



2017 Annual Drinking Water Quality Report

(for calendar year 2016)

5150 Snead Dr., Fort Collins, CO 80525 - www.FCLWD.com - Phone: (970) 226-3104

Dear Customers of the Fort Collins– Loveland Water District,

We're pleased to send you the District's water quality report for 2016. In this report, we share with you information about your drinking water quality and interesting facts about the District. As you read the report, you'll recognize that the Fort Collins -Loveland Water District is fortunate to have some of the highest quality water in Colorado.

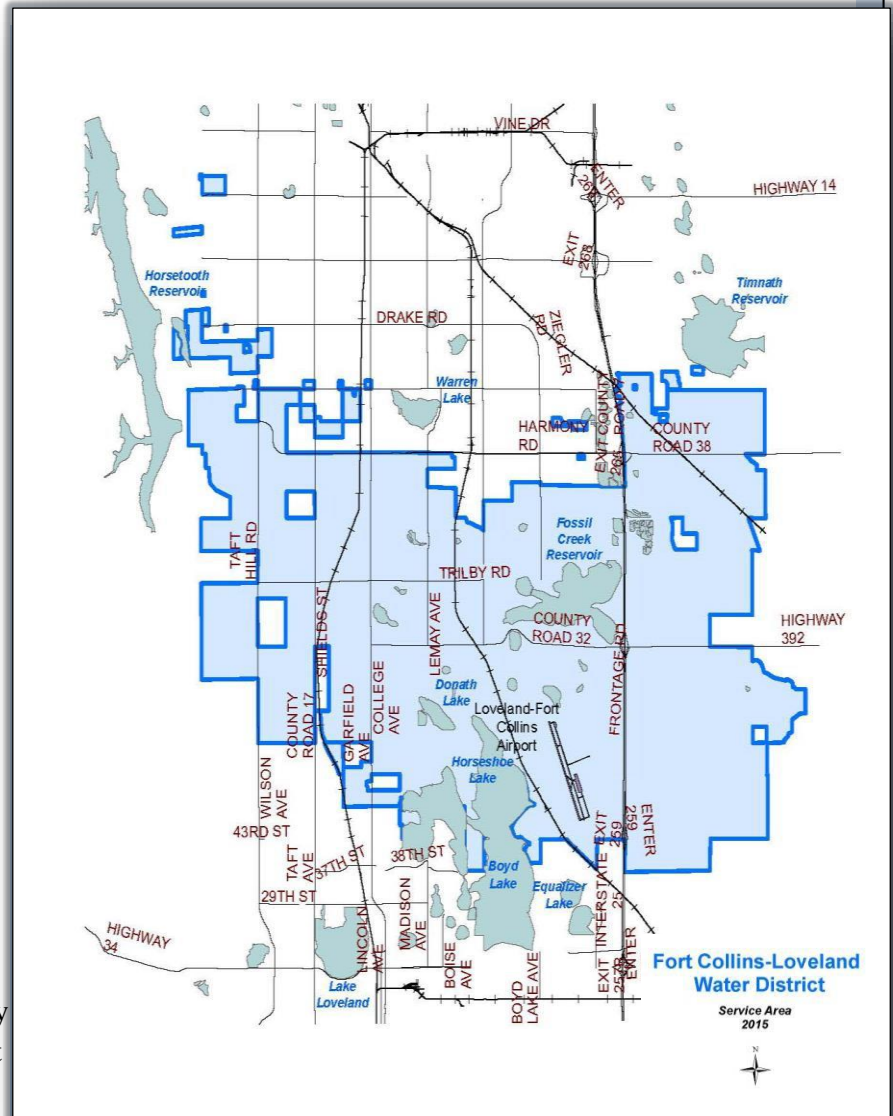
The District continues to grow at a moderate rate and 2016 ended with new tap sales reaching 384. Also because of the current snow pack we do not anticipate water restrictions for the year of 2017.

We continue to look forward to serving you and invite you to attend the monthly meetings of your Board of Directors. The meetings are held at the District office at 5150 Snead Drive on the third Tuesday of every month starting at 7:00PM.

As a reminder, our office hours are Monday-Friday, 8:00 to 4:30 with after hours on call. You can also contact us at 970-226-3104. If you have any questions regarding this report, please call the District Manager at 970-226- 3104 extension 101.

YOUR DRINKING WATER MEETS ALL STATE AND FEDERAL STANDARDS

The Fort Collins–Loveland Water District (FCLWD) is committed to providing our customers with a safe and dependable supply of drinking water. Throughout 2016, we met all state and federal health standards.



TREATMENT PROCESS

The water treatment process at Soldier Canyon Filter Plant is defined as “conventional” treatment. This means throughout the treatment process, certified operators and laboratory staff conduct numerous tests on your drinking water to ensure that it consistently meets or surpasses all state and federal water quality standards.

Treatment employs the following processes:

- Coagulation:** The addition of chemicals such as aluminum sulfate and polymers to cause tiny particles in the water to agglomerate or clump together.
- Flocculation:** The slow mixing of the coagulated water with large rotating paddles to create a large heavy clump called floc.
- Sedimentation:** A solid-liquid separation process that promotes the gravity settling of solid particles to the bottom of the basin where the solids are removed hydraulically. The settling is aided by plate settlers or tube settlers, which improve the efficiency of the solid-liquid separation process.
- Filtration:** The passage of water through a porous medium for the removal of suspended solids.
- Disinfection:** One of multiple barriers to assure the production of microbiologically-safe drinking water

SOURCE WATER ASSESSMENT REPORT

The Colorado Department of Public Health and Environment (CDPHE) has provided us with a Source Water Assessment Report for our water supply. You may obtain a copy of the report by visiting <http://wqcdcompliance.com/ccr>. The Report is located under “Source Water Assessment Reports”, and then “Assessment Report by County”. Select Larimer County and find #135718; TRI-DISTRICTS or by contacting CHRISTOPHER HARRIS at 970-482-3143.

Potential sources of contamination in our source water area (as listed in the report above) may come from: Discrete sites including wastewater discharge sites, above ground, underground, and leaking storage tanks, solid waste sites, and existing/abandoned mine sites. Most of the discrete sites have a low to moderately low individual susceptibility.

Dispersed sources include land use/cover types such as commercial/industrial/transportation, low intensity residential grasses, crops, pastures, and forests. Other dispersed sources include septic systems, oil/gas wells, and roads. All of the dispersed sources have a low or moderately low individual susceptibility rating. Our overall vulnerability rating is low. 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. Please contact 970-482-3143 to learn more about your drinking water sources, the treatment process, or water quality. We want you, our valued customer, to be informed about the services we provide and the quality water we deliver to you every day.

Detected Contaminants

The Fort Collins-Loveland Water District routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2016 unless otherwise noted. The State of Colorado 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. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report.

Note: Only detected contaminants sampled within the last 5 years appear in this report. If no tables appear in this section, then no contaminants were detected in the last round of monitoring.



WHERE DOES YOUR WATER COME FROM?

The water delivered to you by the FCLWD comes from the Tri-District treatment plant and the City of Fort Collins, which pull from the Poudre River and Horsetooth Reservoir. The Tri-Districts plant was part of an integrated water system consisting of the Fort Collins-Loveland Water District, the East Larimer County Water District and the North Weld County Water District. In 2017 the integrated agreement was dissolved and the Tri-Districts plant became known as The Soldier Canyon Water Treatment Authority, but it is still owned and operated by the three water districts mentioned above. The FCLWD also purchases water from The City of Loveland during summer demand and sells water to the Town of Windsor, The City of Loveland and the Little Thompson Water District.



LEAD AND 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 at 1-800-426-4791 or visit: www.epa.gov/safewater/lead(<http://water.epa.gov/drink/info/lead/index.cfm>).

Definitions of Terms Used In Report

Fort Collins - Loveland Water District - FCLWD ID#
CO0135292

City of Fort Collins - FC ID# CO0135291

City of Loveland - LVD ID# CO135485

Tri Districts - TD ID# CO0135718

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 highest level of a contaminant allowed in drinking water. MCL's are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): 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.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant, below which there is no known or unexpected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Parts per billion (ppb) or Micrograms per liter ($\mu\text{g}/\text{l}$): One part per billion corresponds to one minute in 2,000 years or one penny in \$10,000,000.

Parts per million (ppm) or Milligrams per liter (mg/l): One part per million corresponds to one minute in two years or one penny in \$10,000.

PicoCuries per Liter (pCi/l): A measure of radioactivity in water.

Treatment Technique (TT): A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Average of Individual Samples: The typical value. Mathematically it is the sum of values divided by the number of samples.

Range of Individual Samples: The lowest value to the highest value.

Gross Alpha, Including RA, Excluding RN & U: This is the gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222 and uranium.

Parts per trillion = Nanograms per liter (ppt = nanograms/L): One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion = Picograms per liter (ppq = pictograms/L): One part per quadrillion

Violation: A failure to meet a Colorado Primary Drinking Water Regulation.

Formal Enforcement Action: An escalated action taken by the State (due to the number and/or severity of violations) to bring a non-compliant water system back into compliance by a certain time, with an enforceable consequence if the schedule is not met.

IMPORTANT INFORMATION

“Esta informacion es importante, si no la pueden leer, necesitan que alguien se la pueda traducir”

“The sources of drinking water (both tap water 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 pick up substances resulting from the presence of animals or from human activity. 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 wild life.
- Inorganic contaminants, such as salts and metals, urban stormwater runoff industrial or domestic mining, or farming.
- Pesticides and herbicides that 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 by products of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff, and septic systems. Radioactive contaminants that can be naturally occurring or be the result of oil and gas production and mining activities.”

“In order to ensure that tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration 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. 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 for infections. These people should seek advice about drinking water from their health care providers. More information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and microbiological contaminants, call the EPA Safe Drinking Water Hotline at 1-800-426-4791.” or by visiting <http://water.epa.gov/drink/contaminants>.

Lead and Copper Sampled in the Distribution System									
Contaminant Name		Monitoring Period	90th Percentile	Number of Samples	Unit of Measure	Action Level	Sample Sites Above Action Level	90th Percentile Action Level Exceedance	Typical Sources
COPPER	TD	6/6/2015-6/12/2015	0.34	30	ppm	1.3	0	No	Corrosion of household plumbing systems Erosion of natural deposits
LEAD	TD	6/6/2015-6/12/2015	8.5	30	ppb	15	2	No	

Disinfection Byproducts (TTHMs, HAA5, and Chlorite) Sampled in the Distribution System										
Contaminant Name		Year	Average of Individual Samples	Range of Individual Samples (Lowest - Highest)	Number of Samples	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
CHLORITE	TD	2016	0.54	0.43-0.67	12	ppb	1	0.8	No	By-Product of drinking water disinfection
Total, HALOACETIC ACIDS (HAA5)	TD	2016	20.94	17-26.2	8	ppb	60	N/A	No	
TTHM	TD	2016	28.22	16.7-43	8	ppb	80	N/A	No	

Turbidity Sampled at the Entry Point to the Distribution System						
Contaminant Name		Sample Date	Level Found	TT Requirement	TT Violation	Typical Sources
TURBIDITY	TD	Nov-16	Highest single measurement: 0.059 NTU	Maximum 1 NTU for any single measurement	No	Soil Runoff
		Month: All 2016	Lowest monthly percentage of samples meeting TT requirement for our technology: 100%	In any month, at least 95% of samples must be less than 0.3 NTU	No	
	FC	Jan-16	Highest single measurement: 0.32 NTU	Maximum 1 NTU for any single measurement	No	
		All 2016	Lowest monthly percentage of samples meeting TT requirement for our technology: 100%	In any month, at least 95% of samples must be less than 0.3 NTU	No	
	LVD	May-16	Highest single measurement: 0.924 NTU	Maximum 1 NTU for any single measurement	No	
		Aug-16	Lowest monthly percentage of samples meeting TT requirement for our technology: 99%	In any month, at least 95% of samples must be less than 0.3 NTU	No	

Total Organic Carbon (Disinfection By-Products Precursor) Percentage Removal Ratio of Raw & Finished Water									
Contaminant Name	Year	Average of Individual Ratio Samples	Range of Individual Ratio Samples (Lowest - Highest)	Number of Ratio Samples	Unit of Measure	TT Minimum Ratio	TT Violation	Typical Sources	
Total ORGANIC	TD	2016	1.18	0.94 -1.39	12	Ratio	1	No	Naturally present in the environment
	FC	2016	1.28	1.00 -1.60	12	Ratio	1	No	
	LVD	2016	1.42	1.26 -1.63	12	Ratio	1	No	

Radionuclides Sampled at the Entry Point to the Distribution System										
Contaminant Name	Year	Average of Individual Samples	Range of Individual Samples (Lowest - Highest)	Number of Samples	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources	
COMBINED RADIUM	TD	2011	0.76	0.76 - 0.76	1	pCi/L	5	0	No	Erosion of natural deposits.
	FC	2011	0.2	0.2 - 0.2	1	pCi/L	5	0	No	
COMBINED URANIUM	TD	2011	0.01	0.01 - 0.01	1	ppb	30	0	No	
GROSS ALPHA, EXCL. RADON & U	TD	2011	1.7	1.7 - 1.7	1	pCi/L	15	0	No	
	FC	2011	0.5	0.5 - 0.5	1	pCi/L	15	0	No	
GROSS BETA PARTICLE ACTIVITY*	TD	2011	2.1	2.1 - 2.1	1	pCi/L*	50	0	No	Decay of natural and man-made deposits

*The MCL for Gross Beta Particle Activity is 4 mrem/year. Since there is no simple conversion between mrem/year and pCi/L EPA considers 50 pCi/L to be the level of concern for Gross Beta Particle Activity.

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 of Results	Sample Size	Unit of Measure	Secondary Standard	
Sodium	TD	2016	14.4	14.4 - 14.4	1	ppm	N/A
	FC	2016	3.77	3.77 - 3.77	1	ppm	N/A
	LVD	2016	16.1	16.1-16.1	1	ppm	N/A

Disinfectants Sampled in the Distribution System

TT Requirement: At least 95% of samples per period (month or quarter) must be at least 0.2 ppm **OR** if sample size is less than 40 no more than 1 sample is below 0.2 ppm.

Typical Sources: Water additive used to control microbes.

Contaminant Name	Time Period	Results	Number of Samples Below Level	Sample Size	TT/MRDL Violation	MRDL
Chlorine	December, 2016	Lowest Period Percentage samples meeting TT Requirement: 100%	0	40	No	4.0 ppm

Inorganic Contaminants Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Results	Number of Samples	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Barium	TD	2016	0.015	1	ppm	2	2	Discharge or drilling waste; Discharge from metal refineries; Erosion of natural deposits.
	FC	2016	0.02	1	ppm	2	2	
	LVD	2016	0.01	1	ppm	2	2	
Fluoride	TD	2016	0.54	4	ppm	4	4	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
	FC	2016	0.59	1	ppm	4	4	
	LVD	2016	0.65	2	ppm	4	4	
Nitrate	TD	2016	0.11	1	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewer; Erosion of natural deposits.
	FC	2016	0.09	1	ppm	10	10	
	LVD	2016	0.02	1	ppm	10	10	

Disinfectants Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Number of Samples Above or Below Level	Sample Size	TT/MRDLE Requirement	TT/MRDL Violation	Typical Sources
Chlorine	TD	2016	0	TT= No more than 4 hours with a sample Below 0.2 ppm	No	Water additives to control microbes
	FC	2016	0		No	
	LVD	2016	0		No	
Chlorine Dioxide	TD	2016	0	MRDL= 800 ppb	No	Water additives to control microbes
	FC	2016	0	MRDL= 800 ppb	No	
	LVD	2016	0	MRDL= 800 ppb	No	
Chlorite	TD	2016	0	MRDL= 1.0 ppm	No	By product of drinking water disinfection

Under the 1996 amendments to the Federal Safe Drinking Water Act, the U.S. Environmental Protection Agency is required once every five years to issue a new list of up to 30 unregulated contaminants for which public water systems must monitor. The intent of this rule is to provide baseline occurrence data that the EPA can combine with toxicological research to make decisions about potential future drinking water regulations. The Fort Collins Loveland Water District is required to sample at the entry point into our distribution system and at the maximum residence time in our distribution system for a total of 21 unregulated contaminants. Of the 21 unregulated contaminants sampled for, there were only four (4) that were detected. The City of Fort Collins also tested for unregulated contaminants and the six (6) detected are listed below with those of the FCLWD.

Unregulated Contaminants Sampled at the Entry Point to the Distribution System							
Contaminant Name		Year	Range of Results	Number of Samples	Unit of Measure	Violation	Typical Sources
CHLORATE	TD	2013	AVG: 48 Range: 33 - 61	4	ppb	No	By-Product of drinking water disinfection
	FC	2013-14	< 20 - 41		ug/L	No	
STRONTIUM	TD	2013	AVG: 45 Range: 44 - 46	4	ppb	No	Naturally occurring element
	FC	2013-14	40 - 53		ug/L	No	
VANADIUM	TD	2013	AVG: 0.1 Range: 0.0 - 0.2	4	ppb	No	
	FC	2013-14	200 - 300		ng/L	No	
HEXAVALENT CHROMIUM	TD	2013	AVG: 0.08 Range: 0.00 - 0.14	4	ppb	No	
	FC	2013-14	170 - 350	-	ng/L	No	
CHROMIUM	FC	2013	200 - 300	-	ng/L	No	
CHLORODIFLUOROMETHANE	FC	2013-14	< 80 - 460	-	ng/L	No	Propellants and refrigerants

Cryptosporidium & Raw Source Water E. Coli				
Contaminant Name		Year	Number of Positives	Sample Size
E.Coli	TD	2016	3	3
	FC	2016	9	27
	LVD	2016	8	12
Cryptosporidium	LVD	2016	1	11

Cryptosporidium is microbial pathogen found in surface water throughout the US. Although filtration removes cryptosporidium, the most commonly methods cannot guarantee 100% removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or capable of causing disease. Ingestions 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, immune-compromised people are at greater risk of developing life-threatening illness. We encourage immune-compromised individuals to consult their doctor regarding appropriate precautions to take in order to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.



Service Through Unity