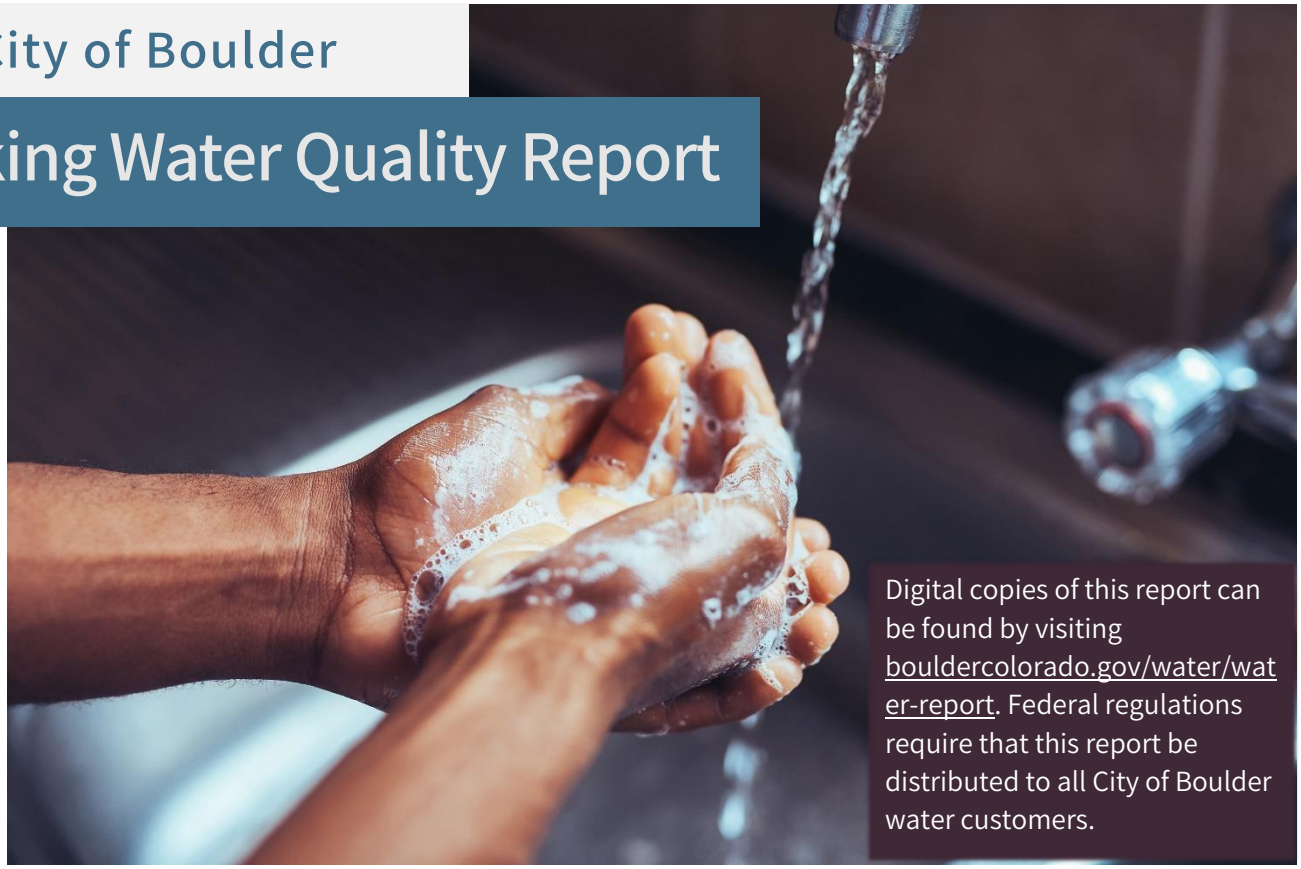
2025 City of Boulder

Drinking Water Quality Report



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.

The City of Boulder 2025 Drinking Water Quality Report summarizes water quality testing results from the 2024 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 este informe en línea en español escaneando el código QR arriba o visitando bouldercolorado.gov/es/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's Water Resources Advisory Board meetings are additional opportunities for the public to learn about drinking water. Board meetings are usually held on the third Monday of each month at 6 p.m. and may be virtual or in-person. For more information about the board, call 303-441-3200 or visit bouldercolorado.gov/government/boards-and-commissions/water-resources-advisory-board.

City of Boulder Water Sources

The city is fortunate to have several high-quality sources of drinking water: Barker Reservoir, North Boulder Creek and Carter Lake. Water 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 part 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/services/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 it does not mean these contaminants do occur.

City of Boulder Utilities

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's Safe Drinking Water Hotline (1-800-426-4791) or by visiting epa.gov/ground-water-and-drinking-water.

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, those with HIV-AIDS or other immune system disorders, some elderly, and infants, can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. 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 national 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 water travels over land or through the ground, it dissolves naturally occurring minerals 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.

Water Quality Data Terms and 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 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 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:*** A water quality regulatory threshold has not been set.

NTU ***Nephelometric Turbidity Units:*** units for turbidity.

ppb ***Parts Per Billion:*** same as micrograms per liter (µg/l).

ppm ***Parts Per Million:*** same as milligrams per liter (mg/l).

RAA ***Running Annual Average:*** An average of monitoring results for the previous 12 calendar months or the 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

Learn how you can save water and money with conservation: bouldersaveswater.net

Drinking Water Quality Data

To ensure that tap water is safe to drink, CDPHE prescribes regulations limiting the amount of certain contaminants in water provided by public systems. The 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, 2024, 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. Violations are reported in the next section.

Constituents Detected

Constituent	Units	MCL	MCLG	Result	Violation (Yes/No)	Sample Date	Typical Source of Constituent
Barium	ppm	2	2	Average: 0.011 Range: 0.010 - 0.012	No	2024	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine	ppm	MRDL 4	MRDLG 4	Average: 0.87 Range: 0.26- 1.22	No	At least 120 samples per month in 2024	Water additive used to control microbes
Fluoride	ppm	4	4	Average: 0.69 Range: 0.66 - 0.71	No	Daily 2024	Erosion of natural deposits; water additive which promotes strong teeth
Sodium (secondary standard)	ppm	NE	NE	Average: 4.5 Range: 3.1 – 5.9	No	2024	Erosion of natural deposits
Nitrate	ppm	10	10	Average: 0.1 Range: 0 - 0.2	No	2024	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: 0.851 Range: 0.01 - 0.85 Average: 0.04	No	Daily 2024	Soil runoff
	NTU	At least 95% of month's samples must be ≤ 0.3 NTU	Lowest monthly percentage of samples meeting TT standard: 99%	No	Monthly 2024	
Chlorine	ppm	At least 95% of month's samples must be at least 0.2 ppm	Lowest period percentage of samples meeting TT standard: 100%	No	At least 120 samples per month in 2024	Water additive used to control microbes

Constituent	Units	Tap Sample Range Low-High	AL	90th Percentile	Number of Sites Over AL	Violation (Yes/No)	Sample Date	Typical Source of Constituent
Copper	ppm	0.02 to 2.19	1.3	0.17	1	No	2024	Corrosion of household plumbing systems; erosion of natural deposits
Lead	ppb	0 to 11	15	2.0	0	No	2024	Corrosion of household plumbing systems; erosion of natural deposits

Disinfection Byproducts Sampled in the Distribution System

Constituent	Units	MCL	MCLG	Average	Range of All Samples	Highest LRAA	Violation* (Yes/No)	Sample Date	Typical Source of Constituent
Haloacetic Acids	ppb	60	N/A	29.3	18.3 – 36.7	32.1	No	Quarterly 2024	Byproduct of drinking water disinfection
Total Trihalomethanes	ppb	80	N/A	37.4	20.0 – 49.9	42.9	No	Quarterly 2024	Byproduct of drinking water disinfection

*Compliance based on LRAA

Disinfection Byproduct Precursor - Total Organic Carbon Removal Ratio

Water Treatment Plant (WTP)	Compliance Factor (Minimum RAA)	Average	Violation (Yes/No)	Sample Date	Typical Source of Constituent
Betasso WTP	1.0	1.31	No	2024	Naturally present in environment
63rd WTP	1.0	1.17	No	2024	Naturally present in environment

Non-Health-Based Violations

These violations do not usually mean that there was a problem with the water quality. If there had been a problem with water quality, the city would have notified water customers immediately. You can find more information on non-health-based violations on the last page of this report.

Constituent	Violation	Time Period	Description
Chlorine	Equipment verification or calibration – R531	2024	On four occasions the chlorine readings differed by greater than allowable margins at different measuring points at the Betasso WTP.
Turbidity	Failure to monitor and/or report	2024	Due to a power outage, turbidity was not analyzed at the 63rd WTP during an 18-hour period.
Backflow and Cross-Connection Control	Failure to meet cross connection control and/or backflow prevention requirements – M610	2024	Five cross-connections on private properties were uncontrolled for more than 12 months without city staff requesting a compliance extension from the state.

Lead Testing Information

If present, lead can cause serious health problems, especially for children, infants who are either formula fed or breastfed, and those who are pregnant. Lead in drinking water comes primarily from materials and components associated with water service lines and home plumbing. The city is responsible for providing high-quality drinking water and removing lead pipes but cannot control the variety of materials used in private plumbing components. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. Boulder implements a Corrosion Control Program that treats water to reduce corrosion and reduce lead exposure from home plumbing.

Sample lead results in the city are consistently lower than federal standards. Because of this, the city is on reduced monitoring for lead, which means lead and copper samples need to be collected once every three years, rather than twice per year. The most recent samples were collected in 2024 and a result summary is listed in the 2024 Drinking Water Quality Data section. The city will collect samples again in the summer of 2027.

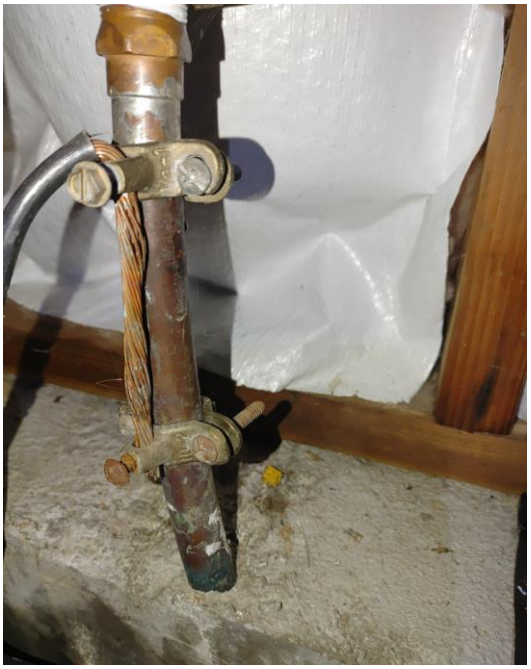
You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Flush your tap for 30-seconds to several minutes prior to drinking or cooking with water in your home or business if the water has been stagnant or not used for several hours. This is a national best practice that can help to minimize potential for lead exposure. If you have a lead service line or galvanized line requiring replacement, you may need to flush your pipes for a longer period.

If you are concerned about lead in your water, please reach out to the city at drinkingwater@bouldercolorado.gov. If you wish to have your water tested, CDPHE offers water testing services and links to certified labs, available at cdphe.colorado.gov/laboratory-services/water-testing. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Environmental Protection Agency at epa.gov/safewater/lead.

Drinking Water Service Line Inventory

In 2024, the city published an inventory of all water service lines and their material to comply with federal regulations that apply to drinking water providers nationwide. **No lead service lines were found during the investigation.**

Water service lines are pipes that bring water from the city water main, into homes and businesses. The city owns the part of the pipe that connects the water main to the meter. Customers own the part of the pipe that connects the meter to the private property. Boulder's inventory includes both customer-owned and city-owned lines. You may view your property's service line material on our online map at bldr.fyi/waterinventory. If the material of your service line is labeled in the map as assumed by statistical analysis or still unknown, please visit bldr.fyi/mywaterserviceline to find out how you can identify your service material and submit that information to the city's water inventory, or contact us at drinkingwater@bouldercolorado.gov for assistance.



Copper water service line found in Boulder, CO.

Important Information About Your Drinking Water

The City of Boulder is required to report the following drinking water violations. Although the situations below were not a health emergency, as our customers, you have a right to know what happened, what you should do and what the city is doing to correct these situations. These violations do not usually mean that there was a problem with the water quality. City staff would have immediately informed the community if this had been an emergency or was a public health concern.

There is nothing you need to do at this time. If a situation arises where the water is no longer safe to drink, the city will notify you within 24 hours.

Chlorine Documentation Violation

Chlorine protects public health by decreasing the likelihood that disease-causing organisms are present in drinking water. To ensure adequate disinfection and compliance with drinking water regulations, chlorine residual is continuously measured in treated water via online instrumentation and verified through lab sample analysis. On June 27, July 5, August 3, and August 5, 2024, the instrumentation and lab verification readings at the Betasso Water Treatment Plant differed by a greater than allowable margin. While the concentrations of chlorine residual met regulatory requirements, staff did not adequately document the steps taken to resolve the discrepancies per state regulations. This violation has been resolved as of November 2024, and staff have improved procedures for verifying discrepancies to prevent similar issues in the future.

Turbidity Monitoring Violation

Water systems are required to continuously monitor turbidity, a measure of the amount of particles in drinking water. On October 4, 2024, turbidity was not measured at one compliance point for 18 hours, greater than the allowable timeframe, due to a local power failure affecting the 63rd Street Water Treatment Plant. Continuously monitored downstream turbidity measurements indicated that turbidity levels were safely within regulatory limits during this time. This violation has been resolved as of October 2024. Upon discovering the power outage, city staff immediately corrected the issue and updated system processes that will improve backup power for the instrumentation to prevent similar issues from occurring in the future. This violation has been resolved as of October 2024.

Backflow Management Violation

Backflow prevention keeps drinking water clean and safe for our community by preventing the reverse flow of water and contamination from private properties into the city's drinking water system. When uncontrolled cross-connections are discovered, state and city regulations require property owners to install backflow prevention assemblies. The city plays an enforcement role by ensuring that all backflow assemblies — more than 7,000 in the city — are tested each year and that property owners install assemblies where required within timeframes established by state regulation.

We had an inadequate backflow prevention and cross-connection control program. Uncontrolled cross-connections can lead to inadvertent contamination of the drinking water. In 2024, property owners failed to install five backflow assemblies by state-mandated deadlines. This occurred without the city obtaining approvals for extensions, as required by a state policy change in late 2023. All five of the previously uncontrolled cross connections have been resolved as of November 2024. The city has improved the tracking of installation timelines and updated Boulder Revised Code to allow for enhanced enforcement ensuring customer compliance with backflow regulations and in support of protecting drinking water.

For additional information on any of these violations, please contact 303-441-3200, mail to 1094 Betasso Rd, Boulder, CO 80302 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 hard copies.