

Water Quality Fact Sheet: Chemical 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 waters are sampled and analyzed by the Province, and compared with the Maximum Acceptable Concentration (MAC) of the Guidelines.

Newfoundland and Labrador has established provincial MACs for 18 chemical parameters, and this fact sheet describes select key chemical parameters that are used to monitor drinking water quality.

- **Arsenic:** is a health related parameter. It is a naturally occurring metal typically associated with groundwater. It has no taste or odour, and therefore can only be determined by analysis. MAC: 0.010 mg/L.
- **Chloride:** is a naturally occurring ion which will impart a taste in water when present in elevated concentrations. Elevated concentrations of chloride are typically associated with groundwater, and common sources of elevated chloride water include natural dissolved salt deposits, road salting, seawater intrusion, or sewage contamination. MAC: 250 mg/L.
- **Copper:** is a naturally occurring metal, but is a concern when aggressive water (low pH) is in contact with copper-containing piping. Blue-green stains on piping and fixtures are indicative of elevated copper concentrations., and may be indicative of lead concerns when lead based solder, piping, or fixtures are used. Water with very high concentrations of copper will have an unpleasant taste and may cause nausea. MAC: 1.0 mg/L.
- **Iron:** is a naturally occurring metal. Elevated iron concentrations in water will cause water discolouration (red stains) and result in a metallic taste.. MAC: 0.300 mg/L.
- **Lead:** is a health related parameter. Lead concentrations are typically low in surface water sources, but they may be elevated in some groundwater. The main concern is that aggressive water (low pH) will leach lead into the water when lead based solder, piping, or fixtures are used. MAC: 0.010 mg/L.
- **Manganese:** is a naturally occurring metal. Elevated manganese concentrations in water will cause water discolouration (black stains) and result in a metallic taste. MAC: 0.050 mg/L.