



DRINKING WATER QUALITY SUMMARY

Water customers often ask

about specific water quality constituents in the city's drinking water. The following table includes average or representative water quality values for water produced at the city's two water treatment plants, along with regulatory limits where applicable.

Betasso Water Treatment Facility

The Betasso facility is located up Boulder Canyon and treats water from Barker and Lakewood Reservoirs, which are fed by the Middle Boulder Creek Watershed and North Boulder Creek Watershed, respectively.

Boulder Reservoir Water Treatment Facility

During most of the year water is pumped directly from Boulder Reservoir to this facility. From about May through October the Boulder Reservoir Water Treatment Facility may divert water directly from the Boulder Feeder Canal, which delivers water from Carter Lake and is less mineralized (softer) than water in Boulder Reservoir.

In general, if you live or work west of Broadway you primarily receive water from the Betasso facility. If you live or work east of Foothills Parkway you primarily receive water from the Boulder Reservoir facility, and if you're in between you could receive water from either facility or a mix.

Constituent	Betasso Water Treatment Facility	Boulder Reservoir Water Treatment Facility			Regulatory or Recommended Limits
		Boulder Feeder Canal	Boulder Reservoir		
Inorganic Compounds (mg/L)	Avg.	Avg.	Avg.	Range	mg/L
Alkalinity (total as CaCO ₃)	45	31	65	(24-112)	NLE
Aluminum	0.12	0.06	0.13	-	MSL = 0.05-0.2
Antimony	<0.001	<0.001	<0.001	-	MCL = 0.006
Arsenic	<0.001	<0.001	<0.001	-	MCL = 0.01
Barium	0.005	0.013	0.04	-	MCL = 2
Beryllium	<0.001	<0.001	<0.001	-	MCL = 0.004
Boron	0.009	0.009	0.024	-	NLE
Cadmium	<0.0005	<0.0005	<0.0005	-	MCL = 0.005
Calcium as CaCO ₃	50	28	90	(20-115)	NLE
Chloride	3	10	15	-	MSL = 250
Chromium	<0.001	<0.001	<0.001	-	MCL = 0.1
Copper	0.003	0.003	0.003	-	AL = 1.3
Fluoride	0.9	0.9	0.9	-	MCL = 4
Hardness (total as CaCO ₃)	57	36	144	(31-167)	NLE
Iron	<0.04	<0.04	<0.04	-	MSL = 0.3
Lead	<0.0005	<0.0005	<0.0005	-	AL = 0.015
Magnesium as CaCO ₃	7	8	54	(33-71)	NLE
Manganese	0.006	<0.002	<0.002	-	MSL = 0.05
Mercury	<0.0002	<0.0002	<0.0002	-	MCL = 0.002
Molybdenum	<0.003	<0.003	<0.003	-	NLE
Nickel	<0.005	<0.005	<0.005	-	NLE
Nitrate	<0.1	<0.2	<0.1	-	MCL = 10
Potassium	0.4	0.7	1.1	-	NLE
Selenium	<0.005	<0.005	<0.005	-	MCL = 0.05
Silver	<0.0001	<0.0001	<0.0001	-	MSL = 0.1
Silicon	2	2.8	3.4	-	NLE
Sodium	3	13	16	(10-18)	RL = 20
Specific conductance (µmhos/cm)	119	141	343	(97-463)	NLE
Sulfate	7	9	76	(5-100)	MSL = 250
Thallium	<0.001	<0.001	<0.001	-	MCL = 0.002
Total dissolved solids	71	85	207	(60-282)	MSL = 500
Vanadium	<0.002	<0.002	<0.002	-	NLE
Zinc	<0.005	<0.005	<0.005	-	MSL = 5



PUBLIC WORKS
Water Quality & Environmental Services
Drinking Water

For more information call 303-413-7400,
visit boulderwater.net or email the
Drinking Water Program at

drinkingwater@bouldercolorado.gov

Terms and Abbreviations:

mg/L = milligrams per liter

pCi/L = picocuries per liter

µmhos/cm = micromhos per centimeter

AL = Action Level, level that triggers certain regulatory requirements

MCL = Max Contaminant Level

MSL = Max Secondary Level (non-enforceable)

ND = Not Detected

NLE = No Limit Established

RL = Recommended Limit

Notes:

Free Chlorine Residual: 0.4 – 1.0 mg/L,
measured in the distribution system

pH: 7.2 - 8.2 units, measured in the distribution
system (MSL = 6.5 - 8.5 units)

* MCL applies to the running annual average
of quarterly averages from samples
collected in the distribution system.

** MCL at time of last monitoring. Revised
current MCL = 4 millirems/year.

Constituent	Betasso Water Treatment Facility	Boulder Reservoir Water Treatment Facility		Regulatory or Recommended Limits
		Boulder Feeder Canal	Boulder Reservoir	
Organic Compounds	Avg.	Avg.	Avg.	mg/L
HAA (Haloacetic acid)	0.032	0.024	0.030	MCL = 0.06*
TTHM (Total trihalomethane)	0.027	0.030	0.036	MCL = 0.08*
Total organic carbon (TOC)	1.10	1.89	2.46	NLE
Volatile and synthetic organic compounds (VOC/SOC)	ND	ND	ND	Specific to each compound

Constituent	Betasso Water Treatment Facility	Boulder Reservoir Water Treatment Facility		Regulatory or Recommended Limits
		Boulder Feeder Canal	Boulder Reservoir	
Radioactive Compounds	Avg.	Avg.	Avg.	pCi/L or mg/L
Gross Alpha Emitters	<3	<3	-	MCL = 15 pCi/L
Gross Beta Emitters	<8	<8	-	MCL = 50 pCi/L **
Radium 228	<1	<1	<1	MCL = 5 pCi/L
Uranium	<0.0003	<0.0003	<0.0003	0.03 mg/L

Lead and Copper

The lead and copper levels presented in the table are based on water measurements as it leaves the water treatment facilities. Lead and copper levels at the tap may be higher depending upon the type and age of home plumbing at a given residence (copper pipes and lead solder in some residences may contribute metals to drinking water). Because some of the city's source waters are naturally soft and corrosive to metals, the city implemented corrosion control treatment to reduce lead and copper corrosion in household plumbing. The city has monitored lead and copper at about 50 Boulder residences since 1992, in compliance with drinking water regulations for lead and copper. Regulations set Action Levels for both lead and copper in drinking water. If more than 10% of the sites monitored exceed the Action Level, for either metal, additional steps including additional monitoring and public education must be taken to protect public health. The city has not exceeded Action Levels for either lead or copper in the monitoring done to date.

Organic Compounds

HAAs and TTHMs (haloacetic acids and total trihalomethanes) are formed when chlorine from the disinfection process combines with naturally occurring organic substances. Average values listed in the table are based on measurements as the water leaves the water treatment facilities. HAA and TTHM values will increase over time in the distribution system. The city also monitors HAAs and TTHMs in the distribution system. The city has not exceeded regulatory limits for either of these groups of contaminants.