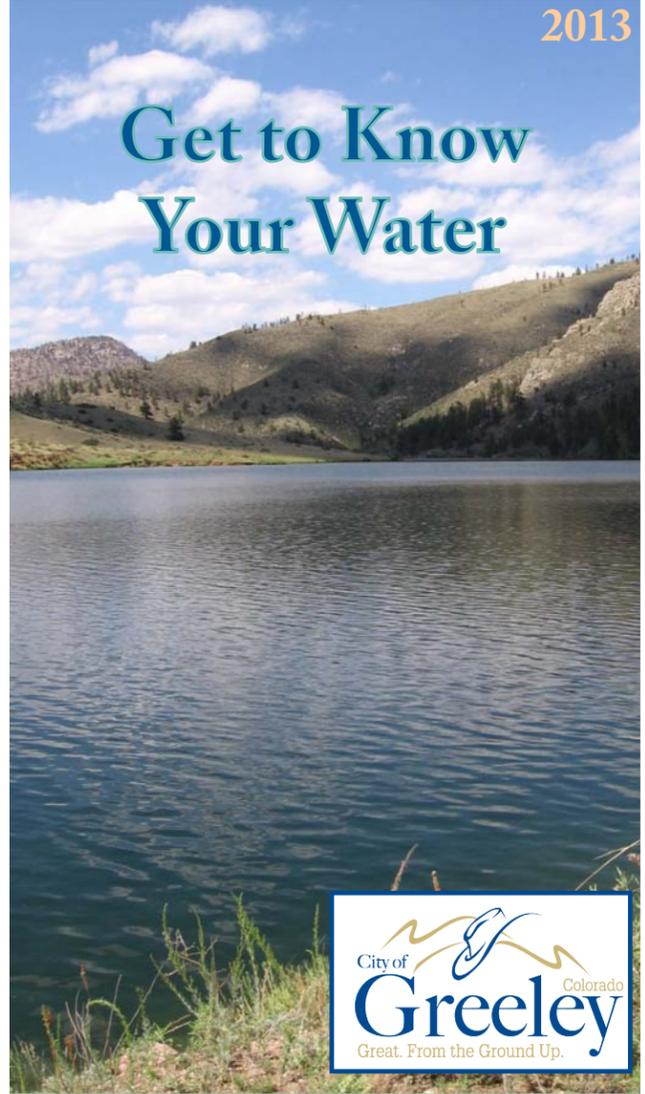


# Get to Know Your Water



CO0162321

## City of Greeley Water & Sewer

2012 Drinking Water Quality Results  
Greeley's Water Sources  
Water Conservation  
New Programs

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

### Director's Message

We all use water. It provides the jobs that employ us and the recreation that entertains us and soothes our souls. It puts gas in our tanks and food on our tables. And we know water is in short supply during this drought. We should also remember 2011 as an epic water year which filled all our reservoirs to overflowing. Water we had no room to store flowed to other states, sending billions of gallons of water downstream and out of Colorado.



In our semi-arid climate, conservation and storage are our best tools to meet our water needs for jobs and recreation and food.

We know dry periods are especially prone to forest fires, as shown by last year's Lower North Fork and High Park fires. During drought, with forest fires threatening to contaminate our water supplies and not enough water to go around, additional water in storage could make the difference. We will be dealing with the ash and runoff into our water supplies for years to come. More storage will provide backup to ensure a supply of safe, consistent drinking water.

We are not alone. Denver Water, Northern Water, and Fort Collins as well as Greeley, all have storage projects in the permitting process. If these projects were in operation, we would have been able to store much of the water that instead left the state.

Increased storage is one piece of the puzzle. Conservation is the other.

Greeley has had mandatory watering restrictions in place since 1907. Other cities are now imposing similar restrictions in response to the combination of drought and wildfires. We welcome those efforts to encourage conservation, which is a good idea whether we are in a wet or dry cycle. Water is too precious to waste.

Jon Monson  
Greeley Water & Sewer Director

### 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 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 Nusraum Room, located at 919 7th Street. For more information on times, dates and locations of the Board meetings, please contact Yvonne Thornberg at 970-350-9818.



### Connect to Your Water

#### Water & Sewer Department

970-350-9811  
[water@greeleygov.com](mailto:water@greeleygov.com)  
[www.greeleygov.com/water](http://www.greeleygov.com/water)

#### Water Conservation

970-336-4134  
[conserve@greeleygov.com](mailto:conserve@greeleygov.com)  
[www.greeleygov.com/wc](http://www.greeleygov.com/wc)  
[www.facebook.com/greeleywater](https://www.facebook.com/greeleywater)  
[www.twitter.com/greeleywater](https://www.twitter.com/greeleywater)

#### Water Emergencies

970-350-9811 (daytime)  
970-350-9600 (after hours)

#### Utility Billing

970-350-9720

### 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.

### Green Things We're Doing

**Solar Panels:** The Water Pollution Control Facility is home to the largest solar farm in Weld County. Covering 3 acres, the 500-kilowatt installation has 2,016 solar panels that generates about 796,350-kilowatt hours of electricity and reduces 745 tons of carbon dioxide in the first year. Solar power projects at the Boyd Lake and Bellvue Water Treatment plants are in development.



**Saving Water:** In 2007, Greeley installed low-flow toilets at City Hall and the City Hall annex buildings. This has saved about 2 million gallons of water since then. More projects are planned, like new toilets at the Union Colony Civic Center.

**Parks Water Use:** Greeley strives to make parks irrigation financially and environmentally responsible. Parks are on a water budget that is focused on efficiency, rather than a set schedule. Parks use a little less water than they need; the 5-year average of water use is 93% in Greeley's parks.

### Make the Most of Your Lawn Watering

It's important that we make every drop count on our landscapes. Here are some tips to help you get the most from your water.

1. Walk your entire system while its running, look for leaks and inspect each head ensuring they spray correctly. Adjust as required making sure they clear the lawn and are not tilted. If they are, raise them to grade or straighten them. A great deal of water is wasted when heads are not at proper height, level or pointed the correct direction.
2. Water between 1:00 am and 4:00 am. The air is coolest at this time limiting evaporation and there is less wind to disrupt the spray. 
3. A cycle and soak watering schedule will reduce water running off onto the sidewalk. Here is an example, your lawn need an inch of water per week in May. You could water each zone for 30 minutes on one day. A better option is to water 15 minutes on two days per week. The best option is to water in shorter cycles. Water each zone 7 minutes and wait 30 minutes to let it soak in. While waiting, water other areas of the lawn. Then water the first area again for 7-8 minutes. Always account for any rain that you receive
4. Set your controller to water only one day in early spring, as the days get longer and hotter add a day until you have added all three. Do the opposite as we move closer to fall. 

For example; water one day a week in April to mid May then two days a week into mid June and then increase three days. In August cut back to two days, in mid September drop back to one day until the watering season is over.

Follow these tips to help use only what your landscape needs, reducing overspray, overwatering and run off, making every drop count. Please visit [www.greeleygov.com/water](http://www.greeleygov.com/water) for more water conservation tips.

### 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.

### A More Informative Water Bill

You have unique water needs and it can be difficult to know if you are efficient with your use. The new Water Budget program provides each customer with personalized water use information on the monthly water bill. The Water Budget is the amount of water each customer uses if they are moderately careful and factors such as lot size and weather are taken into account.

Take time to look at the water use charts on your Greeley water bill. It is a tool for you to save money and water by providing information on water use and discouraging waste. 

If you are interested a more detailed approach to your water use, Greeley can provide a hand-held electronic water meter monitors to check real-time water use. Please call (970) 350-9859 to reserve your water monitor. It will be programmed for your home meter and then it will be ready for pickup.

Visit [www.greeleygov.com/waterbudget](http://www.greeleygov.com/waterbudget) for more information.

# 2012 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 2012. 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, 2012, 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	8/12	Lowest monthly percentage of samples meeting TT requirement: 93.88%	98	For any two consecutive months, at least 95% of samples (per month) must be detectable.	Water additive used to control microbes	No

## Microorganism Contaminants Sampled in the Distribution System

Contaminant	Monitoring Period	Results	Samples	MCL	MCLG	Typical Sources	Violation?
Coliform (TCR)	8/12	3.06% false positive samples	98	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	06/01/11 to 09/30/11	0.4 ppm	30	1.3 ppm	0	Corrosion of household plumbing systems, erosion of natural deposits	No
Lead	06/01/11 to 09/30/11	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	0.245 ppm	0.0 - 0.32 ppm	9	1 ppm	0.8 ppm	Byproduct of drinking water disinfection	No
Total Haloacetic Acids (HAA5)	27.60 ppb	14-47 ppb	32	60 ppb	N/A		No
TTHM	50.96 ppb	22 -62 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	04/09/12	Highest single measurement: 0.18 NTU	Maximum 1 NTU for any single measurement	Soil runoff	No
Turbidity	12/12	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	1.2905	0.91 - 1.83	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	0.051 ppm	0.018 - 0.084 ppm	2	2 ppm	2 ppm	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits	No
Fluoride	0.735 ppm	0.66 - 0.81 ppm	2	4 ppm	4 ppm	Erosion of natural deposits, water additive that promotes strong teeth, discharge from fertilizer and aluminum factories	No

## 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.

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. 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.

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).

## Important Information

The following is important information about Greeley drinking water. The Colorado Primary Drinking Water Regulations require Greeley 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 federal and state health standards.

The Greeley public water system violated a drinking water standard in calendar year 2012. The regulatory monitoring requirements were not met on July 23, 2012, at the Boyd Lake Water Treatment Plant. The violation that occurred was a failure to take a single, manual water sample to monitor turbidity within four hours of an equipment malfunction. The plant's turbidimeter on filter number one malfunctioned and staff did not take their first manual water sample until approximately six hours later. The State considers that a failure to monitor and is a Tier III violation of the Colorado Primary Drinking Water Regulations, which is the most common water system regulatory offense. The malfunctioning equipment was replaced and operational within 24 hours and continual turbidity monitoring resumed. Although this situation does not require that Greeley drinking water customers take any action, as our customers, you have a right to know what happened and what we did to correct this situation. The Colorado Department of Public Health and Environment requires that we notify our customers within 365 days of a Tier III violation. The inclusion of information pertaining to the July 23, 2012 incident in this Consumer Confidence Report complies with the State's notification requirement to our water customers.

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. If you have questions pertaining to this incident, feel free to contact Colleen Young, Regulatory Compliance Coordinator at 970-350-9846, [colleen.young@greeleygov.com](mailto:colleen.young@greeleygov.com); or Greeley Water & Sewer Dept., 1100 10th Str., Ste. 300, Greeley, CO 80631.