2012 WATER QUALITY REPORT Public Water System ID CO0107473



Prior to 1920, most of Lafayette's drinking water was provided by wells. The development of our drinking water utility has provided benefits beyond the convenience of indoor plumbing. It improves public health by providing a reliable source of clean water, provides fire protection, and opens the door to economic and residential growth. Without a safe and sustainable water supply, our community cannot thrive. Try to imagine a day without water.

Existe una versión en español de este informe disponible en www. cityoflafayette.com. También puede solicitarla por teléfono al 303-665-5588 o por correo electrónico a jennyc@cityoflafayette.com.



Community Comments

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 at City Hall in the City Council Chambers at 1290 S. Public Rd., Lafayette, CO 80026.

You may refer to the City's website for changes in the meeting schedule at www.cityoflafayette.com.

Please contact Mark Hartman at 303-494-9503 to learn more about what you can do to help protect your drinking water sources, questions about the Water Quality Report, or to learn more about our system.



The CDPHE is working to provide all public drinking water systems in Colorado with a Source Water Assessment Report (SWAP). <u>This report identifies potential sources</u> of contamination in our watershed area. <u>This does not mean contamination has or will</u> occur, but it helps us to evaluate our water treatment capabilities and to prepare for possible contamination threats.

The state health department has completed a source water assessment of the potential for contaminants reaching any of Lafayette's water storage reservoirs; Baseline Reservoir and Goose Haven #1 and #2. The potential sources of contamination that may exist are: Land uses; Commercial, Industiral, Transportation, High and Low Intensity Residential and Urban Recreational Grasses, Farming activities, and Forests. Other types of potential contamination include: Septic Systems, Oil and Gas Wells and Road Miles.

You may read the report online at http://www.cdphe.state.co.us/wq/sw/swapreports. html; clicking on Boulder County and selecting 107473; Lafayette City of. For general information about Source Water Assessment please visit http://www.cdphe. state.co.us/wq/sw/swaphom.html



Goosehaven Reservoir

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 of ditches into the Baseline, Waneka, and Goosehaven reservoirs.

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, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, pets, and wildlife.
- **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 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 occurring 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 Colorado Department of Public Health and Environment (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.

Lead is not found in our treated water; however, lead levels at your home may be higher than other homes in the community because of the components of your home's plumbing. Lead in drinking water can cause health problems especially in infants and young children. If you are concerned about elevated lead levels in your home, flush 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

Terms and Abbreviations Used in This Report

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.
Number of Samples: The number or count of values.
ppm (Parts per Million) / ppb (Parts per Billion)
pCi/L (Picocuries per liter) = a measure of the radioactivity in water
NTU (Nephelometric Turbidity Unit) = measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
AL (Action Level) = the concentration of a contaminant at which treat- ment or other requirements are triggered.
TT (Treatment Technique) = a required process intended to reduce the level of a contaminant.
MCLG (Maximum Contaminant Level Goal) = below this level, there is no known or expected risk to health from a contaminant.
MCL (Maximum Contaminant Level) = the highest level of a contami- nant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
N/A = Not Applicable

Water Quality Data

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, 2011 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, that means that City of Lafayette did not detect any contaminants in the last round of monitoring.

Microorganism Contaminants Sampled in the Distribution System

Contaminant Name	Monitoring Period	Results	Number of Samples	MCL	MCLG	MCL Violation?	Typical Sources
COLOFORM (TCR)	08/01/2011	1	36	No More than 1 Positive	0	No	Naturally present in the
	to	Positive Sample(s)		Sample Per Period			enviorment
	08/31/2011						

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
COOPER	01/01/2011	0.028	33	ppm	1.3	0	Corrosion of household plumbing systems; Erosion
	12/31/2013						
LEAD	01/01/2011	2	33	ppb	15	0	Corrosion of household plumbing systems; Erosion
	to						of natural deposit
	12/31/2013						

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
TOTAL HALOACETIC ACIDS (HAA5)	2011	27.381	19.5 - 34.7	16	ppb	60	N/A	No	By-p	oroduct of drinking water disinfection.
ТТНМ	2011	55.838	30.1 - 93.3	16	ppb	80	N/A	No	By-product of drinking water disinfection.	
	Turbidity Sampled at the Entry Point to the Distribution System									
Contaminant Name	Contaminant Name Sample Date Level Found				TT F	Require	ment	TT Vio	lation?	Typical Sources
TURBIDITY	Date: Highest single measureme 0.17 NTU		nent:	ent: Maximum 1 NTU for any single measurement			jle N	0	Soil Runoff	
TURBIDITY	Month: Lowest monthly percentage of samples December, 2011 Trequirement for our technology: 100%			In any month, at least 95% of samples must be less than 0.3 NTU			of N NTU	0	Soil Runoff	

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
CARBON, TOTAL	2011	1.577	0.926 - 2.785	12	Ratio	The TT Minimum Level is a Ratio of 1	No	Naturally present in the environment

Regulated Contaminants Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Average of Individual Samples	Range of Individual Samples (Lowest - Hightes)	Number of Samples	Unit of Measure	MCL	MCLG	MCL Violation?	Typical Sources
BARIUM	2011	0.041	0.041 - 0.041	1	ppm	2	2	No	Discharge of drilling wastes; Discharge from
									metal refineries; Erosion of natural deposits.
FLOURIDE	2011	0.84	0.84 - 0.84	1	ppm	4	4	No	Erosion of natural deposits; Water additive that
									promotes strong teeth; Discharge from fertilizer
									and aluminum factories.
NITRATE	2011	0.051	0.051 - 0.051	1	ppm	10	10	No	Runoff from fertilizer use; Leaching from septic
									tanks, sewage; Erosion of natural deposits.

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 (-226 & -228)	2011	0.5	0.5 - 0.5	1	pCi/L	5	0	No	Erosion of natural deposits.	
COMBINED URANIUM	2011	1.1	1.1 - 1.1	1	ppb	30	0	No	Erosion of natural deposits.	
GROSS, ALPHA, EXCL. RADON & U	2011	0.86	0.86 - 0.86	1	pCi/L	15	0	No	Erosion of natural deposits.	
GROSS BETA PARTICLE ACTIVITY*	2010	1.3	1.3 - 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 50pCi/L to be the level of concern for GrossBeta Particle Activity.										

Secondary Contaminants**										
Contaminant Name	Secondary Standard									
SODIUM	2011	28	28 - 28	1	ppm	N/A				
TDS	2011	226	226 - 226	1	ppm	500				
**Secondary standards ar	**Secondary standards are non-enforceable quidelines for contaminants that may cause cosmetic effects (such as skin of 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.

Water Conservation

The City of Lafayette has partnered with the Center of ReSource Conservation (CRC) to offer water conservation programs. Programs include xeriscape seminars, irrigation sprinkler audits, and indoor water audits. The audits analyze your indoor water use and irrigation systems and give you recommendations for how to save water.

To sign up for any of these programs call 303-999-3820 x 217 or visit their website at www.conservationcenter.org to learn more.

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2012 Water Quality Report



Permit #22