



City of Calgary Water Treatment Plant Summary

January 1, 2025 to December 31, 2025

Parameter	Units	Bears paw Treated Water (Entering the Distribution System)			Maximum Acceptable Concentration or Guideline ¹	Common Source
		Minimum	Maximum	Average		
Alkalinity, Total	mg/L as CaCO ₃	96	137	122	No Guidelines	Erosion of natural deposits in watershed.
Aluminum	mg/L	0.027	0.180	0.065	0.100 (O) (Annual Average)	Water treatment process
Ammonia	mg/L as N	<0.05	0.070	<0.05	No Guidelines	Naturally occurring; released from agricultural or industrial wastes.
Antimony	mg/L	<0.0005			0.006	Erosion of natural deposits in watershed
Arsenic	mg/L	<0.0005			0.010	Erosion of natural deposits in watershed
Atrazine + metabolites	mg/L	<0.0010			0.005	Leaching and/or runoff from agricultural or rural use
Barium	mg/L	0.026	0.053	0.037	2.0	Erosion of natural deposits in watershed
Benzene	mg/L	<0.0005			0.005	Releases or spills from industrial use
Benzo[a]pyrene	mg/L	<0.000005			0.00004	Distribution System materials
Beryllium	mg/L	<0.0005			No Guidelines	Contamination from ceramic applications and manufacturing of aerospace, electronics and mechanical industries
Bicarbonate	mg/L as CaCO ₃	96	137	122	No Guidelines	Erosion of natural deposits in watershed
Boron	mg/L	0.003	0.010	0.091	5	Naturally occurring; leaching or runoff from industrial use
Bromate	mg/L	<0.0095			0.01	Possible contamination in hypochlorite solution
Bromoxynil	mg/L	<0.0001			0.03	Leaching and/or runoff from agricultural or rural use
Cadmium	mg/L	<0.00015			0.007	Erosion of natural deposits in watershed
Calcium	mg/L	37	54	46	No Guidelines	Erosion of natural deposits in watershed
Carbonate	mg/L as CaCO ₃	<20			No Guidelines	Erosion of natural deposits in watershed
Carbon Tetrachloride	mg/L	<0.0005			0.002	Industrial effluents and leaching from hazardous waste sites
Chlorate	mg/L	<0.1			1	Possible contamination in hypochlorite solution
Chloride	mg/L	3.7	6.0	4.9	250 (A)	Naturally occurring, dissolved salt deposits, highway salt
Chlorine, free	mg/L	0.82	1.40	1.06	No Guidelines	Water treatment process
Chlorite	mg/L	<0.1			1	Possible contamination in hypochlorite solution, water treatment process
Chlorpyrifos	mg/L	<0.0010			0.09	Leaching and/or runoff from agricultural or rural use
Chromium	mg/L	<0.0005			0.05	Erosion of natural deposits in watershed
Cobalt	mg/L	<0.0005			No Guidelines	Erosion of natural deposits in watershed.
Coliforms, <i>E. coli</i>	MPN/100mL	<1			0	Domestic animals, wildlife and human waste.
Coliforms, Total	MPN/100mL	<1			0	Soil, domestic animals and wildlife.
Color	TCU	<2.0	3.2	<2.0	15 (A)	Erosion of natural deposits in watershed.
Conductivity at 25°C	uS/cm	295	390	354	No Guidelines	Leaching and/or runoff from agricultural or rural use
Copper	mg/L	<0.0005			2 1 (A)	Erosion of natural deposits in watershed.
Cryptosporidium	oocysts/100L	Not Tested			No Guidelines ²	Domestic animals, wildlife and human waste.
Cryptosporidium, Log Reduction Ratio ³	no units	1.00	1.33	1.33	>=1	Domestic animals, wildlife and human waste.
Cyanide	mg/L	0.00073	0.00089	0.00080	0.2	Industrial and mining effluents; Release from organic compounds.
Cyanobacterial toxins – total microcystin	mg/L	<0.00010			0.0015	Naturally occurring; released from blooms of blue-green algae
Diazinon	mg/L	<0.0010			0.02	Run off from agricultural or other uses.
Dicamba	mg/L	<0.0002			0.11	Leaching and/or runoff from agricultural or rural use
1,2-Dichlorobenzene	mg/L	<0.0005			0.2 0.003(A)	Releases or spills from industrial use
1,4-Dichlorobenzene	mg/L	<0.0005			0.005 0.001(A)	Releases or spills from industrial use
1,1-Dichloroethylene	mg/L	<0.0005			0.014	Releases or spills from industrial use
1,2-Dichloroethane	mg/L	<0.0005			0.005	Releases or spills from industrial use
Dichloromethane	mg/L	<0.0005			0.05	Industrial and municipal wastewater discharges
2,4-Dichlorophenol	mg/L	<0.0002			0.9 0.0003(A)	By-product of chlorination.
2,4-D	mg/L	<0.0001			0.1	Leaching and/or runoff from use as a weed controller
Diclofop-methyl	mg/L	<0.00005			0.009	Leaching and/or runoff from use as a weed controller
Sum of Dimethoate	mg/L	<0.0050			0.02	Leaching and/or runoff from agricultural or rural use
1,4-Dioxane	mg/L	<0.0010			0.05	Releases or spills from landfills and industrial use
Diquat	mg/L	<0.0070			0.05	Leaching and/or runoff from agricultural or rural use
Diuron	mg/L	<0.00005			0.15	Leaching and/or runoff from use in controlling vegetation
Ethylbenzene	mg/L	<0.0005			0.14 0.0016 (A)	Emissions, effluents or spills from petroleum and chemical industries
Fluoride	mg/L	<0.05	0.73	0.36	1.5	Erosion of natural deposits in watershed and treatment process addition ⁴
Giardia	cysts/100L	Not Tested			No Guidelines ²	Domestic animals, wildlife and human waste.
Giardia, Log Reduction Ratio ³	no units	1.25	1.75	1.65	>=1	Domestic animals, wildlife and human waste.
Glyphosate	mg/L	<0.000025			0.28	Leaching and/or runoff from use as a weed controller.
Gross Alpha	Bq/L	<0.14			0.5	Naturally occurring; emissions from nuclear reactors
Gross Beta	Bq/L	<0.07			1.0	Naturally occurring; emissions from nuclear reactors
Haloacetic Acids, Total	mg/L	<0.0025	0.018	0.009	0.08 (Annual Average)	By-product of chlorination.
Hardness	mg/L as CaCO ₃	141	200	174	No Guidelines	Erosion of natural deposits in watershed.
Iron	mg/L	<0.010			0.1 (A)	Erosion of natural deposits in watershed.



City of Calgary Water Treatment Plant Summary

January 1, 2025 to December 31, 2025

Parameter	Units	Bears paw Treated Water (Entering the Distribution System)			Maximum Acceptable Concentration or Guideline ¹	Common Source
		Minimum	Maximum	Average		
Lead	mg/L	<0.0005			0.005	Leaching from plumbing (pipes, solders, brass fittings, and lead service lines)
Lithium	mg/L	0.0020	0.0037	0.0029	No Guidelines	Releases or spills from industrial use
Magnesium	mg/L	11.1	16.1	14.2	No Guidelines	Erosion of natural deposits in watershed.
Malathion	mg/L	<0.0010			0.29	Leaching and/or runoff from agricultural or rural use
Manganese	mg/L	<0.0005	0.0016	<0.0005	0.12 0.02 (A)	Erosion of natural deposits in watershed.
MCPA (2-methyl-4-chlorophenoxyacetic acid)	mg/L	<0.00002			0.35	Leaching and/or runoff from agricultural and other uses
MCPP (methylchlorophenoxy propionic acid)	mg/L	<0.00006			No Guidelines	Leaching and/or runoff from agricultural and other uses
Mercury	mg/L	<0.000002			0.001	Erosion of natural deposits in watershed
Metolachlor	mg/L	<0.0010			0.05	Leaching and/or runoff from agricultural and other uses
Metribuzin	mg/L	<0.0010			0.08	Leaching and/or runoff from agricultural or rural use
Molybdenum	mg/L	<0.0005	0.0008	0.0007	No Guidelines	Leaching and/or runoff from industrial, agricultural and other uses
Monochlorobenzene	mg/L	<0.0005			0.08 0.03(A)	Releases or spills from industrial effluents
MTBE (methyl tertiary-butyl ether)	mg/L	<0.0005			0.015 (A)	Spills from gasoline refineries, filling stations and gasoline powered boats; seepage into groundwater from leaking storage tanks
Nickel	mg/L	<0.0005	0.0005	<0.0005	No Guidelines	Leaching from plumbing (pipes, solders, and brass fittings)
Nitrate	mg/L as N	0.082	0.153	0.108	10	Erosion of natural deposits in watershed
Nitrite	mg/L as N	<0.005			1	Erosion of natural deposits in watershed
Nitrotriacetic acid (NTA)	mg/L	<0.050			0.4	Sewage contamination
Nitrogen-Phosphorus Pesticides, Total ⁵	mg/L	<0.01			No Guidelines	Leaching and/or runoff from agricultural or rural use
N-Nitrosodimethylamine (NDMA)	mg/L	<0.000002			0.00004	By-product of chlorination; industrial and sewage treatment plant effluents
Nitrogen, total (TKN)	mg/L	<0.1	0.11	<0.1	No Guidelines	Erosion of natural deposits in watershed
Odour	Scale = 0-12	8.0	10.5	9.2	Inoffensive	Biological, industrial, or treatment disinfection sources
Pentachlorophenol	mg/L	<0.0001			0.06 0.03 (A)	By-product of chlorination
Total PFAS	mg/L	<0.000012			0.00003	Synthetic chemical used in consumer products and fire-fighting foams for their water and oil repellent properties. The objective is based on analytical and treatment achievability and applies to the sum of 25 specified PFAS
pH	pH units	7.2	8.0	7.6	7.0 - 10.5 (O)	Influenced by the dissolved minerals in the water, temperature and water treatment processes.
Phosphorus, Total	mg/L	<0.001	0.004	0.002	No Guidelines	Leaching and/or runoff from agricultural and other uses
Picloram	mg/L	<0.0002			0.19	Leaching and/or runoff from agricultural and other uses
Potassium	mg/L	0.4	0.9	0.6	No Guidelines	Erosion of natural deposits in watershed.
Polycyclic Aromatic Hydrocarbons ⁶ (PAH)	mg/L	<0.0001			No Guidelines	Industrial sources
Selenium	mg/L	<0.0005	0.0010	0.0005	0.05	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
Silicon, dissolved	mg/L	1.48	1.99	1.69	No Guidelines	Erosion of natural deposits in watershed.
Silver	mg/L	<0.00025			No Guidelines	Naturally occurring (erosion and weathering of rocks and soils)
Simazine	mg/L	<0.0010			0.01	Leaching and/or runoff from agricultural and other uses
Sodium	mg/L	3.4	6.4	4.5	200 (A)	Erosion of natural deposits in watershed.
Strontium	mg/L	0.140	0.236	0.196	7.0	Erosion of natural deposits in watershed.
Sulphate	mg/L	45	66	56	500 (A)	Erosion of natural deposits in watershed.
Sulphide	mg/L as H ₂ S	<0.0018			0.05 (A)	Can occur in the distribution system from the reduction of sulphates by sulphate-reducing bacteria; industrial wastes
Taste	mg/L	Not Tested			Inoffensive (A)	Biological or industrial sources
Temperature	°C	1.0	17.2	8.5	15 (A)	Surface water temperature.
Terbufos	mg/L	<0.0005			0.001	Leaching and/or runoff from agricultural and other uses
Tetrachlorethylene	mg/L	<0.0005			0.01	Industrial effluents or spills
2,3,4,6-Tetrachlorophenol	mg/L	<0.0005			0.1	By-product of chlorination; industrial effluents and use of pesticides
Thallium	mg/L	<0.0005			No Guidelines	Erosion of natural deposits in watershed.
Tin	mg/L	<0.0005			No Guidelines	Industrial effluents or spills
Titanium	mg/L	<0.0005	0.0005	<0.0005	No Guidelines	Industrial effluents or spills
Toluene	mg/L	<0.0005			0.06 0.024(A)	Emissions, effluents or spills from petroleum and chemical industries
Total Dissolved Solids	mg/L	195	230	212	500 (A)	Erosion of natural deposits in watershed.
Total Organic Carbon	mg/L	0.5	1.5	0.8	No Guidelines	Erosion of natural deposits in watershed.
Trichloroethylene	mg/L	<0.0005			0.005	Industrial effluents and spills from improper disposals
2,4,6-Trichlorophenol	mg/L	<0.0006			0.005 0.002 (A)	By-product of chlorination; industrial effluents and spills
Trifluralin	mg/L	<0.0010			0.045	Runoff from agricultural uses
Total Trihalomethanes ⁷ (TTHMs)	mg/L	0.0031	0.0238	0.0102	0.1 (Annual Average)	By-product of chlorination.



City of Calgary Water Treatment Plant Summary

January 1, 2025 to December 31, 2025

Parameter	Units	Bears paw Treated Water (Entering the Distribution System)			Maximum Acceptable Concentration or Guideline ¹	Common Source
		Minimum	Maximum	Average		
Turbidity	NTU	<0.05	0.06	<0.05	1.0	Suspended particles in solution.
Uranium	mg/L	<0.0005	0.0006	<0.0005	0.02	Industrial effluents or spills
Vanadium	mg/L	<0.0005	0.0005	<0.0005	No Guideline	Naturally occurring (erosion and weathering of rocks and soils)
Vinyl Chloride	mg/L	<0.0005			0.002	Industrial effluents; degradation product from organic solvents in groundwater; leaching from polyvinyl chloride pipes
Virus, Log Reduction Ratio ³	no units	1.5			>=1	Domestic animals, wildlife and human waste.
Xylenes, total ⁷	mg/L	<0.0010			0.09 0.02 (A)	Emissions, effluents or spills from petroleum and chemical industries
Zinc	mg/L	<0.003	0.026	<0.003	5.0 (A)	Erosion of natural deposits in watershed. Leaching may occur from galvanized pipes, hot water tanks and brass fittings.

Legend

¹ Maximum acceptable concentrations and guidelines as determined by Health Canada and the Alberta Environment and Protected Areas license to operate

² Raw water enteric protozoa concentrations are used to determine the log reduction required

³ Log Reduction Ratios are calculated by the minimum total log reduction achieved / log reduction required

⁴ Fluoridation of drinking water started June 30, 2025.

⁵ Total concentration calculated based on 13 Nitrogen-Phosphorus regulated pesticides

⁶ Total concentration calculated based on EPA 16 Priority PAH compounds

⁷ Calculated parameter based on individual analytes

(O) Operating guidance as determined by Health Canada

(A) Aesthetic Objective as determined by Health Canada

(AEPA) Alberta Environment and Parks provincial guidance

< Indicates not detected above the specified value

Bq/L = Becquerel per litre

mg/L = milligrams per litre, or parts per million (ppm)

MPN = Most-Probable Number

NTU = Nephelometric Turbidity Units

TCU = True Colour Units

Information Sources

[Health Canada Guidelines for Canadian Drinking Water Quality, Summary Table \(Dec.2025\)](#)

[Health Canada Water Quality - Reports and Publications](#)

[Alberta Environment & Protected Areas](#)