

Guidelines for Drinking Water Quality in Newfoundland & Labrador



Department of Environment, Climate Change and Municipalities
Water Resources Management Division

Effective Date:	September 1, 2020
Version Control:	Replaces: <ul style="list-style-type: none">• Guidelines for Drinking Water Quality in NL, 2017• Standard for Chemical and Physical Monitoring, 2001

Background

Guidelines used by the Government of Newfoundland and Labrador for drinking water quality are based on the “*Guidelines for Canadian Drinking Water Quality*” developed by Health Canada.

Chemical and Physical Parameters

Guidelines for chemical and physical parameters can be either:

1. health based and listed as maximum acceptable concentrations (MAC);
2. based on aesthetic considerations and listed as aesthetic objectives (AO); or
3. established based on operational considerations and listed as operational guidance values (OG).

Additional information on drinking water quality guidelines is available on the Health Canada website: <http://www.hc-sc.gc.ca/ewh-semt/water-eau/drink-potab/index-eng.php>

The guidelines listed below do not include all parameters in the *Guidelines for Canadian Drinking Water Quality*, only those included in standard chemical analysis and metal scan packages.

Chemical Parameters	MAC (mg/L)	Other Value (mg/L)
Aluminum	None	OG: < 0.1 (conventional treatment)
Antimony	0.006	None
Arsenic	0.01	None
Barium	2.0	None
Boron	5.0	None
Cadmium	0.007	None
Chloride	None	AO ≤ 250
Chromium	0.05	None
Copper	2.0	AO: 1
Fluoride	1.5	None
Iron	None	AO: ≤ 0.3
Lead	0.005	None
Manganese	0.12	AO: ≤ 0.02
Mercury	0.001	None
Nitrate and Nitrite	10	None
Selenium	0.05	None
Sodium	None	AO: ≤ 200
Strontium	7.0	None
Sulphate	None	AO: ≤ 500
Uranium	0.02	None
Zinc	None	AO: ≤ 5.0

Physical Parameters	MAC (mg/L)	Other Value (mg/L)
Colour	None	AO: ≤ 15 TCU
pH	None	6.5-8.5 (no units)
Total Dissolved Solids	None	AO: ≤ 500
Turbidity	None	To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.

Disinfection By-Product Parameters	MAC ($\mu\text{g/L}$)	Other Value (mg/L)
Trihalomethanes	100 *	None
Haloacetic Acids	80 *	None
* 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.		

Radionuclide Parameters

Guidelines for radiological parameters focus on routine operational conditions of existing and new water supplies and do not apply in the event of contamination during an emergency involving a large release of radionuclides into the environment.

MACs have been established for the most commonly detected natural and artificial radionuclides in Canadian drinking water sources, using internationally accepted equations and principles and based solely on health considerations.

Natural Radionuclides	MAC (Bq/L)	Artificial Radionuclides	MAC (Bq/L)
Lead-210	0.2	Cesium-134	7
Radium-224	2	Cesium-137	10
Radium-226	0.5	Iodine-125	10
Radium 228	0.2	Iodine-131	6
Thorium-228	2	Molybdenum-99	200
Thorium-230	0.6	Strontium-90	5
Thorium-232	0.6	Tritium	7000
Thorium-234	40		
Uranium-234	3		
Uranium-235	3		
Uranium-238	3		