

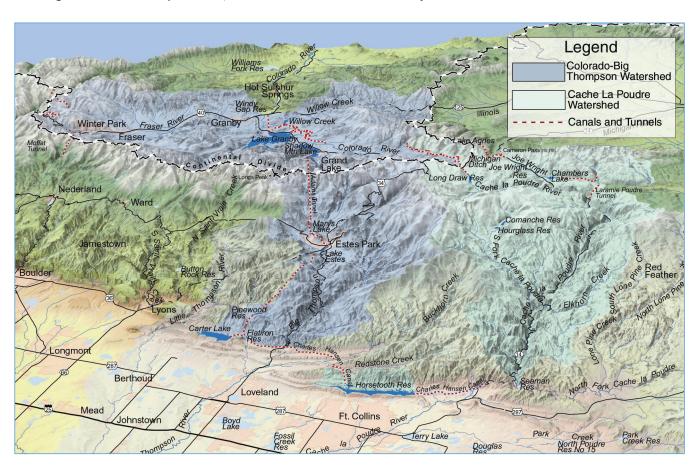
# 2015 DRINKING WATER QUALITY REPORT

Para más información de este informe de su cualidad 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*.



## **Continuing Our Commitment**

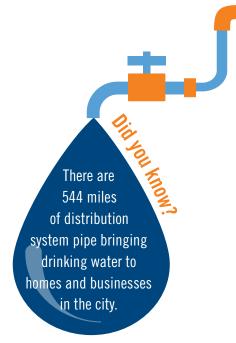
Know your H2O. Learn where your drinking water comes from and how it compares to federal standards by checking out this report. Fort Collins Utilities remains committed to delivering high-quality drinking water and meeting the challenges of source water protection, water conservation and community education.



# Where Our Water Originates

Utilities' water comes from both Horsetooth Reservoir and the 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 (SCFP). Both treatment facilities use Horsetooth Reservoir and the Cache la Poudre River as sources of water. The SCFP is owned by East Larimer County, North Weld County Water District, and the Fort Collins Loveland Water District.



## **Water Quality Test Results**

The monitoring results below are representative of water treated by Utilities and the Soldier Canyon Filter Plant (SCFP). In compliance with regulations, the copper and lead data are from monitoring completed during 2014; all other data are from monitoring completed during 2015. Acronym definitions are listed at the bottom of this page.

#### **Regulated in the Distribution System**

Parameter	Month with the highest percentage of positive samples	Results	Sample Size	MCL	MCLG	Meet Standard?	Typical Sources
Coliform	September	0.75% positive	134	Less than or equal to 5% positive samples per period	0	Yes	Naturally present in the environment

Parameter	Year	Average	Range	Sample Size	Unit of Measure	MCL	MCLG	Highest Compliance Value	Meet Standard?	Typical Sources
Total Haloacetic Acids		22.35	7.8 to 37	31	ppb	60	N/A	26.95	Yes	
Total Trihalomethanes	2015	31.23	19.1 to 52.7	32	ppb	80	N/A	47.12	Yes	Byproduct of drinking water disinfection
Chlorite		0.16	0.06 to 0.33	30	ppb	1.0	.8	N/A	Yes	

#### Regulated at the Consumer's Tap—52 Homes Were Tested

Parameter	Monitoring Period 90th Percentile		itoring Number of Unit of Action		Number of Sample Sites Above Action Level	es Above Meet		
Copper	08/25/2014 to	0.08	52	ppm	1.3	0	Yes	Corrosion of
Lead	09/29/2014	2	52	ppb	15	0	Yes	household plumbing systems

## **Acronym Definitions**

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

CDPHE: Colorado Department of Public Health and Environment

**ELP**: Colorado Environmental Leadership Program

**EMS**: Environmental Management System

**EPA**: Environmental Protection Agency

**ISO:** International Organization for Standardization

**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.

**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

 $\textbf{NTU} \colon \textbf{Nephelometric turbidity unit-measure of particles}$ 

in the water or clarity

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

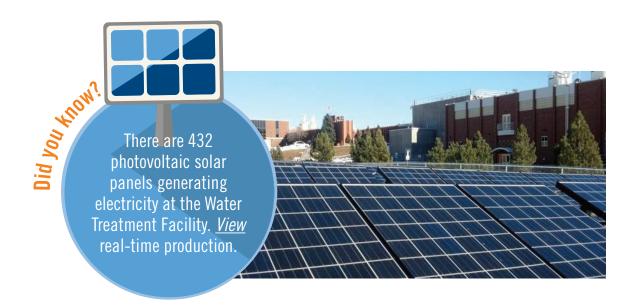
ppm: Parts of contaminant per million parts of water, mg/L

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

**SCFP**: Soldier Canyon Filter Plant

**TOC**: Total organic carbon

**IT**: Treatment technique - a required process intended to reduce the level of a contaminant in drinking water.



#### **Raw and Finished Water Ratio**

Parameter	Average	Range	Number of Samples	Unit of Measure	<b>TT Minimum Ratio</b> (the higher the better)	Meet Standard?	Typical Sources
Total Organic Carbon Ratio, Utilities	1.36	1.00 to 1.70	12	Ratio	1.00	Yes	Naturally present in the environment
Total Organic Carbon Ratio, SCFP	1.15	0.79 to 1.47	12	Ratio	1.00	Yes	Naturally present in the environment

#### Sampled at the Entry Point to the Distribution System

Parameter	Month	Level Found	TT Requirement	Meet Standard?	Typical Sources		
Turbidity, Utilities	April	Highest single measurement: 0.3 NTU	Yes Maximum is 1 NTU for any single				
Turbidity, SCFP	February	Highest single measurement: 0.08 NTU	measurement	Yes	Soil Runoff		
Turbidity, Utilities and SCFP	Yes						
Turbidity has no known health effects; however, turbidity can interfere with disinfection and may provide a medium for microbial growth.							

Parameter	Result	Number of Samples	Unit of Measure	MCL	MCLG	Meet Standard?	Typical Sources
Barium, Utilities	0.02	1	ppm	2	2	Yes	Function of makeural demonstra
Barium, SCFP	0.02	1	ppm	2	2	Yes	Erosion of natural deposits
Fluoride, Utilities	0.64	1	ppm	4	4	Yes	W. 189
Fluoride, SCFP	0.57	1	ppm	4	4	Yes	Water additive promoting strong teeth
Nitrate, Utilities	0.07	1	ppm	10	10	Yes	D ((( ( ))))
Nitrate, SCFP	0.11	1	ppm	10	10	Yes	Runoff from fertilizer use

## **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 2015, Utilities tested the untreated source water for the organisms. *Giardia* was found in the Poudre River samples. Neither organism was found in Horsetooth Reservoir samples.

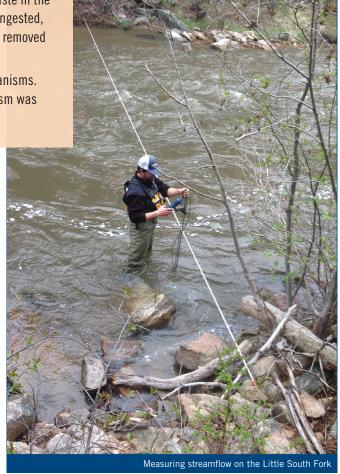
## **Treating Source Water**

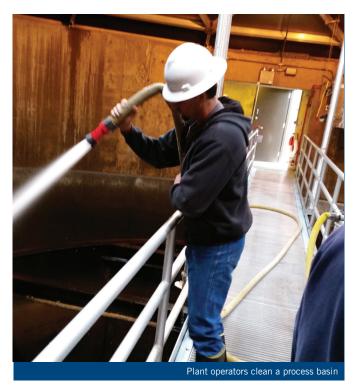
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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 visiting *epa.gov/safewater*.





## **Monitoring and Protecting Our Water Sources**

The City of Fort Collins' drinking water supply comes from two water sources, the Cache la Poudre River and Horsetooth Reservoir. Utilities collaborates with local drinking water providers to monitor and assess water quality in the upper Cache la Poudre watershed. We are a member of the Coalition for the Poudre River Watershed (*poudrewatershed.org*) and the Big Thompson Watershed Forum (*btwatershed.org*). Monitoring data are used to support the protection of the City's drinking water sources. The City's source watersheds continue to provide reliable, high-quality drinking water.

In 2015, the Upper Poudre Watershed continued on its path toward recovery following the Hewett and High Park Fires of 2012. Utilities continued to use early-warning technology and targeted water quality monitoring to mitigate post-wildfire impacts on water treatment operations and evaluate the watershed recovery process. Utilities treated more Poudre River water in 2015 compared to any pre-fire year, while continuing

to meet the standards for high quality drinking water. Utilities will continue to monitor watershed recovery and work with watershed stakeholders to protect our source water supplies.

Utilities has been working collaboratively with the Coalition for the Poudre River Watershed and other stakeholders since 2013. The Coalition for the Poudre River Watershed has been working to 1) identify remaining post-wildfire restoration priorities in the Upper Cache la Poudre Watershed; and 2) develop a community-driven watershed plan that aims to prioritize areas in the watershed to improve and protect resiliency to future fires and other watershed risks.

Additional information about the City's Source Water Monitoring Program and source water quality seasonal updates and annual reports can be found at *fcgov.com/source-water-monitoring*.

## **Haloacetic Acids (HAA5) Monitoring**

Utilities is required to monitor your drinking water for specific contaminants on a regular basis. Monitoring results are an indicator of whether or not our drinking water meets health standards. HAA5s are required to be monitored at eight locations every quarter. City staff collects the HAA5 samples and a private laboratory performs the analysis. The HAA5 sample collected at one site (006) in February of 2015 was not analyzed properly, resulting in an inaccurate value of zero. When the City initially inquired about the result, the lab provided assurance that the value was valid and it was

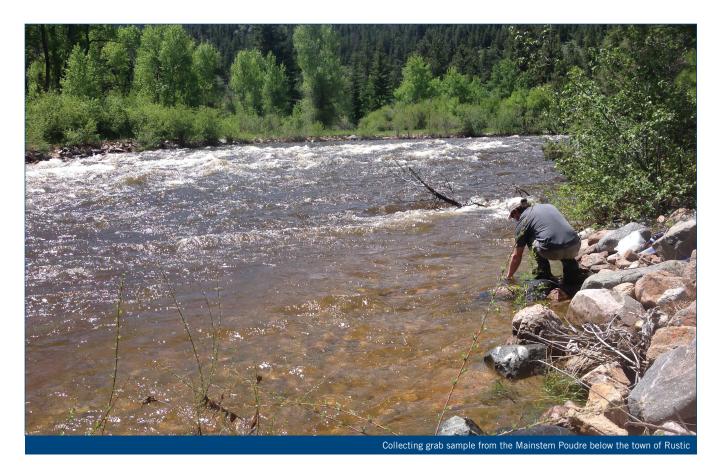
reported to the state with other compliance data. Upon further investigation the result was found to be invalid.

The HAA5 values for the other seven sample sites in February of 2015, as well as the other three quarterly samples at site 006 throughout 2015, were well within the standard allowed. As a result, Utilities is confident that the drinking water was within the standard at Site 006 in February of 2015. A procedure to provide a more rigorous review of the private lab data has been implemented to prevent further occurrences. See the tables below for more information.

#### HAA5 values, μg/L

Date/Site	001	002	003	004	005	007	008	Maximum Level Allowed
February, 2015	7.8	19.1	18.7	20.4	19.6	17.5	17	60

Date/Site	006	Maximum Level Allowed
Date/Site	000	Maximum Level Alloweu
May, 2015	37	
August, 2015	19.8	60
November, 2015	24	



## **Environmental Leadership**

The Water Treatment Facility is committed to protecting the environment by identifying and reducing its environmental impacts in order to increase its operating efficiency. To help achieve this goal, the facility has established a formal Environment Management System (EMS). In 2015, the facility was recertified as being in conformance to the International Organization for Standardization (ISO) 14001:2004 standard. The goals of an EMS are to prevent pollution, comply with legal requirements, and continually improve environmental performance. The key environmental objectives set by the facility include reduction in greenhouse gas emissions by reducing energy and fuel consumption, and sustainably managing the facility's landscape to minimize risks to public safety, private property and the environment. The ISO 14001 standard was revised in 2015 and the facility EMS team is evaluating what will be needed to conform to the new standard. The transition to the new standard must be complete by September 2018.

In addition, the facility participates in the Colorado Environmental Leadership Program (ELP), an environmental recognition and reward program administered by the Colorado Department of Public Health and Environment Division of Environmental Health and Sustainability. As a result of its continuing environmental stewardship and the successful ISO certification of the EMS, the facility was recognized as an ELP Gold Leader in 2015.

The Water Treatment Facility earned their 16th 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 EPA. The director's award is only awarded to top-tier water facilities that have demonstrated the commitment to providing superior quality water to their customers, beyond the requirements of the EPA regulations.



#### **Fluoridation**

As directed by City Council and our customers, Utilities adds fluoride to the water, resulting in levels that range from 0.60 to 0.75 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.

#### **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 the EPA/Center for Disease Control. Call the Safe Drinking Water Hotline at (800) 426-4791 or visit *epa.gov/safewater*.



#### Lead

# How can I learn more about lead in the City of Fort Collins' drinking water?

Since 1984, eight years before EPA began regulating lead in drinking water, Utilities has used best management practices to provide conditions that keep lead levels low in our finished drinking water. The Water Treatment Plant operators manage the water quality by raising the calcium level and reducing the corrosiveness of the treated drinking water. As a check to make sure our corrosion control approach is effective, Utilities also monitors lead levels in the drinking water of 50 homes every three years. All of these tests have shown the level of lead in our drinking water to be substantially below EPA's action level.

The source of lead in drinking water is primarily the materials and components associated with service lines and home plumbing. Lead service lines have been prohibited by City building codes since before the 1950s. Utilities staff report that they have only found three lead service lines in the past 40 years of service line maintenance. The three lines were connected to very old buildings in the city. Lead service lines are replaced when found. Lead-tin solder was banned by City code in 1986. These safeguards limit the potential for lead contamination of drinking water.

*View a presentation* on the City's approach to keeping lead levels low.

While Utilities is responsible for providing high-quality drinking water, we have limited control over the variety of materials used in plumbing components. If your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you have questions or comments related to water quality, contact the City's Water Quality Lab at 970-221-6863.

If present, elevated levels of lead can cause serious health problems, particularly for pregnant women and young children. 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*.

# **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.

#### **Contact**

fcgov.com/utilities utilities@fcgov.com 970-212-2900 V/TDD: Dial 711 for Relay Colorado