



2014 Annual Drinking Water Quality Report

(for calendar year 2013)

5150 Snead Dr
 Fort Collins, CO 80525
 (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 2013. 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 2013 ended with new tap sales reaching 542. Also because of the current snow pack we do not anticipate water restrictions for the year of 2014.

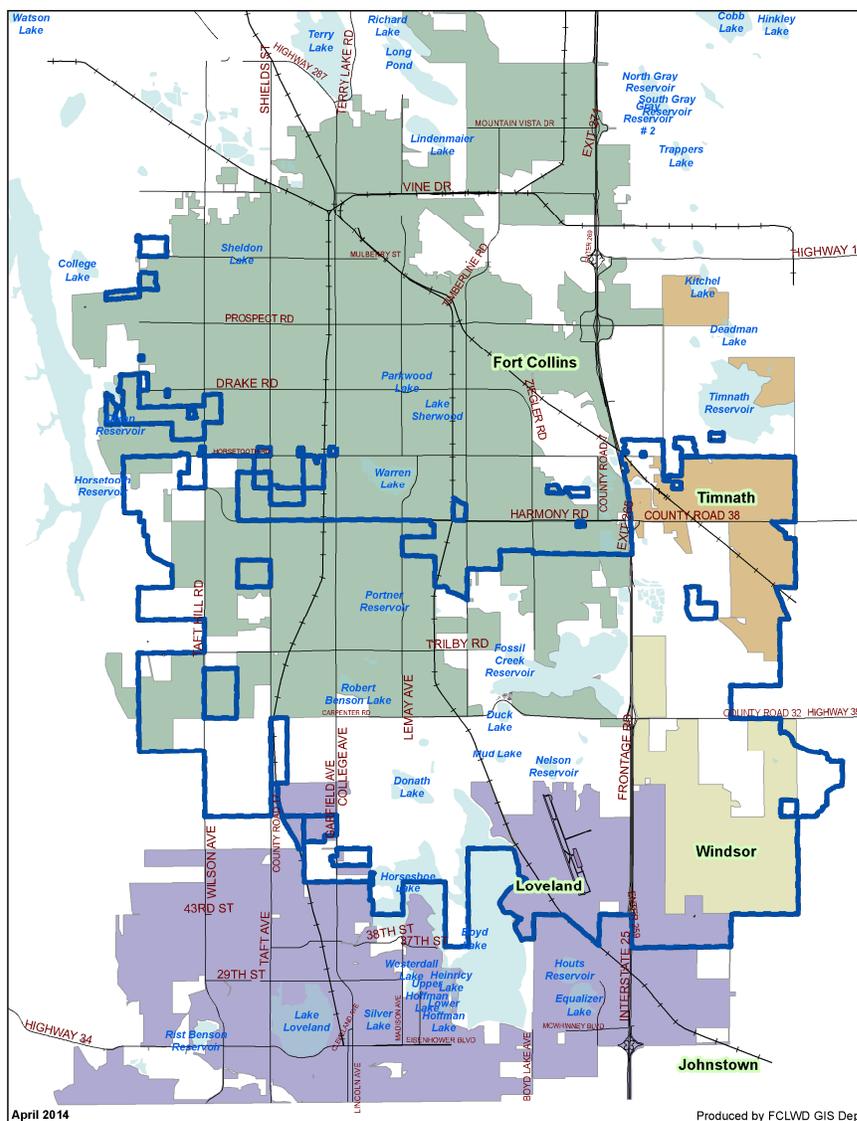
We continue to look forward to serving you and invite you to attend the monthly meetings of your Board of Directors. The meetings are held at the District office at 5150 Snead Drive on the third Tuesday of every month starting at 7:00PM.

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, Michael DiTullio 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 2013, we met all state and federal health standards.

Fort Collins - Loveland Water District Boundaries



April 2014

Produced by FCLWD GIS Dept

WHERE DOES OUR WATER COME FROM?

The water delivered to you by the FCLWD comes from a surface water treatment plant located in Fort Collins. The treatment plant is owned and operated by three water districts known as the Tri-Districts. The Tri-Districts are made up of the East Larimer County Water District, the North Weld County Water District and the Fort Collins Loveland Water District. The water received by the treatment plant comes from Horsetooth Reservoir and the Poudre River. The FCLWD also purchases water from the City of Fort Collins. The Tri-Districts also provide water to the towns of Windsor, Eaton, Ault, Timnath, Pierce, and Nunn as well as the Sunset Water District.

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 #134292; FT Collins Loveland WD or by contacting Mike DiTullio at 970-226-3104.

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

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

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 the treatment plant at 970-482-3143 to learn more about your drinking water sources, the treatment process, or water quality. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

ANALYTICAL RESULTS

The Fort Collins-Loveland Water District in conjunction with Tri District routinely monitors for constituents in your drinking water in accordance with Federal and State laws. The tables on the back page show results of our monitoring for the period of January 1 to December 31, 2013. The state permits monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of this data, though representative, is more than one year old.



DEFINITIONS OF TERMS USED IN REPORT

- **Fort Collins - Loveland Water District - FCLWD ID# CO0135292**
- **City of Fort Collins - FC ID# CO0135291**
- **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 ($\mu\text{g/l}$):** 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 ($\text{ppt} = \text{nanograms/L}$):** 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 ($\text{ppq} = \text{pictograms/L}$):** 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.

LEAD IN DRINKING WATER

If present levels of lead can cause serious health problems for pregnant women and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Flush your tap for 30 seconds to 2 minutes before using tap water. Additional information: call the EPA 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>)

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, 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 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	Typical Sources
<i>COPPER</i>	<i>TD</i>	6/4/2012 - 6/6/2012	0.351	30	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits.
<i>LEAD</i>	<i>TD</i>	6/4/2012 - 6/6/2012	5.9	30	ppb	15	1	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By Products (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
<i>CHLORITE</i>	<i>TD</i>	2013	0.31	0.21 - 0.43	12	ppm	1	0.8	No	By-product of drinking water disinfection.
	<i>FC</i>	2013	0.12	< 0.002 - 0.23	36	ppm	1	0.8	No	By-product of drinking water disinfection.
<i>Total, HALOACETIC ACIDS (HAA5)</i>	<i>TD</i>	2013	20	15 - 26	8	ppb	60	N/A	No	By-product of drinking water disinfection.
<i>TTHM</i>	<i>TD</i>	2013	29.75	20.9 - 42.3	8	ppb	80	N/A	No	Byproduct of drinking water disinfection.

Turbidity Sampled at the Entry Point to the Distribution System						
Contaminant Name		Sample Date	Level Found	TT Requirement	TT Violation?	Typical Sources
<i>TURBIDITY</i>	<i>TD</i>	Month: May 24, 2013	Highest single measurement: 0.091 NTU	Maximum 1 NTU for any single measurement	No	Soil Runoff
		Month: January - December, 2013	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	
	<i>FC</i>	Month: September 2013	Highest single measurement: 0.2 NTU	Maximum 1 NTU for any single measurement	No	
		Year: 2013	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	

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
<i>Total, ORGANIC RATIO</i>	<i>TD</i>	2013	1.16	1.01 - 1.28	12	Ratio	TT Minimum Ratio	No	Naturally present in the environment.
	<i>FC</i>	2013	1.37	1.23 - 1.56	12	Ratio	TT Minimum Ratio	No	

Secondary Contaminants**							
Contaminant Name		Year	Average of Individual Samples	Range of Individual Samples (Lowest - Highest)	Number of Samples	Unit of Measure	Secondary Standard
<i>SODIUM</i>	<i>TD</i>	2013	7.9	7.9 - 7.9	1	ppm	N/A

**Secondary standards are non-enforceable 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. EPA recommends these standards but does not require water systems to comply.

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
<i>COMBINED RADIUM (-226 & -228)</i>	<i>TD</i>	2011	0.76	0.76 - 0.76	1	pCi/L	5	0	No	Erosion of natural deposits.
	<i>FC</i>	2011	0.2	0.2 - 0.2	1	pCi/L	5	0	No	
<i>COMBINED URANIUM</i>	<i>TD</i>	2011	0.01	0.01 - 0.01	1	ppb	30	0	No	Erosion of natural deposits.
<i>GROSS ALPHA, EXCL. RADON & U</i>	<i>TD</i>	2011	1.7	1.7 - 1.7	1	pCi/L	15	0	No	Erosion of natural deposits.
	<i>FC</i>	2011	0.5	0.5 - 0.5	1	pCi/L	15	0	No	
<i>GROSS BETA PARTICLE ACTIVITY*</i>	<i>TD</i>	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.

Inorganic Contaminants Sampled at the Entry Point to the Distribution System									
Contaminant Name		Year	Result	Number of Samples	Unit of Measure	MCL	MCLG	MCL Violation?	Typical Sources
BARIUM	TD	2013	AVG Range 0.02 - 0.02	1	ppm	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
	FC	2013	AVG Range 0.02 - 0.02	1	ppm	2	2	No	
FLUORIDE	TD	2013	AVG: 0.7 Range: 0.7 - 0.7	1	ppm	4	4	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
	FC	2013	Range 0.86 - 0.86	1	ppm	4	4	No	
NITRATE	TD	2013	AVG: 0.1 Range: 0.1 - 0.1	1	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewer; erosion of natural deposits.
	FC	2013	AVG: 0.1 Range: 0.1 - 0.1	1	ppm	10	10	No	

Additional Contaminates Sampled at the Entry Point to the Distribution System									
Contaminant Name		Year	Average	Range Low - High	Sample Size	Unit of Measure	MRCL	MRCL Violation?	Typical Sources
CHLORINE DIOXIDE	TD	2013	AVG: 0	0 - 0.08	365	ppm	0.80	No	Water additive to control microbes and Manganese
CHLORITE	TD	2013	AVG: 0.24	0.13 - 0.40	365	ppm	1.00	No	Byproduct 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 Result	Number of Samples	Unit of Measure	Violation?	Typical Sources		
CHLORATE	TD	2013	AVG: 48 Range: 33 - 61	4	ppb	No	Byproduct of drinking water disinfection		
	FC	2013	< 20 - 38	-	ug/L	No			
STRONTIUM	TD	2013	AVG: 45 Range: 44 - 46	4	ppb	No	Naturally occurring element		
	FC	2013	40 - 53	-	ug/L	No			
VANADIUM	TD	2013	AVG: 0.1 Range: 0.0 - 0.2	4	ppb	No	Naturally occurring element		
	FC	2013	200 - 300	-	ng/L	No			
HEXAVALENT CHROMIUM	TD	2013	AVG: 0.08 Range: 0.00 - 0.14	4	ppb	No	Naturally occurring metal		
	FC	2013	170 - 350	-	ng/L	No			
CHROMIUM	FC	2013	200 - 300	-	ng/L	No	Naturally occurring metal		
CHLORODIFLUOROMETHANE	FC	2013	< 80 - 310	-	ng/L	No	Propellants and refrigerants		