

# MANGANESE IN DRINKING WATER

*Changes to acceptable concentrations: Effective May 10, 2019*

Previous limit	New limit	
AO: 0.05mg/L	MAC: 0.12mg/L	AO: 0.02mg/L

## Manganese in drinking water

Manganese is widely distributed in air, water and soil. Manganese may be present in the environment from natural sources (rock and soil weathering) or as a result of human activities (industrial, landfills). Manganese is an essential nutrient and some manganese is required for proper bodily function. However, new research has shown that at higher concentrations it can pose adverse neurological effects in infants and children, primarily to the central nervous system, followed by the reproductive system. Infants who consume powdered baby formula reconstituted from water that is high in manganese are at the greatest risk. Manganese can also affect the taste and appearance of drinking water. New information on effects of manganese on human health have prompted the new Maximum Acceptable Concentration (MAC) for manganese in drinking water of 0.12mg/L (milligrams per litre) and a reduced Aesthetic Objective (AO) of 0.02mg/L. Although the MAC was established based on infants, this value is intended to protect all Canadians. The reduced AO is intended to minimize the occurrence of discoloured water due to manganese and to improve consumer confidence in drinking water quality.

## What the drinking water guideline changes mean for drinking water system operators

Northern Health will work with water suppliers (owners/operators) of systems that are approaching or exceeding the new limits and support the implementation of these more stringent water quality requirements. This may include developing new or modifying existing water quality monitoring programs and, if needed, establishing plans to mitigate exceedances. Timelines for improvements will be established in consultation with your Environmental Health Officer.

## For more information:

**Guidelines for Canadian Drinking Water Quality:** <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/water-quality/drinking-water/canadian-drinking-water-guidelines.html>

**Safe drinking water system operations:** <https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-quality/drinking-water-quality/how-drinking-water-is-protected-in-bc>

**For information on accredited laboratories:** [www.cala.ca](http://www.cala.ca)

## Healthlink BC File for Manganese not yet available

See <https://www.healthlinkbc.ca/services-and-resources/healthlinkbc-files> for a list of all Healthlink BC files

## Example of information page for public (from Village of Burns Lake website):

<http://office.burnslake.ca/public-works/water/>



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