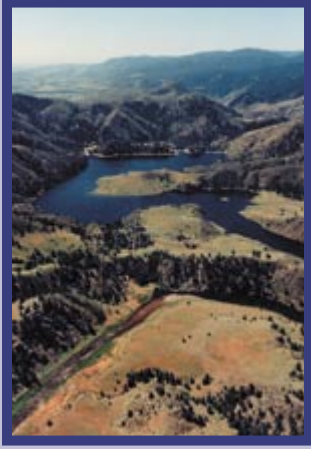


## Director's Message

Greeley is always dry but this year is especially so. The first four months of 2012 were the third driest on record, and the hottest. Mountain snowpack at the first of May was just 30 percent of normal, rivaling 2002, the driest year on record.

You may wonder, then, how Greeley can be having an "adequate water year," with only normal water restrictions.



The answers are: storage and conservation. Last year's epic snows filled local and regional reservoirs. The Colorado-Big Thompson system is also full. This is good news for both farms and municipalities. With so much water in storage, Greeley will have over 11,000 acre-feet of annual surplus water to rent to farmers this year, despite the low snowpack.

This is exactly how the system is supposed to work. Storage allows us to collect the melting snow in the years when we have it, and save it to use in the years when we don't. As our community grows, we need to add storage so our children and grandchildren have the water they need.

The other major reason Greeley has an annual surplus this year is conservation. Our residents are using less water, and we thank you. Per person water demand has dropped by 20 percent since 2000. You are paying attention to our precious resource and by conserving water; each of us contributes to the security of our community's water future.



So Greeley, use the water you need, but only what you need, and be thankful for our reservoirs. Even in a year as dry as this one, we have enough water to meet our needs because of your investment in storage.

Jon Monson  
Greeley Water & Sewer Director

## Did you know?

Greeley treats and distributes nearly 9 billion gallons of water per year. The department has more than 500 miles of pipeline, two drinking water plants, a wastewater treatment plant, three treated water reservoirs, six raw water reservoirs, and a variety of pumping stations.

The Number 3 Ditch began operation in June of 1870 and was the first completed ditch in the Greeley area. It cuts through the city in a northwest to southeast direction. Today, water taken from the ditch is used for agricultural irrigation, augmentation of well depletions, and as part of the non-potable irrigation program for parks and golf courses.

The Bellvue Water Treatment Plant began operation in 1907. A 36-mile wooden pipeline was constructed to bring water to Greeley from the plant, located at the mouth of the Poudre Canyon to Greeley. That pipeline has been replaced in the 1930s, improved in the 1950s, and is currently being expanded.



Greeley's Water Board is the second oldest municipal water board in the State. It was founded in 1958.

Greeley has a 105-year history of water conservation, when its first watering restrictions went into effect. Today, Greeley's conservation program is one of the largest and most successful in the state and has reduced water demand by more than 20 percent in recent years during historic drought and rapid population growth.

The every-other-day watering restrictions changed in 2002 to specific day of the week watering, which can be ramped down in times of drought. These restrictions were developed in collaboration with landscapers to allow lawns and landscapes to remain healthy.



Greeley treats and delivers, at cost plus a return, raw water owned by three other water providers. Greeley does this for the City of Evans, and for part of the supplies for Windsor and Milliken.

Greeley's water rates are average when compared to other Front Range communities.

Greeley's water system is efficient and well maintained. Greeley has a low water loss rate that averages about 6 percent per year. In the water industry, a loss rate below 10 percent is considered excellent.

## Connect to Your Water

### Water & Sewer Department

970-350-9811

water@greeleygov.com

www.greeleygov.com/water

### Water Conservation

970-336-4134

conserve@greeleygov.com

www.greeleygov.com/wc

www.facebook.com/greeleywater

www.twitter.com/greeleywater

### Water Emergencies

970-350-9811 (daytime)

970-350-9600 (after hours)

### Utility Billing

970-350-9720

## Get More Information

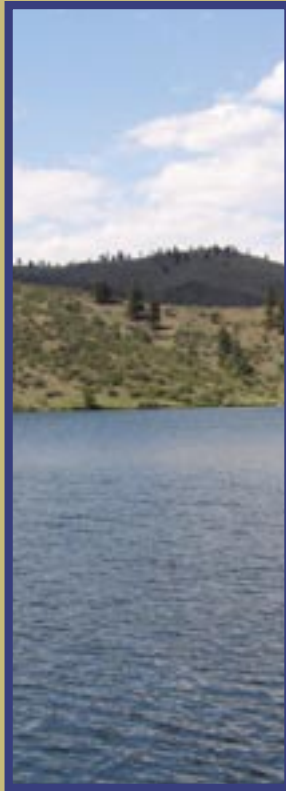
Please contact Colleen Young at 970-350-9846 with any questions about this report or for public participation opportunities that may affect the water quality. To view the report online, visit [www.greeleygov.com/ccr](http://www.greeleygov.com/ccr). Access information about drinking water in general on the EPA's drinking water web site at [www.epa.gov/safewater](http://www.epa.gov/safewater).



Additionally, the public is welcome to attend meetings of Greeley's Water and Sewer Board, which are usually held on the third Wednesday afternoon of every month at Lincoln Park Annex Nusbbaum Room, located at 919 7th Street. For more information on times, dates and locations of the Board meetings, please contact Lory Stephens at 970-350-9812.

## Greeley Drinking Water Sources

Greeley drinking water comes from surface water located in four river basins: Cache la Poudre River, Laramie River, Big Thompson River, and Colorado River.



Greeley uses six high-mountain reservoirs in the Poudre basin (Barnes Meadow, Comanche, Hourglass, Peterson, Milton Seaman, and Twin Lake) to retain water from spring snowmelt for redistribution during the summer and fall when water demand is high but river flows are low. In addition, the city uses a plains reservoir system (Boyd Lake, Lake Loveland and Horseshoe Lake) to provide storage for summer demands. Greeley owns a portion of the Colorado-Big Thompson (C-BT) and Windy Gap Projects. We store our portion from the C-BT Project in Lake Granby, Horsetooth Reservoir and Carter Lake and can deliver water to either the Poudre or Big Thompson basins to meet water demand.

Greeley treats water at the Boyd Lake Water Treatment Plant in Loveland and the Bellvue Water Treatment Plant located north of Fort Collins. Treated water is then piped to Greeley where it is distributed to customers or stored in one of three finished water reservoirs.

## Efficiency of Precious Resources

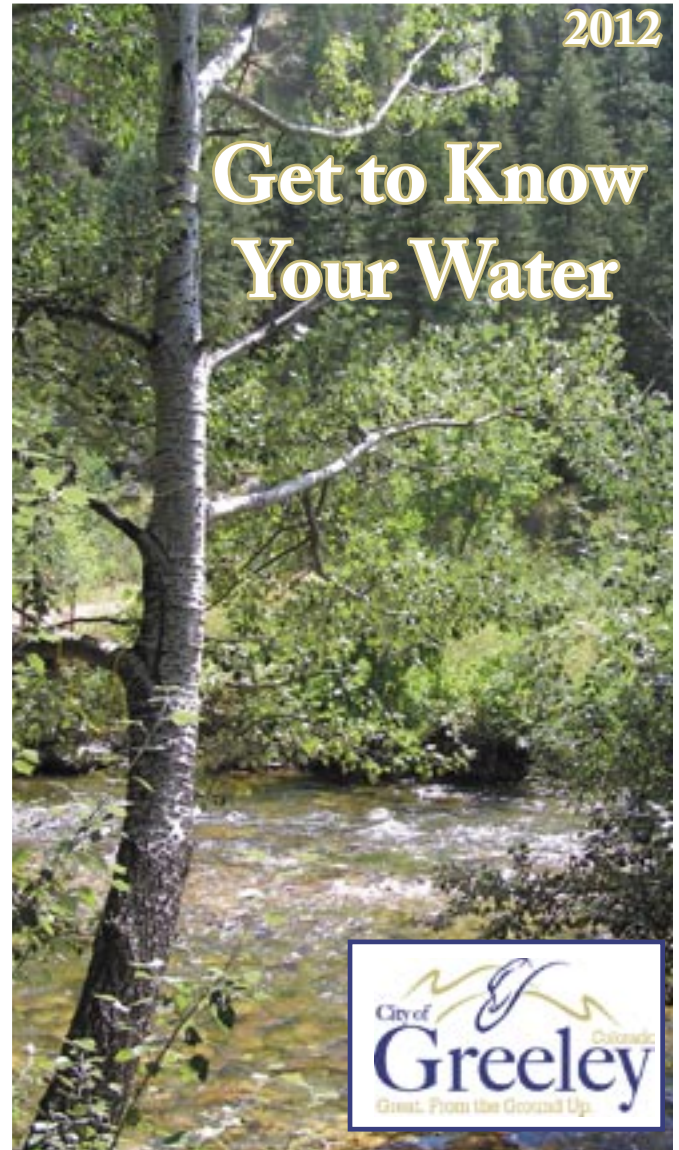
Want to conserve water? Greeley's Water Conservation Program is a community resource that provides information and programs to help Greeley residents become water efficient. From sprinkler system audits to rebates on water saving products to educational programs, the City of Greeley partners with commercial and residential customers on water conservation efforts.



Please contact us at [www.greeleygov.com/wc](http://www.greeleygov.com/wc) or call 970-336-4134 to learn more about water conservation in Greeley.

2012

# Get to Know Your Water



CO0162321

## City of Greeley Water & Sewer

2011 Drinking Water Quality Results  
Greeley's Water Sources  
Reasons to Drink Tap Water  
Facts About Your Water

Esta es información importante. Si no la pueden leer, necesitan que alguien se la traduzca.

## Tap vs Bottled

Greeley's drinking water surpasses all state and federal health standards. The city publishes this federally required annual Drinking Water Quality Report. The latest report is on the other side of this page. Please call us at 350-9846, if you have a question about the quality of Greeley's water. If you have a concern on the taste or smell of the water, please call 350-9324. We welcome your calls.

Three good reasons to drink tap water:

1. Tap water meets more stringent and much more frequently-monitored health standards than does bottled water.
2. Bottled water costs 1,000 to 10,000 times more than tap water.
3. About 40 percent of the bottled water produced comes from municipal tap water.



## Protecting Water Sources

Source water is untreated raw water from streams, rivers, lakes, or underground aquifers which is used to supply public drinking water. The Colorado Source Water Assessment and Protection (SWAP) program encourages community-based protection and preventive management strategies to ensure that all public drinking water resources are kept safe from future contamination.



The SWAP Program has completed its assessment of Colorado's source waters, however, a report from the State has not yet been completed for the Greeley Water Department. When Greeley's SWAP Report is finalized, it will be available by calling the contact listed or accessing the SWAP website: [www.cdphe.state.co.us/wq/sw/swapreports/swapreports.html](http://www.cdphe.state.co.us/wq/sw/swapreports/swapreports.html). If you have questions or concerns about the SWAP report, please call John Duggan, with the Colorado Department of Public Health and Environment, at 303-692-3534.

# 2011 Drinking Water Quality Results

In compliance with the Colorado Primary Drinking Water Regulations, the Greeley Water and Sewer Department is pleased to present our annual Drinking Water Quality Report for the calendar year 2011. Our constant goal is to provide you with a safe and dependable supply of drinking water.

Greeley routinely monitors for contaminants in your drinking water according to federal and state laws. The following table shows all detections found in the period from January 1 to December 31, 2011, unless otherwise noted. The state 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. Only detected contaminants sampled within the last five years appear in this report.



## Disinfectants Sampled in the Distribution System

Contaminant	Monitoring Period	Results	Samples	TT Requirement	Typical Sources	Violation?
Chlorine	12/01/11 to 12/31/11	Lowest monthly percentage of samples meeting TT requirement: 98%	91	For any two consecutive months, at least 95% of samples (per month) must be greater than 0.001 ppm	Water additive used to control microbes	No

## Microbiological Contaminants Sampled in the Distribution System

Contaminant	Monitoring Period	Results	Number of Samples	MCL	MCLG	Typical Sources	Violation?
Coliform (TCR)	04/01/11 to 04/30/11	1.1% false positive samples	94	No more than 5% positive samples per period	0	Naturally present in the environment	No

## Lead and Copper Sampled in the Distribution System

Contaminant	Monitoring Period	90th Percentile	Number of Samples	Action Level	Sample Sites Above Action Level	Typical Sources	Violation?
Copper	01/01/11 to 12/31/13	0.4 ppm	30	1.3 ppm	0	Corrosion of household plumbing systems, erosion of natural deposits	No
Lead	01/01/11 to 12/31/13	3 ppb	30	15 ppb	0		No

## Disinfection By Products Sampled in the Distribution System

Contaminant	Average of Individual Samples	Range of Individual Samples	Samples	MCL	MCLG	Typical Sources	Violation?
Chlorite	0.21 ppm	0.0 - 0.40 ppm	9	1 ppm	0.8 ppm	Byproduct of drinking water disinfection	No
Total Haloacetic Acids (HAA5)	24.369 ppb	16-34.4 ppb	32	60 ppb	N/A		No
TTHM	40.881 ppb	20.4 -57 ppb	32	80 ppb	N/A		No

## Turbidity Sampled at the Entry Point to the Distribution System

Contaminant	Sample Date	Level Found	TT Requirement	Typical Sources	Violation?
Turbidity	12/11	Highest single measurement: 0.50 NTU	Maximum 1 NTU for any single measurement	Soil runoff, human activities	No
Turbidity	12/11	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

## Total Organic Carbon (Disinfection By Products Precursor)

Contaminant	Average of Individual Ratio Samples	Range of Individual Ratio Samples	Samples	TT Minimum Ratio	Typical Sources	Violation?
Carbon, Total	1.205	0.89 - 1.473	18	1	Naturally present in the environment	No

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

Contaminant	Average of Individual Samples	Range of Individual Samples	Samples	MCL	MCLG	Typical Sources	Violation?
Barium	0.043 ppm	0.015 - 0.071 ppm	2	2 ppm	2 ppm	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits	No
Fluoride	0.7 ppm	0.65 - 0.75 ppm	2	4 ppm	4 ppm	Erosion of natural deposits, water additive that promotes strong teeth, discharge from fertilizer and aluminum factories	No
Nitrate	< 0.04 ppm	None detected - < 0.04 ppm	2	10	10	Erosion of natural deposits, fertilizer runoff.	No

## Secondary Contaminants

Contaminant	Average of Individual Samples	Range of Individual Samples	Number of Samples	Secondary Standard
Sodium	21.735 ppm	9.47 - 34.00 ppm	2	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. EPA recommends these standards but does not require water systems to comply.

## Terms and Abbreviations

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Maximum Contaminant Level (MCL):** The 'Maximum Allowed' is 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.

**Maximum Contaminant Level Goal (MCLG):** The 'Goal' is 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 (MRDL):** The highest level of a disinfectant allowed in drinking water. The addition of a disinfectant is necessary for control of microbial contaminants.

**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.

**Microscopic Particulate Analysis (MPA):** An analysis of surface water organisms and indicators in water. This analysis can be used to determine performance of a surface water treatment plant or to determine the existence of surface water influence on a ground water well.

## 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.

Cryptosporidium is a microbial pathogen found in source water in Colorado. It must be ingested to cause disease and may be spread through means other than drinking water. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. Cryptosporidium is eliminated from drinking water by an effective treatment combination utilized by the Greeley Water Department which includes coagulation, sedimentation, filtration, and disinfection.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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.

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:

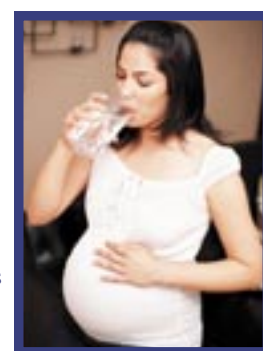
- *Microbial contaminants*, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, which 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.
- *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. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency and the U.S. Centers for Disease Control 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.

## 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).



**Nephelometric Turbidity Unit (NTU):** Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Parts per million (ppm):** One part per million corresponds to 1 milligram per liter (mg/l), a very dilute concentration of substance.

**Parts per billion (ppb):** One part per billion corresponds to 1 microgram per liter (µg/l), a very dilute concentration of substance.

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