

Drinking Water Quality Results – Detected Parameters

The City of Boulder monitors for more than 450 water quality parameter or substances in drinking water, most of which are not detected at low levels in the laboratory. The table below shows the concentrations of all detected parameters.

Median (representative) monitoring results from the most recent 2-year period at each water treatment plant (WTP)

All applicable state and federal standards

Water Quality Parameter

Description	Parameter	Units	Betasso WTP	Boulder Reservoir WTP	Regulatory Standard	
Buffering capacity of water	Alkalinity (as CaCO ₃)	mg/L	46.6	45.2		
Measure of acidity	pH	Std Units	7.6	7.6	MSL= 6.5-8.5 (range)	
Water clarity measurement	Turbidity	ntu	0.1	0.1	TT	
Natural organic matter	Carbon, Total Organic	mg/L	0.9	2.0		
Indirect measure of organic matter	UV-254 absorbance	cm ⁻¹	0.01	0.02		
Indirect measurement of ions in water	Specific Conductivity	µmho/cm	115	184		
Nutrient	Nitrogen, Nitrate as N	mg/L	0.04	0.02	MCL= 10	
	Phosphorus, Total	µg/L	3.2	3.4		
Algal byproduct	Geosmin	µg/L	No Data	0.002		
	2-Methylisoborneol (MIB)	µg/L	No Data	0.01		
Disinfectant	Chlorine	mg/L	1.1	1.1		
	Bromochloroacetic acid	µg/L	<1	1.2		
Disinfection byproduct	Bromodichloroacetic acid	µg/L	1.1	<1		
	Chlorate	µg/L	140	82.5		
	Haloacetic Acids (HAA5)	µg/L	23.4	15.4	MCL= 60	
	Total Trihalomethanes	µg/L	24.9	21.4	MCL= 80	
	Aluminum, Total	µg/L	15.9	9.0	MSL= 50-200	
Naturally occurring ion	Arsenic, Total	µg/L	<0.17	0.4	MCL= 10	
	Barium, Total	µg/L	7.2	34.5	MCL= 2000	
	Boron, Total	µg/L	7.0	17.0		
	Calcium, Total	mg/L	18.9	28.4		
	Copper, Total	µg/L	7.6	1.3	TT; Action level 1,300	
	Fluoride, Total	mg/L	0.6	0.6	MCL= 4; MSL= 2	
	Iron, Total	µg/L	19.9	15.1	MSL= 300	
	Magnesium, Total	mg/L	0.8	9.5		
	Manganese, Total	µg/L	0.5	0.2	MSL= 50	
	Molybdenum, Total	µg/L	0.5	0.7		
	Potassium, Total	mg/L	0.5	1.2		
	Silicon	mg/L	2.1	2.8		
	Sodium, Total	mg/L	3.0	7.6		
	Strontium, Total	µg/L	47.5	175		
	Sulfate	mg/L	3.1	17.2	MSL= 250	
	Tin, Total	µg/L	0.03	No Data		
	Vanadium, Total	µg/L	0.3	0.2		
	Zinc, Total	µg/L	1.6	0.8	MSL= 5000	
	Pesticide	2,4-D	µg/L	<0.005	0.01	MCL= 70
		Fluridone	µg/L	<0.005	0.01	
Imazamox		µg/L	<0.005	0.04		
Triclopyr		µg/L	<0.01	0.01		
Household product	Sucralose	µg/L	<0.015	0.1		
Radionuclides	Uranium, Total	µg/L	0.03	0.04	MCL= 30	

Units and Abbreviations

- mg/L** = milligrams per liter
 - equivalent to a typical 2.5 liter coffee pot in an Olympic sized pool
- µg/L** = micrograms per liter
 - equivalent to ½ a teaspoon of water in an Olympic sized pool
- NTU** = Nephelometric turbidity units
- µmhos/cm** = micromhos per centimeter
- <** = Concentration below the detection limit

Types of State and Federal Standards

- Action Level (AL):** Concentration that triggers certain regulatory requirements.
- Maximum Contaminant Level (MCL):** The highest concentration allowed in drinking water. MCLs are as close to MCLGs as possible, using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG):** Below this concentration, there is no known or expected risk to public health. MCLGs allow for a margin of safety.
- Maximum Secondary Level (MSL):** A non-enforceable concentration set to minimize taste and odor or discoloration.
- Treatment Technique (TT):** A required treatment process intended to reduce the concentration in drinking water.



Questions about your drinking water?

Email us at drinkingwater@bouldercolorado.gov or call 303-441-3200