

Director's Message

The year 2005 is the 100th anniversary of Greeley's vote to go to the mountains for good drinking water. In 1905, the 5,000 or so citizens voted to bond themselves for what today would be \$20,000,000.00. They used the money to build a filter plant at the mouth of the Poudre Canyon and 35 miles of wooden pipeline across the prairie to Greeley. The finished water reservoirs at the end of that pipeline were two miles southwest of Greeley - where the Centennial Park Pool is today! Now, Greeley is building our first new pipeline in fifty years to the mouth of the Poudre Canyon, still a source of excellent quality drinking water. That pipeline, by the way, is 3/8 inch steel with a high-tech plastic lining. The filter plants are also high tech today with the ability to monitor and remove an enormous array of contaminants, as this report attests. What remains the same is Greeley's commitment to high quality drinking water for its customers.

Jon Monson, Director
Water & Sewer Department

WHERE CAN I GET MORE INFORMATION?

If you would like more information about the material covered in this report, you can contact Angela Miles, Regulatory Compliance Coordinator, at 970.350.9209 or, if you'd like to view the report online, visit <http://www.greeleygov.com/water> and click on Annual Drinking Water Quality Report. You can also access information about drinking water in general on EPA's drinking water website at <http://www.epa.gov/safewater>. Additionally, the public is welcome to attend meetings of Greeley's Water & Sewer Board, which are held on the third Wednesday afternoon of every month at City Hall, located at 1000 10th Street. For more information on times, dates and locations of the Board meetings, please contact Norma Wegher at 970.350.9812.



Contaminants Commonly Found in Sources of Drinking Water

The sources of drinking water (both from the tap 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 accumulate substances resulting from the presence of animals or from human activity. Contaminants that may be present in the sources of our drinking water include:

Microbiological contaminants, such as viruses and bacteria, which 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 that may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses;

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production or mining activities.

Important Contact Information

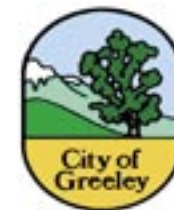
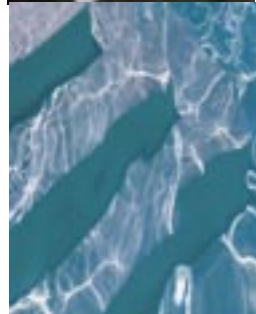
Drought/water conservation line & to report watering violations.....970.336.4134
www.greeleygov.com/waterconservation
Water emergencies daytime.....970.350.9811
Water emergencies after hours.....970.350.9600
Taste & odor concerns.....970.350.9324
Questions about this report.....970.350.9209
www.greeleygov.com/water
Español.....970.350.9811

2004

City of Greeley
CO-0162321

ANNUAL DRINKING WATER QUALITY REPORT

Welcome to the City of Greeley seventh annual Drinking Water Quality Report. The information in this report covers drinking water information from calendar year 2004. This report not only contains important information, it also is an opportunity for our customers to learn where their drinking water comes from and the quality of the water they consume.



Esta información es importante sobre el agua potable. Si usted necesita una traducción español, por favor llame a este numero 970.350.9811.

WATER CONSERVATION UPDATE

Greeley will allow 3 days per week watering this year but encourages 1 or 2 days per week in spring and fall as needed. We thank you for your efforts to conserve water and eliminate waste. Call us at 970.336.4134 for more information or visit: www.greeleygov.com/waterconservation.

A Word About *Cryptosporidium*

Cryptosporidium is a microbial pathogen that is found in rivers and lakes across the United States. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. Our monitoring indicates the presence of this organism in our source water. Current test methods do not allow us to determine whether the organisms were dead or capable of causing disease. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people face a greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to ask their doctor about appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water. In 2004, the City did not detect the organism in its treated water supplies.

Did You Know....

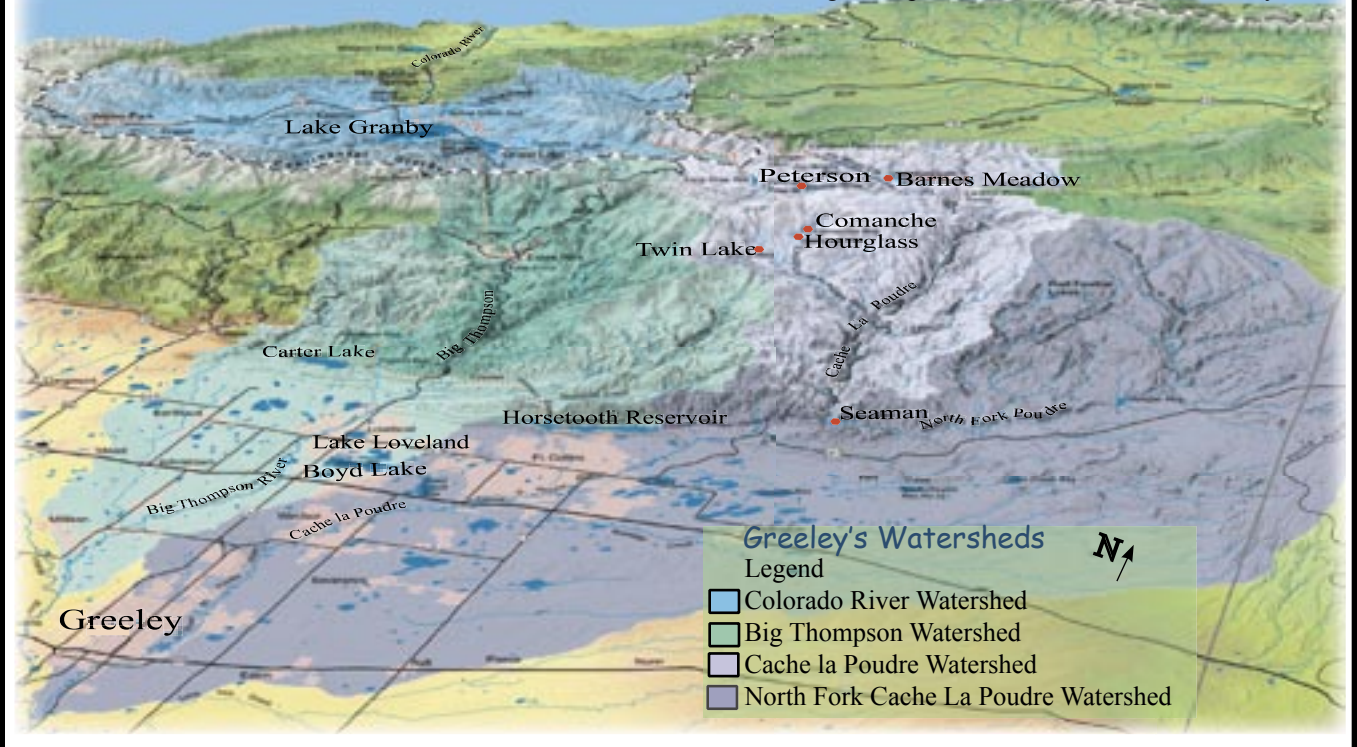


Greeley's water history dates back to 1886 when the Union Colony constructed its first water system consisting

of a series of infiltration wells on the Cache la Poudre River. Realizing that these wells would not serve the needs of a growing community, the town leaders purchased farmland with senior water rights at the mouth of the Poudre Canyon near the town of Bellvue, 35 miles northwest of Greeley. The Bellvue Water Treatment Plant, still Greeley's primary source of drinking water, was built in 1907.

WHERE DOES OUR DRINKING WATER COME FROM?

Greeley drinking water comes from surface waters located in three major river basins, also called watersheds: the Cache la Poudre River, the Big Thompson River, and the Colorado River. Greeley also uses six high-mountain reservoirs in the Cache la Poudre River basin (Barnes Meadow, Comanche, Hourglass, Peterson, Milton Seaman, and Twin Lake) within the Roosevelt National Forest to capture water from spring snowmelt for redistribution during the summer and fall when there is high water demand, but low-river flows. In addition, Greeley uses a plains reservoir system (Boyd Lake, Lake Loveland, and Horseshoe Lake) to provide storage for peak summer demands. Finally, Greeley owns a portion of the Colorado-Big Thompson (C-BT) Project. We store our portion of the water from the C-BT Project in Lake Granby, Horsetooth Reservoir, and Carter Lake, which can deliver water to either the Cache la Poudre or Big Thompson River Basins to meet Greeley water



Protecting Our Watersheds and Source Waters

Source water is untreated 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 is designed to provide the public information about the sources of drinking water, as well as provide the community a way to get involved in protecting the quality of drinking water. The program encourages community-based protection efforts and preventive management strategies to ensure that all public drinking water sources are kept safe from future contamination. The Colorado SWAP Program is working toward completing an assessment of Colorado's source waters. For information about the SWAP program you can contact the program directly by calling 303.692.3592, or visit www.cdph.state.co.us/wq/sw/swaphom.html

Greeley has been a member of the Big Thompson Watershed Forum since its founding in 1997. Since that time, we have collaborated with other communities and organizations to monitor and analyze water quality as it flows through the Big Thompson Watershed. The information gathered through the monitoring program will be used to inform customers about source water quality and to bring about protection and management efforts for this watershed. For more information about how you can become involved contact the Forum at 970.613.7951 or visit <http://www.btwatershed.org/>



Drinking water quality

Results are from January 1 - December 31, 2004,
unless otherwise indicated

Key To The Tables

AL: Action level. The concentration of a contaminant, which if exceeded, triggers treatment or other requirements that a water system must follow.

MCL: Maximum contaminant level. The highest level of a contaminant allowed in drinking water below which there are no known health effects. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG: Maximum contaminant level goal. The level of contaminant in drinking water below which there are no known or expected risks to health. MCLGs allow for a margin of safety.

MRDL: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG: Maximum residual disinfectant level goal. The level of a drinking water disinfectant, below which there are no known or expected risks to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NTU: Nephelometric turbidity unit. A measure of cloudiness.

pCi/L: Pico curies per liter, a measure of radioactivity.

ppm: Parts per million, or milligrams per liter (mg/L).

ppb: Parts per billion or micrograms per liter (ug/L).

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

Microbiological Contaminants

Contaminant, units	MCLG	MCL	Percentage of Measurements below the limit	Highest Single Value	Violation?	Source of Contaminant in Drinking Water
Turbidity, NTU	N/A	TT<=0.3 TT<=1.0	100% 100%	0.28	No	Soil runoff
Turbidity is monitored continuously at the treatment plants. There are two treatment technique (TT) standards for turbidity. To meet the 0.3 standard, the reported turbidity must be less than or equal to 0.3 NTU at least 95% of the time. To meet the 1.0 standard, turbidity must never be greater than 1.0 NTU.						
Contaminant, units	MCLG	MCL	Annual Removal Ratio	Violation?	Source of Contaminant in Drinking Water	
Total organic carbon (TOC), ppm	N/A	TT>=1.0	1.25 - 1.46	No	Naturally present in the environment	
TOC is tested monthly at each treatment plant. Compliance is based on how much organic carbon is removed from the raw water. If the annual removal ratio is greater than or equal to 1.0, the treatment plant is in compliance with the treatment technique standard.						

Volatile Organic Contaminants

Contaminant, units	MCLG	MCL	Range Detected	Averages Detected	Violation?	Source of Contaminant in Drinking Water
Chlorine dioxide, ppb	800 (MRDLG)	800 (MRDL)	Not detected - 95	Highest Monthly: 28	No	Water additive used to control microbes
Chlorine residual, ppm	4 (MRDLG)	4.0 (MRDL)	Not detected - 1.6	Highest Annual: 0.8	No	Water additive used to control microbes
Chlorite, ppm	0.8	1.0	0.12 - 0.61	Highest Monthly: 0.42	No	By-product of disinfection
Haloacetic acids (HAA5), ppb	N/A	60	15 - 38	Highest Annual: 33	No	By-product of disinfection
Total trihalomethanes, (TTHM), ppb	N/A	80	15 - 59	Highest Annual: 55	No	By-product of disinfection
TTHMs and HAA5s are monitored quarterly in the distribution system. Compliance with the standards are based on an annual average of samples taken throughout the distribution system.						

Inorganic Contaminants

Contaminant, units	MCLG	MCL	Range detected	Highest detected	Violation?	Source of Contaminant in Drinking Water
Barium, ppm	2	2	0.016 - 0.049	0.049	No	Erosion of natural deposits
Fluoride, ppm	4	4	0.84 - 0.88	0.88	No	Water additive that promotes strong teeth
Greeley is required to monitor inorganics once per year per treatment plant. The results above are from the August 2004 monitoring event.						
Contaminant, units	MCLG	AL	90th percentile value	# of homes exceeding the action level	Violation?	Source of Contaminant in Drinking Water
Copper, ppm	1.3	1.3	0.14	0	No	Corrosion of household plumbing systems
Lead, ppb	0	15	3	0	No	
Greeley samples lead & copper at 90 home taps once every three years. The data above are from the most recent sampling performed in 2002. The 90th percentile value represents the highest concentration that was exceeded by 10% of the taps sampled. None of the taps exceeded the Action Level (AL).						

Radiological Contaminants

Contaminant, units	MCLG	MCL	Range detected	Highest detected	Violation?	Source of Contaminant in Drinking Water
Alpha emitters, pCi/l	0	15	Not detected - 2	2	No	Erosion of natural deposits
Beta emitters, pCi/l	0	50 (Trigger)	Not detected - 3	3	No	Decay of natural & man-made deposits
The 50 pCi/L value for Beta emitters is a trigger at which water systems must perform further sampling. The actual MCL for Beta emitters is 4 millirems per year. A millirem is a unit of measurement for radioactivity.						

CHLORINE DIOXIDE & CHLORITE MONITORING

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. Due to an oversight on June 1, 2004, the City of Greeley missed one day of sampling for chlorine dioxide and chlorite and therefore must notify the public in this report. Since chlorine dioxide and chlorite values for all of the other days of the year were well within the standards, we have every reason to believe that the drinking water was within the standards on June 1 as well. The City of Greeley

recognizes the importance of fulfilling all of the monitoring requirements and has implemented proper procedures to prevent further occurrences. Please share this information with other people who drink this water, especially those who may not receive this water quality report (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this Public Notification in a public place or by distributing copies by hand or mail. For further information please contact Angela Miles, Regulatory Compliance Coordinator at 970.350.9209.

How is the water treated?

Greeley treats raw water from various sources at either the Boyd Lake Plant near Loveland or at the Bellvue Plant north of Fort Collins. The Boyd Lake facility normally operates April through October to accommodate increased demand from lawn watering and the Bellvue plant operates year-round. The treated water is then piped to Greeley where it is distributed to you, our customers.



TREATMENT PROCESS

Step 1 - Flocculation

Chemical enhancers are first mixed into the raw water to allow mud, algae and other particles to stick together.

Step 2 - Sedimentation

The "floc" (coagulated mud, algae, and other particles) sinks to the bottom of sedimentation basins, where it is disposed at a later time.

Step 3 - Filtration

Next, the water passes through a series of filters, which stops most impurities, like bacteria, from passing through.

Step 4 - Disinfection

The final treatment step is disinfection by chlorine gas which kills any remaining viruses and bacteria.

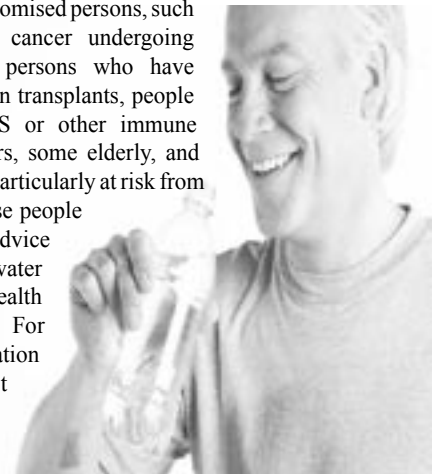
What's in the water?

The tables identify drinking water contaminants that were detected in Greeley's treated water, the levels detected, and the maximum allowable contaminant levels. As you peruse the tables, you will see that we met all water quality standards despite challenges from drought conditions.

The Safe Drinking Water Act establishes the standards for most drinking water systems in the country, including Greeley's. In 2004, the Greeley drinking water system operated without exemption (i.e., state or federal permission not to meet a standard under certain conditions). However, our water system did receive a waiver (permission not to test for specific contaminants) from the State of Colorado for cyanide, asbestos, dioxin and glyphosate. The waiver was based on the fact that it is unlikely that these contaminants would be found in our drinking water.

Vulnerable Populations

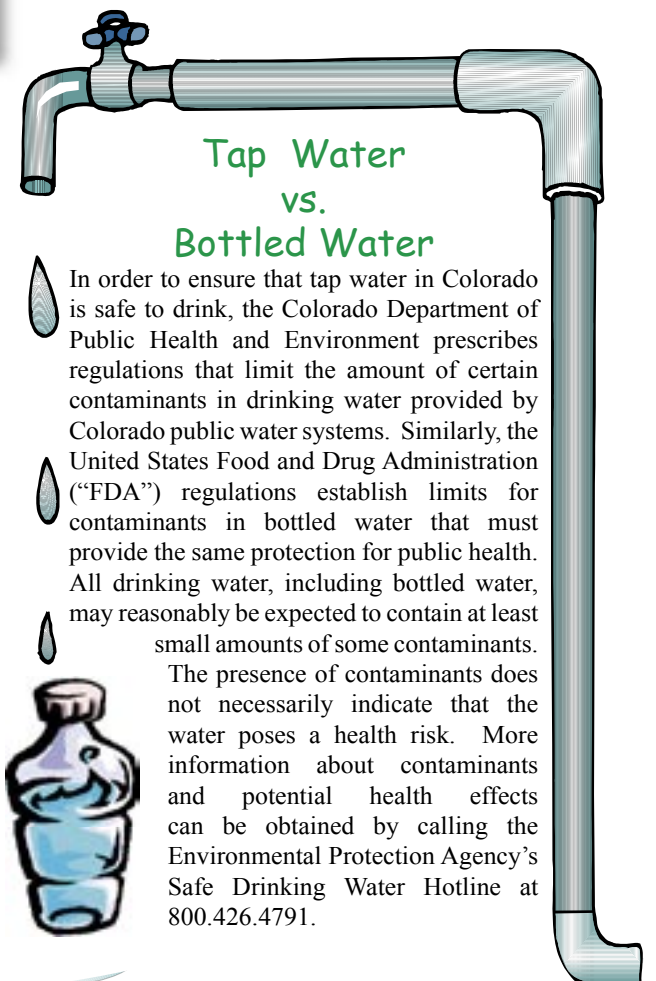
Immuno-compromised persons, such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants, can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive



a copy of the US EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants, call the Safe Drinking Water Hotline (800-426-4791).

Additional Monitoring

Every three years, Greeley also monitors a list of more than 100 other regulated contaminants. Greeley last tested for these contaminants in 2003 and none were detected in your drinking water. For a list of the contaminants for which we tested but did not detect, please contact the Regulatory Compliance Coordinator at 970.350.9209. In addition, the EPA requires water systems to monitor for certain unregulated (that have no MCL) contaminants. Of the unregulated contaminants, Greeley detected sodium at 18.0 ppm at the Boyd Lake Water Treatment Plant and 9.0 ppm at the Bellvue Water Treatment Plant.



Tap Water vs. Bottled Water

In order to ensure that tap water in Colorado is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations that limit the amount of certain contaminants in drinking water provided by Colorado public water systems. Similarly, the United States Food and Drug Administration ("FDA") regulations establish limits for contaminants in bottled water that must provide the same protection for public health. 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 at 800.426.4791.

This report is available on the web at www.greeleygov.com/water