

Water Quality Fact Sheet: Physical Parameters

The Province of Newfoundland and Labrador has established drinking water guidelines based on Health Canada's *Guidelines for Canadian Drinking Water Quality* (GCDWQ). Source water and tap water are routinely sampled and analyzed by the Province, and compared with the **Maximum Acceptable Concentration (MAC) of the GCDWQ**.

Water quality guidelines for physical parameters are generally established based on aesthetic or treatment process operational considerations. This fact sheet describes common physical parameters used to monitor drinking water quality in Newfoundland and Labrador.

- **Turbidity:** is a measurement of the relative clarity or cloudiness of water, caused by inorganic or organic matter, including microorganisms. 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.
- **Colour:** indicates presence of natural organic or inorganic matter in water, and, along with a change in turbidity, may be the first indication of a water quality issue. Matter causing colour may be aesthetically unpleasant and may indicate the presence of pathogens in the water. Aesthetic objective: ≤ 15 TCU
- **pH:** is a measure of the acidity or alkalinity of water. The pH scale ranges from 0 to 14. Surface waters typically have a pH of lower than 7, while groundwaters typically have a pH of higher than 7. Operational guideline for pH is a range of 6.5 to 8.5
- **Total Dissolved Solids (TDS):** is a measurement that incorporates parameters such as calcium, magnesium, sodium, carbonate, chloride, and sulphate. High concentrations of TDS in drinking water may cause unpleasant taste and pipe incrustation. Aesthetic objective: ≤ 500 mg/L
- **Dissolved Organic Carbon (DOC):** is a measurement of the organic matter dissolved in water. High concentrations of DOC react with chlorine to form disinfection by-products (DBPs) such as trihalomethanes and haloacetic acids, and may cause unpleasant taste, odour, and colour. There is no guideline for DOC, however, concentrations greater than 5 mg/L are often associated with elevated DBPs, and taste and odour issues.

Guidelines for Drinking Water Quality in Newfoundland and Labrador can be found via:

www.gov.nl.ca/ecc/waterres/regulations/policies/