



DRINKING WATER QUALITY REPORT 2014



Public Utilities

Immuno-Compromised Special Health Information

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 from infections.

These people should seek advice about drinking water from their health care providers. Guidelines from the Environmental Protection Agency and the Centers for Disease Control on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

How Can I Get Involved In Water Quality Decisions?

We want our customers to be informed about their water utility. If you want to learn more, please attend any of the regularly scheduled meetings of the following groups:

Casper Public Utilities Advisory Board on the fourth Wednesday of every month at 7 a.m. in the Downstairs Meeting Room at Casper City Hall, 200 N. David St. or Central Wyoming Regional Water System on the third Tuesday of every month at 11:30 a.m. in the Conference Room at the Regional Water Treatment Plant, 1500 S.W. Wyoming Blvd.

From the EPA ...

All drinking water (both tap and bottled) comes from sources that include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it can dissolve naturally occurring minerals and, in some cases, radioactive materials. It can also pick up substances resulting from the presence of animal or human activity.

Contaminants that may be present in source water before it is treated include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural operations and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic waste water discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides that can come from agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants that can come from industrial processes, gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants that can be naturally occurring or the result of oil and gas production and mining activities.

Lead & Copper

In 2014 the City of Casper conducted tests for lead and copper in its water distribution system. These are required samples that are done every three years. We are proud to report that the results show we are below the Action Level for both lead and copper.

If present, elevated levels of 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.

The City of Casper is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. 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.

If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Easy steps to avoid possible exposure to lead from plumbing

- Never use water from the hot water tap for making baby formula.
- Use only fresh water from the cold water tap for drinking or cooking.
- Avoid using water that has been standing in the pipes. When a faucet is not used for more than six hours, run the cold water tap until the water feels noticeably colder (about 30 seconds to 2 minutes). This flushes standing water out of the pipes replacing it with fresh water. To conserve water, remember to catch the flushed tap water for plants or some other household use.
- Insist on lead-free solder and lead-free fixtures when repairing or replacing plumbing.
- Soft water can be more corrosive and dissolve higher levels of lead if it is present in plumbing. Home water treatment devices such as water softeners can make water more corrosive.
- Look for faucets that are NSF certified to limit contaminants to acceptable drinking water levels.

Need more information?

Your questions, concerns, and observations are important to us. Contact Casper Public Utilities at 235-8213 or on the web at www.casperwy.gov.

For more information about potential health effects of water contaminants, contact the U. S. Environmental Protection Agency at 1-800-227-8917; at the Safe Drinking Water Hotline, 1-800-426-4791; or on the web at www.epa.gov/safewater.

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Casper Water... Clearly Quality

We are proud to provide you with our 2014 Drinking Water Quality Report. This report lets you know that our drinking water is safe and that it meets or exceeds all the stringent drinking water quality standards set forth by the Environmental Protection Agency (EPA).

The 2014 Drinking Water Quality Report summarizes the results of the water testing we performed on the water we provided you in 2014. The information should look familiar. As part of the Safe Drinking Water Act, we are required to report to you annually, and most of the language in the report is required too.

Congress and the EPA want people to know what is in their drinking water. We agree. The more you know about your drinking water — its source, its treatment and its quality — the better equipped you are to participate in water-related discussions. Providing you with a safe and dependable supply of drinking water is our mission.

We at the City of Casper work around the clock to protect our waters and provide top quality water to every tap. We ask that you help us protect our water too. See page 2 for things you can do.

ATTENTION PROPERTY OWNERS & MANAGERS!
Please share this report with your tenants.

This report also is available at www.casperwy.gov



Clearly A Value

- One dollar purchases 300 gallons of high quality Casper Water, and it's available right from your tap!
- Casper Water has to pass stringent state and federal clean water standards.
- When you drink Casper Water, you know where it came from, how clean it is, and how it has been treated.

Please recycle this magazine product.



North Platte River alluvial aquifer via 29 wells and is treated with ozone and chloramines for disinfection and a corrosion inhibitor to reduce corrosion of water mains and residential plumbing systems.

An average of 40% of Casper's water is surface water drawn from the North Platte River. This water originates as snowmelt from the upper North Platte River basin and is clarified, disinfected with ozone, filtered, disinfected with chloramines and treated with a corrosion inhibitor before it is released into the distribution system.

Cryptosporidium & Giardia

Cryptosporidium and giardia are microscopic organisms that, when ingested, can result in diarrhea, fever, and other gastrointestinal symptoms. In recent years, these have been found in surface water across the country. Cryptosporidium can also be transmitted through contaminated food or direct contact with human or animal waste.

Within the last five years, the Regional Water System had water samples tested for cryptosporidium and giardia. The samples were analyzed using a method approved by the Environmental Protection Agency, and neither organism was detected. This does not mean that any organisms were not present in the samples, only that none were present in the portions examined.

Turbidity

Turbidity is a measure of water clarity. It measures how much suspended materials such as clay, sand, algae, plankton, microbes, and other substances are in water. Turbidity can affect the color of water. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

A message from the Central Wyoming Regional Water System

As part of the Interim Enhanced Surface Water Treatment Rule (IESWTR) regulation governing treatment for the pathogen cryptosporidium (40 CFR Part 141, Subpart P), the U.S. Environmental Protection Agency (EPA) requires a treatment technique for 99% removal of cryptosporidium. Water Systems using surface water or ground water under the direct influence of surface water (GWUDI) have been required to comply with this treatment technique since January 2002.

Currently, the Regional Water System utilizes GWUDI from collection devices along the North Platte River: vertical wells, horizontal wells, or caissons. This water is not treated in a filtration plant, but it is ozonated and disinfected with chloramines. Alternative filtration occurs through these devices,

such as riverbank filtration occurring from the wells. On December 10, 2001, EPA granted conditional removal credit to the Regional Water System GWUDI system while a detailed study was conducted to demonstrate the effectiveness of the alternative filtration technologies to remove cryptosporidium. During the study period, the Regional Water System implemented interim measures designed to ensure public health protection. The study was completed and a final report provided to EPA in January 2005.

EPA granted approval to the GWUDI system as an alternative filtration technology on March 18, 2005, based upon the preponderance of these study results, previous studies, and knowledge of the GWUDI system. This decision has been predicated on the primary goals of protecting public health and ensuring compliance with the Safe Drinking Water Act while utilizing sound science and recognizing cost considerations for the Regional Water System.

This approval is contingent upon the Regional Water System complying with several operational and performance requirements to improve pathogen removal including abandoning or filtering water from the infiltration gallery and ongoing monitoring of water quality. The Regional Water System will also continue to provide inactivation of this GWUDI water with ozonation and chloramines and will meet all other monitoring and treatment technique requirements of the surface water treatment rules.

7 Ways You Can Safeguard Our Drinking Water

1. Take unwanted prescription and over-the-counter medicines (leave in original package and place in a zip bag) to the lobby drop box at the Casper Police Department. It's free and available 24/7! Never flush any medicines (human or animal).
2. Limit the amount of fertilizers and weed killers used on your lawn and landscaping. Use according to the manufacturer's label. Rain and sprinkler water wash these contaminants from your lawn into the storm drain, which flows to the North Platte River untreated.
3. Pick up your pet's waste. It's a serious water contaminant that washes from your lawn into the storm drain.
4. Pick up litter and debris from your lawn and street. Anything that is put in the storm drain (street gutter) eventually flows untreated into our creeks and North Platte River.
5. Wash paint brushes and paint pans (water based paint only) in the kitchen, bathroom, or utility sink. This water goes to the wastewater treatment plant and is treated.
6. Take cleaners, poisons, paint, oil and chemicals to the City's Special Waste Facility located across from the landfill. It's free. Never put harmful wastes into trash containers. These wastes can find their way from the landfill into groundwater and the North Platte River. Not sure whether something is hazardous or harmful? Call 235-8246.
7. Report chemical, gas, oil, and other spills to non-emergency dispatch at 235-8278.

Definitions

AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. Action Levels are reported at the 90th percentile for homes at greatest risk.	N/A	Not applicable: The EPA has not requested monitoring for this contaminant.
CFU	Colony Forming Units: The number of visible growths of microorganism in a nutrient medium.	NTU	Nephelometric Turbidity Unit: The measurement of the clarity of water.
MCL	Maximum Contaminant Level: 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 technology.	pCi/L	pico Curies per liter: A measure of the radioactivity in water.
MCLG	Maximum Contaminant Level Goal: 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.	ppm	One part per million. The measurement corresponds to 1 minute in 2 years or 1 penny in \$10,000.
MFL	Million Fibers per Liter: A measure of the presence of asbestos fibers that are longer than 10 micrometers.	ppb	One part per billion. The measurement corresponds to 1 minute in 2,000 years or 1 penny in \$10,000,000.
		TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

In our water

The 16 substances listed in the table on the right were detected in Casper's water during 2014. All are below levels allowed by federal regulations. We tested for 67 other contaminants. They are not listed because they were not detected. These include volatile organic contaminants and pesticides, herbicides and other synthetic organic contaminants.

Your water is monitored 365 days a year. Tests are done before and after treatment and while your water is in the distribution system. The results are compared to the stringent contaminant level limits and goals set by the Environmental Protection Agency to ensure that your drinking water is safe.

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 mean water may be 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 1-800-426-4791.

Sources of Casper's drinking water

The City of Casper purchases wholesale water from the Central Wyoming Regional Water System for your use. The water comes from two sources: groundwater and surface water.

Groundwater provides an average of 60% of Casper's water. Groundwater is pumped from the

SUBSTANCE	VIOLATION	HIGHEST LEVEL ALLOWED (MCL)	HIGHEST LEVEL DETECTED	IDEAL GOALS (MCLG)	POTENTIAL SOURCES OF CONTAMINANT
Regulated at the Groundwater Sources and Treatment Plant					
Bromate (Running Annual Average)	No	10 ppb	8.2 ppb	0	Drinking water ozonation by-product
Fluoride	No	4 ppm	0.3 ppm	4 ppm	Erosion of natural deposits
Selenium	No	50 ppb	10 ppb	50 ppb	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	No	not regulated	77 ppm	none set	Erosion of natural deposits
Turbidity	No	0.3 NTU	0.236 NTU	N/A	Soil runoff
Cryptosporidium	No	2-log removal	<1 CFU/100 ml	N/A	Animal and human fecal waste
Alpha Emitters	No	15 pCi/L	10.8 pCi/L	0	Erosion of natural deposits
Combined Radium	No	5 pCi/L	3.5 pCi/L	0	Erosion of natural deposits
Uranium	No	30 ppb/L	7.49 ppb/L	0	Erosion of natural deposits
Regulated at the Consumer's Tap					
Lead	No	15 ppb AL	1 ppb one site exceeded AL	0	Corrosion of household plumbing
Copper	No	1.3 ppm AL	0.80 ppm no site exceeded AL	1.3 ppm	Corrosion of household plumbing
Regulated at the Distribution System					
Asbestos	No	7 MFL	<0.18 MFL	7 MFL	Decay of asbestos cement water mains; erosion of natural deposits
Total Trihalomethanes	No	80 ppb	15.0 ppb	N/A	Drinking water chlorination by-product
Haloacetic Acids (5)	No	60 ppb	11.0 ppb	N/A	Drinking water chlorination by-product
Total Organic Carbon	No	TT	5.6 ppm	N/A	Naturally present in environment
% TOC Removal		greater than 35% removal	55%		
Chloramines (Running Annual Average)	No	4 ppm	1.09 ppm	N/A	Water additive used to control microbes