



We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water.

Please see the water quality data from our wholesale systems (either attached or included in this report) for additional information about your drinking water.

Get to Know Your Water

Drinking Water Quality Report Covering Data For Calendar Year 2021

Director's Message

The consistent delivery of safe, high quality, great tasting water is our core mission. The Greeley water system is amongst the most resilient systems in the West, with water supply diversity from four river basins feeding into two water treatment plants that ensure service reliably. The 2021 Water Quality Report provides our community with important information on the treated water quality that our team delivers.

The Greeley team takes great pride in our disciplined approach to source water protection, supply management and water treatment. In 2021, the city's people and systems were tested as we managed watershed impacts from the 2020 Cameron Peak Fire that burned more than 208,000 acres of city watershed. Greeley team members led a collaborative watershed restoration effort to protect our Cache la Poudre and Big Thompson River supplies. While our water resources team have been working on watershed restoration, our engineering team has been investing in treatment technology, and the water treatment professionals have skillfully utilized the flexibility of Greeley's well-connected municipal water system to draw the best quality water supply. The Water Treatment teams utilize best available technologies and proven treatment techniques to protect our award-winning high-quality drinking water despite the watershed disruptions.

Sean P. Chambers
Director of Greeley Water & Sewer Department

This report provides our customers with information on the city's municipal water quality based upon the prior year's certified laboratory test results.

If you have questions about this report or the water quality data, please call us at 970-350-9836. Also, more information is available at greeleygov.com/water.



General Information

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 persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people 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. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and microbiological contaminants call the EPA Safe Drinking Water Hotline at (1-800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- **Microbial contaminants:** viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants:** salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides:** may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
- **Radioactive contaminants:** can be naturally occurring or be the result of oil and gas production and mining activities.
- **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 storm water runoff, and septic systems.

In order to ensure that tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Greeley Drinking Water Sources

Greeley drinking water originates as mountain snowpack from a variety of surface water rivers and reservoirs in four river basins: Cache la Poudre River, Laramie River, Big Thompson River, and Colorado River. Greeley normally uses six high-mountain reservoirs in the Poudre Basin to retain water from spring snowmelt during the summer and fall when water demand is high but river flows are low.

The city also has a Front Range reservoir system (Boyd Lake, Lake Loveland, and Horseshoe Lake) to provide storage of city water rights for summer demands. Greeley owns a portion of the Colorado Big Thompson (C-BT) and Windy Gap projects and is a partner in the Chimney Hollow project that will add significant water storage for the city's Windy Gap water. Greeley, in coordination with the Northern Colorado Water Conservancy District, stores its portion from the C-BT Project in Lake Granby, Horsetooth Reservoir, and Carter Lake and can deliver water to either the Cache la Poudre or Big Thompson basins to meet the city's water demand.

Greeley treats water at the Bellvue Water Treatment Plant year-round. The city also operates the Boyd Lake Water Treatment Plant in Loveland. Treated water is then piped to Greeley where it is distributed to customers or stored in one of three finished water reservoirs. The city's water master plan prioritizes public investments in infrastructure, storage, and water for the future good of the community.

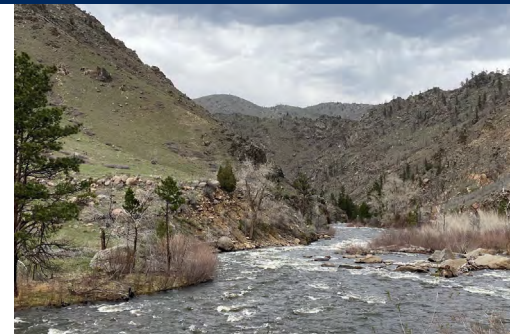


Source	Source Type	Water Type	Potential Sources of Contamination
PURCHASED FROM (CO0135290)	Consecutive Connection	Surface Water	EPA Hazardous Waste Generators, EPA Chemical Inventory/ Storage Sites, EPA Toxic Release Inventory Sites, Permitted Wastewater Discharge Sites, Aboveground, Underground and Leaking Storage Tank Sites, Solid Waste Sites, Existing/ Abandoned Mine Sites, Concentrated Animal Feeding Operations, Other Facilities, Commercial/Industrial/ Transportation, High Intensity Residential, Low Intensity Residential, Urban Recreational Grasses, Quarries / Strip Mines / Gravel Pits, Row Crops, Fallow, Small Grains, Pasture / Hay, Deciduous Forest, Evergreen Forest, Mixed Forest, Septic Systems, Oil / Gas Wells, Road Miles
PURCHASED FROM (CO0135291)			
BIG THOMPSON GLIC PUMPSTATION			
PURCHASED EAST LARIMER CNTY (CO013523)			
PURCHASED CITY OF LOVELAND (CO0135485)			
PURCHASED FROM NORTH WELD (CO0162553)	Intake		
HORSETOOTH RESERVOIR			
BOYD LAKE			
CACHE LA POUDE RIVER			
LAKE LOVELAND			

Source Water Assessment and Protection (SWAP)

The Colorado Department of Public Health and Environment may have provided us with a Source Water Assessment Report for our water supply. For general information or to obtain a copy of the report please visit wqcdcompliance.com/ccr. The report is located under "Guidance: Source Water Assessment Reports". Search the table using 162321, GREELEY CITY OF. The Source Water Assessment Report provides a screening-level evaluation of potential contamination that **could** occur. It does not mean that the contamination **has** or **will** occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure that quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan. Potential sources of contamination in our source water area are listed on the next page.

Please contact us to learn more about what you can do to help protect your drinking water sources, any questions about the Drinking Water Quality Report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.



2021 DRINKING WATER QUALITY RESULTS

The City of Greeley routinely monitors for contaminants in your drinking water according to Federal and State laws. The following tables show all detections found in the period of January 1 to December 31, 2021 unless otherwise noted. The State of Colorado requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Therefore, some of our data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report.

Note: Only detected contaminants sampled within the last 5 years appear in this report. If no tables appear in this section then no contaminants were detected in the last round of monitoring.



Disinfectants Sampled in the Distribution System

Disinfectant Name	Time Period	Results	Sample Size	TT Requirement	Samples Below Level	TT Violation	Typical Sources	MRDL
Chlorine	December 2021	100% Greeley's monthly samples met the TT requirement.	101	At least 95% of samples per period must be at least .2 ppm	0	no	Water additive used to control microbes	4.0 ppm

Lead and Copper Sampled in the Distribution System

Contaminant Name	Time Period	90th Percentile	Sample Size	90th Percentile AL	Sample Sites Above AL	90th Percentile AL Exceedance	Typical Sources
Lead	06/23/2021 - 06/30/2021	5.5	53	15	1	No	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfection Byproducts Sampled in the Distribution System

Name	Year	Average	Range Low - High	Sample Size	MCL	MCLG	MCL Violation	Typical Sources
Total Haloacetic Acids (HAA5)	2021	20.38	13.8 to 28.9	32	60	N/A	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2021	43.99	19.4 to 65.6	32	80	N/A	No	
Chlorite	2021	0.28	0.14 to 0.46	12	1.0	0.8	No	

Total Organic Carbon (Disinfection Byproducts Precursor) Removal Ratio of Raw and Finished Water

Contaminant Name	Year	Average	Range Low - High	Sample Size	Unit of Measure	TT Minimum Ratio	TT Violation	Typical Sources
Total Organic Carbon Ratio	2021	1.26 mg/l	0.95 to 1.62	19	Ratio	1.00	No	Naturally present in the environment

*If minimum ratio not met and no violation identified then the system achieved compliance using alternative criteria.

Summary of Turbidity Sampled at the Entry Point to the Distribution System

Contaminant Name	Sample Date	Level Found	TT Requirement	TT Violation	Typical Sources
Turbidity	Oct	Highest single measurement: 0.28 NTU	Maximum 1 NTU for any single measurement	No	Soil runoff
Turbidity	Dec	Lowest monthly percentage of samples meeting TT requirement for our technology: 100%	In any month, at least 95% of samples must be less than 0.3 NTU	No	

Inorganic Contaminants Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Average	Range Low-High	Sample Size	MCL	MCLG	MCL Violation	Typical Sources
Barium	2021	0.04	0.03 to 0.06 ppm	2	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	2021	0.37	0.17 to 0.49 ppm	3	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	2021	0.08	0.02 to 0.14 ppm	2	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	2021	1.25	1.1 to 1.4	2	50	50	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines

Lead in Drinking Water



If present, elevated levels of lead can cause serious health problems (especially for pregnant women and young children). It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home's plumbing. If you are concerned about lead in your water, you may wish to have your water tested. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.

Additional information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at epa.gov/safewater/lead.

Terms and Abbreviations

Maximum Contaminant Level (MCL): The highest level of a contaminant allowed in drinking water.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Health-Based: A violation of either a MCL or TT.

Non-Health-Based: A violation that is not a MCL or TT.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Contaminant Level Goal (MCLG): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Violation (No Abbreviation): Failure to meet a Colorado Primary Drinking Water Regulation.

Formal Enforcement Action (No Abbreviation): Escalated action taken by the State (due to the risk to public health, or number or severity of violations) to bring a non-compliant water system back into compliance.

Variance and Exemptions (VE): Department permission not to meet a MCL or treatment technique under certain conditions.

Gross Alpha (No Abbreviation): Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium.

Picocuries per liter (pCi/L): Measure of the radioactivity in water.

Nephelometric Turbidity Unit (NTU): Measure of the clarity or cloudiness of water. Turbidity in excess of 5 NTU is just noticeable to the typical person.

Secondary Contaminants**

**Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects (such as skin, or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water.						
Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	Secondary Standard
Sodium	2021	22.4	8.7 to 36.1	2	ppm	N/A

Health-Based Violations Treatment technique (TT) violations

Name	Description	Time Period
DISINFECTION BYPRODUCTS RULE	FAILURE TO MONITOR OR TIMELY REPORT	5/10/2021 – 5/18/2021 Resolved
<p>Greeley Water & Sewer received a Tier 3 Monitoring and Sampling Violation from Colorado Department of Public Health and Environment (CDPHE). We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the period listed above we did not complete all monitoring for chlorites, and therefore cannot be sure of the quality of the drinking water during that time. The Environmental Protection Agency recommends that drinking water have no concentration greater than 1.0 parts per million (mg/L) of chlorite. As soon as the sampling error was identified, Greeley Water borrowed chemicals from a nearby Water Treatment Plant in order to conduct the chlorite titration until the reagents arrive in the mail. In the future, Greeley will order new reagents earlier in case there are postal service delays. There are no anticipated adverse health effects, no alternate water supplies needed to be utilized by consumers, and no further action is required on the part of the consumer. For more information, please contact Michaela Jackson of Greeley Water & Sewer at (970) 350-9836.</p> <p><i>Please share this 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 public places or by distributing copies by hand or mail.</i></p>		

Terms and Abbreviations

Compliance Value (No Abbreviation): Single or calculated value used to determine if regulatory contaminant level (e.g. MCL) is met. Examples of calculated values are the 90th Percentile, Running Annual Average (RAA) and Locational Running Annual Average (LRAA).

Average (x-bar): Typical value.

Range (R): Lowest value to the highest value.

Sample Size (n): Number or count of values (i.e. number of water samples collected).

Parts per million = Milligrams per liter (ppm = mg/L): One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion = Micrograms per liter (ppb = ug/L): One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Not Applicable (N/A): Does not apply or not available.

Level 1 Assessment: A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

What Else Are We Doing to Protect Your Drinking Water?

The City of Greeley takes our commitment to providing our customers with high quality drinking water very seriously. We strive to continuously improve our process and invest in our water future through infrastructure upgrades, water resource acquisition, and source water protection.

Treatment Plant Upgrades

The City of Greeley is making investments in the Boyd Lake Water Treatment facility to improve the taste and odor of the treated water that is delivered to town during the summer months. A liquid oxygen and lake aeration system was installed at Boyd Lake to improve source water quality by preventing algal blooms, decreasing compounds and precursors that cause taste and odor issues, and reducing the amount of dissolved iron and manganese in the water. Not only does this new system enhance the aesthetics of the water that we treat and deliver, but it also improves the health of the aquatic ecosystem by oxygenating the water to reduce the effects of nutrient pollution and maintain a safe habitat for fish species.

Fire Recovery

In 2020, two large fires burned in the City of Greeley's watersheds. The Cameron Peak fire, which burned 208,913 acres in the Poudre River Watershed, is the largest wildfire in Colorado history. Runoff from the burn area can severely impair water quality in the Cache la Poudre River as ash, sediment, and nutrients are transported into the river and reservoirs during rainfall, resulting in "black water" events. To protect the health of our watershed and ensure the quality of our source water, the City of Greeley has embarked on a massive mitigation and restoration effort, securing over \$22 million in federal funds to mitigate hillslope erosion by mulching 5,800 acres of burned area, installing baffles on steep slopes to catch sediment, and partaking in various studies focusing on wildfire compounds and impacts to source water quality.



Get More Information

Please contact waterquality@greeleygov.com with any questions about this report or for public participation opportunities that may affect water quality.

To view the report online, visit greeleygov.com/ccr.

Access information about drinking water in general on the EPA's drinking water web site at epa.gov/safewater.

Connect to Your Water

Water & Sewer Department

970-350-9813
water@greeleygov.com
greeleygov.com/water

Water Conservation

970-336-4134
conserve@greeleygov.com
greeleygov.com/conserve

Emergencies

Water (7am - 3pm) 970-350-9320
Water (7am - 3pm) 970-350-9222
After Hours 970-616-6260

Utility Billing

970-350-9720

Water Taste or Odor

970-415-1618

Water Pressure

970-350-9320

Utility Line Locates

811

Water Restrictions & Violations

970-336-4134



@greeleywater

