswick Drinking Water Quality Guideline* and is not a required sampling plan test parameter in New Brunswick, but the *Guidelines for Canadian Drinking Water Quality* have a Nitrite MAC of 1 mg/L as N. However, there were no Nitrite data available to compare to this other guideline.
3. No general chemistry parameters were tested (only specified sampling plan parameters were tested). Thus, there were no data available on major ions (e.g. sodium, chloride), Alkalinity, Hardness, pH, etc.

For questions about current water quality please contact your local government.

Saint-Antoine

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines	
(January 1, 2008 - December 31, 2014)	
Total Number of Samples = 522	
E. coli	**Total coliforms**
Not detected	Detected in 2 samples (0.38% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994[1] - November 17, 2016)
Total Number of Samples = 15 Inorganic and 60 Organic
No Exceedances of NB Guidelines

Notes:

1. The earliest available data were from 2001.

For questions about current water quality please contact your local government.

Sainte-Anne-de-Madawaska

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 423

E. coli	Total coliforms
Not detected	Detected in 7 samples (1.65% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994[1] - November 17, 2016)
Total Number of Samples = 18 Inorganic[2] and 18 Organic

The guideline was exceeded in at least 10% of samples[3]

	Maximum result	Guideline
Iron	0.954 mg/L	AO = 0.3 mg/L
Manganese	0.19 mg/L	AO = 0.05 mg/L
Turbidity	9.28 NTU	1.0 NTU[4]

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[5]

	Maximum result	Guideline
Arsenic[6]	0.013 mg/L	MAC = 0.010 mg/L

Arsenic detected in drinking water is almost always due to natural sources in the rock and soil surrounding a well, and this can be common in some areas of NB. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:
1. The earliest available data were from 2001, except for 2 Organic samples from 1997.
2. There were also an additional 5 samples tested for Arsenic only.
3. Or in at least 2 samples when there were 10 or fewer samples in total.
4. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
5. Or in only 1 sample when there were 10 or fewer samples in total
6. Arsenic exceeded the MAC in only 1 sample in 2006, but was detected in all samples (23 of 23, minimum value 2 µg/L or 0.002 mg/L)

Saint-François-de-Madawaska

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 425

E. coli	Total coliforms
Not detected	Detected in 4 samples (0.95% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - November 18, 2016)
Total Number of Samples = 14 Inorganic and 81 Organic

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	Guideline
Manganese[2]	0.211 mg/L	AO = 0.05 mg/L

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[3]

	Maximum result	Guideline
Iron	3.45 mg/L	AO = 0.3 mg/L

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. No exceedances after 2006.
3. Or in only 1 sample when there were 10 or fewer samples in total.

Saint-Hilaire

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples =410

E. coli	Total coliforms
Not detected	Detected in 6 samples (1.47% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - January 10, 2017)
Total Number of Samples = 12 Inorganic and 149 Organic

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	Guideline
Manganese	0.782 mg/L	AO = 0.05 mg/L

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.

Saint-Léonard

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines **(January 1, 2008 - December 31, 2014)** Total Number of Samples = 400	
E. coli	**Total coliforms**
Not detected	Detected in 1 sample (0.25% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - November 21, 2016)
Total Number of Samples = 11 Inorganic and 23 Organic

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	**Guideline**
Manganese	0.204 mg/L	AO = 0.05 mg/L
Turbidity	2.6 NTU	1.0 NTU[2]

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[3]

	Maximum result	**Guideline**
Lead[4]	0.078 mg/L	MAC = 0.01 mg/L

Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
3. Or in only 1 sample when there were 10 or fewer samples in total.
4. Pb exceeded the MAC in 1 sample taken in 2001.

Saint-Louis-de-Kent

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 386	
E. coli	**Total coliforms**
Not detected	Not detected

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994 - November 22, 2016) Total Number of Samples = 11 Inorganic and 46 Organic

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	Guideline
Manganese	0.075 mg/L	AO = 0.05 mg/L

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[2]

	Maximum result	Guideline
Iron	6.8 mg/L	AO = 0.3 mg/L

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. Or in only 1 sample when there were 10 or fewer samples in total.

Saint-Quentin

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 451	
E. coli	**Total coliforms**
Not detected	Not detected

For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994 - November 30, 2016[1]) Total Number of Samples = 12 Inorganic and 86 Organic
No Exceedances of NB Guidelines

Notes:
1. There were no Inorganic data available more recently than 2002 (except for raw water samples, for which there were data available throughout 1994 to 2016). Organic data in the distribution system were also available throughout the date range.

For questions about current water quality please contact your local government.

Shediac

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 653

E. coli	Total coliforms
Not detected	Detected in 2 samples (0.31% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - December 1, 2016)
Total Number of Samples = 34 Inorganic and 26 Organic[1]

Distribution Systems

The guideline was exceeded in at least 10% of samples[2]

	Maximum result	Guideline
Manganese	0.079 mg/L	AO = 0.05 mg/L

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[3]

	Maximum result	Guideline
Chloride	266 mg/L	AO = 250 mg/L
Lead[4]	0.110 mg/L	MAC = 0.01 mg/L
Selenium	0.0105 mg/L	MAC = 0.01 mg/L
Turbidity	1.0 NTU	1.0 NTU[5]

Chloride occurs in nature as part of many salts (e.g. table salt is pure sodium chloride) and it typically occurs in all waters to some degree. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety.

Selenium occurs naturally in soil and certain plumbing components (non-leaded brass). It is monitored regularly in drinking water to ensure public health and safety.

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Notes:
1. There were also an additional 59 Organic samples tested for THMs only.
2. Or in at least 2 samples when there were 10 or fewer samples in total.
3. Or in only 1 sample when there were 10 or fewer samples in total.
4. Pb exceeded the MAC in 2 samples in 1995.
5. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

Shippagan

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 428	
E. coli	**Total coliforms**
Not detected	Detected in 1 sample (0.23% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994 - December 13, 2016) Total Number of Samples = 20 Inorganic and 94 Organic

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	Guideline
Turbidity	2.3 NTU	1.0 NTU[2]

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[3]

	Maximum result	Guideline
Iron	0.416 mg/L	AO = 0.3 mg/L

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
3. Or in only 1 sample when there were 10 or fewer samples in total.

St. George

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 714

E. coli	Total coliforms
Not detected	Detected in 2 samples (0.28% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - December 14, 2016)
Total Number of Samples = 30 Inorganic and 76 Organic

The guideline was exceeded in at least 10% of samples[1]

	Maximum result	Guideline
Turbidity	5 NTU	1.0 NTU[2]

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[3]

	Maximum result	Guideline
Iron	0.46 mg/L	AO = 0.3 mg/L

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.
3. Or in only 1 sample when there were 10 or fewer samples in total.

St. Margarets Water Commission

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 457

E. coli	Total coliforms
Not detected	Detected in 5 samples (1.09% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994[1] - January 11, 2017)
Total Number of Samples = 12 Inorganic and 33 Organic

The guideline was exceeded in at least 10% of samples[2]

	Maximum result	Guideline
Iron	0.847 mg/L	AO = 0.3 mg/L
Manganese	1.8 mg/L	AO = 0.05 mg/L
Turbidity	3.7 NTU	1.0 NTU[3]

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Notes:
1. The earliest available data were from 2007.
2. Or in at least 2 samples when there were 10 or fewer samples in total.
3. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

St. Stephen

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines **(January 1, 2008 - December 31, 2014)** Total Number of Samples = 567	
E. coli	**Total coliforms**
Not detected	Detected in 4 samples (0.71% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994 - January 11, 2017)
Total Number of Samples = 39 Inorganic[1] and 103 Organic

The guideline was exceeded in at least 10% of samples[2]

	Maximum result	Guideline
Copper	2.3 mg/L	AO = 1.0 mg/L
Iron	0.855 mg/L	AO = 0.3 mg/L

Copper in drinking water almost always results from corrosion of copper pipes or other plumbing components, such as faucets and valves. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Iron is present in almost all soils and many rocks. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[3]

	Maximum result	Guideline
Manganese	0.174 mg/L	AO = 0.05 mg/L
Lead[4]	0.064 mg/L	MAC = 0.01 mg/L
Turbidity	3.4 NTU	1.0 NTU[5]

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance).

Lead in drinking water is most commonly due to leaching from lead service lines. Other plumbing components, such as solder or brass faucets or valves, may also contain lead. It is monitored regularly in drinking water to ensure public health and safety.

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety.

For questions about current water quality please contact your local government.

Notes:

1. There were also hundreds of additional Inorganic samples for a variety of individual parameters or subsets of the full Inorganic parameter list, e.g. Arsenic, Calcium, Chloride, Iron, Lead, pH, Turbidity, etc.
2. Or in at least 2 samples when there were 10 or fewer samples in total.
3. Or in only 1 sample when there were 10 or fewer samples in total.
4. Lead was detected in 153 of 209 samples including 3 exceedances of the MAC.
5. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

Sussex

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 2538	
E. coli	**Total coliforms**
Not detected	Detected in 8 samples (0.32% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994 – January 19, 2017) Total Number of Samples = 23 Inorganic and 93 Organic
No Exceedances of NB Guidelines

For questions about current water quality please contact your local government.

Sussex Corner

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 548	
E. coli	Total coliforms
Not detected	Detected in 13 samples (2.37% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994[1] - January 20, 2017) Total Number of Samples = 23 Inorganic and 46 Organic
No Exceedances of NB Guidelines

Notes:

1. The earliest available data were from 2003.

For questions about current water quality please contact your local government.

Tide Head

For questions about current water quality please contact your local government.

| **Bacteria in Water Distribution System: Exceedances of Guidelines** |
| **(January 1, 2008 - December 31, 2014)** |
| Total Number of Samples = 471 |

E. coli	**Total coliforms**
Not detected	Detected in 2 samples (0.42% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

| **Chemistry of Water in Distribution System: Exceedances of Guidelines** |
| **(January 1, 1994 - January 20, 2017)** |
| Total Number of Samples = 11 Inorganic and 28 Organic |

The guideline was exceeded in less than 10% of samples[1]

	Maximum result	**Guideline**
Turbidity	1.2 NTU	1.0 NTU[2]

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:

1. Or in only 1 sample when there were 10 or fewer samples in total.
2. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

Tracadie-Sheila

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines (January 1, 2008 - December 31, 2014) Total Number of Samples = 683	
E. coli	**Total coliforms**
Not detected	Detected in 7 samples (1.03% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines (January 1, 1994 - January 20, 2017) Total Number of Samples = 46 Inorganic and 156 Organic	
Tracadie-Sheila	The guideline was exceeded in at least 10% of samples[1]
			Maximum result	**Guideline**
	Manganese	0.159 mg/L	AO = 0.05 mg/L

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[2]

	Maximum result	**Guideline**
Turbidity	1.1 NTU	1.0 NTU[3]

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:
1. Or in at least 2 samples when there were 10 or fewer samples in total.
2. Or in only 1 sample when there were 10 or fewer samples in total.
3. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

Woodstock

For questions about current water quality please contact your local government.

Bacteria in Water Distribution System: Exceedances of Guidelines
(January 1, 2008 - December 31, 2014)
Total Number of Samples = 567

E. coli	Total coliforms
Not detected	Detected in 7 samples (1.23% of all samples)

Total coliform bacteria are used as an indicator and their presence in drinking water is not considered a risk to human health, but their presence can indicate unsanitary conditions in the water system. They are monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Chemistry of Water in Distribution System: Exceedances of Guidelines
(January 1, 1994[1] - January 25, 2017)
Total Number of Samples = 13 Inorganic and 15 Organic

The guideline was exceeded in at least 10% of samples[2]

	Maximum result	Guideline
Manganese	0.50 mg/L	AO = 0.05 mg/L

Manganese is commonly found in rocks, soils and water in many areas of NB. It is monitored regularly in drinking water to ensure appropriate water quality (such as taste, odour and appearance). For questions about current water quality please contact your local government.

The guideline was exceeded in less than 10% of samples[3]

	Maximum result	Guideline
Turbidity	1.4 NTU	1.0 NTU[4]

Turbidity is a measure of cloudiness in water caused by tiny suspended particles, which may be harmless. However, increases in turbidity can also indicate a serious water quality issue. It is monitored regularly in drinking water to ensure public health and safety. For questions about current water quality please contact your local government.

Notes:
1. The earliest available data were from 2009.
2. Or in at least 2 samples when there were 10 or fewer samples in total.
3. Or in only 1 sample when there were 10 or fewer samples in total.
4. The actual Turbidity guideline is much more complex than this, but a 1 NTU threshold was used to flag possible exceedances. However, this approach may sometimes capture events that were not true exceedances and may miss some exceedances in systems where filtration is in place.

Appendix B - Water Quality of Raw Source Water (Before Treatment)

Bacteria Findings for Raw Source Water (Before Treatment)

The following table lists the findings (from all available data 2008 to 2014) regarding the microbiological quality of each individual municipal raw water supply before it was treated to remove contaminants or disinfected. This is not a measure of the quality of water delivered to users, but illustrates the need for proper disinfection and treatment, and the wide range of conditions found in different raw water supplies.

Water Source	Source Type	# of Samples with *E. coli* Detected	# of Samples with Total Coliforms Detected	Total Number of Samples Tested
Alma (Well #1)	Groundwater	0	10	92
Alma (Well #2)	Groundwater	0	10	85
Aroostook (Well #1)	Groundwater	0	0	80
Aroostook (Well #2)	Groundwater	13	167	190
Atholville (Well #1)	Groundwater	2	55	99
Atholville (Well #2A)	Groundwater	0	0	88
Atholville (Well #3)	Groundwater	0	5	93
Atholville (Well #4)	Groundwater	3	21	93
Baker Brook (Étang de recharge)	Surface Water	75	75	75
Baker Brook(Puits P-12-1)	Groundwater	0	8	29
Baker Brook (Puits PW-1-80)	Groundwater	0	2	7
Baker Brook (Puits PW-2-80)	Groundwater	0	2	6
Baker Brook (Puits rivière St-Jean)	Groundwater	11	40	100
Baker Brook (Puits Piste Cyclable) - retired	Groundwater	2	38	62
Baker Brook (Puits Théophile) - retired	Groundwater	0	1	5
Balmoral (Puits #1)	Groundwater	5	42	90
Balmoral (Puits #2)	Groundwater	0	12	79
Bas-Caraquet (Puits rue Frédérick)	Groundwater	0	5	81
Bath (Well #1)	Groundwater	0	3	77
Bath (Well #3)	Groundwater	0	2	87
Bathurst (Middle River)	Surface Water	72	83	83
Belledune (Jacquet River)	Surface Water	63	81	81
Blacks Harbour (Wallace Cove Well)	Groundwater	0	1	83
Blacks Harbour (Well #3)	Groundwater	0	2	84
Blacks Harbour (Well #4)	Groundwater	0	9	90
Bouctouche (Puits #1)	Groundwater	0	1	15
Bouctouche (Puits #2)	Groundwater	0	1	85
Bouctouche (Puits #3)	Groundwater	2	2	8
Bouctouche (Puits #4)	Groundwater	1	6	41
Campbellton (Raw Water)	Surface Water	59	363	369
Caraquet (Puits de la rue du Portage)	Groundwater	1	29	79
Caraquet (Puits de la rue Lavigne)	Groundwater	0	0	84
Caraquet (Source du chemin St-Simon)	Spring	3	20	85
Charlo (Puits - Well 1)	Groundwater	0	0	86
Charlo (Puits - Well 2)	Groundwater	0	3	86
Clair (Puits P-04-01)	Groundwater	0	9	94
Clair (Puits P-06-01)	Groundwater	0	5	93
Clair (Puits P-08-01)	Groundwater	0	1	25
Clair (Puits P-11-01)	Groundwater	0	1	27
Clair (Lac Thompson) - retired	Surface Water	41	50	56
Dalhousie (Charlo River)	Surface Water	44	69	73
Doaktown (Spring Reservoir)	Spring	7	145	190
Dorchester Well #1 (CSC Woodlawn Well)	Groundwater	0	4	86
Dorchester Well #2 (CSC Millbrook Well)	Groundwater	0	7	73

Water Source	Source Type	# of Samples with *E. coli* Detected	# of Samples with Total Coliforms Detected	Total Number of Samples Tested
Dorchester Well #3 (CSC Back-up Well)	Groundwater	0	1	5
Dorchester Well #4 (Village Well)	Groundwater	1	7	98
Drummond (Puits chemin Tobique)	Groundwater	7	75	102
Drummond (Puits rue Station)	Groundwater	1	75	104
Edmundston (Iroquois Blanchette Puits 1)	Groundwater	1	26	93
Edmundston (Iroquois Blanchette Puits 2)	Groundwater	10	86	94
Edmundston (Iroquois Blanchette Puits 3)	Groundwater	8	63	94
Edmundston (Iroquois Blanchette Puits 4)	Groundwater	0	32	92
Edmundston (Iroquois Blanchette Puits 5)	Groundwater	9	43	74
Edmundston (Iroquois Blanchette Puits 6)	Groundwater	2	40	94
Edmundston (Verret Puits 1)	Groundwater	7	75	99
Edmundston (Verret Puits 2)	Groundwater	2	42	90
Eel River Crossing (Infiltration Gallery)	Infiltration Gallery	50	84	85
Fredericton (Queen Square Well PW9)	Groundwater	0	10	88
Fredericton (Queen Square Well PW10)	Groundwater	0	2	87
Fredericton (Queen Square Well PW11)	Groundwater	0	1	78
Fredericton (Wilmot Park Well #1)	Groundwater	0	0	87
Fredericton (Wilmot Park Well #2)	Groundwater	0	2	88
Fredericton (Wilmot Park Well #3)	Groundwater	0	3	90
Fredericton (Wilmot Park Well #5)	Groundwater	0	0	86
Fredericton (Wilmot Park Well #6)	Groundwater	1	6	68
Fredericton (Wilmot Park Well #7)	Groundwater	0	0	90
Fredericton (Wilmot Park Well #8)	Groundwater	0	3	89
Fredericton (Kilarney Reservoir - raw)	Groundwater	0	1	182
Fredericton (Cliffe St Well) - retired	Groundwater	0	0	14
Fredericton (Kilarney Well K1) - retired	Groundwater	0	0	12
Fredericton (Kilarney Well K10) - retired	Groundwater	0	0	52
Fredericton (Tower Rd Well) - retired	Groundwater	0	2	53
Fredericton Junction (Well #1)	Groundwater	0	33	113
Fredericton Junction (Well #4)	Groundwater	0	3	80
Fredericton Junction (Well #2) - retired	Groundwater	0	10	37
Grand-Sault / Grand Falls (Well #1)	Groundwater	0	0	16
Grand-Sault / Grand Falls (Well #2)	Groundwater	0	2	20
Grand-Sault / Grand Falls (Well #3)	Groundwater	0	3	21
Grand-Sault / Grand Falls (Well #5)	Groundwater	0	0	16
Hampton Well	Groundwater	0	11	119
Hartland (Well #1)	Groundwater	0	0	84
Hartland (Well #2)	Groundwater	3	10	99
Hillsborough (Well #1)	Groundwater	18	66	89
Hillsborough (Well #3)	Groundwater	0	0	48
Hillsborough (Well #2) - retired	Groundwater	1	5	9
Kedgwick (Puits 2)	Groundwater	0	34	219
Kedgwick (Puits 3)	Groundwater	8	129	254
Lamèque (Puits 5)	Groundwater	0	7	87
Lamèque (Puits 7)	Groundwater	0	0	9
Lamèque (Puits 8)	Groundwater	0	0	55
Lamèque (Puits 9)	Groundwater	4	29	108
Lamèque (Puits 10)	Groundwater	0	3	6
Lamèque (Puits 3) - retired	Groundwater	0	10	87
McAdam (Well #10)	Groundwater	1	13	92
McAdam (Well #11)	Groundwater	0	1	88
McAdam (Well #12)	Groundwater	1	11	86
McAdam (Well #13)	Groundwater	0	3	90

Water Source	Source Type	# of Samples with *E. coli* Detected	# of Samples with Total Coliforms Detected	Total Number of Samples Tested
Memramcook (Puits #1)	Groundwater	0	11	81
Memramcook (Puits #3) - retired	Groundwater	3	28	38
Memramcook (Puits 08-01)	Groundwater	0	1	52
Memramcook (Puits A) - retired	Groundwater	10	33	41
Memramcook (Puits C) - retired	Groundwater	0	1	39
Memramcook (Source Bourgeois)	Spring	8	81	88
Memramcook (Source de l'Institut)	Spring	36	91	98
Memramcook (Puits #2) - retired	Groundwater	1	4	8
Miramichi (Chatham - Gordon Well)	Groundwater	0	1	86
Miramichi (Chatham - Henderson Well 1)	Groundwater	0	1	85
Miramichi (Chatham - Henderson Well 2)	Groundwater	0	1	56
Miramichi (Chatham - Howard Well)	Groundwater	0	4	84
Miramichi (Chatham - Industrial Park Well)	Groundwater	0	21	117
Miramichi (Chatham - Martin Well)	Groundwater	0	0	84
Miramichi (Chatham - Napan Road Well)	Groundwater	0	3	91
Miramichi (Chatham - Nicol Well)	Groundwater	0	0	84
Miramichi (Chatham - Springvale Well)	Groundwater	0	3	88
Miramichi (Douglastown - Rennie Rd Well)	Groundwater	0	4	93
Miramichi (Douglastown - Williston Ext Well)	Groundwater	0	4	89
Miramichi (Douglastown - Williston Well)	Groundwater	0	1	86
Miramichi (Newcastle - Allison Well)	Groundwater	0	12	93
Miramichi (Newcastle - McKay Well)	Groundwater	0	0	87
Miramichi (Newcastle - Millar Well)	Groundwater	0	1	58
Miramichi (Newcastle - Mitchell Well)	Groundwater	0	0	85
Miramichi (Newcastle - Trevors Well)	Groundwater	0	2	90
Miramichi (Newcastle - Turcotte Well)	Groundwater	0	6	71
Miramichi (Chatham - Walsh Well) - retired	Groundwater	0	6	67
Moncton (Mapleton Well)	Groundwater	0	0	358
Moncton (McLaughlin Reservoir)	Surface Water	34	168	334
Moncton (Turtle Creek Reservoir)	Surface Water	522	662	673
Nackawic (Well #3)	Groundwater	0	1	95
Nackawic (Well #4)	Groundwater	0	0	2
New Maryland (Well A-10)	Groundwater	0	3	86
New Maryland (Well A-11)	Groundwater	0	2	85
New Maryland (Well A-20)	Groundwater	0	0	82
New Maryland (Well P-2)	Groundwater	0	0	35
New Maryland (Well S-1)	Groundwater	0	0	25
New Maryland (Well S-4)	Groundwater	0	0	84
Oromocto (Oromocto River)	Surface Water	No Data	No Data	No Data
Penobsquis (Well #07-1 Springdale)	Groundwater	0	0	36
Perth-Andover (Well 1)	Groundwater	3	17	100
Perth-Andover (Well 2)	Groundwater	0	0	97
Petit-Rocher (Infiltration Gallery)	Infiltration Gallery	80	88	88
Plaster Rock (Well #1)	Groundwater	0	1	95
Plaster Rock (Well #2)	Groundwater	0	8	71
Port Elgin (Mitten Well)	Groundwater	0	1	84
Port Elgin (Riverside Well) - retired	Groundwater	0	0	80
Quispamsis (Downeast Well #1)	Groundwater	0	68	310
Quispamsis (Downeast Well #2)	Groundwater	0	122	311
Quispamsis (Ridgewood Well #1)	Groundwater	0	0	307
Quispamsis (Ridgewood Well #2)	Groundwater	0	9	306
Richibucto (Well #1)	Groundwater	0	1	87
Richibucto (Well #3)	Groundwater	0	51	123

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Water Source	Source Type	# of Samples with *E. coli* Detected	# of Samples with Total Coliforms Detected	Total Number of Samples Tested
Richibucto (Well #4)	Groundwater	0	2	54
Riverside-Albert (Reservoir 1)	Surface Water	39	84	84
Rivière-Verte (Infiltration Gallery)	Infiltration Gallery	62	94	94
Rothesay (Well #1)	Groundwater	0	3	79
Rothesay (Well #2)	Groundwater	0	8	80
Rothesay (Well #3)	Groundwater	1	3	82
Rothesay (Well #4)	Groundwater	0	9	80
Rothesay (Well #5)	Groundwater	5	25	85
Rothesay (Well #6)	Groundwater	0	2	81
Rothesay (Well #7)	Groundwater	15	60	84
Rothesay (Well #8)	Groundwater	1	15	80
Rothesay (Well #9)	Groundwater	0	1	10
Sackville (Well #1)	Groundwater	0	1	82
Sackville (Well #2)	Groundwater	0	0	83
Sackville (Booster Pump well)	Groundwater	0	0	87
Saint Andrews (Chamcook Lake)	Surface Water	23	78	88
Saint John (Latimer Lake - East)	Surface Water	184	386	386
Saint John (Spruce Lake - West)	Surface Water	242	368	369
Saint John (Ocean Dr. Well - Harbourview)	Groundwater	0	18	287
Saint John (Seaward Cres. Well - Harbourview)	Groundwater	0	5	360
Saint-André (Puits 1)	Groundwater	2	42	91
Saint-André (Puits 2)	Groundwater	2	53	93
Saint-Antoine (Puits PW-1)	Groundwater	0	0	84
Saint-Antoine (Puits PW-2)	Groundwater	0	0	83
Saint-Antoine (Puits PW-3)	Groundwater	0	0	84
Sainte-Anne-de-Madawaska (Puits 1)	Groundwater	0	0	22
Sainte-Anne-de-Madawaska (Puits 2)	Groundwater	0	0	21
Saint-François-de-Madawaska (Puits 1)	Groundwater	0	3	32
Saint-François-de-Madawaska (Puits 2)	Groundwater	0	0	34
Saint-François-de-Madawaska (Puits 3)	Groundwater	0	8	98
Saint-François-de-Madawaska (Puits 4)	Groundwater	0	2	97
Saint-Hilaire (Puits 1)	Groundwater	0	1	34
Saint-Hilaire (Puits 2)	Groundwater	0	7	83
Saint-Hilaire (Galerie d'Infiltration) - retired	Infiltration Gallery	9	9	11
Saint-Léonard (Puits 1)	Groundwater	0	2	19
Saint-Léonard (Puits 2)	Groundwater	0	0	13
Saint-Louis-de-Kent (Puits #1)	Groundwater	0	0	93
Saint-Louis-de-Kent (Puits #2)	Groundwater	0	3	90
Saint-Quentin (Galerie d'infiltration)	Infiltration Gallery	60	84	84
Shediac (Well #1)	Groundwater	0	0	88
Shediac (Well #2)	Groundwater	0	6	82
Shediac (Well #5)	Groundwater	0	1	82
Shediac (Well #6)	Groundwater	0	0	86
Shediac (Well #8)	Groundwater	0	0	84
Shediac (Well #9)	Groundwater	0	0	83
Shediac (Well #10)	Groundwater	0	5	88
Shediac (Well #11)	Groundwater	0	1	83
Shediac (Well #3) - retired	Groundwater	0	0	48
Shediac (Well #7) - retired	Groundwater	0	0	6
Shippagan (Puits 2B)	Groundwater	1	16	85
Shippagan (Puits 3)	Groundwater	0	11	84
Shippagan (Puits 5)	Groundwater	0	1	84
Shippagan (Puits 6)	Groundwater	2	53	93

Water Source	Source Type	# of Samples with *E. coli* Detected	# of Samples with Total Coliforms Detected	Total Number of Samples Tested
St. George (Well #2)	Groundwater	0	0	117
St. George (Well #3)	Groundwater	0	1	117
St. George (Well #4)	Groundwater	0	5	107
St. George (Well #5)	Groundwater	1	8	66
St. Margarets Water Commission (Main Well)	Groundwater	0	0	69
St. Stephen (Well #1)	Infiltration Gallery	9	141	193
St. Stephen (Well #2)	Groundwater	0	8	93
St. Stephen (Well #3)	Groundwater	1	14	85
Sussex (Jonah Ct. Well)	Groundwater	0	7	366
Sussex (Magnolia Ave. Well)	Groundwater	0	0	366
Sussex (Church Ave. Fountain)	Groundwater	0	0	364
Sussex Corner (Well #1)	Groundwater	3	57	126
Sussex Corner (Well #2)	Groundwater	5	33	122
Sussex Corner (Well #3)	Groundwater	0	0	123
Tide Head (Well #1)	Groundwater	2	20	98
Tide Head (Well #2)	Groundwater	0	7	87
Tide Head (Well #3)	Groundwater	0	0	84
Tracadie-Sheila (Puits 1 Sheila)	Groundwater	1	17	118
Tracadie-Sheila (Puits 1 Tracadie)	Groundwater	0	0	99
Tracadie-Sheila (Puits 2 Sheila)	Groundwater	0	0	107
Tracadie-Sheila (Puits 2 Tracadie)	Groundwater	0	0	99
Tracadie-Sheila (Puits 3 Sheila)	Groundwater	0	6	109
Tracadie-Sheila (Puits 3 Tracadie)	Groundwater	0	2	80
Tracadie-Sheila (Puits 5 Tracadie)	Groundwater	0	0	97
Tracadie-Sheila (Puits 6 Tracadie)	Groundwater	0	0	56
Woodstock (Well #1)	Groundwater	0	1	86
Woodstock (Well #2)	Groundwater	0	3	100

Summary of Inorganic Chemistry Findings for Raw Water Sources

The following table lists the findings (from all available data since 1994 – see Appendix A for the applicable date ranges for each community) regarding the inorganic chemistry characteristics that exceeded guideline values at least once in each individual raw water supply before it was treated to remove contaminants or disinfected. This is not a measure of the quality of water delivered to users, but illustrates the need for proper treatment, and the wide range of conditions found in different raw water supplies.

Key		As	B	Ba	Cd	Cr	Cu	F	Fe	Hg	Mn	NO3-	Pb	Sb	Se	TURB	U	Cl	Na	SO4
Numbers of Raw Water Sources (out of 255) with at Least One Result that Exceeded the Guideline																				
Blank / not shaded = The guideline was never exceeded		As	B	Ba	Cd	Cr	Cu	F	Fe	Hg	Mn	NO3-	Pb	Sb	Se	TURB	U	Cl	Na	SO4
The guideline was exceeded in at least 10% of samples (or in at least 2 samples when 10 or fewer total samples)	XX	8		2			3		49		130	1	4		1	88	5	4	1	
The guideline was exceeded in less than 10% of samples (or in only 1 sample when 10 or fewer total samples)	X	5			1	1	2		35	1	13		17	2	1	60	1	3	1	
Total		13	0	2	0	1	1	5	84	1	143	1	21	2	2	148	6	7	2	0
Guideline values (note, the *New Brunswick Drinking Water Quality Guidelines* do not specifically apply to raw water quality, but they can help to identify what types of water treatment might be needed to meet the *Guidelines* in drinking water delivered to users)	MAC	10	5	1	5	50		1.5		1		10	10	6	50	See Glossary	20			
	AO						1000		0.3		0.05							250	200	500
	Other														1					
	Units	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	NTU	µg/L	mg/L	mg/L	mg/L

Raw Water Source	Source Type	As	B	Ba	Cd	Cr	Cu	F	Fe	Hg	Mn	NO3-	Pb	Sb	Se	TURB	U	Cl	Na	SO4
Alma (Well #1)	*Groundwater*															XX				
Alma (Well #2)	*Groundwater*															X				
Aroostook (Well #1)	*Groundwater*								XX		X		XX			XX				
Aroostook (Well #2)	*Groundwater*																			
Atholville (Well #1)	*Groundwater*																			
Atholville (Well #2A)	*Groundwater*																			
Atholville (Well #3)	*Groundwater*															X				
Atholville (Well #4)	*Groundwater*								X		X		X			X		XX		
Baker Brook (Étang de recharge)	*Surface Water*															XX				
Baker Brook (Nouveau Puits Théophile - retired)	*Groundwater*								X		XX					XX				
Baker Brook (Puits Piste Cyclable - retired)	*Groundwater*								XX		XX					XX				

Raw Water Source	Source Type	As	B	Ba	Cd	Cr	Cu	F	Fe	Hg	Mn	NO3-	Pb	Sb	Se	TURB	U	Cl	Na	SO4
Baker Brook (Puits rivière St-Jean)	*Groundwater*										XX					X				
Baker Brook (Puits, PW-1-80)	*Groundwater*																			
Baker Brook (Puits, PW-2-80)	*Groundwater*																			
Baker Brook (Puits P-12-1)	*Groundwater*																			
Balmoral (Puits #1)	*Groundwater*												X							
Balmoral (Puits #2)	*Groundwater*																			
Bas-Caraquet (Puits rue Frédérick)	*Groundwater*										XX									
Bath (Well #1)	*Groundwater*								X				X			X				
Bath (Well #3)	*Groundwater*																			
Bathurst (Grovehill Well - retired)	*Groundwater*							XX			XX					X			XX	
Bathurst (Middle River)	*Surface Water*										XX					XX				
Belledune (Jacquet River raw water)	*Surface Water*								XX		XX					XX				
Blacks Harbour (Wallace Cove Well)	*Groundwater*														X	X				
Blacks Harbour (Well #3)	*Groundwater*										XX					XX				
Blacks Harbour (Well #4)	*Groundwater*	X							XX		XX					XX				
Bouctouche (Puits #1)	*Groundwater*								XX		XX					XX				
Bouctouche (Puits #2)	*Groundwater*										XX									
Bouctouche (Puits #3)	*Groundwater*								XX		XX					XX				
Bouctouche (Puits #4)	*Groundwater*																			
Bouctouche (Puits #5)	*Groundwater*										XX									
Campbellton (Raw Water)	*Surface Water*															X				
Caraquet (Puits de la rue du Portage)	*Groundwater*																			
Caraquet (Puits de la rue Lavigne)	*Groundwater*																			
Caraquet (Puits du chemin St-Simon - retired)	*Groundwater*										XX									
Caraquet (Source du chemin St-Simon)	*Spring*																			
Charlo (Puits - Well 1)	*Groundwater*																			
Charlo (Puits - Well 2)	*Groundwater*																			
Clair (Lac Thompson - retired)	*Surface Water*								X		XX					XX				
Clair (Puits Avenue Industrielle - retired)	*Groundwater*	XX							XX		XX					XX				

Raw Water Source	Source Type	As	B	Ba	Cd	Cr	Cu	F	Fe	Hg	Mn	NO3-	Pb	Sb	Se	TURB	U	Cl	Na	SO4
Clair (Puits P-04-01)	*Groundwater*																			
Clair (Puits P-06-01)	*Groundwater*												XX			XX				
Clair (Puits P-08-01)	*Groundwater*															X				
Clair (Puits P-11-01)	*Groundwater*																			
Dalhousie (Raw Water - Charlo River)	*Surface Water*								X							XX				
Doaktown (Spring Reservoir)	*Spring*															X				
Doaktown WTP Raw (new Storeytown Well)	*Groundwater*										XX									
Dorchester Well #1 (CSC Woodlawn Well)	*Groundwater*								XX		XX					XX				
Dorchester Well #2 (CSC Millbrook Well)	*Groundwater*								X		X					X				
Dorchester Well #3 (CSC Back-up Well)	*Groundwater*										XX					XX				
Dorchester Well #4 (Village Well)	*Groundwater*										XX					XX				
Drummond (Puits chemin Tobique)	*Groundwater*															X				
Drummond (Puits rue Station)	*Groundwater*											XX								
Edmundston (Iroquois Blanchette Puits 1)	*Groundwater*																			
Edmundston (Iroquois Blanchette Puits 2)	*Groundwater*																			
Edmundston (Iroquois Blanchette Puits 3)	*Groundwater*																			
Edmundston (Iroquois Blanchette Puits 4)	*Groundwater*																			
Edmundston (Iroquois Blanchette Puits 5)	*Groundwater*															X				
Edmundston (Iroquois Blanchette Puits 6)	*Groundwater*																			
Edmundston (St. Basile Puits rue Jos Soucis - retired)	*Groundwater*	XX									X									
Edmundston (St. Jacques Galerie d'Infiltration - retired)	*Infiltration Gallery*										XX									
Edmundston (Verret Puits 1)	*Groundwater*																			
Edmundston (Verret Puits 2)	*Groundwater*								X							XX				
Eel River Crossing (Infiltration Gallery)	*Infiltration Gallery*															X				
Fredericton (Queen Square Well PW10)	*Groundwater*															XX				
Fredericton (Queen Square Well PW11)	*Groundwater*															X				
Fredericton (Queen Square Well PW9)	*Groundwater*										XX					XX				
Fredericton (Wilmot Park Well #1)	*Groundwater*								X		XX					X				
Fredericton (Wilmot Park Well #2)	*Groundwater*								XX		XX					XX				

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Raw Water Source	Source Type	As	B	Ba	Cd	Cr	Cu	F	Fe	Hg	Mn	NO3-	Pb	Sb	Se	TURB	U	Cl	Na	SO4
Fredericton (Wilmot Park Well #3)	*Groundwater*										XX					X				
Fredericton (Wilmot Park Well #4) - retired	*Groundwater*								X		XX					X				
Fredericton (Wilmot Park Well #5)	*Groundwater*										XX					X				
Fredericton (Wilmot Park Well #6)	*Groundwater*										XX					X				
Fredericton (Wilmot Park Well #7)	*Groundwater*								X		XX									
Fredericton (Wilmot Park Well #8)	*Groundwater*								X		XX					XX				
Fredericton Junction (Well #1)	*Groundwater*										XX					XX				
Fredericton Junction (Well #2) - retired	*Groundwater*								X		X		X			XX				
Fredericton Junction (Well #3) - retired	*Groundwater*	XX							X		XX		X			XX	XX			
Fredericton Junction (Well #4)	*Groundwater*										XX					X				
Grand Falls (Well #1)	*Groundwater*																			
Grand Falls (Well #2)	*Groundwater*																			
Grand Falls (Well #3)	*Groundwater*																			
Grand Falls (Well #5)	*Groundwater*										XX									
Hampton Well	*Groundwater*																XX	XX	X	
Hartland (Well #1)	*Groundwater*																			
Hartland (Well #2)	*Groundwater*																			
Hillsborough (Well #1)	*Groundwater*													X		X				
Hillsborough (Well #2) - retired	*Groundwater*															X				
Hillsborough (Well #3)	*Groundwater*								X		XX					X				
Kedgwick (Puits 2)	*Groundwater*								X											
Kedgwick (Puits 3)	*Groundwater*																			
Lamèque (Puits 10)	*Groundwater*																			
Lamèque (Puits 3 - retired)	*Groundwater*										X									
Lamèque (Puits 5)	*Groundwater*																			
Lamèque (Puits 7)	*Groundwater*								XX		XX					XX				
Lamèque (Puits 8)	*Groundwater*								XX		XX					XX				
Lamèque (Puits 9)	*Groundwater*																			
McAdam (Well #1 - retired)	*Groundwater*								XX		XX					XX				

Raw Water Source	Source Type	As	B	Ba	Cd	Cr	Cu	F	Fe	Hg	Mn	NO3-	Pb	Sb	Se	TURB	U	Cl	Na	SO4
McAdam (Well #10)	Groundwater																			
McAdam (Well #11)	Groundwater								X		XX					X				
McAdam (Well #12)	Groundwater															X				
McAdam (Well #13)	Groundwater															X				
McAdam (Well #2 - retired)	Groundwater																			
Memramcook (Puits #1)	Groundwater								XX		XX					XX				
Memramcook (Puits #2 - retired)	Groundwater	X							XX		XX		X			XX				
Memramcook (Puits #3 - retired)	Groundwater								XX		XX					XX				
Memramcook (Puits 08-01)	Groundwater										XX									
Memramcook (Puits A - retired)	Groundwater															XX				
Memramcook (Puits C - retired)	Groundwater								XX		XX					XX				
Memramcook (Source Bourgeois)	Spring															X				
Memramcook (Source Cormier - retired)	Spring										X					X				
Memramcook (Source de l'Institut)	Spring								XX		XX					XX				
Miramichi (Chatham - Gordon Well)	Groundwater										XX					X				
Miramichi (Chatham - Henderson Well 1)	Groundwater								X		XX					X				
Miramichi (Chatham - Henderson Well 2)	Groundwater										XX					X				
Miramichi (Chatham - Howard Well)	Groundwater								XX		XX					XX				
Miramichi (Chatham - Industrial Park Well)	Groundwater										XX					X				
Miramichi (Chatham - Martin Well)	Groundwater										XX									
Miramichi (Chatham - Napan Road Well)	Groundwater										X					X				
Miramichi (Chatham - Nicol Well)	Groundwater										XX									
Miramichi (Chatham - Richard Well - retired)	Groundwater										XX									
Miramichi (Chatham - Sky Park Well - retired)	Groundwater										XX					X				
Miramichi (Chatham - Springvale Well)	Groundwater										XX					X				
Miramichi (Chatham - Walsh Well - retired)	Groundwater								XX		XX									
Miramichi (Douglastown - Rennie Rd Well)	Groundwater										XX									
Miramichi (Douglastown - Williston Ext Well)	Groundwater										XX									
Miramichi (Douglastown - Williston Well)	Groundwater										XX									

Raw Water Source	Source Type	As	B	Ba	Cd	Cr	Cu	F	Fe	Hg	Mn	NO3-	Pb	Sb	Se	TURB	U	Cl	Na	SO4
Miramichi (Newcastle - Allison Well)	Groundwater								X		XX					X				
Miramichi (Newcastle - McKay Well)	Groundwater								XX		XX					XX				
Miramichi (Newcastle - Millar Well)	Groundwater										XX					XX				
Miramichi (Newcastle - Mitchell P-2 Well)	Groundwater										XX									
Miramichi (Newcastle - Reservoir Well - retired)	Groundwater										XX									
Miramichi (Newcastle - Trevors Well)	Groundwater								XX		XX					XX				
Miramichi (Newcastle - Turcotte Well)	Groundwater								XX		XX					XX				
Moncton (Mapleton Place Well)	Groundwater										XX									
Moncton (McLaughlin Reservoir - backup supply)	Surface Water						X		XX		XX		X			XX				
Moncton (Turtle Creek Reservoir)	Surface Water								XX		XX					XX				
Nackawic (Well #2 - retired)	Groundwater								XX		XX		X			XX	XX			
Nackawic (Well #3)	Groundwater															X				
Nackawic (Well #4)	Groundwater															X				
New Maryland (Well A-1 - retired)	Groundwater																			
New Maryland (Well A-10)	Groundwater								X		XX					X				
New Maryland (Well A-11)	Groundwater										XX					X				
New Maryland (Well A-2 - retired)	Groundwater																			
New Maryland (Well A-20)	Groundwater								X		XX					X				
New Maryland (Well A-6 - retired)	Groundwater	X							XX		XX		X			XX				
New Maryland (Well F-1 - retired)	Groundwater										X				XX	XX	X			
New Maryland (Well P-2)	Groundwater	X						XX								XX				
New Maryland (Well S-1)	Groundwater							X			XX									
New Maryland (Well S-2 - retired)	Groundwater							X								XX				
New Maryland (Well S-3 - retired)	Groundwater										XX					XX				
New Maryland (Well S-4)	Groundwater										XX		X							
Oromocto (Oromocto River)	Surface Water										NO DATA									
Penobsquis (Well #07-1 Springdale)	Groundwater										XX									
Perth-Andover (Well 1)	Groundwater																			
Perth-Andover (Well 2)	Groundwater																			

Raw Water Source	Source Type	As	B	Ba	Cd	Cr	Cu	F	Fe	Hg	Mn	NO3-	Pb	Sb	Se	TURB	U	Cl	Na	SO4
Petit-Rocher (Infiltration Gallery)	*Infiltration Gallery*															XX				
Plaster Rock (Well #1)	*Groundwater*															X				
Plaster Rock (Well #2)	*Groundwater*															X				
Port Elgin (Mitten Well)	*Groundwater*																			
Port Elgin (Riverside Well - retired)	*Groundwater*								XX		XX		XX			XX				
Port Elgin (Well #2 - retired)	*Groundwater*																			
Port Elgin (Well #3 - retired)	*Groundwater*															X				
Quispamsis (Downeast Well #1)	*Groundwater*															X				
Quispamsis (Downeast Well #2)	*Groundwater*															X		X		
Quispamsis (Ridgewood Well #1)	*Groundwater*																XX			
Quispamsis (Ridgewood Well #2)	*Groundwater*	XX														XX	XX			
Richibucto (Well #1)	*Groundwater*			XX							XX					X		X		
Richibucto (Well #2 - retired)	*Groundwater*			XX							XX							XX		
Richibucto (Well #3)	*Groundwater*								XX		XX					XX				
Richibucto (Well #4)	*Groundwater*										XX									
Riverside-Albert (Reservoir 1)	*Surface Water*																			
Rivière-Verte (École Mgr-Matthieu-Mazerolle - retired)	*Groundwater*					X					XX		X			XX				
Rivière-Verte (Infiltration Gallery)	*Infiltration Gallery*								X					X		XX				
Rothesay (Well #1)	*Groundwater*								X		XX					XX				
Rothesay (Well #2)	*Groundwater*	XX							XX		XX					XX				
Rothesay (Well #3)	*Groundwater*								X		XX					XX				
Rothesay (Well #4)	*Groundwater*								XX		XX					XX				
Rothesay (Well #5)	*Groundwater*								XX		XX					XX				
Rothesay (Well #6)	*Groundwater*										XX									
Rothesay (Well #7)	*Groundwater*								XX		XX					XX				
Rothesay (Well #8)	*Groundwater*										XX					X				
Rothesay (Well #9)	*Groundwater*										XX									
Sackville (Booster Pump Well)	*Groundwater*	XX																		
Sackville (Well #1)	*Groundwater*								XX		XX					XX				

Raw Water Source	Source Type	As	B	Ba	Cd	Cr	Cu	F	Fe	Hg	Mn	NO3-	Pb	Sb	Se	TURB	U	Cl	Na	SO4
Sackville (Well #2)	Groundwater								XX		XX					XX				
Sackville (Well #3)	Groundwater								XX		XX					XX				
Saint John (Latimer Lake - East)	Surface Water										XX					XX				
Saint John (Ocean Dr. Well - Harbourview)	Groundwater								X							XX				
Saint John (Seaward Cres. Well - Harbourview)	Groundwater															X				
Saint John (Spruce Lake - West)	Surface Water															XX				
Saint-Antoine (Puits PW-1)	Groundwater										XX					XX				
Saint-Antoine (Puits PW-2)	Groundwater										XX									
Saint-Antoine (Puits PW-3)	Groundwater										XX					X				
Sainte-Anne-de-Madawaska (Puits 1)	Groundwater	XX							XX		XX		X			XX				
Sainte-Anne-de-Madawaska (Puits 2)	Groundwater	XX							XX		XX					XX				
Saint-François-de-Madawaska (Puits 1)	Groundwater										XX					X				
Saint-François-de-Madawaska (Puits 2)	Groundwater										XX									
Saint-François-de-Madawaska (Puits 3)	Groundwater								X											
Saint-François-de-Madawaska (Puits 4)	Groundwater																			
Saint-Léonard (Puits 1)	Groundwater								XX		XX					XX				
Saint-Léonard (Puits 2)	Groundwater										XX									
Saint-Léonard (Puits 3 - puits de réserve)	Groundwater	X							X		XX					XX				
Saint-Louis-de-Kent (Puits #1)	Groundwater															X				
Saint-Louis-de-Kent (Puits #2)	Groundwater										XX		X							
Saint-Quentin (Galerie d'infiltration)	Infiltration Gallery																			
Shediac (Well #1)	Groundwater												X							
Shediac (Well #10)	Groundwater																			
Shediac (Well #11)	Groundwater								XX		XX					XX				
Shediac (Well #2)	Groundwater										XX									
Shediac (Well #3 - retired)	Groundwater								X		XX					XX				
Shediac (Well #4 - retired)	Groundwater								XX		XX					XX		XX		
Shediac (Well #5)	Groundwater										XX									
Shediac (Well #6)	Groundwater										XX					X				

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Raw Water Source	Source Type	As	B	Ba	Cd	Cr	Cu	F	Fe	Hg	Mn	NO3-	Pb	Sb	Se	TURB	U	Cl	Na	SO4
Shediac (Well #7 - retired)	*Groundwater*								XX		XX					XX				
Shediac (Well #8)	*Groundwater*								X		XX					XX				
Shediac (Well #9)	*Groundwater*								XX		XX					XX				
Shippagan (Puits 2B)	*Groundwater*								X											
Shippagan (Puits 3)	*Groundwater*								X											
Shippagan (Puits 5)	*Groundwater*																			
Shippagan (Puits 6)	*Groundwater*								X											
St. André (Puits 1)	*Groundwater*																			
St. André (Puits 2)	*Groundwater*								X							XX				
St. Andrews (Chamcook Lake raw water)	*Surface Water*																			
St. George (Well #1) - retired	*Groundwater*								XX							XX				
St. George (Well #2)	*Groundwater*								XX	X	XX		XX			XX				
St. George (Well #3)	*Groundwater*								X		X		X			X				
St. George (Well #4)	*Groundwater*															XX		X		
St. George (Well #5)	*Groundwater*																			
St. Hilaire (Galerie d'Infiltration - retired)	*Infiltration Gallery*								X		X					XX				
St. Hilaire (Puits 1)	*Groundwater*								XX		XX					XX				
St. Hilaire (Puits 2)	*Groundwater*								XX		XX					XX				
St. Margaret's Water Commission (Main Well)	*Groundwater*								XX		XX					XX				
St. Stephen (Well #1)	*Infiltration Gallery*								XX		XX					X				
St. Stephen (Well #2)	*Groundwater*												X			X				
St. Stephen (Well #3)	*Groundwater*															X				
Sussex (Church Ave. Fountain)	*Groundwater*							XX												
Sussex (Jonah Ct. Well)	*Groundwater*																			
Sussex (Magnolia Ave. Well)	*Groundwater*																			
Sussex Corner (Well #1)	*Groundwater*																			
Sussex Corner (Well #2)	*Groundwater*															XX				
Sussex Corner (Well #3)	*Groundwater*								X							XX				
Tide Head (Well #1)	*Groundwater*																			

Raw Water Source	Source Type	As	B	Ba	Cd	Cr	Cu	F	Fe	Hg	Mn	NO3-	Pb	Sb	Se	TURB	U	Cl	Na	SO4
Tide Head (Well #2)	*Groundwater*																			
Tide Head (Well #3)	*Groundwater*																			
Tracadie-Sheila (Puits 1 Sheila)	*Groundwater*															X				
Tracadie-Sheila (Puits 1 Tracadie)	*Groundwater*										XX									
Tracadie-Sheila (Puits 2 Sheila)	*Groundwater*										X									
Tracadie-Sheila (Puits 2 Tracadie)	*Groundwater*										XX									
Tracadie-Sheila (Puits 3 Sheila)	*Groundwater*										XX		X							
Tracadie-Sheila (Puits 3 Tracadie)	*Groundwater*								XX		XX					XX				
Tracadie-Sheila (Puits 5 Tracadie)	*Groundwater*										XX									
Tracadie-Sheila (Puits 6 Tracadie)	*Groundwater*								X		XX					X				
Woodstock (Well #1)	*Groundwater*										XX									
Woodstock (Well #2)	*Groundwater*										XX									

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Summary of Organic Chemistry Findings for Raw Water Sources

The following table lists the findings (from all available data since 1994 – see Appendix A for the applicable date ranges for each community) regarding the occurrence of organic chemistry characteristics that exceeded guideline values at least once in each individual raw water supply before it was treated to remove contaminants or disinfected. This is not a measure of the quality of water delivered to users.

Key		1,2-DCB	1,2-DCE	1,4-DCB	5-Cl-PH	B(a)P	BENZ	CCl4	DCM	EBENZ	PCE	TCE	THM	TOL	XYL	VINYL
Numbers of Raw Water Sources (out of 255) with at Least One Result that Exceeded the Guideline																
Blank / not shaded = The guideline was never exceeded		1,2-DCB	1,2-DCE	1,4-DCB	5-Cl-PH	B(a)P	BENZ	CCl4	DCM	EBENZ	PCE	TCE	THM	TOL	XYL	VINYL
The guideline was exceeded in at least 10% of samples (or in at least 2 samples when 10 or fewer total samples)	XX															
The guideline was exceeded in less than 10% of samples (or in only 1 sample when 10 or fewer total samples)	X					2								1		
Total		0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
Guideline values (note, the *New Brunswick Drinking Water Quality Guidelines* do not specifically apply to raw water quality, but they can help to identify what types of water treatment might be needed to meet the *Guidelines* in drinking water delivered to users)	MAC	200	5	5	60	0.01	5	5	50		30	5	100			2
	AO									2.4				24	300	
	Other															
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L

Raw Water Source	Source Type	1,2-DCB	1,2-DCE	1,4-DCB	5-Cl-PH	B(a)P	BENZ	CCl4	DCM	EBENZ	PCE	TCE	THM	TOL	XYL	VINYL
Alma (Well #1)	*Groundwater*															
Alma (Well #2)	*Groundwater*															
Aroostook (Well #1)	*Groundwater*															
Aroostook (Well #2)	*Groundwater*															
Atholville (Well #1)	*Groundwater*															
Atholville (Well #2A)	*Groundwater*															
Atholville (Well #3)	*Groundwater*															
Atholville (Well #4)	*Groundwater*															
Baker Brook (Étang de recharge)	*Surface Water*															
Baker Brook (Nouveau Puits Théophile - retired)	*Groundwater*															
Baker Brook (Puits Piste Cyclable - retired)	*Groundwater*															
Baker Brook (Puits rivière St-Jean)	*Groundwater*															

Raw Water Source	Source Type	1,2-DCB	1,2-DCE	1,4-DCB	5-Cl-PH	B(a)P	BENZ	CCI4	DCM	EBENZ	PCE	TCE	THM	TOL	XYL	VINYL
Baker Brook (Puits, PW-1-80)	*Groundwater*															
Baker Brook (Puits, PW-2-80)	*Groundwater*															
Baker Brook (Puits P-12-1)	*Groundwater*															
Balmoral (Puits #1)	*Groundwater*															
Balmoral (Puits #2)	*Groundwater*															
Bas-Caraquet (Puits rue Frédérick)	*Groundwater*															
Bath (Well #1)	*Groundwater*															
Bath (Well #3)	*Groundwater*															
Bathurst (Grovehill Well - retired)	*Groundwater*															
Bathurst (Middle River)	*Surface Water*															
Belledune (Jacquet River raw water)	*Surface Water*															
Blacks Harbour (Wallace Cove Well)	*Groundwater*															
Blacks Harbour (Well #3)	*Groundwater*															
Blacks Harbour (Well #4)	*Groundwater*															
Bouctouche (Puits #1)	*Groundwater*															
Bouctouche (Puits #2)	*Groundwater*															
Bouctouche (Puits #3)	*Groundwater*															
Bouctouche (Puits #4)	*Groundwater*															
Bouctouche (Puits #5)	*Groundwater*															
Campbellton (Raw Water)	*Surface Water*															
Caraquet (Puits de la rue du Portage)	*Groundwater*															
Caraquet (Puits de la rue Lavigne)	*Groundwater*															
Caraquet (Puits du chemin St-Simon - retired)	*Groundwater*															
Caraquet (Source du chemin St-Simon)	*Spring*															
Charlo (Puits - Well 1)	*Groundwater*															
Charlo (Puits - Well 2)	*Groundwater*															
Clair (Lac Thompson - retired)	*Surface Water*															
Clair (Puits Avenue Industrielle - retired)	*Groundwater*															
Clair (Puits P-04-01)	*Groundwater*															

Raw Water Source	Source Type	1,2-DCB	1,2-DCE	1,4-DCB	5-Cl-PH	B(a)P	BENZ	CCl4	DCM	EBENZ	PCE	TCE	THM	TOL	XYL	VINYL
Clair (Puits P-06-01)	*Groundwater*															
Clair (Puits P-08-01)	*Groundwater*															
Clair (Puits P-11-01)	*Groundwater*															
Dalhousie (Raw Water - Charlo River)	*Surface Water*															
Doaktown (Spring Reservoir)	*Spring*															
Doaktown WTP Raw (new Storeytown Well)	*Groundwater*															
Dorchester Well #1 (CSC Woodlawn Well)	*Groundwater*															
Dorchester Well #2 (CSC Millbrook Well)	*Groundwater*															
Dorchester Well #3 (CSC Back-up Well)	*Groundwater*															
Dorchester Well #4 (Village Well)	*Groundwater*															
Drummond (Puits chemin Tobique)	*Groundwater*															
Drummond (Puits rue Station)	*Groundwater*															
Edmundston (Iroquois Blanchette Puits 1)	*Groundwater*															
Edmundston (Iroquois Blanchette Puits 2)	*Groundwater*															
Edmundston (Iroquois Blanchette Puits 3)	*Groundwater*															
Edmundston (Iroquois Blanchette Puits 4)	*Groundwater*															
Edmundston (Iroquois Blanchette Puits 5)	*Groundwater*															
Edmundston (Iroquois Blanchette Puits 6)	*Groundwater*															
Edmundston (St. Basile Puits rue Jos Soucis - retired)	*Groundwater*															
Edmundston (St. Jacques Galerie d'Infiltration - retired)	*Infiltration Gallery*															
Edmundston (Verret Puits 1)	*Groundwater*															
Edmundston (Verret Puits 2)	*Groundwater*															
Eel River Crossing (Infiltration Gallery)	*Infiltration Gallery*															
Fredericton (Queen Square Well PW10)	*Groundwater*															
Fredericton (Queen Square Well PW11)	*Groundwater*															
Fredericton (Queen Square Well PW9)	*Groundwater*															
Fredericton (Wilmot Park Well #1)	*Groundwater*															
Fredericton (Wilmot Park Well #2)	*Groundwater*															
Fredericton (Wilmot Park Well #3)	*Groundwater*															

Raw Water Source	Source Type	1,2-DCB	1,2-DCE	1,4-DCB	5-Cl-PH	B(a)P	BENZ	CCl4	DCM	EBENZ	PCE	TCE	THM	TOL	XYL	VINYL
Fredericton (Wilmot Park Well #4) - retired	*Groundwater*															
Fredericton (Wilmot Park Well #5)	*Groundwater*															
Fredericton (Wilmot Park Well #6)	*Groundwater*															
Fredericton (Wilmot Park Well #7)	*Groundwater*															
Fredericton (Wilmot Park Well #8)	*Groundwater*															
Fredericton Junction (Well #1)	*Groundwater*															
Fredericton Junction (Well #2) - retired	*Groundwater*															
Fredericton Junction (Well #3) - retired	*Groundwater*															
Fredericton Junction (Well #4)	*Groundwater*															
Grand Falls (Well #1)	*Groundwater*															
Grand Falls (Well #2)	*Groundwater*															
Grand Falls (Well #3)	*Groundwater*															
Grand Falls (Well #5)	*Groundwater*															
Hampton Well	*Groundwater*															
Hartland (Well #1)	*Groundwater*															
Hartland (Well #2)	*Groundwater*															
Hillsborough (Well #1)	*Groundwater*															
Hillsborough (Well #2) - retired	*Groundwater*															
Hillsborough (Well #3)	*Groundwater*															
Kedgwick (Puits 2)	*Groundwater*															
Kedgwick (Puits 3)	*Groundwater*															
Lamèque (Puits 10)	*Groundwater*															
Lamèque (Puits 3 - retired)	*Groundwater*															
Lamèque (Puits 5)	*Groundwater*															
Lamèque (Puits 7)	*Groundwater*															
Lamèque (Puits 8)	*Groundwater*															
Lamèque (Puits 9)	*Groundwater*															
McAdam (Well #1 - retired)	*Groundwater*															
McAdam (Well #10)	*Groundwater*															

Raw Water Source	Source Type	1,2-DCB	1,2-DCE	1,4-DCB	5-Cl-PH	B(a)P	BENZ	CCl4	DCM	EBENZ	PCE	TCE	THM	TOL	XYL	VINYL
McAdam (Well #11)	Groundwater															
McAdam (Well #12)	Groundwater															
McAdam (Well #13)	Groundwater															
McAdam (Well #2 - retired)	Groundwater															
Memramcook (Puits #1)	Groundwater															
Memramcook (Puits #2 - retired)	Groundwater															
Memramcook (Puits #3 - retired)	Groundwater															
Memramcook (Puits 08-01)	Groundwater															
Memramcook (Puits A - retired)	Groundwater															
Memramcook (Puits C - retired)	Groundwater															
Memramcook (Source Bourgeois)	Spring															
Memramcook (Source Cormier - retired)	Spring															
Memramcook (Source de l'Institut)	Spring															
Miramichi (Chatham - Gordon Well)	Groundwater															
Miramichi (Chatham - Henderson Well 1)	Groundwater															
Miramichi (Chatham - Henderson Well 2)	Groundwater															
Miramichi (Chatham - Howard Well)	Groundwater															
Miramichi (Chatham - Industrial Park Well)	Groundwater															
Miramichi (Chatham - Martin Well)	Groundwater															
Miramichi (Chatham - Napan Road Well)	Groundwater															
Miramichi (Chatham - Nicol Well)	Groundwater															
Miramichi (Chatham - Richard Well - retired)	Groundwater															
Miramichi (Chatham - Sky Park Well - retired)	Groundwater															
Miramichi (Chatham - Springvale Well)	Groundwater															
Miramichi (Chatham - Walsh Well - retired)	Groundwater															
Miramichi (Douglastown - Rennie Rd Well)	Groundwater															
Miramichi (Douglastown - Williston Ext Well)	Groundwater															
Miramichi (Douglastown - Williston Well)	Groundwater															
Miramichi (Newcastle - Allison Well)	Groundwater															

Raw Water Source	Source Type	1,2-DCB	1,2-DCE	1,4-DCB	5-Cl-PH	B(a)P	BENZ	CCI4	DCM	EBENZ	PCE	TCE	THM	TOL	XYL	VINYL
Miramichi (Newcastle - McKay Well)	*Groundwater*															
Miramichi (Newcastle - Millar Well)	*Groundwater*															
Miramichi (Newcastle - Mitchell P-2 Well)	*Groundwater*															
Miramichi (Newcastle - Reservoir Well - retired)	*Groundwater*															
Miramichi (Newcastle - Trevors Well)	*Groundwater*															
Miramichi (Newcastle - Turcotte Well)	*Groundwater*															
Moncton (Mapleton Place Well)	*Groundwater*															
Moncton (McLaughlin Reservoir - backup supply)	*Surface Water*															
Moncton (Turtle Creek Reservoir)	*Surface Water*					**X**										
Nackawic (Well #2 - retired)	*Groundwater*															
Nackawic (Well #3)	*Groundwater*															
Nackawic (Well #4)	*Groundwater*															
New Maryland (Well A-1 - retired)	*Groundwater*															
New Maryland (Well A-10)	*Groundwater*															
New Maryland (Well A-11)	*Groundwater*													**X**		
New Maryland (Well A-2 - retired)	*Groundwater*															
New Maryland (Well A-20)	*Groundwater*															
New Maryland (Well A-6 - retired)	*Groundwater*															
New Maryland (Well F-1 - retired)	*Groundwater*															
New Maryland (Well P-2)	*Groundwater*															
New Maryland (Well S-1)	*Groundwater*															
New Maryland (Well S-2 - retired)	*Groundwater*															
New Maryland (Well S-3 - retired)	*Groundwater*															
New Maryland (Well S-4)	*Groundwater*															
Oromocto (Oromocto River)	*Surface Water*						**No Data**									
Penobsquis (Well #07-1 Springdale)	*Groundwater*															
Perth-Andover (Well 1)	*Groundwater*															
Perth-Andover (Well 2)	*Groundwater*															
Petit-Rocher (Infiltration Gallery)	*Infiltration Gallery*															

Raw Water Source	Source Type	1,2-DCB	1,2-DCE	1,4-DCB	5-Cl-PH	B(a)P	BENZ	CCl4	DCM	EBENZ	PCE	TCE	THM	TOL	XYL	VINYL
Plaster Rock (Well #1)	*Groundwater*															
Plaster Rock (Well #2)	*Groundwater*															
Port Elgin (Mitten Well)	*Groundwater*															
Port Elgin (Riverside Well - retired)	*Groundwater*															
Port Elgin (Well #2 - retired)	*Groundwater*															
Port Elgin (Well #3 - retired)	*Groundwater*															
Quispamsis (Downeast Well #1)	*Groundwater*															
Quispamsis (Downeast Well #2)	*Groundwater*															
Quispamsis (Ridgewood Well #1)	*Groundwater*															
Quispamsis (Ridgewood Well #2)	*Groundwater*															
Richibucto (Well #1)	*Groundwater*															
Richibucto (Well #2 - retired)	*Groundwater*															
Richibucto (Well #3)	*Groundwater*															
Richibucto (Well #4)	*Groundwater*															
Riverside-Albert (Reservoir 1)	*Surface Water*															
Rivière-Verte (École Mgr-Matthieu-Mazerolle - retired)	*Groundwater*															
Rivière-Verte (Infiltration Gallery)	*Infiltration Gallery*															
Rothesay (Well #1)	*Groundwater*															
Rothesay (Well #2)	*Groundwater*															
Rothesay (Well #3)	*Groundwater*															
Rothesay (Well #4)	*Groundwater*															
Rothesay (Well #5)	*Groundwater*															
Rothesay (Well #6)	*Groundwater*															
Rothesay (Well #7)	*Groundwater*															
Rothesay (Well #8)	*Groundwater*															
Rothesay (Well #9)	*Groundwater*															
Sackville (Booster Pump Well)	*Groundwater*															
Sackville (Well #1)	*Groundwater*															
Sackville (Well #2)	*Groundwater*															

Raw Water Source	Source Type	1,2-DCB	1,2-DCE	1,4-DCB	5-Cl-PH	B(a)P	BENZ	CCI4	DCM	EBENZ	PCE	TCE	THM	TOL	XYL	VINYL
Sackville (Well #3)	*Groundwater*															
Saint John (Latimer Lake - East)	*Surface Water*															
Saint John (Ocean Dr. Well - Harbourview)	*Groundwater*															
Saint John (Seaward Cres. Well - Harbourview)	*Groundwater*															
Saint John (Spruce Lake - West)	*Surface Water*															
Saint-Antoine (Puits PW-1)	*Groundwater*															
Saint-Antoine (Puits PW-2)	*Groundwater*															
Saint-Antoine (Puits PW-3)	*Groundwater*															
Sainte-Anne-de-Madawaska (Puits 1)	*Groundwater*															
Sainte-Anne-de-Madawaska (Puits 2)	*Groundwater*															
Saint-François-de-Madawaska (Puits 1)	*Groundwater*															
Saint-François-de-Madawaska (Puits 2)	*Groundwater*															
Saint-François-de-Madawaska (Puits 3)	*Groundwater*															
Saint-François-de-Madawaska (Puits 4)	*Groundwater*															
Saint-Léonard (Puits 1)	*Groundwater*															
Saint-Léonard (Puits 2)	*Groundwater*															
Saint-Léonard (Puits 3 - puits de réserve)	*Groundwater*															
Saint-Louis-de-Kent (Puits #1)	*Groundwater*															
Saint-Louis-de-Kent (Puits #2)	*Groundwater*															
Saint-Quentin (Galerie d'infiltration)	*Infiltration Gallery*															
Shediac (Well #1)	*Groundwater*															
Shediac (Well #10)	*Groundwater*															
Shediac (Well #11)	*Groundwater*															
Shediac (Well #2)	*Groundwater*															
Shediac (Well #3 - retired)	*Groundwater*															
Shediac (Well #4 - retired)	*Groundwater*															
Shediac (Well #5)	*Groundwater*															
Shediac (Well #6)	*Groundwater*															
Shediac (Well #7 - retired)	*Groundwater*															

Raw Water Source	Source Type	1,2-DCB	1,2-DCE	1,4-DCB	5-Cl-PH	B(a)P	BENZ	CCl4	DCM	EBENZ	PCE	TCE	THM	TOL	XYL	VINYL
Shediac (Well #8)	*Groundwater*															
Shediac (Well #9)	*Groundwater*															
Shippagan (Puits 2B)	*Groundwater*															
Shippagan (Puits 3)	*Groundwater*															
Shippagan (Puits 5)	*Groundwater*															
Shippagan (Puits 6)	*Groundwater*															
St. André (Puits 1)	*Groundwater*															
St. André (Puits 2)	*Groundwater*															
St. Andrews (Chamcook Lake raw water)	*Surface Water*															
St. George (Well #1) - retired	*Groundwater*															
St. George (Well #2)	*Groundwater*															
St. George (Well #3)	*Groundwater*					X										
St. George (Well #4)	*Groundwater*															
St. George (Well #5)	*Groundwater*															
St. Hilaire (Galerie d'Infiltration - retired)	*Infiltration Gallery*															
St. Hilaire (Puits 1)	*Groundwater*															
St. Hilaire (Puits 2)	*Groundwater*															
St. Margaret's Water Commission (Main Well)	*Groundwater*															
St. Stephen (Well #1)	*Infiltration Gallery*															
St. Stephen (Well #2)	*Groundwater*															
St. Stephen (Well #3)	*Groundwater*															
Sussex (Church Ave. Fountain)	*Groundwater*															
Sussex (Jonah Ct. Well)	*Groundwater*															
Sussex (Magnolia Ave. Well)	*Groundwater*															
Sussex Corner (Well #1)	*Groundwater*															
Sussex Corner (Well #2)	*Groundwater*															
Sussex Corner (Well #3)	*Groundwater*															
Tide Head (Well #1)	*Groundwater*															
Tide Head (Well #2)	*Groundwater*															

Raw Water Source	Source Type	1,2-DCB	1,2-DCE	1,4-DCB	5-Cl-PH	B(a)P	BENZ	CCl4	DCM	EBENZ	PCE	TCE	THM	TOL	XYL	VINYL
Tide Head (Well #3)	*Groundwater*															
Tracadie-Sheila (Puits 1 Sheila)	*Groundwater*															
Tracadie-Sheila (Puits 1 Tracadie)	*Groundwater*															
Tracadie-Sheila (Puits 2 Sheila)	*Groundwater*															
Tracadie-Sheila (Puits 2 Tracadie)	*Groundwater*															
Tracadie-Sheila (Puits 3 Sheila)	*Groundwater*															
Tracadie-Sheila (Puits 3 Tracadie)	*Groundwater*															
Tracadie-Sheila (Puits 5 Tracadie)	*Groundwater*															
Tracadie-Sheila (Puits 6 Tracadie)	*Groundwater*															
Woodstock (Well #1)	*Groundwater*															
Woodstock (Well #2)	*Groundwater*															