

Annual Summary of Drinking Water Quality Monitoring for Public Systems 2024-2025

Water Resources Management Division



Background

Clean, safe drinking water is fundamental to the health, well-being, and economic prosperity of the people and communities of Newfoundland and Labrador. Guided by the Multi-Barrier Strategic Action Plan (MBSAP), the province's Drinking Water Program provides a comprehensive, adaptive framework that ensures a high standard of public drinking water quality. Safeguarding public drinking water systems involves extensive monitoring—from source to distribution—carried out collaboratively by several government departments and partners, including Environment and Climate Change (ECC), Digital Government and Service NL (DGSNL), and NL Health Services (NL Public Health and the Public Health Microbiology Laboratory).

Since its release, the 2023 Drinking Water Safety Action Plan has broadened the scope of the MBSAP to address not only public systems but also semi-public and private drinking water supplies. By establishing 37 specific actions, the plan outlines a path of continuous improvement that strengthens infrastructure, governance, risk management, regulatory oversight, and community engagement. These actions also place an emphasis on innovation, ensuring the province remains prepared to meet new and emerging challenges. The plan's structured timelines and measurable indicators support accountability, transparency, and informed decision-making. Just as importantly, they provide a clear mechanism for communities, stakeholders, and citizens to see progress, participate in solutions, and maintain trust in the safety of their water supply.

This third Annual Summary of Drinking Water Quality Monitoring for Public Systems (the '*Annual Monitoring Summary*') presents the findings for the 2024–2025 fiscal year. It highlights the outcomes of monitoring activities and year-over-year performance trends for public drinking water systems, offering a clear picture of both achievements and areas requiring continued attention. The Government of Newfoundland and Labrador remains firmly committed to reducing Boil Water Advisories (BWAs) and resolving Non-consumption Advisories (NCAs), while also advancing broader initiatives to strengthen water system management and resilience. These ongoing efforts are more than corrective measures—they represent a proactive approach to safeguarding public health, ensuring reliable access to clean water, and supporting the sustainability of communities across the province.

CLICK HERE



**If you would like to learn more about the
2023 Drinking Water Safety Action Plan.**

<https://www.gov.nl.ca/ecc/files/23074-Drinking-Water-Safety-Plan-April-10.pdf>



Bacteriological Water Quality

Environmental Health Officers and Environmental Technicians with the Department of Digital Government and Service NL collect tap water samples from public drinking water systems for analysis of bacteriological parameters (total coliforms and *Escherichia coli*). These samples are analyzed through the NL Health Services laboratory network, which includes the Public Health Microbiology Laboratory and hospital laboratories. Figure 1 shows the total number of bacteriological samples that were collected and tested for each fiscal year since 2015-16.

During 2024-25, 18,415 public drinking water system bacteriological samples were collected and tested. Based on the analysis of bacteriological parameters for public drinking water system samples taken during the 2024-25 fiscal year, 792 samples were found to be unsatisfactory in terms of total coliforms and 122 samples were found to be unsatisfactory in terms of *E. coli* (Table 1). An unsatisfactory result indicates the presence of total coliforms and or *E. coli* bacteria counts in the sample.

Figure 1: Bacteriological Samples Tested per Fiscal Year

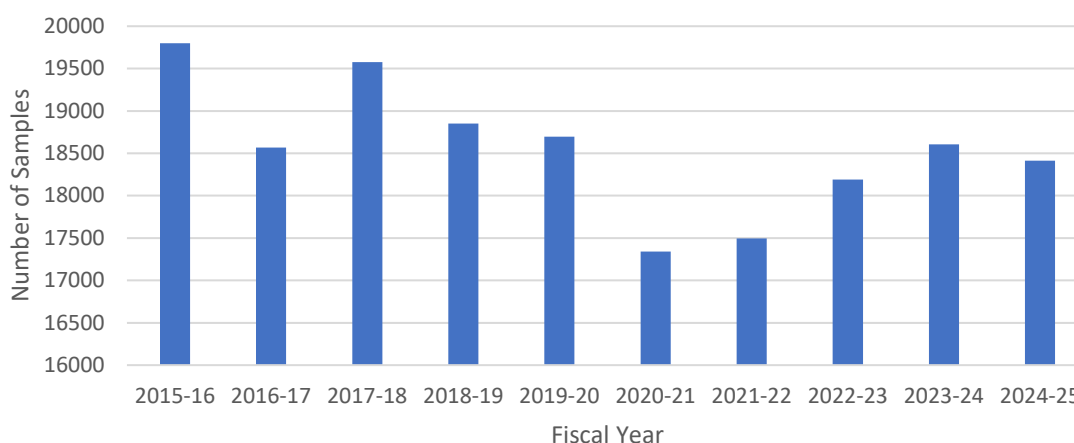


Table 1: Summary of Bacteriological Sampling for 2024-2025

Fiscal Year 2024-2025							
Number of public water system bacteriological samples for each region tested during the fiscal year:							
Labrador West	Goose Bay	Grand Falls-Windsor	Clarenville	Corner Brook	St. Anthony	Public Health Lab	Total
197	1,017	4,010	1,181	3,364	1,083	7,563	18,415
Number of samples found to be unsatisfactory in terms of total coliforms by region:							
Labrador West	Goose Bay	Grand Falls-Windsor	Clarenville	Corner Brook	St. Anthony	Public Health Lab	Total
4	29	170	75	167	86	261	792
Percentage (%) of public water system samples tested found to be unsatisfactory in terms of total coliforms: 4.30%							
Number samples tested found to be unsatisfactory in terms of <i>E. coli</i> by region:							
Labrador West	Goose Bay	Grand Falls-Windsor	Clarenville	Corner Brook	St. Anthony	Public Health Lab	Total
1	8	17	10	41	15	30	122
Percentage (%) of public water system samples tested found to be unsatisfactory in terms of <i>E. coli</i> : 0.66%							

Boil Water Advisories

Boil Water Advisories (BWAs) are preventative measures designed to protect public health from microbiological contamination that may be present, or is confirmed to be present, in drinking water.

A BWA is issued when water quality becomes questionable due to operational deficiencies, such as insufficient chlorine residuals, the absence of a disinfection system, or the presence of bacteriological indicators. In such cases, the results are immediately communicated to affected communities for appropriate action. The information is also passed along to regional Medical Officers of Health to advise that action has been taken with the community, and for any follow up that may be necessary by the public health system. The list of all active BWAs is updated daily and is publicly accessible via: <https://www.gov.nl.ca/ecc/waterres/drinkingwater/advisories/>

On March 31, 2025, there were 177 BWAs in effect across the province. These advisories impacted 136 communities, affecting approximately 47,395 individuals—equivalent to about 10.72% of the population served by public water systems. Of these advisories, 137 were classified as long-term, having been in effect for five years or more.

Figure 2 shows a comparison of BWAs at the end of each fiscal year since March 31, 2016.

Figure 3 depicts the breakdown of BWAs issued on March 31, 2025, categorized by the underlying reasons for their issuance.

Figure 2: Number of BWAs and Number of Communities Affected

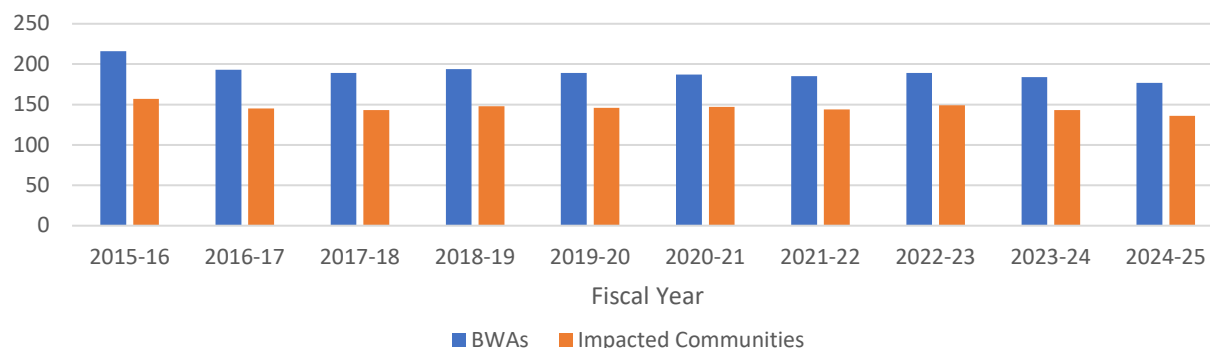
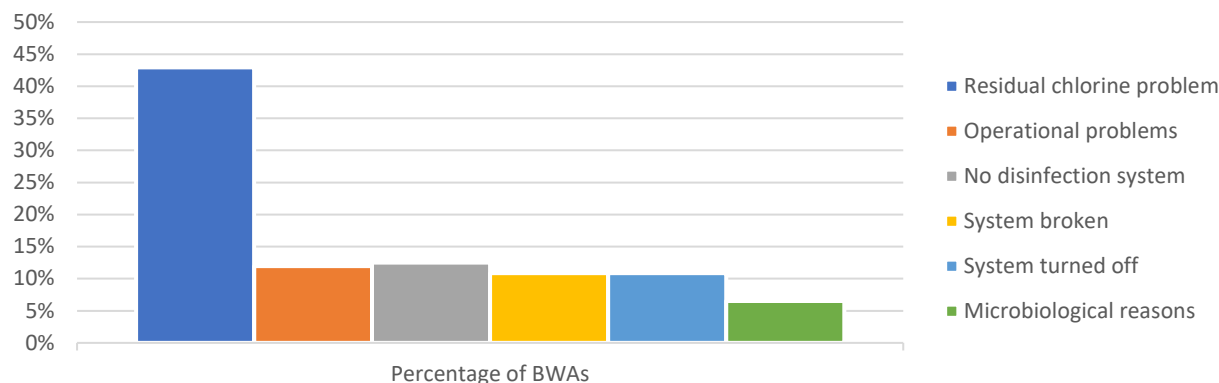


Figure 3: Reasons for BWAs



Chemical and Physical Water Quality

Staff within the Water Resources Management Division (WRMD) of ECC collect water samples from both source and tap locations to analyze chemical, physical, and radiological parameters.

The number of chemical and physical water quality samples taken by region for 2024-25 are presented in Table 2, with a total of 3,820 samples collected by WRMD during the year.

Table 2: Number of Samples Taken by WRMD for 2024-25

Region	Source	Tap	THM	HAA	Total
Eastern	80	456	444	445	1,425
Central	67	231	347	347	992
Western	52	345	339	339	1,075
Labrador	18	71	115	115	319
Other (Special)	9	0	0	0	9

Once the laboratory completes its analysis, the results are sent to the WRMD for evaluation. The WRMD assesses these results by comparing them to the drinking water quality guidelines used by the Government of Newfoundland and Labrador, which are based on the Guidelines for Canadian Drinking Water Quality (GCDWQ) developed by Health Canada. This comparison helps identify any exceedances in chemical or physical parameters that could pose risks to human health or affect the aesthetic quality of the drinking water. Table 3 provides a summary of chemical and physical parameter exceedances recorded from fiscal years 2018-19 to 2024-25.

When an exceedance is identified for a parameter that could pose a risk to human health, a detailed exceedance report is promptly issued to the affected community and shared with the Departments of Health and Community Services (HCS), NL Health Services, and Digital Government and Service NL (DGSNL). Officials with these departments then consult with a Medical Officer of Health regarding the need to issue a Non-Consumption Advisory (NCA). Figure 4 provides a comparison of NCAs at the end of each fiscal year since March 31, 2016.

Figure 4: Non-Consumption Advisories

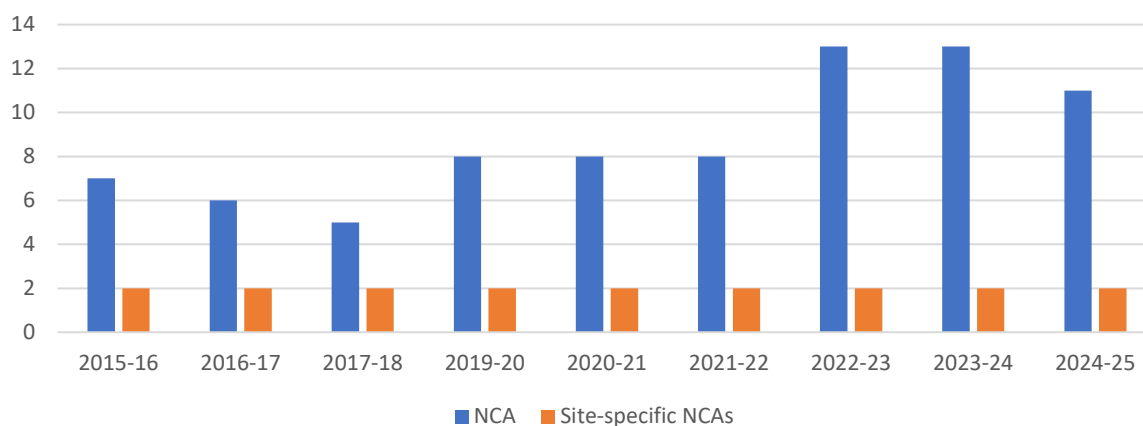


Table 3: Tap Water Exceedances per Fiscal Year

Chemical Parameters	MAC (mg/L)	Other Value (mg/L)	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Aluminum*	2.9	OG < 0.1	0	0	0	0	0	0
Antimony	0.006		0	0	0	0	0	0
Arsenic	0.01		5	9	1	5	5	8
Barium	2.0		0	0	0	0	0	0
Boron	5.0		0	0	0	0	0	0
Cadmium	0.007		0	0	0	0	0	0
Chloride		AO ≤ 250	4	3	3	2	7	3
Chromium	0.05		0	0	0	0	0	0
Copper	2.0	AO ≤ 1	0	2	3	2	2	0
Fluoride	1.5		2	1	0	0	0	0
Iron		AO ≤ 0.3	103	121	119	124	137	140
Lead	0.005		8	26	14	20	14	12
Manganese	0.12	AO ≤ 0.02	40	29	42	31	35	34
Mercury	0.001		0	0	0	0	0	0
Nitrate and Nitrite	10		0	0	0	0	0	0
Selenium	0.05		0	0	0	0	0	0
Sodium		AO ≤ 200	3	4	2	2	5	4
Strontium	7.0		0	0	0	0	0	0
Sulphate		AO ≤ 500	1	0	1	2	1	0
Uranium	0.02		0	0	0	0	2	2
Zinc		AO ≤ 5.0	0	0	0	0	0	0
* GCDWQ MAC for total aluminum in drinking water is 2.9 mg/L based on a locational running average of a minimum of quarterly samples taken in the distribution system. The exceedance number reported in the above table for aluminum is not based on quarterly sampling, rather it is based on semi-annual sampling of tap water quality.								
Physical Parameters	MAC (mg/L)	Other Value	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Colour	--	AO ≤ 15 TCU	416	446	449	424	451	492
pH	--	6.5-8.5	167	308	309	267	297	292
TDS	--	AO ≤ 500 mg/L	9	13	7	8	14	10
Turbidity	--	≤ 1.0 NTU	67	59	209	134	109	97
Disinfection By-Products (DBPs)	MAC (µg/L)	Other Value	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Trihalomethanes	100 *	None	131	144	179	169	173	170
Haloacetic Acids	80 *	None	128	156	156	137	143	143
* Expressed as a locational running annual average of quarterly samples, collected at a point of the highest formation potential. A minimum of four samples per year, one in each season are required to determine if a particular water supply meets or exceeds the recommended limit. The number reported in the table reflects the number of DBP exceedances in the last sampling season within the fiscal year (i.e. the winter sampling season that runs from January to March).								