Registered Public Drinking Water Supplies

Guidelines for Monitoring Public Drinking Water Supplies [1]

Parameter	MAC (mg/L)	IMAC (mg/L)	AO (mg/L)
Alkalinity			
Aluminum [2]			0.1 - 0.2 [2]
Ammonia			
Antimony [3]		0.006 [3]	
Arsenic [4]		0.010 [4]	
Barium	1		
Boron	5		
Cadmium	0.005		
Calcium			
Chloride			≤250
Chromium	0.05		
Colour			≤15 TCU
Conductivity			
Copper [3]			≤1.0 [3]
Fluoride [5]	1.5 [5]		
Hardness			
Iron			≤0.3
Lead [3]	0.010 [3]		
Magnesium			
Manganese			≤0.05
Nitrate - Nitrogen [6]	10 [6]		
pH			6.5–8.5 (no units)
Potassium			
Selenium	0.01		
Sodium [7]			≤200 [7]
Sulphate [8]			≤500 [8]
Total Dissolved Solids			≤ 500
Total Organic Carbon			
Turbidity [9, 10]	varies		5 NTU [10]
Uranium	0.02		
Zinc			≤5.0

Notes:

1. Minimum sampling frequency per the *Guidelines for Monitoring Public Drinking Water Supplies* is once per year for surface water supplies and once every two years for groundwater supplies unless otherwise noted. Sampling frequency is enforceable per Section 33 of the *Water and Wastewater Facilities and Public Drinking Water Supplies Regulations*. Corrective action is enforceable for parameters with a MAC/IMAC per Section 34 of the *Water and Wastewater Facilities and Public Drinking Water Supplies Regulations*. Non-health-related parameters are tested to fully characterize the water source.
2. This is an operational guidance value designed to apply only to drinking water treatment plants using aluminum-based coagulants. The operational guidance value of 0.1 mg/L applies to conventional treatment plants and 0.2 mg/L applies to other types of treatment systems.
3. Because first-drawn water may contain higher concentrations of metals than are found in running water after flushing, faucets should be thoroughly flushed before water is taken for consumption or analysis.
4. The arsenic guideline was reduced to 0.01 mg/L (10 µg/L) in May 2006.
5. The maximum acceptable concentration for naturally occurring fluoride is 1.5 mg/L. Where fluoride is added for the control of dental caries, it is recommended that the concentration of fluoride be adjusted to the optimum range of 0.8 - 1.0 mg/L.
6. The Health Canada documentation indicates that the maximum acceptable concentration for nitrate is 45 mg/L. This is equivalent to 10 mg/L as nitrate-nitrogen. Concentrations of nitrate and nitrite in drinking water are often expressed in the literature in units of nitrate-nitrogen and nitrite-nitrogen respectively, as follows: 1 mg nitrate-nitrogen/L = 4.43 mg nitrate/L and 1 mg nitrite-nitrogen/L = 3.29 mg nitrite/L. As such, the 10 mg/L as nitrate-nitrogen is specified in this document. Where nitrate and nitrite are determined separately, levels of nitrite should not exceed 3.2 mg/L or 1.0 mg/L as nitrite-nitrogen. Where both nitrate and nitrite are present, the total of the two should not exceed 10 mg/L (as nitrogen).
7. It is recommended that sodium be included in routine monitoring programs, as levels may be of interest to authorities who wish to prescribe sodium-restricted diets for their patients.
8. There may be a laxative effect in some individuals when sulphate levels exceed 500 mg/L.
9. For treated surface water supplies and groundwater under the direct influence of surface water, turbidity is a health-related parameter and must be removed to levels specified by the filtration technology used. For secure groundwater supplies, it is recommended that turbidity levels not exceed 1.0 NTU. For secure groundwater supplies that exceed 1.0 NTU, a higher level may be permitted if the owner demonstrates that the turbidity is not health-related and that the disinfection process (if used) is not compromised by the use of this less stringent value.
10. Piping can result in increased turbidity at the tap. To ensure that the aesthetic quality is not degraded, an aesthetic objective for turbidity at the point of consumption has been set at 5 NTU.