



2013

Fort Collins Utilities' Drinking Water Quality Report

Continuing Our Commitment

Know your H₂O. Learn where your drinking water comes from and how it compares to federal standards by checking out this report. Fort Collins Utilities remains committed to delivering high-quality drinking water and meeting the challenges of source water protection, water conservation and community education.

Para más información de este informe de su calidad de agua potable en español, llame Fort Collins Utilities a 970-221-6700, TDD 970-224-6003 o mande preguntas en español a utilities@fcgov.com.

Water Quality Test Results

The monitoring results below are representative of water treated by Utilities and the Soldier Canyon Filter Plant (SCFP). The lead and copper data are from 2011. All other data are from monitoring completed during 2013, in compliance with regulations.

Regulated in the Distribution System

Parameter	Monitoring Period	Results	Number of Samples	MCL	MCLG	Meet Standard?	Typical Sources
Total Coliform	July	0.85% positive	118	No more than 5.0% positive samples per period	0%	Yes	Naturally present in the environment

Parameter	Average	Range of Individual Samples	Number of Samples	Unit of Measure	MCL	MCLG	Highest Compliance Value	Meet the Standard?	Typical Sources
HAA5	20.88	13.8 – 27	32	ppb	60	N/A	23.97	Yes	Byproduct of drinking water disinfection
TTHM	29.11	20 – 48.05	32	ppb	80	N/A	40.44	Yes	
Chlorite	0.12	<0.02 – 0.23	36	ppm	1.0	.8	N/A	Yes	

Regulated at the Consumer's Tap – 50 Homes Were Tested

Parameter	Monitoring Period	90th Percentile	Number of Samples	Unit of Measure	Action Level	Number of Sample Sites Above Action Level	Meet the Standard?	Typical Sources
Copper	08/11/2011 to 08/25/2011	0.109	50	ppm	1.3	0	Yes	Corrosion of household plumbing systems
Lead		2	50	ppb	15	0	Yes	

Raw and Finished Water Ratio

Parameter	Year	Average	Range: Low – High	Sample Size	Unit of Measure	TT Minimum Ratio	Meet the Standard?	Typical Sources
Total Organic Carbon Ratio, Utilities	2013	1.37	1.23 – 1.56	12	Ratio	1.00	Yes	Naturally present in the environment
Total Organic Carbon Ratio, SCFP	2013	1.16	1.01 to 1.28	12	Ratio	1.00	Yes	

Sampled at the Entry Point to the Distribution System

Parameter	Month	Level Found	TT Requirement	Meet Standard?	Typical Sources
Turbidity, Utilities	September	Highest single measurement: 0.2 NTU	Maximum is 1 NTU for any single measurement	Yes	Soil Runoff
Turbidity, SCFP	May	Highest single measurement: 0.091 NTU			
Turbidity, Utilities and SCFP	All months of 2013	100% of samples were less than 0.3 NTU	In any month, at least 95% of samples must be less than 0.3 NTU		

Turbidity is a measure of the clarity of the water and is a good indicator of the effectiveness of the filtration system.

Parameter	Year	Result	Sample Size	Unit of Measure	MCL	MCLG	Meet Standard?	Typical Sources
Barium, Utilities	2013	0.02	1	ppm	2	2	Yes	Erosion of natural deposits
Barium, SCFP		0.02						
Fluoride, Utilities		0.86	1	ppm	4	4	Yes	Water additive promoting strong teeth
Fluoride, SCFP		0.7						
Nitrate, Utilities		0.1	1	ppm	10	10	Yes	Runoff from fertilizer use
Nitrate, SCFP		0.1						

Unregulated Contaminants

Contaminant	Year	Range of Results	Unit of Measure	Violation?	Typical Sources
Chromium	2013	200–300	ppt	No	Naturally occurring metal
Strontium		40–53	ppb		Naturally occurring element
Vanadium		200–300	ppt		Naturally occurring element
Chromium, hexavalent		170–350	ppt		Naturally occurring metal
Chlorate		<20–38	ppb		Byproduct of drinking water disinfection
Chlorodifluoromethane		<80–310	ppt		Propellants and refrigerants

Definitions

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

MCLG: Maximum contaminant level goal – 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.

MCL: Maximum contaminant level – 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.

N/A: Not applicable.

NTU: Nephelometric turbidity unit – measure of particles in the water or clarity.

ppb: Parts of contaminant per billion parts of water, µg/L.

ppm: Parts of contaminant per million parts of water, mg/L.

ppt: Parts of contaminant per trillion parts of water, ng/L.

TOC: Total organic carbon.

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

Cryptosporidium and Giardia

Cryptosporidium and *Giardia* come from animal and human waste in the watershed and are common in untreated surface water. When ingested, the organisms may cause fever, nausea and diarrhea. They are removed by a well-maintained water treatment process.

In 2013, Fort Collins Utilities tested the untreated source water for the organisms. Both *Giardia* and *Cryptosporidium* were found in the Poudre River samples. Neither was found in Horsetooth Reservoir samples.

Unregulated Contaminants

EPA required that we monitor the finished water three times in 2013 for 28 contaminants that are not currently regulated (no MCL). EPA plans to use this information for writing future regulations.

Where Our Water Originates

Fort Collins Utilities' water comes from the Horsetooth Reservoir and Cache la Poudre River. Beginning as rain and snow in the mountains, Horsetooth water is delivered from the western slope via the Colorado-Big Thompson Water Project, while Poudre River water originates on the eastern slope, northwest of Fort Collins.

Our Water Treatment Facility produces nearly all the water it distributes; however, customers may occasionally receive a blend of water treated by Utilities and the Soldier Canyon Filter Plant. Both treatment facilities use Horsetooth Reservoir and the Poudre River as sources of water.

Protecting the Colorado-Big Thompson and Cache la Poudre Watersheds

Our drinking water originates in the Cache la Poudre River and Colorado-Big Thompson (C-BT) watersheds. Fort Collins Utilities collaborates with other local drinking water providers to monitor and assess water quality in the upper Cache la Poudre watershed. We also are a member of the Big Thompson Watershed Forum (btwatershed.org) and partner with a variety of organizations to monitor and analyze water quality in the C-BT watershed and Horsetooth Reservoir. Monitoring data are used to determine if activities in the watershed are causing water quality to change over time. With the exception of wildfires, water quality data collected by Utilities do not indicate the presence of any persistent sources of contamination within either watershed.

In 2012, the Upper Poudre Watershed was heavily impacted by the Hewlett and High Park Fires, which together burned nearly 95,000 acres. The City of Fort Collins has worked with the Natural Resource Conservation Service (NRCS) and other local partners through the Emergency Watershed Protection (EWP) program to assess and mitigate the hazards associated with flash flooding and sediment erosion. In 2013, post-fire treatments focused on aerial application of wood mulch to burned drainages that

pose the greatest risk to water quality and other human, cultural and natural resource values in the watershed. Additional mulching will continue in 2014 and is expected to be completed by the end of August.

Utilities will continue to monitor the effects of the fires on water quality as the watershed recovers. Using early-warning technology and targeted water quality monitoring, Utilities is able to evaluate the watershed recovery process and optimize water treatment operations, while continuing to meet the standards for high-quality drinking water. Utilities' most recent source water quality reports can be found at fcgov.com/utilities/what-we-do/water/water-quality/source-water-monitoring.

To help protect our watersheds, the Colorado Department of Public Health and Environment (CDPHE) prepared a screening-level assessment of potential sources of contamination. The ratings show our two watersheds have moderate and moderately low susceptibility for contamination from several potential sources which may include underground, above ground and/or leaking storage tanks, existing and/or abandoned mine sites, septic systems, among other potential hazards. The full report is available at colorado.gov/cdphe/dir/wq/swap/larimer/135291ftcollinscityofsw.pdf.

Treating Source Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

As water travels over the land's surface or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals and humans. To ensure tap water is safe to drink, the CDPHE regulates the amount of certain contaminants in water from public water systems.

Source water may contain:

- Microbial 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 may 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.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production. These contaminants also may come from gas stations, urban stormwater runoff and septic systems.
- Radioactive contaminants, which may be naturally occurring or the result of oil and gas production and mining activities.

For more information about contaminants and potential health risks, call the Safe Drinking Water Hotline at 800-426-4791 or visit epa.gov/safewater.

Environmental Leadership

The Water Treatment Facility strives to be a good steward of natural resources and an environmental leader. The facility has established a formal Environment Management System (EMS) that has been certified to conform to the ISO 14001:2004 standard. A key aspect of this EMS is reduction in energy usage and greenhouse gas footprint. The facility is participating in the Colorado Industrial Energy Challenge, which is sponsored by the Colorado Governor's Energy Office and the U.S. DOE. The facility also conducted technical energy audits and engineering studies with recommendations that yielded significant reductions in energy usage, and cost savings; even in the face of rising treated water demands.

The facility participates in the Colorado Environmental Leadership Program (ELP), which is administered by the CDPHE Division of Environmental Health and Sustainability. As the result of its continuing environmental stewardship and the successful ISO certification of the EMS, the facility was recognized as an ELP Gold Leader in 2013.

The Water Treatment Facility earned its 15th consecutive Director's Award as a member of the Partnership for Safe Water. The Partnership is an alliance of six drinking water organizations, including the USEPA. The director's award is only awarded to top-tier water plants that have demonstrated the commitment to providing superior quality water to customers, beyond the requirements of the USEPA regulations.

Fluoridation

As directed by City Council and our customers, Utilities adds fluoride to the water, resulting in levels that range from 0.9–1.05 milligrams of fluoride per liter of treated water.

If you or members of your household are sensitive to fluoride or fluoridation-related substances or if you provide our water to an infant younger than six months of age, please consult your physician or another health expert regarding precautions you may want to consider. Visit fcgov.com/water/fluoride.php for more information.

Lead

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.

While Utilities is responsible for providing high-quality drinking water, we 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, you may wish to have your water tested.

For more information, testing methods and steps to minimize exposure, call the Safe Drinking Water Hotline at 800-426-4791 or visit epa.gov/safewater/lead.

Vulnerable Populations

Some people may be more vulnerable to contaminants in drinking water than the general population. Particularly at risk are immunocompromised persons, such as those undergoing chemotherapy; those who have received organ transplants; people with HIV/AIDS or other immune-system disorders; and some elderly and infants. These people should seek advice about drinking water from their healthcare providers.

Guidelines to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the EPA/Center for Disease Control. Call the Safe Drinking Water Hotline at 800-426-4791 or visit epa.gov/safewater.

Community Participation

Community members are welcome to attend Fort Collins Utilities' Water Board meetings, a citizen committee that advises City Council on matters of policy and budget. Please see the schedule and location at fcgov.com/cityclerk/water.php.

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