Guidelines for Canadian Drinking Water Quality

Summary Tables

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Health Canada Santé Canada

Canada

Table of Contents

The tables in this document summarize the values and key information from each of the guidelines. Health Canada updates the summary tables regularly, but you should always consult individual guideline technical documents and guidance documents for the most current information Factsheets are available for certain substances, they are listed in the table with their accompanying technical document.

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The document was prepared by Health Canada in collaboration with the Federal-Provincial-Territorial Committee on Drinking Water of the Federal-Provincial-Territorial Committee on Health and the Environment.

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Other documents for the Guidelines for Canadian Drinking Water Quality can be found on the following web page: https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality.html

Introduction

The Guidelines for Canadian Drinking Water Quality are established by Health Canada in collaboration with the Federal-Provincial-Territorial Committee on Drinking Water (CDW) and other federal government departments. Health Canada publishes the guidelines and other information on the website Drinking water quality in Canada. The tables in this document summarize the values and key information from each of the guidelines. **Health Canada updates this document regularly, but you should always consult individual guideline technical documents and guidance documents on the website Water Quality—Reports and Publications for the most current information.**

Each guideline was established based on current, published scientific research related to health effects, aesthetic effects, and operational considerations. Guidelines (maximum acceptable concentrations or treatment goals) are based on a comprehensive review of the known health effects

associated with each substance, on exposure levels and on the availability of treatment and analytical technologies. Aesthetic objectives (e.g., for taste or odour) are provided when they play a role in determining whether consumers will consider the water drinkable. Operational guidance values are provided when a substance may interfere with or impair a treatment process or technology (e.g., turbidity interfering with chlorination or UV disinfection) or adversely affect drinking water infrastructure (e.g., corrosion of pipes).

Guidelines for Canadian Drinking Water Quality are established specifically for substances that meet all of the following criteria:

1. Exposure to the substance could lead to adverse health effects in humans;
2. The substance is frequently detected or could be expected to be found in a large number of drinking water supplies throughout Canada; and
3. The substance is detected, or could be expected to be detected, in drinking water at a level that is of possible human health significance.

If a substance or issue of interest does not meet all these criteria, Health Canada and CDW may choose not to establish a numerical guideline or develop a guideline technical document. In that case, advice may be provided through a guidance document in order to convey operational or management information related to a substance or issue of concern.

Guidelines are systematically reviewed to assess the need to update them. When a guideline is reaffirmed, both the year of the original publication and the year of reaffirmation are shown below after the name of the substance.

Abbreviations

A	acceptability (parameter type)
ALARA	as low as reasonably achievable
AO	aesthetic objective
CDW	Federal-Provincial-Territorial Committee on Drinking Water
D	disinfectant (parameter type)
DBP	disinfectant by-product (parameter type)
HPC	heterotrophic plate count
I	inorganic chemical (parameter type)
MAC	maximum acceptable concentration
NTU	nephelometric turbidity units

O	organic chemical (parameter type)
OG	operational guidance value
P	pesticide (parameter type)
QMRA	quantitative microbial risk assessment
T	treatment-related (parameter type)
TCU	true colour units

Table 1. Microbiological Parameters

In general, the highest priority guidelines are those dealing with microbiological contaminants, such as bacteria, protozoa and viruses. Since it is difficult to perform routine analysis of harmful microorganisms that might be present in inadequately treated drinking water, the microbiological guidelines focus on indicator organisms, such as E.coli and total coliforms, and treatment goals for pathogens. The use of a source-to-tap approach that includes source water protection, adequate treatment, and a well-maintained distribution system helps to reduce microorganisms to levels that have not been associated with illness and meet the guidelines outlined below.

Parameter (published, reaffirmed)	Guideline	Common Sources	Health Considerations	Applying the Guideline and Comments
Enteric protozoa: *Giardia* and *Cryptosporidium* (2019) **Water Talk - Enteric protozoa (Giardia and Cryptosporidium) in drinking water**	Treatment goal: Minimum 3 log removal and/or inactivation of cysts and oocysts	Human and animal feces	*Giardia* and *Cryptosporidium* are commonly associated with gastrointestinal upset (nausea, vomiting, and diarrhoea). Less common health effects vary. *Giardia* infections may include prolonged gastrointestinal upset, malaise and	Monitoring for *Cryptosporidium* and *Giardia* in source waters will provide valuable information for a risk-based assessment of treatment requirements. Depending on the source water quality, a greater

Parameter (published, reaffirmed)	Guideline	Common Sources	Health Considerations	Applying the Guideline and Comments
			malabsorption. *Cryptosporidium* infections, in immunocompromised individuals, can occur outside the gastrointestinal tract.	log removal and/or inactivation may be required.
Enteric viruses (2019) **Water talk - Enteric viruses in drinking water**	Treatment goal: Minimum 4 log reduction (removal and/or inactivation) of enteric viruses	Human feces	Commonly associated with gastrointestinal upset (nausea, vomiting, diarrhoea); less common health effects can include respiratory symptoms, central nervous system infections, liver infections and muscular syndromes.	Enteric viruses have been detected in surface and groundwater sources. Routine monitoring for viruses is not practical, and assessing the vulnerability of source waters to viral contamination is difficult; thus, treatment is a way to reduce risk. Disinfection is a critical barrier.
***Escherichia coli* (*E. coli*) (2020)**	MAC: None detectable per 100 mL	Human and animal feces	*E. coli* is an indicator of fecal contamination that is used as a tool to verify the quality of the drinking water. Its detection indicates recent fecal contamination and that microorganisms capable of causing gastrointestinal illnesses may also be present.	In water leaving a treatment plant, the presence of *E. coli* indicates a serious breach in treatment. In a distribution or storage system, detection of *E. coli* can indicate that the water has become

Parameter (published, reaffirmed)	Guideline	Common Sources	Health Considerations	Applying the Guideline and Comments
			Pathogens in human and animal feces pose the greatest immediate danger to public health.	contaminated during distribution. In non-disinfected groundwater, the presence of *E. coli* indicates that the groundwater has been affected by fecal contamination. *E. coli* should be monitored in conjunction with other indicators, as part of a source-to-tap approach to producing drinking water of an acceptable quality.
Total coliforms (2020)	MAC of none detectable/100 mL in water leaving a treatment plant and in non-disinfected groundwater leaving the well	Human and animal feces; naturally occurring in water, soil and vegetation	Total coliforms are not used as indicators of potential health effects from pathogenic microorganisms; they are used as a tool to determine how well the drinking water treatment system is operating and to indicate water quality changes in the distribution system.	Total coliforms should be monitored in the distribution system because they are used to indicate changes in water quality. In water leaving a treatment plant, total coliforms should be measured in conjunction with other indicators to assess water quality; the

Parameter (published, reaffirmed)	Guideline	Common Sources	Health Considerations	Applying the Guideline and Comments
				presence of total coliforms indicates a serious breach in treatment. In a distribution and storage system, detection of total coliforms can indicate regrowth of the bacteria in biofilms or intrusion of untreated water. Detection of total coliforms from consecutive samples from the same site or from more than 10% of the samples collected in a given sampling period should be investigated. In non-disinfected groundwater, the presence of total coliforms may indicate that the system is vulnerable to contamination, or it may be a sign of bacterial regrowth.

Parameter (published, reaffirmed)	Guideline	Common Sources	Health Considerations	Applying the Guideline and Comments
Turbidity (2012)	Treatment limits for individual filters or units: - Conventional and direct filtration: ≤ 0.3 NTU[1] - slow sand and diatomaceous earth filtration: ≤ 1.0 NTU[2] - membrane filtration: ≤ 0.1 NTU[3]	Naturally occurring particles: *Inorganic*: clays, silts, metal precipitates *Organic*: decomposed plant & animal debris, microorganisms	Particles can harbour microorganisms, protecting them from disinfection, and can entrap heavy metals and biocides; elevated or fluctuating turbidity in filtered water can indicate a problem with the water treatment process and a potential increased risk of pathogens in treated water.	Guidelines apply to individual filter turbidity for systems using surface water or groundwater under the direct influence of surface water. The decision to exempt a waterworks from filtration should be made by the appropriate authority based on site-specific considerations, including historical and ongoing monitoring data. 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. For systems that use groundwater, turbidity should generally be below 1.0 NTU. Filtration systems should be designed and operated

Parameter (published, reaffirmed)	Guideline	Common Sources	Health Considerations	Applying the Guideline and Comments
				to reduce turbidity levels as low as reasonably achievable and strive to achieve a treated water turbidity target from individual filters of less than 0.1 NTU.

[1] in at least 95% of measurements either per filter cycle or per month; never to exceed 1.0 NTU.
[2] in at least 95% of measurements either per filter cycle or per month; never to exceed 3.0 NTU.
[3] in at least 99% of measurements per operational filter period or per month. Measurements greater than 0.1 NTU for a period greater than 15 minutes from an individual membrane unit should immediately trigger an investigation of the membrane unit integrity.

Table 2. Chemical Parameters

Guidelines for chemical parameters are the following:

1. health based and listed as maximum acceptable concentrations (MAC);
2. based on aesthetic considerations and listed as aesthetic objectives (AO);
3. established based on operational considerations and listed as operational guidance values (OG);or
4. established taking into account available treatment technology and analytical methods in order to reduce exposure through drinking water, and listed as objective (Objective).

In general, the highest priority guidelines are those dealing with microbiological contaminants. Any measure taken to reduce concentrations of chemical substance should not compromise the effectiveness of disinfection.

Type[1]	Parameter (published, reaffirmed)	MAC (mg/L)	Other value (mg/L)	Common sources of parameter in water	Health considerations	Applying the Guideline and Comments
T	Aluminum (2021) Water Talk: Aluminum in drinking water - Canada.ca	2.9	OG: 0.1	Naturally occurring; aluminum salts used as coagulants in drinking water treatment; leaching from cement-based materials; dissolution of activated alumina media (where applicable)	**Health basis of MAC:** Neuromuscular effects (hind- and fore-limb grip strength, foot splay), urinary tract effects and general toxicity.	The MAC and OG apply to all drinking water supplies (including groundwater) and are to be applied as locational running annual averages. The OG value is established to minimize the potential for the accumulation and release of metals in the distribution system and to avoid other operational and aesthetic issues. It takes treatment achievability into consideration.
I	Ammonia (2013)	None required	None	Naturally occurring; released from agricultural or industrial wastes; added as part of chloramination for drinking water disinfection	Levels of ammonia, either naturally present in the source water or added as part of a disinfection strategy, can affect water quality in the distribution system (e.g., nitrification) and should be monitored. A guideline value is not necessary as it is produced in the body and efficiently metabolized in healthy people; no adverse effects	To help prevent nitrification, limit excess free ammonia entering the distribution system to below 0.1 mg/L, and preferably below 0.05 mg/L, measured as nitrogen. Nitrification can lead to the formation of nitrite/nitrate, decreased chloramine residual and increased bacterial count.

					at levels found in drinking water.	
I	Antimony (2024)	0.006	None	Naturally occurring (erosion); soil runoff; industrial effluents; leaching from plumbing materials and solder	**Health basis of MAC:** Changes in liver histology (anisokaryosis) along with the changes in serum biochemistry (which together are indicative of a change in liver function)	MAC takes into consideration anticipated treatment challenges for private wells and small systems.
I	Arsenic (2006) Arsenic in Drinking Water	0.010 ALARA	None	Naturally occurring (erosion and weathering of soils, minerals, ores); releases from mining; industrial effluent	**Health basis of MAC:** Cancer (lung, bladder, liver, skin) (classified as human carcinogen) **Other:** Skin, vascular and neurological effects (numbness and tingling of extremities)	MAC based on treatment achievability; elevated levels associated with certain groundwaters; levels should be kept as low as reasonably achievable.
I	Asbestos (1989, 2005)	None required	None	Naturally occurring (erosion of asbestos minerals and ores); decay of asbestos-cement pipes	**None**	Guideline value not necessary; no evidence of adverse health effects from exposure through drinking water.
P	Atrazine (1993)	0.005	None	Leaching and/or runoff from agricultural use	**Health basis of MAC:** Developmental effects (reduced body weight of offspring) **Other:** Potential increased risk of ovarian cancer or lymphomas (classified as possible carcinogen)	MAC applies to sum of atrazine and its *N*-dealkylated metabolites - diethylatrazine, deisopropylatrazine, hydroxyatrazine, diaminochlorotriazine; Persistent in source waters.

I	Barium (2020) Water Talk – Barium in drinking water	2.0	None	Naturally occurring; releases or spills from industrial uses	**Health basis of MAC:** Kidney effects	MAC is for total barium and takes into consideration exposure estimates from all sources.
O	Benzene (2009)	0.005	None	Releases or spills from industrial uses	**Health basis of MAC:** Bone marrow (red and white blood cell) changes and cancer (classified as human carcinogen) **Other:** Blood system and immunological responses	MAC takes into consideration all exposures from drinking water, which include ingestion, as well as inhalation and dermal absorption during showering and bathing.
O	Benzo[*a*]pyrene (2016)	0.000 04	None	Leaching from liners in water distribution systems	**Health basis of MAC:** Stomach tumours (classified as human carcinogen)	None
I	Boron (2023)	5	None	Naturally occurring; leaching or runoff from industrial and agricultural use	**Health basis of MAC:** Reproductive effects in males (testicular atrophy, decreased testes to body weight ratio, spermatogenic arrest) **Other:** Developmental effects	MAC based on treatment achievability.
DBP	Bromate (2018)	0.01	None	Contaminant in hypochlorite solution; by-product of drinking water disinfection with ozone	**Health basis of MAC:** Reproductive effects in males (testicular atrophy, decreased testes to body weight ratio, spermatogenic arrest) **Other:** Developmental effects	Efforts to reduce bromate concentrations must not compromise the effectiveness of disinfection. Bromate is difficult to remove from drinking water once formed. The recommended strategy is

						controlling the ozonation process; use of certified treatment chemicals and; appropriate handling and storage of hypochlorite. Quarterly monitoring of raw water bromide is recommended to allow correlation to bromate or brominated DBPs.
P	Bromoxynil (2022)	0.03	None	Leaching or runoff from agricultural use	**Health basis of MAC:** Increased clinical signs (panting, salivation, liquid feces, pale gums) and liver weight, as well as both decreases in body weight and body weight gain	None
I	Cadmium (2020) Water Talk – Cadmium in drinking water	0.007	None	Leaching from galvanized pipes and solders; industrial and municipal waste	**Health basis of MAC:** Kidney damage. **Other:** Bone effects (decreased bone density)	MAC is for total cadmium and takes into consideration exposure estimates from all sources. Sampling should be done at the tap to reflect average exposure similar to sampling done for lead. The contribution of cadmium in drinking water is generally from the galvanized steel used in pipes and well components. The best approach to minimize exposure to cadmium from

						drinking water is to replace galvanized steel and components. Drinking water treatment devices are also an effective option.
I	Calcium (2025) (in: Operational Parameters)	None required	None	Naturally occurring (erosion and weathering of soils, minerals, ores)	No evidence of adverse health effects from calcium in drinking water.	Guideline value not necessary. Calcium contributes to hardness.
O	Carbon tetrachloride (2010)	0.002	None	Industrial effluents and leaching from hazardous waste sites	**Health basis of MAC:** Liver toxicity **Other:** Kidney damage; liver tumours (classified as probable carcinogen)	MAC takes into consideration all exposures from drinking water, which include ingestion, as well as inhalation and dermal absorption during showering and bathing.
D	Chloramines (2020) Water Talk - Chloramines in drinking water	None required	None	Monochloramine is used as a secondary disinfectant; formed in drinking water when chlorine is added in the presence of ammonia	Guideline value not necessary due to low toxicity at concentrations found in drinking water	Chloramine residuals in most Canadian drinking water distribution systems are typically below 4 mg/L.
DBP	Chlorate (2008)	1	None	By-product of drinking water disinfection with chlorine dioxide; possible contaminant in hypochlorite solution	**Health basis of MAC:** Thyroid gland effects (colloid depletion)	As chlorate is difficult to remove once formed, its formation should be controlled by respecting the maximum feed dose of 1.2 mg/L of chlorine dioxide and managing /monitoring formation in hypochlorite solutions.

I	Chloride (2025) (in: Operational Parameters)	None	AO: ≤ 250	Naturally occurring (seawater intrusion); dissolved salt deposits, highway salt, industrial effluents, oil well operations, sewage, irrigation drainage, refuse leachates	A guideline value is not necessary as health effects are not of concern at levels found in drinking water.	The AO is intended to minimize the occurrence of complaints based on unacceptable taste, odour or excessive scaling, and to improve consumer confidence in drinking water quality.
D	Chlorine (2009)	None required	None	Used as drinking water disinfectant	A guideline value is not necessary due to low toxicity at concentrations found in drinking water	Free chlorine concentrations in most Canadian drinking water distribution systems range from 0.04 to 2.0 mg/L.
D	Chlorine dioxide (2008)	None required	None	Used as drinking water disinfectant (primary disinfection only)	A guideline value for chlorine dioxide is not required because of its rapid reduction to chlorite in drinking water	A maximum feed dose of 1.2 mg/L of chlorine dioxide should not be exceeded to control the formation of chlorite and chlorate.
DBP	Chlorite (2008)	1	None	By-product of drinking water disinfection with chlorine dioxide	**Health basis of MAC:** Neurobehavioural effects (lowered auditory startle amplitude, decreased exploratory activity), decreased absolute brain weight, altered liver weights	Chlorite formation should be controlled by respecting the maximum feed dose of 1.2 mg/L of chlorine dioxide and managing /monitoring formation in hypochlorite solutions.
P	Chlorpyrifos (1986)	0.09	None	Leaching and/or runoff from agricultural or other uses	**Health basis of MAC:** Nervous system effects (cholinesterase inhibition)	Not expected to leach significantly into groundwater.

I	Chromium (2018)	0.05	None	Naturally occurring (erosion of minerals); releases or spills from industrial uses	**Health basis of MAC:** Hyperplasia of the small intestine from chromium (VI). **Other:** No definitive evidence of toxicity to Chromium (III).	MAC protects against both cancer and non-cancer effects from Chromium (VI) and is established for total chromium.
T	Colour (1979, 2005)	None	AO: ≤ 15 TCU	Naturally occurring organic substances, metals; industrial wastes	A guideline value is not necessary as health effects are not of concern at levels found in drinking wat**er.**	May interfere with disinfection; removal is important to ensure effective treatment.
I	Copper (2019) Water Talk - Copper in Drinking Water	2	AO: 1	Naturally occurring; leaching from copper piping	**Health basis of MAC:** Gastronintestinal effects (short-term), liver and kidney effects (long-term).	Water samples should be taken at the tap. MAC is for total copper and protects against both short term and long term exposures. AO is based on taste and water discolouration (resulting in staining of laundry and plumbing fixtures).
I	Cyanide (1979, 1991)	0.2	None	Industrial and mining effluents; release from organic compounds	**Health basis of MAC:** No clinical or other changes at the highest dose tested	At the levels seen in Canadian waters, cyanide is not a concern as it can be detoxified to a certain extent in the human body.
O	Cyanobacterial toxins (2018)	0.0015	None	Naturally occurring - released from populations of cyanobacteria (planktonic blooms and benthic mats)	**Health basis of MAC:** Liver effects	MAC is for total microcystins (intra- and extra-cellular) Note that infants can ingest a significantly larger volume of water per body weight.

						As a precautionary measure, where levels of total microcystins in treated water are detected above a reference value of 0.4 µg/L, the public in the affected area should use an alternate suitable source of drinking water (such as bottled water) to reconstitute infant formula.
P	Dicamba (2022)	0.11	None	Leaching or runoff from agricultural or other uses	**Health basis of MAC:** Clinical chemistry and inflammation of the prostate	Readily leaches into groundwater.
O	1,4-Dichlorobenzene Table 2 footnote2 (1987)	0.005	AO: ≤ 0.001	Releases or spills from industrial effluents; use of urinal deodorants	**Health basis of MAC:** Benign liver tumours and adrenal gland tumours (classified as probable carcinogen)	AO based on odour; levels above the AO would render drinking water unpalatable.
O	1,2-Dichloroethane (2014)	0.005	None	Releases or spills from industrial effluents; leachate from waste disposal	**Health basis of MAC:** Cancer of the mammary gland (classified as probable carcinogen)	The MAC protects against both cancer and non-cancer effects and takes into consideration all exposures from drinking water, which include ingestion as well as inhalation and dermal absorption during showering and bathing.

O	Dichloromethane (2011)	0.05	None	Industrial and municipal wastewater discharges	**Health basis of MAC:** Liver effects (liver foci and areas of cellular alteration). **Other:** Classified as probable carcinogen	The MAC protects against both cancer and non-cancer effects and takes into consideration all exposures from drinking water, which include ingestion as well as inhalation and dermal absorption during showering and bathing.
P	2,4-Dichlorophenoxy acetic acid (2,4-D) (2022)	0.1	None	Leaching and/or runoff from agricultural and non-cropland use	**Health basis of MAC:** Kidney effects	High potential to leach into groundwater.
P	Dimethoate and omethoate (2022)	0.02	None	Leaching and/or runoff from agricultural and non-agricultural use	**Health basis of MAC:** Nervous system effects (cholinesterase inhibition)	MAC is for dimethoate. An additive approach should be taken in which the sum of the detected concentrations of dimethoate and omethoate (expressed as a dimethoate equivalent value) does not exceed the MAC for dimethoate.
O	1,4-Dioxane (2021) Water Talk – 1,4-Dioxane in Drinking Water	0.050	None	Generally not detected in Canadian water supplies, but there have been contaminations of drinking water supplies near landfills and industrial sites	**Basis of MAC:** liver effects that occur before the development of cancer	1,4 Dioxane is difficult to remove using conventional drinking water treatment. Treatment technologies such as advanced oxidation processes and synthetic adsorbents need to be considered. Reverse osmosis membranes may be

						capable of removing 1,4-dioxane at both the municipal and residential scale.
P	Diquat (2022)	0.05	None	Leaching and/or runoff from agricultural use; added directly to water to control aquatic weeds	**Health basis of MAC:** Cataract formation	Unlikely to leach into groundwater.
O	Ethylbenzene (2014)	0.14	AO: 0.0016	Emissions, effluents or spills from petroleum and chemical industries	**Health basis of MAC:** Effects on the liver and pituitary gland. **Other:** Tumour formation at various sites in animals, including kidney, lung, liver and testes.	MAC protects against both cancer and non-cancer health effects. MAC takes into consideration all exposures from drinking water, which include ingestion, as well as inhalation and dermal absorption during showering and bathing. AO is based on odour.
I	Fluoride (2010)	1.5	None	Naturally occurring (rock and soil erosion); may be added to promote dental health	**Health basis of MAC:** Moderate dental fluorosis (based on cosmetic effect, not health)	Beneficial in preventing dental caries.
DBP	Formaldehyde (1997)	None required	None	By-product of disinfection with ozone; releases from industrial effluents	A guideline value is not necessary as health effects are not of concern at levels found in drinking water.	A guideline value is not necessary, as levels in drinking water are below the level at which adverse health effects may occur.
P	Glyphosate (1987, 2005)	0.28	None	Leaching and/or runoff from various uses in weed control	**Health basis of MAC:** Reduced body weight gain	Not expected to migrate to groundwater.

DBP	Haloacetic acids - Total (HAAs) Table 2 footnote3 (2008)	0.08 ALARA	None	By-product of drinking water disinfection with chlorine	**Health basis of MAC:** Liver cancer (DCA); DCA is classified as probably carcinogenic to humans **Other:** Other organ cancers (DCA, DBA, TCA); liver and other organ effects (kidney and testes weights) (MCA)	Refers to the total of monochloroacetic acid (MCA), dichloroacetic acid (DCA), trichloroacetic acid (TCA), monobromoacetic acid (MBA) and dibromoacetic acid (DBA); MAC is based on ability to achieve HAA levels in distribution systems without compromising disinfection; precursor removal limits formation.
T	Hardness (2025) (in: Operational Parameters)	None required	None	Naturally occurring (sedimentary rock erosion and seepage, runoff from soils); levels generally higher in groundwater	Although hardness may have significant aesthetic effects, a guideline has not been established. Major contributors to hardness (calcium and magnesium) are not of health concern at levels found in drinking water. Public acceptance of hardness may vary considerably according to the local conditions.	Hardness levels are primarily based on calcium and magnesium in water. Water with a hardness greater than 200 mg/L is considered poor and in excess of 500 mg/L is generally unacceptable for domestic use. Where a water softener is used, a separate unsoftened supply for cooking and drinking purposes is recommended.
I	Hydrogen Sulphide (2025) (in: Operational Parameters)	None	AO: ≤ 0.05	Can occur in the distribution system from the reduction of sulphates by sulphate-reducing bacteria; a breakdown of organic	Not applicable	The AO is intended to minimize the occurrence of complaints based on unacceptable taste, odour or excessive scaling, and to

				matter in the absence of oxygen.		improve consumer confidence in drinking water quality.
I	Iron (1978, 2005, 2024)	None	AO: ≤ 0.1	Naturally occurring (erosion and weathering of rocks and minerals and in groundwater due to geological processes); Released from iron-based drinking water materials or as iron corrosion by-products and in water treatment processes. Human activities such as mine drainage water. acid mine effluents and agricultural runoff.	A guideline value is not necessary as health effects are not of concern at levels found in drinking water and at the level at which the AO is set.	AO is for total iron and is based on minimizing the occurrence of discoloured water and to improve consumer confidence in drinking water quality. Removal of iron also improves the removal of manganese, reducing the health risk associated with this metal.
I	Lead (2019) Water Talk - Lead in drinking water Drinking water: what about lead?	0.005 ALARA	None	Leaching from plumbing (lead service lines, lead solder and brass fittings)	**Health basis of MAC:** Reduced intelligence in children measured as decreases in IQ is the most sensitive and well established health effect of lead exposure. There is no known safe exposure level to lead. **Other:** Possible effects include behavioural effects in children. Reduced cognition, increased blood pressure, and renal	MAC is for total lead. Lead levels should be kept as low as reasonably achievable. Sampling should be done at the tap to reflect average exposure. The most significant contribution of lead in drinking water is generally from the lead service line that supplies drinking water to the home. The best approach to minimize exposure to lead from drinking water is to

					dysfunction in adults are also possible; classified as probably carcinogenic to humans	remove the full lead service line. Drinking water treatment devices are also an effective option.
I	Magnesium (2025) (in: Operational Parameters)	None required	None	Naturally occurring (erosion and weathering of rocks and minerals)	No evidence of adverse health effects from magnesium in drinking water, therefore a guideline value is not necessary.	Guideline value not necessary. Magnesium contributes to hardness.
P	Malathion (2023)	0.29	None	Leaching and/or runoff from agricultural and other uses	**Health basis of MAC:** Kidney effects (increase in severity of chronic progressive nephropathy) **Other:** Nervous system effects (cholinesterase inhibition)	Unlikely to leach into groundwater. When using oxidation or advanced oxidation processes for malathion removal, water utilities should be aware of the potential for the formation of degradation by products.
I	Manganese (2019) Water Talk - Manganese in drinking water	0.12	AO: ≤ 0.02	Dissolution of naturally occurring minerals commonly found in soil and rock. Other sources include industrial discharge, mining activities and leaching from landfills.	**Health Basis of MAC:** Effects on neurological development and behaviour; deficits in memory, attention, and motor skills. **Other:** Formula-fed infants (where water containing manganese at levels above the MAC is used to prepare formula) may be especially at risk.	AO based on minimizing the occurrence of discoloured water, consumer complaints and staining of laundry.

I	Mercury (1986)	0.001	None	Releases or spills from industrial effluents; waste disposal; irrigation or drainage of areas where agricultural pesticides are used	**Health basis of MAC:** Irreversible neurological symptoms	Applies to all forms of mercury; mercury generally not found in drinking water, as it binds to sediments and soil.
P	2-Methyl-4-chlorophenoxyacetic acid (MCPA) (2022)	0.35	None	Leaching and/or runoff from agricultural and other uses	**Health basis of MAC:** Kidney effects (increased absolute and relative weights, urinary bilirubin, crystals and pH) **Other:** Systemic, liver, testicular, reproductive/developmental and nervous system effects	Can potentially leach into groundwater.
O	Methyl tertiary-butyl ether (MTBE) (2006)	None	AO: ≤ 0.015	Spills from gasoline refineries, filling stations and gasoline-powered boats; seepage into groundwater from leaking storage tanks	The AO is lower than levels associated with potential toxicological effects, it is considered protective of human health. Studies on toxic effects remain inconclusive.	AO based on odour; levels above the AO would render water unpalatable.
P	Metribuzin (2021)	0.08	None	Leaching and/or runoff from agricultural use	**Health basis of MAC:** Liver effects (increased ornithine carboxytransferase, increased incidence and severity of mucopolysaccharide droplets, hepatic necrobiosis)	Leaching into groundwater depends on topography, precipitation and site-specific soil characteristics such as organic matter content and soil pH.
I	Nitrate (2013)	45 as nitrate;	None	Naturally occurring; leaching or runoff from	**Health basis of MAC:** Methaemoglobinaemia	Systems using chloramine disinfection or that have

		10 as nitrate-nitrogen		agricultural fertilizer use, manure and domestic sewage; may be produced from excess ammonia or nitirification in the distribution system	(blue baby syndrome) and effects on thyroid gland function in bottle-fed infants **Other:** Classified as possible carcinogen under conditions that result in endogenous nitrosation	naturally occurring ammonia should monitor the level of nitrate in the distribution system. Homeowners with a well should test concentration of nitrate in their water supply.
I	Nitrilotriacetic acid (NTA) (1990)	0.4	None	Sewage contamination	**Health basis of MAC:** Kidney effects (nephritis and nephrosis) **Other:** Classified as possible carcinogen	MAC is based upon exposure mainly attributable (80%) to drinking water with 20% of exposure attributable to food.
I	Nitrite (2013)	3 as nitrite; 1 as nitrite-nitrogen	None	Naturally occurring; leaching or runoff from agricultural fertilizer use, manure and domestic sewage; may be produced from excess ammonia or nitirification in the distribution system	**Health basis of MAC:** Methaemoglobinaemia (blue baby syndrome) in bottle-fed infants less than 6 months of age **Other:** Classified as possible carcinogen under conditions that result in endogenous nitrosation	Systems using chloramine disinfection or that have naturally occurring ammonia should monitor the level of nitrite in the distribution system. Homeowners with a well should test concentration of nitrite in their water supply.
DBP	*N*-Nitroso dimethylamine (NDMA) (2010)	0.000 04	None	By-product of drinking water disinfection with chlorine or chloramines; industrial and sewage treatment plant effluents	**Health basis of MAC:** Liver cancer (classified as probable carcinogen)	MAC takes into consideration all exposures from drinking water, which include ingestion, as well as inhalation and dermal absorption during showering and bathing. Levels should be kept low by

						preventing formation during treatment.
A	Odour (1979, 2005)	None	Inoffensive	Biological or industrial sources	**Not applicable**	Important to provide drinking water with no offensive odour, as consumers may seek alternative sources that are less safe.
O	Pentachlorophenol (1987, 2005)	0.06	AO: ≤ 0.03	By-product of drinking water disinfection with chlorine; industrial effluents	**Health basis of MAC:** Reduced body weight, changes in clinical parameters, histological changes in kidney and liver, reproductive effects (decreased neonatal survival and growth)	AO based on odour; levels above the AO would render drinking water unpalatable.
O	Per-and polyfluoroalkyl substances (PFAS) (2024) Water talk: Per-and polyfluoroalkyl substances (PFAS) in drinking water	None	Objective: 0.00003 ALARA	Synthetic chemicals used in consumer products and fire-fighting foams for their water and oil repellant properties.	Certain PFAS may have effects on the liver, immune system, kidney, reproduction, development, endocrine system (thyroid), the nervous system, and metabolism (lipids, glucose homeostasis, body weight). The lower the levels of exposure to PFAS, the lower the risk to public health.	The objective is based on analytical and treatment achievability and applies to the sum of 25 specified PFAS. If measurements of PFAS in drinking water are approaching or exceed the 30 ng/L objective, it may be useful to examine the types of PFAS that are present in the greatest concentrations. When treatment is required, it is also recommended that treatment plants strive to maintain PFAS

						concentrations in drinking water as low as reasonably achievable (ALARA).
T	pH (2015)	None	7.0–10.5[4]	Not applicable	**Not applicable**	The control of pH is important to maximize treatment effectiveness, control corrosion and reduce leaching from distribution system and plumbing components.
I	Selenium (2014)	0.05	None	Naturally occurring (erosion and weathering of rocks and soils) and release from coal ash from coal-fired power plants and mining, refining of copper and other metals.	**Health basis of MAC:** chronic selenosis symptoms in humans following exposure to high levels **Other:** Hair loss, tooth decay, weakened nails and nervous system disturbances at extremely high levels of exposure	Selenium is an essential nutrient. Most exposure is from food; little information on toxicity of selenium from drinking water. Selenium can be found in non-leaded brass alloy where it is added to replace lead.
I	Silver (1986, 2005)	None required	None	Naturally occurring (erosion and weathering of rocks and soils)	**Not applicable**	Guideline value not required as drinking water contributes negligibly to an individual's daily intake.
I	Sodium (1979)	None	AO: ≤ 200	Naturally occurring (erosion and weathering of salt deposits and contact with igneous rock, seawater intrusion); sewage and industrial effluents; sodium-based water softeners	For persons on strict sodium-reduced diets applying to all sources, levels in drinking water should be below 20 mg/L	Based on taste; where a sodium-based water softener is used, a separate unsoftened supply for cooking and drinking purposes is recommended.

I	Strontium (2019) Water Talk - Strontium in drinking water	7.0	None	Naturally occurring (erosion and weathering of rocks); effluents from mining or other industries	**Health basis of MAC**: Bone effects (adverse effects on bone formation in infants as well as rickets, osteomalacia)	MAC is protective of the most sensitive sub-population, infants.
I	Sulphate (2025) (in: Operational Parameters)	None	AO: ≤ 500	Industrial wastes	High levels (above 500 mg/L) can cause physiological effects such as diarrhoea or dehydration	Based on taste and operational considerations related to corrosion.
I	Sulphide (1992)	None	AO: ≤ 0.05	Can occur in the distribution system from the reduction of sulphates by sulphate-reducing bacteria; industrial wastes	Not applicable	Based on taste and odour; levels above the AO would render water unpalatable.
A	Taste (1979, 2005)	None	Inoffensive	Biological or industrial sources	Not applicable	Important to provide drinking water with no offensive taste, as consumers may seek alternative sources that are less safe.
O	Tetrachloroethylene (2015)	0.01	None	Spill or other point source of contamination	**Health basis of MAC:** Neurological effects (colour confusion) in humans **Other:** Classified as probably carcinogenic to humans, based on sufficient evidence in experimental animals and limited evidence in humans	Primarily a concern in groundwater, as it volatilizes easily from surface water; MAC takes into consideration all exposures from drinking water, which include ingestion, as well as inhalation and dermal

						absorption during showering and bathing.
O	Toluene (2014)	0.06	AO: 0.024	Emissions, effluents or spills from petroleum and chemical industries	**Health basis of MAC:** Adverse neurological effects, including vibration thresholds, colour discrimination, auditory thresholds, attention, memory and psychomotor functions **Other:** Insufficient information to determine whether toluene is carcinogenic to humans.	MAC takes into consideration all exposures from drinking water, which include ingestion, as well as inhalation and dermal absorption during showering and bathing. AO is based on odour.
A	Total dissolved solids (TDS) (2025) (in: Operational Parameters)	None	AO: ≤ 500	Naturally occurring; sewage, urban and agricultural runoff, industrial wastewater	Not applicable	Based on taste; TDS above 500 mg/L results in excessive scaling in water pipes, water heaters, boilers and appliances; TDS is primarily composed of calcium, magnesium, sodium, potassium, carbonate, bicarbonate, chloride, and sulphate.
O	Trichloroethylene (2005)	0.005	None	Industrial effluents and spills from improper disposal	**Health basis of MAC:** Developmental effects (heart malformations) **Other:** Classified as probable carcinogen	MAC takes into consideration all exposures from drinking water, which include ingestion, as well as inhalation and dermal absorption during showering and bathing.

O	2,4,6-Trichlorophenol (1987, 2005)	0.005	AO: ≤ 0.002	By-product of drinking water disinfection with chlorine; industrial effluents and spills	**Health basis of MAC:** Liver cancer (classified as probable carcinogen)	AO based on odour; levels above the AO would render drinking water unpalatable.
DBP	Trihalomethanes) Table 2 footnote3 (THMs) (2006)	0.1	None	By-product of drinking water disinfection with chlorine; industrial effluents	**Health basis of MAC:** Liver effects (fatty cysts) (chloroform classified as possible carcinogen) **Other:** Kidney and colorectal cancers	Refers to the total of chlorodibromomethane, chloroform, bromodichloromethane and bromoform; MAC based on health effects of chloroform. MAC takes into consideration all exposures from drinking water, which include ingestion, as well as inhalation and dermal absorption during showering and bathing. Utilities should make every effort to maintain concentrations as low as reasonably achievable without compromising the effectiveness of disinfection. Recommended strategy is precursor removal. The separate MAC for BDCM was rescinded in April 2009.
I	Uranium (2019)	0.02	None	Naturally occurring (erosion and weathering of rocks and soils); mill tailings; emissions from nuclear	**Health basis of MAC:** Kidney effects	Based on challenges and operational cost impacts for some private wells and small systems; MAC is for

	Water Talk - Uranium in drinking water			industry and combustion of coal and other fuels; phosphate fertilizers		total uranium and is protective in relation to both chemical and radiological hazards.
O	Vinyl chloride (2013)	0.002 ALARA	None	Industrial effluents; degradation product from organic solvents in groundwater; leaching from polyvinyl chloride pipes	**Health basis of MAC:** Liver cancer (classified as human carcinogen) **Other:** Raynaud's disease, effects on bone, circulatory system, thyroid, spleen, central nervous system	Based on analytical achievability. MAC takes into consideration all exposures from drinking water, which include ingestion, as well as inhalation and dermal absorption during showering and bathing. Leaching from polyvinyl chloride pipe is not expected to be significant.
O	Xylenes (total) (2014)	0.09	AO: 0.02	Emissions, effluents or spills from petroleum and chemical industries	**Health basis of MAC:** Adverse neuromuscular effects **Other:** Insufficient information to determine whether xylenes are carcinogenic to humans	MAC takes into consideration all exposures from drinking water, which include ingestion, as well as inhalation and dermal absorption during showering and bathing. AO is based on odour.
I	Zinc (1979, 2005)	None	AO: ≤ 5.0	Naturally occurring; industrial and domestic emissions; leaching may occur from galvanized pipes, hot water tanks and brass fittings	Zinc is an essential element and is generally considered to be non-toxic, however levels above the AO in water would render it unpalatable.	AO based on taste; water with zinc levels above the AO tends to be opalescent and develops a greasy film when boiled; plumbing should be thoroughly

						flushed before water is consumed.

[1] Parameter types: **A** – Acceptability; **D** – Disinfectant; **DBP** – Disinfection by-product; **P** – Pesticide; **I** – Inorganic chemical; **O** – Organic chemical; **T** – Treatment related parameter.
In cases where total dichlorobenzenes are measured and concentrations exceed the most stringent value (0.005 mg/L), the concentrations of the individual isomers should be established.
[3] Expressed as a locational running annual average of quarterly samples.
[4] No units.

Table 3. Radiological Parameters

Guidelines for radiological parameters focus on routine operational conditions of existing and new water supplies. Radionuclides that occur in drinking water due to industrial or human activities or nuclear emergencies are not covered in these guidelines. For more information and guidance on nuclear emergencies, refer to Health Canada's Generic Criteria and Operational Intervention Levels for Nuclear Emergency Planning and Response and provincial nuclear emergency plans. MACs have been established for the most significant radionuclides in the uranium- and thorium-decay chains in drinking water. The MACs are derived from a reference level corresponding to a radiation dose of 1 millisievert per year (mSv/year).

Drinking water samples should initially be screened against a gross alpha radiation level of 0.5 Bq/L (becquerel/litre) and a gross beta level of 1 Bq/L. Individual radionuclide analysis is only necessary when one (or both) of these are exceeded. If more than one radionuclide in Table 1 is detected, the sum of the ratios of the observed concentration to their corresponding MAC should not exceed 1. A MAC for outgassing and ingestion of radon in drinking water is not deemed necessary. The guidelines include a reference value to evaluate risk from ingesting radon, and point to resources for assessing and managing radon in indoor air from all sources including outgassing.

Parameter (published, reaffirmed)	**MAC (Bq/L)**	**Common sources**	**Health basis of MAC**	**Comments**
Lead-210 **(2025)**	2	Naturally occurring (Uranium decay chain)	The primary health objective when managing public exposure to	Radionuclides can accumulate in the distribution system and discoloration episodes are likely to be accompanied by the release of these contaminants, because they are

Parameter (published, reaffirmed)	MAC (Bq/L)	Common sources	Health basis of MAC	Comments
			ionizing radiation is to reduce the risk of attributable cancer.	adsorbed onto iron deposits; as this isotope behaves chemically like elemental lead, devices certified for the removal of lead will also remove the radioactive isotope.
Radium-226 **(2025)**	5	Naturally occurring (Uranium decay chain)	The primary health objective when managing public exposure to ionizing radiation is to reduce the risk of attributable cancer.	Radionuclides can accumulate in the distribution system and discoloration episodes are likely to be accompanied by the release of these contaminants, because they are adsorbed onto iron deposits; drinking water treatment devices certified to remove Ra-226 and Ra-228 from drinking water using IX and RO technologies are available.
Radium-228 **(2025)**	2	Naturally occurring (Thorium decay chain)	The primary health objective when managing public exposure to ionizing radiation is to reduce the risk of attributable cancer.	Radionuclides can accumulate in the distribution system and discoloration episodes are likely to be accompanied by the release of these contaminants, because they are adsorbed onto iron deposits; drinking water treatment devices certified to remove Ra-226 and Ra-228 from drinking water using IX and RO technologies are available.

Table 4. Guidance Documents

In certain situations, Health Canada, in collaboration with the Federal-Provincial-Territorial Committee on Drinking Water, may choose to develop guidance documents for issues that do not meet the criteria for guideline development and for specific issues for which operational or management guidance is warranted. These documents are offered as information for drinking water authorities and help provide guidance relating to substance, drinking water management issues or emergency situations.

Parameter/subject (published)	Comments
Chloral hydrate in drinking water (2008)	Exposure levels in Canada far below concentration that would cause health effects; levels above 0.2 mg/L may indicate a concern for health effects and should be investigated.
Issuing and rescinding boil water advisories in Canadian drinking water supplies (2015)	Summarizes factors for consideration when responsible authorities issue or rescind boil water advisories. Provides trend information on reasons boil water advisories are issued in Canada.
Issuing and rescinding drinking water avoidance advisories in emergency situations (2009)	Summarizes factors for consideration when responsible authorities issue or rescind drinking water avoidance advisories in emergency situations.
Monitoring the Biological Stability of Drinking Water in Distribution Systems (2022)	Distribution systems represent a complex and dynamic environment. Monitoring changes in biological stability in these systems is important to minimize potential risks to consumers. This guidance document discusses (1) the concept of biological stability, (2) causes of water quality deterioration in the distribution system, (3) health risks (e.g., waterborne outbreaks) and aesthetic issues (e.g., colour) associated with this deterioration, (4) monitoring tools and parameters that can be used to assess biological stability, and (5) distribution system management strategies to minimize public health risks. This guidance document replaces the Guidance on the Use of Heterotrophic Plate Counts in Canadian Drinking Water Supplies.
Natural organic matter in drinking water (NOM) (2020)	The presence and characteristics of natural organic matter (NOM) can have significant impacts on drinking water treatment processes, and consequently the safety of drinking water. Seasonal and weather-related events can significantly affect the concentration and character of NOM. This guidance document reviews and assesses: 1) the impacts of NOM and the associated indirect health risks; 2) source-specific treatability study requirements to ensure the most appropriate process is selected to meet treated water quality goals; 3) treatment options and their effectiveness; 4) tools available to monitor raw, treated and distribution system water quality.

Overview of the Microbiological Aspects of Drinking Water Quality (2021)	Provides an overview of the microbiological considerations to ensure drinking water quality, integrating key content of the relevant guideline technical documents and guidance documents to illustrate their use as part of a source-to-tap approach.
Providing safe drinking water in areas of federal jurisdiction (2021)	Provide guidance for federal departments and responsible authorities to meet the Guidelines for Canadian Drinking Water Quality and drinking water-related regulations
Potassium from water softeners (2008)	Not a concern for general population; those with kidney disease or other conditions, such as heart disease, coronary artery disease, hypertension or diabetes, and those who are taking medications that interfere with normal body potassium handling should avoid the consumption of water treated by water softeners using potassium chloride.
Sampling and Mitigation Measures for Controlling Lead Corrosion (2025)	Addresses sampling and mitigation measures to address lead leaching and release from materials in the distribution system; sampling protocols can be used to assess corrosion and the effectiveness of mitigation/control measures to reduce lead levels in drinking water; corrective measures are outlined to address lead sources to minimize exposure to lead.
Temperature aspects of drinking water (2021)	Water temperature affects all physical, chemical, microbiological, and biochemical processes to some extent from the source through treatment and distribution to in-building plumbing. In turn, this affects water quality and can result in issues related to health-based contaminants and aesthetics. This document summarizes how temperature is discussed in the Guidelines for Canadian Drinking Water Quality and highlights aspects that may be relevant to drinking water utilities when developing and implementing management strategies.
Use of Enterococci as an indicator in Canadian drinking water supplies (2020)	Enterococci are a bacteriological indicator of fecal contamination. This indicator can supplement E. coli and total coliforms monitoring programs to provide additional information into fecal contamination issues. The document provides information on how enterococci can be used in a drinking water monitoring program.
Use of Quantitative Microbial Risk Assessment (QMRA) in Drinking Water (2019)	Provides guidance on the use of QMRA to assist in understanding microbiological risks in Canadian water systems.
Waterborne pathogens (2022) Infographic: What is Legionella	Numerous types of pathogenic microorganisms can spread through drinking water to cause human illness. Some are present in human or animal feces and can cause gastrointestinal illness when fecally contaminated water is consumed. Others are naturally found in aquatic environments and can cause opportunistic infections when the conditions in engineered water systems (e.g., drinking water distribution systems and building/premise plumbing) allow them to multiply and spread. This guidance document

	discusses sources of these pathogens, associated health effects, (pathogen) detection methods, treatment considerations, and management strategies to minimize public health risks.

Table 5. Withdrawn Guidelines

Health Canada, in collaboration with the Federal-Provincial-Territorial Committee on Drinking Water has established a science-based process to systematically review older guidelines and withdraw those that are no longer required. Guidelines are withdrawn for parameters that are no longer found in Canadian drinking water supplies at levels that could pose a risk to human health, including pesticides that are no longer registered for use in Canada and for mixtures of contaminants that are addressed individually. Additional information can be found in Withdrawal of Select Guidelines for Canadian Drinking Water Quality.

Type	Parameter	Year withdrawn	Type	Parameter	Year withdrawn
P	Aldicarb	2012	**P**	Mirex	1978
P	Aldrin + dieldrin	1994	**O**	Monochlorobenzene	2022
P	Azinphos-methyl	2022	**P**	Paraquat	2022
P	Bendiocarb	2012	**P**	Parathion	2012

P	Carbaryl	2022	**P**	Pesticides (total)	1989
P	Carbofuran	2022	**O**	Phenols (total)	1989
P	Chlordane (total isomers)	1996	**P**	Phorate	2022
P	Cyanazine	2012	**O**	Phthalic acid esters (PAE)	1978
P	Diazinon	2022	**P**	Picloram	2022
O	1,2-dichlorobenzene	2022	**O**	Polychlorinated biphenyls (PCBs)	1978
O	1,1-Dichloroethylene	2024	**O**	Polycyclic aromatic hydrocarbons (PAHs) (excluding benzo[*a*]pyrene)	1978
P	Dichlorodiphenyltrichloroethane (DDT) + metabolites	1996	**O**	Resin acids	1978
O	2,4-dichlorophenol	2022	**P**	Simazine	2022
P	Diclofop-methyl	2022	**O**	Tannin	1978
P	Dinoseb	2012	**P**	Temephos	1996
P	Diuron	2022	**P**	Terbufos	2022

P	Endrin	1987	**O**	2,3,4,6-tetrachlorophenol	2022
O	Gasoline and its organic constituents	2012	**O**	Total organic carbon	2005
P	Heptachlor + heptachlor epoxide	1996	**P**	Toxaphene	1989
O	Lignin	1978	**P**	Triallate	1996
P	Lindane	1996	**P**	2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)	1996
P	Methoxychlor	2012	**P**	2,4,5-Trichlorophenoxypropionic acid (2,4,5-TP)	1987
P	Methyl-parathion	1989	**P**	Trifluralin	2022
P	Metolachlor	2022			

Table 6. Problem formulations

A problem formulation is a high-level summary of the scientific data needed to determine a path forward for a specific parameter or issue. It proposes one of: develop or update a guideline or guidance document; withdraw an existing guideline document; or, no further action, based on a preliminary review of these data. It is available upon request by emailing water_eau@hc-sc.gc.ca

Type	Parameter	Decision (Year)	Rationale

O	1,1-dichloroethylene	Guideline withdrawn. (2024)	Low potential for human exposure or toxicity through drinking water.
O	1,4-dichlorobenzene	Update of the current guideline is necessary. (2024)	New science identified that could affect the current human health assessment.
O	2,4,6-trichlorophenol	Current guideline maintained; no further action needed. (2024)	No new science identified that could affect the current human health assessment.
O	Acrylamide	Development of a guideline not deemed necessary; no further action needed. (2025)	Residual acrylamide in drinking water from treatment chemicals or building materials is controlled through safety certifications.
I	Iodide	Screening value published. (2022)	With few exceptions, concentrations in drinking water are low and not considered a human health concern.

List 1. Guidelines and Guidance in Progress

The following are parameters for which Health Canada is developing or updating guidelines and guidance over the next few years.

- Arsenic
- Asbestos
- Chlorate/chlorite
- Cyanide
- Fluoride
- Haloacetic acids
- Per- and polyfluoroalkyl substances (PFAS)
- Premise plumbing and biofilm-associated microorganisms
- Protozoa
- Trichloroethylene
- Trihalomethanes
- Turbidity