



### 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](http://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.

### Director's Message



Greeley Water's core mission is the reliable delivery of safe, high-quality water that tastes great. Our team takes pride in ensuring our water sources are well-managed and treated to the highest safety standards. The 2022 Water Quality Report provides detailed information on the quality of Greeley's treated water. Our water system is one of the most resilient in the Western United States. Our water supply comes from four river basins (Big Thompson, Cache la Poudre, Upper Colorado, and Laramie River) and feeds into the city's two water treatment plants.

In the past, wildfires affected our source water when they burned within our watershed boundaries. Despite the impact fire has on our watershed, the city's treated water remains safe and reliable. We continue working with other local, state, and federal partners to protect our source water through wildfire mitigation.

Greeley makes consistent investments in its water treatment facilities. We use proven treatment techniques to protect our award-winning drinking water. Our employees and certified water professionals work hard to ensure all facets of the water system—treatment, transmission, and delivery—are maintained and professionally operated.

We hope this information is helpful and informative.



Sean P. Chambers  
Director of Greeley Water & Sewer Utilities

Public Water System ID: CO0162321

Esta es información importante. Para español visite [GreeleyGov.com/water-quality](http://GreeleyGov.com/water-quality)

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 contact Michaela Jackson at 970-350-9836 or [WaterQuality@greeleygov.com](mailto:WaterQuality@greeleygov.com) with any questions or for public participation opportunities that may affect water quality. Please see the water quality data from our wholesale system(s) (either attached or included in this report) for additional information about your drinking water.

# 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 (V/E)** – 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.
- **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.

## Lead in Drinking Water

Greeley Water's top priority is to provide safe drinking water and protect public health. In recent years, there has been greater national awareness of the potential health risks of lead in drinking water. The water leaving Greeley's treatment facilities is lead-free. Our water testing confirms that lead does not come from our water supplies or the city's water delivery pipelines.

Lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact the Lead Protection Team at 970-336-4273 or [LeadProtection@GreeleyGov.com](mailto:LeadProtection@GreeleyGov.com). Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at [epa.gov/safewater/lead](http://epa.gov/safewater/lead).

## What other projects are we working on?



**Lead Service Line Inventory and Replacement:** Historically, in Greeley, lead piping was sometimes used in the service lines that connect individual properties to the city's water main. That means older homes in Greeley may still have customer-owned service lines that contain lead. In 2023, the city started identifying the composition of lines using "potholing" and other investigative techniques. The city will replace these lines for free. The city is applying for financial support from a state-funded program to offset costs to ratepayers of replacing service lines.

**23rd Avenue Reservoir Replacement:** In 2022, the city removed three 100-year-old treated water storage tanks at 23rd Avenue and Reservoir Road from service due to deficiencies in the aging tanks' floating lid covers. These tanks stored 22 million gallons of treated water. They held some of the drinking water for the city's east and central parts. The city is applying for financial support from a state-funded program to offset costs to ratepayers of upgrading other parts of the system to meet the city's water storage needs.

**Bellvue Pipeline Project:** The City of Greeley is working on completing the last phase of a 29-mile-long, 60-inch pipeline to transport additional drinking water from the Bellvue Water Treatment Plant to Greeley residents. The project began in 2003 and should be finished by 2027. The Bellvue pipeline project replaces lines built in the 1940s. The pipeline will use gravity to deliver up to 50 million gallons of water daily from the Bellvue Water Treatment Plant. To put that into perspective, 1 million gallons of water can fill a pool the length of a football field that is 50 feet wide and 10 feet deep. Now imagine 50 additional pools this size!

**Fire Mitigation Efforts:** Intense heat from wildfires bakes the soil and prevents it from absorbing moisture. Rain and water from snow melt cascade across burn areas, carrying sediment into rivers and reservoirs where Greeley gets its water. Greeley Water continues to work with the US Forest Service and many other partners and agencies to minimize the effect wildfires have on the quality of our water supply. We do this by:

- Preventing soil erosion through aerial mulching
- Stabilizing hill slopes along the Poudre River and its tributaries
- Conducting fire mitigation at three Greeley reservoirs
- Storing excess water supplies in case of watershed disruptions

**Terry Ranch Project:** This underground water supply and storage project provides Greeley with 1.2 million acre-feet of water to help meet the city's long-term water needs. The project offers a backup water supply during dry years and creates a long-term water storage asset during wet years. Greeley won't need the water for at least ten years. This extra time allows the city to complete the construction of the pipeline and infrastructure in phases to minimize the impact on rates. The city will build a pipeline from the ranch to connect with our existing Bellvue pipeline.



## 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 [wqcd.compliance.com/ccr](http://wqcd.compliance.com/ccr). The report is located under "Guidance: Source Water Assessment Reports". Search the table using system name or ID, or by contacting Michaela Jackson at 970-350-9836. 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.

### Our Water Sources

Sources (Water Type - Source Type)	Potential Source(s) of Contamination
<ul style="list-style-type: none"> <li>• PURCHASED FROM CO0135290 (Surface Water-Consecutive Connection)</li> <li>• PURCHASED FROM CO0135291 (Surface Water-Consecutive Connection)</li> <li>• BIG THOMPSON GLIC PUMPSTATION (Surface Water-Intake)</li> <li>• PURCHASED EAST LARIMER CNTYCO0135233 (Surface Water-Consecutive Connection)</li> <li>• PURCHASED CITY OF LOVELAND CO0135485 (Surface Water-Consecutive Connection)</li> <li>• PURCHASED FROM NORTH WELD CO0162553 (Surface Water-Consecutive Connection)</li> <li>• HORSETOOTH RESERVOIR (Surface Water-Intake)</li> <li>• BOYD LAKE (Surface Water-Intake)</li> <li>• CACHE LA POUDDRE RIVER (Surface Water-Intake)</li> <li>• LAKE LOVELAND (Surface Water-Intake)</li> </ul>	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



### Detecting Contaminants

Greeley routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2022 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	Number of Samples Below Level	Sample Size	TT Violation	MRDL
Chlorine	December, 2022	Lowest period percentage of samples meeting TT requirement: 100%	0	101	No	4.0 ppm

TT Requirement: At least 95% of samples per period (month or quarter) must be at least 0.2 ppm OR If sample size is less than 40 no more than 1 sample is below 0.2 ppm. Typical Sources: Water additive used to control microbes

### Lead and Copper Sampled in the Distribution System

Contaminant Name	Time Period	90 <sup>th</sup> Percentile	Sample Size	Unit of Measure	90 <sup>th</sup> Percentile AL	Sample Sites Above AL	90 <sup>th</sup> Percentile AL Exceedance	Typical Sources
Copper	07/18/2022 to 09/14/2022	0.2	101	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	07/18/2022 to 09/14/2022	7.4	101	ppb	15	5	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	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Total Haloacetic Acids (HAA5)	2022	24.71	12.9 to 38.8	32	ppb	60	N/A	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2022	48.89	27.9 to 68.8	32	ppb	80	N/A	No	Byproduct of drinking water disinfection
Chlorite	2022	0.24	0.15 to 0.29	12	ppb	1.0	.8	No	Byproduct of drinking water disinfection

### 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	2022	1.32	0.95 to 1.51	20	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	Date/Month: May	Highest single measurement: 0.34 NTU	Maximum 1 NTU for any single measurement	No	Soil Runoff
Turbidity	Month: 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	Soil Runoff

## Inorganic Contaminants Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Barium	2022	0.05	0.03 to 0.08	2	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	2022	0.5	0.2 to 0.8	2	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	2022	0.1	0.06 to 0.14	2	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	2022	0.85	0 to 1.7	2	ppb	50	50	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines

## Secondary Contaminants\*\*

Contaminant Name	Year	Average	Range: Low – High	Sample Size	Unit of Measure	Secondary Standard
Sodium	2022	28.15	9.6 to 46.7	2	ppm	N/A

\*\*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.

## Violations, Significant Deficiencies, and Formal Enforcement Actions

**Health-Based Violations** Maximum contaminant level (MCL) violations: Test results for this contaminant show that the level was too high for the time period shown. Please read the information shown below about potential health effects for vulnerable populations. This is likely the same violation that we told you about in a past notice. We are evaluating, or we already completed an evaluation, to find the best way to reduce or remove the contaminant. If the solution will take an extended period of time, we will keep you updated with quarterly notices.

**Treatment technique (TT) violations:** We failed to complete an action that could affect water quality. Please read the information shown below about potential health effects for vulnerable populations. This is likely the same violation that we told you about in a past notice. We were required to meet a minimum operation/treatment standard, we were required to make upgrades to our system, or we were required to evaluate our system for potential sanitary defects, and we failed to do so in the time period shown below. If the solution will take an extended period of time, we will keep you updated with quarterly notices.

## Health-Based Violations

Name	Description	Time Period	Health Effects	Compliance Value	TT Level or MCL
STORAGE TANK RULE	FAILURE TO INSPECT STORAGE TANK(S) AND/OR FAILURE TO CORRECT STORAGE TANK DEFECTS - F334	08/05/2022 - 10/28/2022	May pose a risk to public health.	N/A	N/A
CROSS CONNECTION RULE	FAILURE TO MEET CROSS CONNECTION CONTROL AND/OR BACKFLOW PREVENTION REQUIREMENTS - M611	08/05/2022 - 11/17/2022	We have an inadequate backflow prevention and cross-connection control program. Uncontrolled cross connections can lead to inadvertent contamination of the drinking water. This is due to one or more of the following: we failed to comply with the requirements for surveying our system for cross connections, AND/OR we failed to complete the testing requirements for backflow prevention devices or methods.	N/A	N/A

**Additional Violation Information.** 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 a public place or distributing copies by hand or mail. Describe the steps taken to resolve the violation(s), and the anticipated resolution date: The F334 violation of the Storage Tank Rule was resolved by removing three aging treated water reservoirs from our system when timely compliance with storage tank inspections for these reservoirs became a hazard. On October 25, 2022, the three reservoirs in question were disconnected from the system with concrete caps and abandoned in place. Facility inactivation forms were submitted to CDPHE. The M611 violation of the Cross Connection Rule was resolved by completing 100% of the 2021 required testing of backflow assemblies by December 2, 2022.

## Backflow and Cross-Connection

We have an inadequate backflow prevention and cross-connection control program. Uncontrolled cross connections can lead to inadvertent contamination of the drinking water.

We either have installed or permitted an uncontrolled cross-connection or we experienced a backflow contamination event.