Water Resources
Management Division

Source Water Quality for Public Water Supplies in Newfoundland and Labrador - Additional Parameters

Community Name	Serviced Area	Source Name	Sample Date	Strontium	Nitrate	Nitrite	TOC
			Units	mg/L	mg/L	mg/L	mg/L
			Guidelines for Canadian Drinking Water Quality	7	10	1	
Change Islands	Change Islands - PWDU	#1 Fox Cove Well	Feb 28, 2023	0.25	LTD	0.04	11.00
Change Islands	Change Islands fill up station	#1 Fox Cove Well	Feb 28, 2023	0.25	LTD	0.04	11.00
Clarenville	Clarenville, Shoal Harbour	Shoal Harbour River	Feb 23, 2023	0.01	0.10	LTD	8.60
Deep Bight	Deep Bight	Deep Bight River	Mar 07, 2023	0.01	0.07	LTD	6.30
Ferryland	Ferryland	Deep Cove Pond	Jan 17, 2023	0.01	LTD	LTD	10.00
Georgetown	Georgetown	Third Pond	Feb 17, 2023	0.01	0.12	0.01	4.20
Indian Bay	Indian Bay	Indian Bay Brook	Feb 22, 2023	0.01	LTD	0.01	6.10
Mainland	Mainland	Cointres Brook (Backup Supply)	Jan 25, 2023	0.04	0.19	LTD	4.90
Mainland	Mainland	Cointres Brook (Backup Supply)	Mar 17, 2023	0.08	0.30	LTD	2.00

Source water samples are collected directly from the source such as a groundwater well, lake, pond, or stream prior to disinfection or other treatment. The source water quality is analyzed to determine the quality of water that flows into your water treatment and distribution system. The quality of this water is a direct indicator of the health of the ecosystem that makes up the natural drainage basin, well head recharge area or watershed area. Monitoring of source water quality is the most important tool to assess the impact of land use changes on source water quality, the presence of disinfection by-product (DBP) pre-cursors and to ensure the integrity of a public water supply. The values for each parameter are as reported by the lab and verified by the department.

The exceedance report for source water provides a brief discussion and interpretation of health related water quality parameters, if any, that exceed the acceptable limits as set out in the Guidelines for Canadian Drinking Water Quality (GCDWQ). This comparison is only for screening purposes since at present there are no guidelines for untreated source water. The GCDWQ applies to water at the consumers tap. However in the absence of water treatment these guidelines could be applicable to source water quality

Contaminants are substances that are known or suspected to cause adverse effects on the health of some people when present in concentrations greater than the established Maximum Acceptable Concentrations (MACs) or the Interim Maximum Acceptable Concentrations (IMACs) of the GCDWQ. Each MAC has been derived to safeguard health assuming lifelong consumption of drinking water containing the substance at that concentration. IMACs are reviewed periodically as new information becomes available. Please consult your Medical Officer of Health for additional information on the health aspects on contaminants. Contaminant exceedances are highlighted in **red text** and enclosed in a box.

Contaminant Exceedances

Strontium: The maximum acceptable concentration for strontium is 7.0 mg/L. Strontium may enter drinking water from naturally occurring deposits or as a result of human activity, such as mining or other industries. High levels of this contaminant can cause adverse health effects for some people.

Nitrate: The maximum acceptable concentration for nitrate is 10 mg/L as nitrate-nitrogen. Nitrate is a naturally occurring ion that is widespread in the environment. High levels of this contaminant can cause adverse health effects for some people.

Nitrite: The maximum acceptable concentration for nitrite is 1 mg/L as nitrite-nitrogen. Nitrite is a naturally occurring ion that is widespread in the environment. High levels of this contaminant can cause adverse health effects for some people.

LTD - Less Than Detection Limit - The detection limit is the lowest concentration of a substance that can be determined using a particular test method and instrument. Detection limits vary from parameter to parameter and change from time to time due to improvements in analytical procedures and equipment.

mg/L = milligrams per litre or parts per million TOC = total organic carbon