

2024 CITY OF BOULDER

Drinking Water Quality Report

The City of Boulder 2024 Drinking Water Quality Report summarizes water quality testing results from the 2023 calendar year. The city's goal is to provide customers with safe and high-quality drinking water.

Este informe contiene información importante sobre su agua potable. Lea esta informe en línea en español escaneando el código QR o visitando bouldercolorado.gov/services/drinking-water-quality.



LEARN MORE ABOUT BOULDER'S WATER

If you have any questions about this report, please contact the city's Drinking Water Program at 303-441-3200 or the Colorado Department of Public Health and Environment (CDPHE) at 303-692-3500. For more information about Boulder's water, visit bouldercolorado.gov/services/drinking-water-quality or submit a question to inquireboulder.com.

The City of Boulder's Water Resources Advisory Board meetings are additional opportunities for the public to learn about drinking water. Board meetings are usually held the third Monday of each month at 6 p.m. and may be held virtually or in-person. For more information about the board, call 303-441-3200 or visit bouldercolorado.gov/government/boards-and-commissions.

CITY OF BOULDER WATER SOURCES

The City of Boulder is fortunate to have several high-quality sources of drinking water: Barker Reservoir, North Boulder Creek and Carter Lake. Water used at your home or business may come from any of these sources, depending on the season or availability. Source water protection has long been recognized as a necessary and often cost-effective component of providing clean, safe drinking water for our community.

The city closely monitors activities that could affect source water and implements an extensive water quality monitoring program from source to tap, including a protection plan. The city's Source Water Protection Plan is available at bouldercolorado.gov/water/water-supply-and-planning or upon request by calling the Drinking Water Program at 303-441-3200. The protection plan identifies potential contaminant sources that could occur but does not mean they do.



City of Boulder
Utilities

Digital copies of this report can be found by visiting bouldercolorado.gov/water/water-report. Federal regulations require that this report be distributed to all City of Boulder water customers.



GENERAL INFORMATION ABOUT DRINKING WATER

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency Safe Drinking Water Hotline (1-800-426-4791). Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people, such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, have HIV-AIDS or other immune system disorders, some elderly, and infants can be particularly at risk of infections. These people should seek drinking water advice from their health care providers. The U.S. Environmental Protection Agency (EPA) and U.S. Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As source water travels over land or through the ground, it dissolves naturally occurring minerals, organic matter, and in some cases, radioactive material, and can pick up substances associated with animals or humans. Contaminants that may be present in source water include:



Organic Chemical Contaminants including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production and also may come from gas stations, urban stormwater runoff and septic systems.



Inorganic Contaminants such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.



Pesticides & Herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.



Radioactive Contaminants that can be naturally occurring or be the result of oil and gas production and mining activities.



Microbial Contaminants such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

TERMS & ABBREVIATIONS

- AL** *Action Level*: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- LRAA** *Locational Running Annual Average*: The average of sample results for samples collected at a particular monitoring location during the most recent four calendar quarters.
- MCL** *Maximum Contaminant Level*: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- MCLG** *Maximum Contaminant Level Goal*: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- MRDL** *Maximum Residual Disinfectant Level*: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- MRDLG** *Maximum Residual Disinfectant Level Goal*: The level of a drinking water disinfectant below which there is no known or expected risk to health.
- NE** *Not Established*
- NTU** *Nephelometric Turbidity Units*, units for turbidity.
- ppb** *Parts Per Billion*, or micrograms per liter ($\mu\text{g}/\text{l}$)
- ppm** *Parts Per Million*, or milligrams per liter (mg/l)
- RAA** *Running Annual Average*: An average of monitoring results for the previous 12 calendar months or previous four quarters.
- TT** *Treatment Technique*: A required process intended to reduce the level of a contaminant in drinking water.

Learn **how**
you can help
protect our streams:
[KEEPITCLEANPARTNERSHIP.ORG](https://www.KeepItCleanPartnership.org)

Learn **how**
you can save water and
money with conservation:
[BOULDERSAVESWATER.NET](https://www.BouldersSavesWater.net)

DRINKING WATER QUALITY DATA

To ensure that tap water is safe to drink, CDPHE prescribe regulations limiting the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

The City of Boulder routinely monitors for constituents in drinking water according to federal and state laws. The data presented in this report are the result of monitoring for the period of Jan. 1 to Dec. 31, 2023, or from the most recent testing done in accordance with regulations. CDPHE does not require the City of Boulder to monitor all constituents each year because the concentrations of some constituents are not expected to vary significantly from year to year, or because the City of Boulder's system is not considered vulnerable to that type of constituent. Therefore, some of the data, though representative, may be more than one year old.

Constituents Detected

Constituent	Units	MCL	MCLG	Result	Violation (Yes/No)	Sample Date	Typical Source of Constituent
Barium	ppm	2	2	Average: 0.01 Range: 0.01 - 0.01	No	2023	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine	ppm	MRDL = 4	MRDLG = 4	Average: 0.84 Range: 0.22 - 1.31	No	At least 120 samples per month in 2023	Water additive used to control microbes
Fluoride	ppm	4	4	Average: 0.59 Range: 0.57 - 0.6	No	Daily 2023	Erosion of natural deposits; water additive which promotes strong teeth
Sodium (not regulated)	ppm	NE	NE	Average: 4.5 Range: 3.0 - 6.0	No	2023	Erosion of natural deposits
Chromium	ppb	100	100	Average: 0.5 Range: 0 - 1	No	2023	Discharge from steel and pulp mills; erosion of natural deposits
Nitrate	ppm	10	10	Average: 0.05 Range: 0 - 0.1	No	2023	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Constituent	Units	TT Requirement	Result	Violation (Yes/No)	Sample Date	Typical Source of Constituent
Turbidity	NTU	Not to exceed 1 NTU for any single measurement	Highest single measurement: 0.208 Range: 0.01 - 0.208	No	Daily 2023	Soil runoff
	NTU	At least 95% of month's samples must be ≤ 0.3 NTU	Lowest monthly percentage of samples meeting TT standard: 100%	No	Monthly 2023	
Chlorine	ppm	At least 95% of month's samples must be at least 0.2 ppm	Lowest monthly percentage of samples meeting TT standard: 100%	No	At least 120 samples per month in 2023	Water additive used to control microbes

Constituent	Units	AL	90th Percentile	Number of Sites Over AL	Violation (Yes/No)	Sample Date	Typical Source of Constituent
Copper	ppm	1.3	0.14	0	No	2021	Corrosion of household plumbing systems; erosion of natural deposits
Lead	ppb	15	1.7	0	No	2021	Corrosion of household plumbing systems, erosion of natural deposits

Constituent	Units	MCL	MCLG	Average	Range of All Samples	Highest LRAA	Violation* (Yes/No)	Sample Date	Typical Source of Constituent
Haloacetic Acids	ppb	60	NE	28.9	15.0 - 54.0	32.1	No	Quarterly 2023	Byproduct of drinking water disinfection
Total Trihalomethanes	ppb	80	NE	33.6	14.5 - 55.7	39.7	No	Quarterly 2023	Byproduct of drinking water disinfection

*Compliance based on LRAA

Disinfection Byproduct Precursor - Total Organic Carbon Removal Ratio

Water Treatment Plant	Compliance Factor (Minimum RAA)	RAA	Violation (Yes/No)	Sample Date	Typical Source of Constituent
Betasso WTP	1.0	1.33	No	2023	Naturally present in environment
Boulder Reservoir WTP	1.0	1.17	No	2023	Naturally present in environment

LEAD TESTING INFORMATION

If present, elevated levels of lead can cause serious health problems, especially for children and those who are pregnant. Lead in drinking water comes primarily from materials and components associated with service lines and home plumbing. The City of Boulder is responsible for providing high-quality drinking water and removing lead pipes but cannot control the variety of materials used in private plumbing components. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. Boulder implements a Corrosion Control Program that treats water to reduce corrosion and reduce lead exposure from home plumbing.

When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for a few minutes before using water for drinking or cooking.

If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Environmental Protection Agency at www.epa.gov/safewater/lead.

DRINKING WATER SERVICE LINE INVENTORY

To comply with new regulations, all drinking water providers in the country, including the City of Boulder, must develop an inventory of their drinking water service line materials. Water service lines are the pipes that bring water from the city water system into homes and businesses. The purpose of the inventory is to determine whether any service lines are made from lead and therefore need to be replaced.

At this time, we do not have knowledge of any lead service lines in the city. City code required the use of copper after 1955, and city records indicate copper was routinely used before that date. If any lead or galvanized lines are discovered, the city will communicate directly with customers and will include those lines on a replacement plan.

Additional information is on our website: bldr.fyi/waterinventory.

If your property was built prior to 1956, you likely received a postcard from the city asking for your assistance in verifying your water service line material. **If you haven't already, please take a moment to use our online self-reporting tool to report your service line material – scan the QR code or visit the website bldr.fyi/mywaterserviceline.** The city will post results from the inventory on our website by October 2024.



BACKFLOW VIOLATION RESOLUTION

In 2023 the City of Boulder discovered two violations of the Colorado Backflow Prevention and Cross-Connection Control regulations. Although this information was previously reported to our water customers in 2023, state and federal regulations require the city to report these violations again in this water quality report. We had an inadequate backflow prevention and cross-connection control program. Uncontrolled cross connections can lead to inadvertent contamination of the drinking water. It was not an emergency and did not impact public health, but as our customers you have the right to know what happened and what the city did to correct the situation.

What happened and how was the issue resolved? State and local regulations require owners of backflow prevention assemblies to inspect and test them annually to protect drinking water from potential backflow contamination. The city plays an enforcement role and is required by state regulations to ensure that at least 90% of devices are tested every year. The city failed to receive the required 90% testing compliance ratio in 2022. The city achieved 90% compliance ratio testing soon after in May 2023. The city also found that 16 privately owned devices that had failed testing had not been repaired or replaced by the property owners within the 120-day required time frame. The 16 devices were repaired or replaced by September 2023.

All violations were resolved in 2023. Boulder has increased enforcement of these regulations, issued violations to property owners, and suspended water service for property owners who failed to comply with local and state backflow regulations. We will continue increased enforcement to ensure backflow compliance from property owners to protect Boulder's drinking water. Since the two violations were resolved, the city has been in full compliance with state backflow regulations.

For additional information, please contact 303-441-3200 or drinkingwater@bouldercolorado.gov.

Please share the above information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.