

Drinking Water Guidelines

The following Drinking Water Quality Guidelines have been adopted from the Guidelines for Canadian Drinking Water Quality established by Health Canada. Municipally and provincially owned and operated water systems are required to sample their water according to the *Clean Water Act*. Regulated water supplies must test for the specific parameters within this list. Regulated drinking water that exceeds these limits will be subject to a health risk assessment which may result in the issuance of an interdiction (in the form of a boil order, do not consume order, or other directive), to ensure the safety of citizens

Parameter	Drinking Water Quality Guideline	Comments
Maximum Acceptable concentrations (MAC)		
The <i>Maximum Acceptable Concentrations</i> (MAC) is a level that has been established for certain substances that are known or suspected to cause adverse health effects.		
Microbiological Parameters - Maximum Acceptable Concentrations (MAC)		
<i>Escherichia coli</i>	None detectable/ 100mL	
Total coliforms:		
Private wells	None detectable/100mL	For private wells, determine the source of the problem and necessary corrective actions
Fewer than 10 samples taken during sample period	No sample should contain total coliform bacteria	Water leaving a treatment plant should have no total coliform bacteria detectable / 100ml
Greater than 10 samples taken during sample period	No consecutive sample from the same site or not more than 10% of samples should show the presence of total coliform bacteria	
Heterotrophic Plate Count	–	No level specified. Levels above baseline are considered undesirable

Inorganic Parameters - Maximum Acceptable Concentrations (MAC)

Antimony	0.006 mg/L	
Arsenic	0.01 mg/L	
Barium	1.0 mg/L	
Boron	5.0 mg/L	
Cadmium	0.005 mg/L	
Chromium	0.05 mg/L	
Fluoride	1.5 mg/L	
Lead	0.01 mg/L	
Mercury	0.001 mg/L	
Nitrate	45 mg/L	Equivalent to 10 mg/L as nitrogen
Selenium	0.01 mg/L	
Uranium	0.02 mg/L	
Turbidity¹:		
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
Organic Parameters - Maximum Acceptable Concentrations (MAC)		
Benzene	0.005 mg/L	
Benzo(a)pyrene	0.00001 mg/L	
Carbon tetrachloride	0.005 mg/L	
1,2-dichlorobenzene	0.20 mg/L	
1,4-dichlorobenzene	0.005 mg/L	
1,2-dichloroethane	0.005 mg/L	
Dichloromethane	0.05 mg/L	
Pentachlorophenol	0.06 mg/L	
Tetrachloroethylene (Perc)	0.03 mg/L	
Total Trihalomethanes ^{2, 3}	0.100 mg/L	Based on locational running annual average of a minimum of quarterly samples
bromoform	not established	
chloroform	not established	
dibromochloromethane	not established	
Trichloroethylene	0.005 mg/L	
Vinyl chloride	0.002 mg/L	

Aesthetic Objectives (AO)

An Aesthetic Objective (AO) is established for parameters that may impair the taste, smell, or colour of water; or which may interfere with the supply of good quality water. They do not cause adverse health effects.

Parameter	Drinking Water Quality Guideline	Comments
Chloride	250 mg/L	
Copper	1.0 mg/L	
Iron	0.3 mg/L	
Manganese	0.05 mg/L	
Ethylbenzene	0.0024 mg/L	
Toluene	0.024 mg/L	
Xylenes (o-,m-,p- isomers)	0.30 mg/L	
Sodium	200 mg/L	
Sulphate	500mg/L	

Note

1 - All surface water and groundwater under the direct influence of surface water should be filtered

2 - Measured at the point in the distribution system with the highest potential THM levels

3 - Laboratories and municipalities advised in 2006 that these parameters must be measured and reported individually