Protecting Water Sources

The Colorado Department of Public Health and Environment has provided Greeley 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 Source Water Assessment Reports, and then Assessment Report by County. Select WELD County and find 162321; City of Greeley; or by contacting Colleen Young, at 970-350-9846.

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.

Greeley's Water Budget

We often receive questions about household water use. "I used 35 thousand gallons in May. Am I efficient?" Now, you will be able to gauge your efficiency by comparing your water use to your water budget.

Your water budget takes into account your landscape size, weather conditions, and household size to help you understand how much water you need. Your landscape size, or irrigable area, is calculated using Geographic Information Systems, and household size is defaulted to 3 people per household. Please contact us at **conserve@ greeleygov.com** or **970-336-4134** to change your household size.



This program works hand-in-hand with WaterInsight, an interactive web portal that provides more information about your water use. Sign up at www.greeleygov.com/ waterinsight with your water account number.

Visit **www.greeleygov.com/wc** for more information about Greeley's Water Conservation Programs.

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 <u>www.greeleygov.com/ccr</u>. Access information about drinking water in general on the EPA's drinking water web site at <u>www.epa.gov/safewater</u>.

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. For more information on times, dates and locations of the Board meetings, please contact Shannon Metcalf at 970-350-9818.



Connect to Your Water

Water & Sewer Department 970-350-9813 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** 970-350-9813 (daytime) 970-350-9600 (after hours)

Utility Billing 970-350-9720

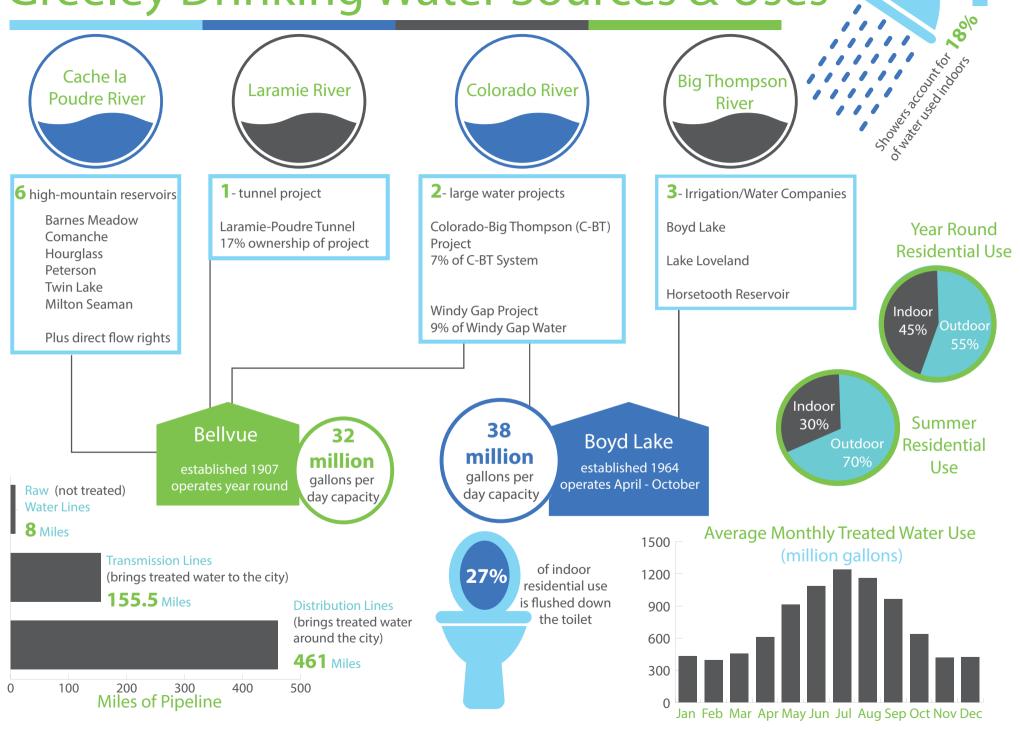
Get to Know Your



Este informe contiene información importante sobre la calidad del agua incluyendo de donde viene, qué hay en ella, y cómo es tratada y distribuida. Si desea esta publicación impresa en español la puede encontrar en greeleygov.com/ccr o llamando al 970-336-4288.

Call 970-350-9813 to get a copy of this report in Braille.

Greeley Drinking Water Sources & Uses



2015 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 2015. 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, 2015, 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.

Summary of Disinfectants Sampled in the Distribution System

Contaminant Name	Month	Results	Sample Size	TT Requirement	TT Violation	Typical Sources
Chlorine	May	Lowest monthly percentage of samples meeting TT requirement: 96.71%	91	For any two consecutive months, At least 95% of samples (per month) must be detectable	No	Water additive used to control microbes

Microorganism Contaminants Sampled in the Distribution System

Contaminant Name	Time Period		Sample Size	MCL	MCLG	MCL Violation	Typical Sources
Coliform (TCR)	Jan	1.06	94	More than 5.0% positive samples per period (If sample size is greater than or equal to 40) <u>OR</u> More than 1 positive sample per period (If sample size is less than 40)	0	No	Naturally present in the environment

Lead and Copper Sampled in the Distribution System

Contaminant Name	Time Period	90th Percentile	Sample Size	90th Percentile AL	90th Percentile AL Exceedance	Typical Sources
Copper	7/9/2014 to 7/28/2014	0.26 ppm	30	1.3	No	Corrosion of household
Lead	7/9/2014 to 7/28/2014	1.9 ppb	30	15	No	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)	2015	21.78 ppb	12.5 to 32.3	32	60	N/A	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2015	48.96 ppb	22.4 to 84.2	32	80	N/A	No	water disinfection
Chlorite	2015	0.18 ppb	0.12 to 0.26	12	1.0	.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	2015	1.25	1.03 to 1.61	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	Sep	<u>Highest single</u> measurement: 0.223 NTU	Maximum 1 NTU for any single measurement	No	Soil runoff
Turbidity	Dec	Lowest monthly percentage of samples meeting	In any month, at least 95% of	No	

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. 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. 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

	TT re	quirement for	our tech	nology: 1	100%	samples must b

samples must be less than 0.3 NTU

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	2015	0.03 ppm	0.02 to 0.04	2	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	2015	0.67 ppm	0.66 to 0.67	2	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate-Nitrite	2014	0.05 ppm	0 to 0.1	2	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	2014	2 ppb	1-3	2	50	50	No	Discharge from petroleum & metal refineries; erosion of natural deposits; discharge from mines

Synthetic Organic Contaminants Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Average	Range Low – High	-	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
2,4-D	2015	0.06	0 to 0.22	4	ppb	70	70	No	Runoff from herbicide used on row crops

Secondary Contaminants**

**Secondary standards are <u>non-enforceable</u> 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	
TURBIDITY	2015	2.82	1.1 to 7.9	12	N/A		

Unregulated Contaminants***

Contaminant	Year	Range Low-High	T a
Strontium	2014	68.0 – 76.0 ppb	V ir
Vanadium	2014	0.20 ppb	n ((
Hexavalent Chromium	2014	0.03 – 0.04 ppb	C S
Chlorate	2014	39.0 – 78.0 ppb	u le O

The EPA has implemented the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act. EPA uses the results of UCMR monitoring to learn about the occurrence of unregulated contaminants in drinking water and to decide whether or not these contaminants will be regulated in the future. We performed monitoring and reported the analytical results of the monitoring to the EPA in accordance with its Third UCMR (UCMR3). Once EPA reviews the submitted results, the results are made available in the EPA's National Contaminant Occurrence Database (NCOD) (http://www.epa.gov/dwucmr/national-contaminants that were detected during our UCMR3 sampling and the corresponding analytical results are provided. *** More information about the contaminants that were included in UCMR3 monitoring-rule.aspx. Learn more about the EPA UCMR at http://www.epa.gov/dwucmr/ learn-about-unregulated-contaminant-monitoring-rule or contact the Safe Drinking Water Hotline at (800) 426-4791; or http://water-epa.gov/drink/contact.cfm.

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.

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 (μ g/l), a very dilute concentration of substance.

Parts per trillion (ppt): One part per billion corresponds to 1 nanogram per liter (μ g/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.



cryptosporidium and microbiological contaminants call the EPA Safe Drinking Water Hotline at 1-800-426-4791 or visit http://water.epa.gov/drink/contaminants.

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.

Beware of Cross Connections

As part of our continuing effort to provide and maintain safe, clean drinking water, the Greeley Water Operations Department has a Cross-Connection Control Program. A cross-connection is any connection that could introduce contaminants such as pesticides, fertilizers, used or dirty water, fluids, gases, or other contaminants into the water distribution system. Water normally flows out of the public water distribution system under pressure. When a cross-connection exists, a drop in water pressure can cause a reversal of flow, allowing harmful substances to enter the public water system. Common residential cross-connection contamination include but are not limited to irrigation systems, fertilizer injection systems, hoses connected to chemical spray bottles, chemicals in water beds, hot tubs, swimming pools, water features, aquariums, and swamp coolers. Examples of commercial or industrial cross-connection sources can include cooling systems, boilers, solvents and manufacturing chemicals, sprinkler systems, and the same sources listed above under residential contamination sources.

What can you do to protect our public water system?

- Be observant. Check for potential contamination sources around your home, business or industrial site. Never leave hoses in buckets, pools or sinks.
- If you suspect a cross-connection, contact a qualified plumber who is familiar with cross-connections, hydraulics and pollution factors.
- Install backflow prevention assemblies to prevent potential cross-connections and have a certified backflow tester inspect and test your assemblies annually to ensure they are working properly.

For more information and/or a list of certified backflow testers please visit http://bit.ly/GreeleyWaterQuality.