CITY OF LAFAYETTE

2014 water quality report

Public Water System ID: CO0107473

The City of Lafayette Public Works Department is pleased to present our residents with the 2014 water quality report.

This report will give you information about Lafayette's water. Federal regulations require this report to be distributed to all water customers.

Citizens are invited to provide comments about drinking water quality at our City Council meetings.

Lafayette City Council provides these opportunities the 1st and 3rd Tuesday of every month at 6:30pm in the City Hall City Council Chambers:
1290 S. Public Rd., Lafayette, CO 80026

You may refer to the City's website for any changes in the meeting schedule.

To learn more about what you can do to help protect your drinking water sources, questions regarding this report, or to learn more about our system, please contact Ed Zimbleman at 303-494-9503

City of Lafayette PUBLIC WORKS DEPARTMENT

1290 S. Public Rd., Lafayette, CO 80026
303-665-5588 x1273
www.cityoflafayette.com/publicworks

Existe una version en español de este informe disponible en 1290 S Public Rd. Tambien puede solicitarla por telefono 303-665-5588 x1273 o por correo electornico a jennyc@cityoflafayette.com

Our Source Water

Lafayette receives snowmelt runoff (surface water) from South Boulder Creek, Boulder Creek and Coal Creek. This raw water is transported by a system to ditches into the Baseline, Waneka and Goosehaven reservoirs.

A Broader Look at Source Water

The Colorado Department of Public Health and Environment (CDPHE) is working to provide all public drinking water systems in Colorado with a Source Water Assessment Report (SWAP).

This report identifies potential sources of contamination in our watershed area. This does not mean contamination has or will occur, but it helps us to evaluate our water treatment capabilities and to prepare for possible contamination threats.

Potential sources of contamination identified in our watershed include: EPA areas of concern; permitted wastewater discharge sites; leaking storage tanks; solid waste sites; mines; and other facilities not identified.

Our sources of more diffuse contamination are: commercial industrial and transportation activities; residential areas; parks; agricultural uses; forests; septic systems; oil and gas wells; and road miles.
You may read the report online at http://wqcdcompliance.com/ccr

Goosehaven Reservoir

Why Treat Water:

The sources for both tap water and bottled water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels through the ground or over the ground's surface, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances caused by the presence of animals or human activities. These contaminants include:

- MICROBIAL CONTAMINANTS: viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, pets, and wildlife.
- INORGANIC CONTAMINANTS: 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 byproducts of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.
- RADIOACTIVE CONTAMINANTS: that can be naturally occuring or be the result of oil and gas production and mining activities.

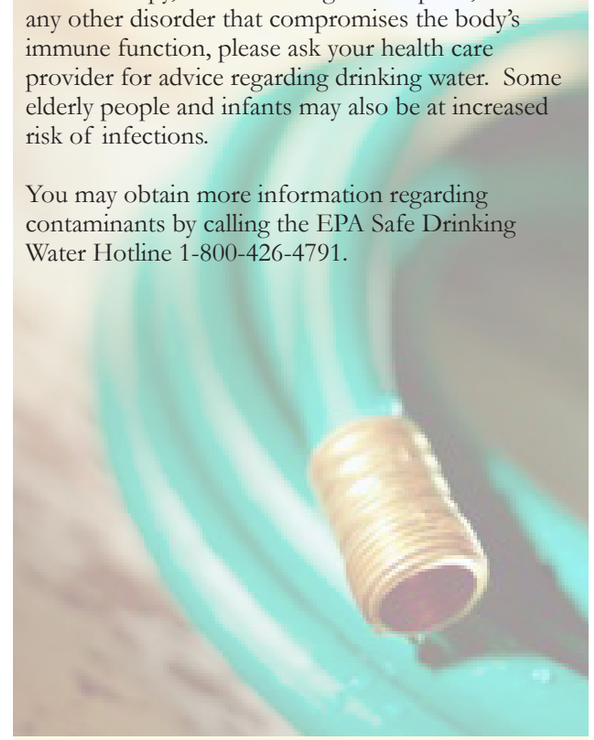
After treatment, both tap and bottled water may reasonably be expected to contain at least small amounts of some contaminants. In order to ensure that our tap water is safe to drink, the CDPHE prescribes regulations limiting the amount of some contaminants in water provided by public water systems.

The Food and Drug Administration is responsible for regulating the amounts of contaminants in bottled water. These regulations protect public health.

Special Health Considerations

If you or someone in your family is undergoing chemotherapy, has had an organ transplant, or has any other disorder that compromises the body's immune function, please ask your health care provider for advice regarding drinking water. Some elderly people and infants may also be at increased risk of infections.

You may obtain more information regarding contaminants by calling the EPA Safe Drinking Water Hotline 1-800-426-4791.



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 your water for drinking or cooking.

To further minimize the risk, do not use hot tap water for drinking or cooking.

More information is available from the EPA Safe Drinking Water Hotline, 1-800-426-4791 or http://www.epa.gov/safewater/lead

Water Quality Data

The City of Lafayette 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, 2013 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.

Terms and Abbreviations Used in this Report

MCL (Maximum Contaminant Level) - the highest level of a contaminant allowed in drinking water.	**NTU** (Nephelometric Turbidity Unit) = measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
TT (Treatment Technique) - a required process intended to reduce the level of a contaminant in drinking water	**Compliance Value** (No Abbreviation) - Single or calculated value used to determine if regulatory contaminant level (e.g. MCL) is met. Examples of calculated values are the 90th Percentile, Running Annual Average (RAA) and Locational Running Annyuual Average (LRAA).
AL (Action Level) - the concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.	**Average (x-bar) - Typical value**
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.	**Range** (R) - The lowest value to the highest value.
Violation (No Abbreviation) - Failure to meet a Colorado Primary Drinking Water Regulation.	**Sample Size (n) -** The number or count of values
Formal Enforcement Action (No Abbreviation) - Escalated action taken by the State (due to the risk to public health, or number or severity of violations) to bring a non-compliant water system back into compliance.	**ppm** (Parts per Million) = Milligrams per liter (ppm = mg/L) - One part per million corresponds to one minute in two years or a single penny in $10,000.
pCi/L (Picocuries per liter) - Measure of the radioactivity in water.	**ppb** (Parts per Billion) = Micrograms per liter (ppb = ug/L) - One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
N/A = Not Applicable	

Lead and Copper Sampled in the Distribution System

Contaminant Name	Time Period	90th Percentile	Sample Size	Unit of Measure	90th Percentile AL	Sample Sites Above AL	90th Percentile AL Exceedance	Typical Sources
Copper	06/20/2011 to 06/22/2011	0.028	33	ppm	1.3		No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	06/20/2011 to 06/22/2011	2	33	ppb	15		No	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfection Byproducts Sampled in the Distribution System

Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	Highest Compliance Value	MCL Violation	Typical Sources
Total Haloacetic Acids (HAA5)	2013	24.85	15.9 to 34.5	16	ppb	60	N/A		No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2013	67.36	44.5 to 108	16	ppb	80	N/A		No	Byproduct of drinking water disinfection

Total Organic Carbon (Disinfection Byproducts Precursor) Removal Ratio of Raw and Finished Water

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	TT Minimum Ratio	TT Violation	Typical Sources
Total Organic Carbon Ratio	2013	1.42	1 to 1.99	12	Ratio	1.00	No	Naturally present in the environment

Summary of Turbidity Sampled at the Entry Point to the Distribution System

Contaminant Name	Sample Date	Level Found	TT Requirement	TT Violation	Typical Sources
Turbidity	Date/Month: Jul	Highest single measurement:0.14 NTU	Maximum 1 NTU for any single measurement	No	Soil Runoff
Turbidity	Month: Nov	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	Soil Runoff

Radionuclides Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Gross Alpha	2011	0.86	0.86 to 0.86	1	pCi/L	15	0	No	Erosion of natural deposits
Combined Radium	2011	0.5	0.5 to 0.5	1	pCi/L	5	0	No	Erosion of natural deposits

Radionuclides Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Gross Beta Particle Activity	2010	1.3	1.3 to 1.3	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	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Barium	2013	0.04	0.04 to 0.04	1	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	2013	0.92	0.92 to 0.92	1	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	2013	0.07	0.07 to 0.07	1	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Unregulated or Secondary Contaminants**

**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.

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	Secondary Standard
Total Dissolved Solids	2011	226	226 to 226	1	ppm	500

Violations, Significant Deficiencies, and Formal Enforcement Actions

Violations

Name	Category	Time Period	Health Effects	Compliance Value	TT Level or MCL
COLIFORM (TCR)	MCL (TCR), ACUTE - MCL	10/01/2013 - 10/31/2013	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.	0 N/A	N/A

Additional Violation Information

Note: If any violation relates to failing to install adequate filtration or disinfection equipment or processes, or have had a failure of such equipment or processes then the water may be inadequately treated. Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Explanation of the violation(s) and the steps taken to resolve them:

On October 11th, 2013 at approximately 5pm the City of Lafayette received a positive sample of e.coli from one testing station. The affected areas were Indian Peaks Filing 1, 2, 3, 4, 5, 6, 7, 10 & 11. The sample warranted a Tier I boil notice and door to door notices went out to this area on the same night. Public Works crew flushed the affected area and the boil notice was rescinded by Colorado Department of Public Health within 24 hours.

The cause was attributed to the heavy rains in September and a submerged irrigation backflow which has since been corrected. Additional sampling was conducted in this area and tests were negative for harmful bacteria