



Water Quality Report 2019

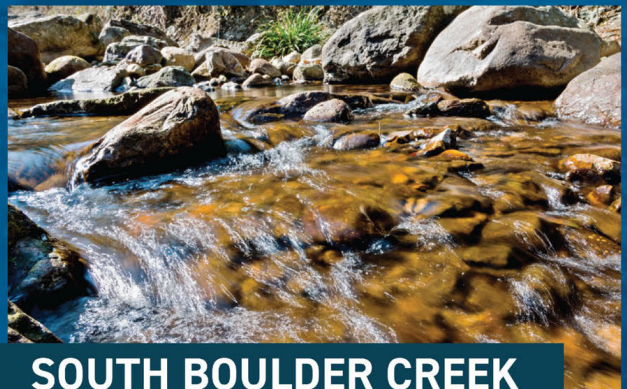
Esta es información importante. Si no la pueden leer, necesitan que alguien se la traduzca.

Public Water System ID: CO0107487

Our Water Sources



CARTER LAKE
(SURFACE WATER-INTAKE)



SOUTH BOULDER CREEK
(SURFACE WATER-INTAKE)

CITY OF LOUISVILLE 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, 2019 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.

The City of Louisville is pleased to present to you this year's water quality report.

Our constant goal is to provide you with a safe and dependable supply of drinking water. Please contact CORY PETERSON at 303-335-4610 with any questions or for public participation. For more information visit LouisvilleCO.gov/Water.

General Information

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. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791) or by visiting epa.gov/ground-water-and-drinking-water.

Some people may be more vulnerable to contaminants in drinking water than the general population. 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 of infections. These people should seek advice about drinking water from their health care providers. For 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).

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: viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants: salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides: may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
- Radioactive contaminants: can be naturally occurring or be the result of oil and gas production and mining activities.
- 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.



New HZ/MZ Pump Station

In order to ensure that tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations limiting 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.

Lead in 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 (1-800-426-4791) or at epa.gov/safewater/lead.

Source Water Assessment and Protection (SWAP)

The Colorado Department of Public Health and Environment may have provided us with a Source Water Assessment Report for our water supply. For general information or to obtain a copy

of the report please visit wqcdcompliance.com/ccr. The report is located under "Guidance: Source Water Assessment Reports". Search the table using 107487, LOUISVILLE CITY OF, or by contacting CORY PETERSON at 303-335-4610. 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. The City 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 us if you have any questions about the Drinking Water Quality Report or to learn more about our system and what you can do to help protect your drinking water sources.

Potential Source(s) of Contamination

EPA Superfund Sites, EPA Hazardous Waste Generators, EPA Chemical Inventory/Storage Sites, EPA Toxic Release Inventory Sites, Permitted Wastewater Discharge Sites, Aboveground, Underground and Leaking Storage Tank Sites, Solid Waste Sites, Existing/Abandoned Mine Sites, Other Facilities, Commercial/Industrial/Transportation, Low Intensity Residential, Urban Recreational Grasses, Row Crops, Fallow, Small Grains, Pasture / Hay, Deciduous Forest, Evergreen Forest, Mixed Forest, Septic Systems, Oil / Gas Wells, Road Miles.

Detected Contaminants

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. Some parameters are not required to be tested on an annual basis.

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 <i>OR</i> 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						
Disinfectant Name	Time Period	Results	Number of Samples Below Level	Sample Size	TT Violation	MRDL
Chlorine	December 2019	Lowest period percentage of samples meeting TT requirement: 100%	0	23	No	4.0 ppm

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
Lead	03/16/2019 to 06/20/2019	1.1	62	ppb	15	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	03/16/2019 to 06/20/2019	0.03	62	ppm	1.3	0	No	
Lead	07/27/2019 to 12/31/2019	1.1	63	ppb	15	1	No	
Copper	07/27/2019 to 12/31/2019	0.03	63	ppm	1.3	0	No	

Disinfection Byproducts Sampled in the Distribution System								
Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation
Total Haloacetic Acids (HAA5)	2019	15.94	8.3 to 25.4	16	ppb	60	N/A	No
Total Trihalomethanes (TTHM)	2019	38.1	17.1 to 57.3	16	ppb	80	N/A	No
Chlorite	2019	0.18	0.1 to 0.25	12	ppb	1.0	0.8	No

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	2019	1.29	1.02 to 1.67	8	Ratio	1.00	No	Naturally present in the environment
*If minimum ratio not met and no violation identified then the system achieved compliance using alternative criteria.								

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: 0.251 NTU	Maximum 1 NTU for any single measurement	No	Soil Runoff
Turbidity	Month: Dec	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	

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	2017	0.35	0.3 to 0.4	2	pCi/L	15	0	No	Erosion of natural deposits
Combined Radium	2017	0.8	0.6 to 1	2	pCi/L	5	0	No	

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	2019	0.03	0.02 to 0.03	2	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	2019	0.65	0.55 to 0.7	7	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	2019	0.05	0 to 0.1	2	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Violations, Significant Deficiencies, and Formal Enforcement Actions

Health-Based Violations					
Name	Description	Time Period	Health Effects	Compliance Value	TT Level or MCL
CROSS CONNECTION RULE	FAILURE TO MEET CROSS CONNECTION CONTROL AND/OR BACKFLOW PREVENTION REQUIREMENTS - M617 (Failed Assembly)	12/20/2019 - 01/10/2020	The City had an inadequate backflow prevention and cross-connection control program. Uncontrolled cross connections could have led to inadvertent contamination of the drinking water. This was due to the following: the City failed to comply with the requirements for surveying our system for cross connections, AND/OR failed to complete the testing requirements for backflow prevention devices or methods.	N/A	N/A
CROSS CONNECTION RULE	FAILURE TO MEET CROSS CONNECTION CONTROL AND/OR BACKFLOW PREVENTION REQUIREMENTS - M614 (Testing Ratio)	12/20/2019 - 01/10/2020		N/A	N/A
CROSS CONNECTION RULE	FAILURE TO MEET CROSS CONNECTION CONTROL AND/OR BACKFLOW PREVENTION REQUIREMENTS - M612 (Surveys)	12/20/2019 - 01/10/2020		N/A	N/A
Additional Violation Information: All failures from 2016-2018 identified during the 2019 inspection provided on 12/20/19 have been resolved as of 1/17/2020 and the City is in fully compliance for 2019. All failed assemblies identified during the inspection have been repaired and tested as of 1/17/2020 (M617); the City has met the testing ratio for 2019 and issued the required public notice as of 1/17/2020 (M614); the City has met the survey ratio for 2019 and issued the required public notice as of 1/17/2020 (M612).					

Non-Health-Based Violations		
These violations do not usually mean that there was a problem with the water quality. If there had been, the City would have notified you immediately. The City did not complete a report/notice by the required date.		
Name	Description	Time Period
Cross Connection Rule	Failure to meet cross connection control and/or backflow prevention requirements - M610 (inadequate BPPCC program)	12/20/2019 - 01/10/2020
Additional Violation Information: The City has improved its system processes for the monitoring and management of the BPPCC Program and implemented a new database to ensure future compliance as of 1/17/2020. Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.		

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
Sodium	2019	13.45	11.9 to 15	2	ppm	N/A

Unregulated Contaminants***					
EPA has implemented the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act. EPA uses the results of UCMR monitoring to learn about the occurrence of unregulated contaminants in drinking water and to decide whether or not these contaminants will be regulated in the future. The City performed monitoring and reported the analytical results of the monitoring to EPA in accordance with its Unregulated Contaminant Monitoring Rule (UCMR). Once EPA reviews the submitted results, the results are made available in the EPA's National Contaminant Occurrence Database (NCOD) (epa.gov/dwucmr/national-contaminant-occurrence-database-ncod) Consumers can review UCMR results by accessing the NCOD. Contaminants that were detected during our UCMR sampling and the corresponding analytical results are provided below.					
Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure
1-butanol	2018	0	N/A	7	ug/L
2-methoxyethanol	2018	0	N/A	7	ug/L
2-propen-1-ol	2018	0	N/A	7	ug/L
Alpha-hexachlorocyclohexane	2018	0	N/A	7	ug/L
Butylated hydroxyanisole	2018	0	N/A	6	ug/L
Chlorpyrifos	2018	0	N/A	7	ug/L
Dimethipin	2018	0	N/A	7	ug/L
Ethoprop	2018	0	N/A	7	ug/L
Germanium	2018	0	N/A	7	ug/L
HAA5	2018	21.913	11.050 – 31.200	23	ug/L
HAA6Br	2018	2.703	1.823 – 3.822	23	ug/L
HAA9	2018	24.575	13.860 – 34.500	23	ug/L
Manganese	2018	12.922	0.435 – 82.7	7	ug/L
O-toluidine	2018	0	N/A	6	ug/L
Oxyfluorfen	2018	0	N/A	7	ug/L
Profenofos	2018	0	N/A	7	ug/L
Quinoline	2018	0	N/A	6	ug/L
Tebuconazole	2018	0	N/A	7	ug/L
Total permethrin	2018	0	N/A	7	ug/L
Tribufos	2018	0	N/A	7	ug/L
***More information about the contaminants that were included in UCMR monitoring can be found at: drinktap.org/Water-Info/Whats-in-My-Water/Unregulated-Contaminant-Monitoring-Rule-UCMR . Learn more about the EPA UCMR at: epa.gov/dwucmr/learn-about-unregulated-contaminant-monitoring-rule or contact the Safe Drinking Water Hotline at (800) 426-4791 or epa.gov/ground-water-and-drinking-water .					

Terms and Abbreviations

Maximum Contaminant Level (MCL) – The highest level of a contaminant allowed in drinking water.

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

Health-Based – A violation of either a MCL or TT.

Non-Health-Based – A violation that is not a MCL or TT.

Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.

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

Violation (No Abbreviation) – Failure to meet a Colorado Primary Drinking Water Regulation.

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.

Variance and Exemptions (V/E) – Department permission not to meet a MCL or treatment technique under certain conditions.

Gross Alpha (No Abbreviation) – Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium.

Picocuries per liter (pCi/L) – Measure of the radioactivity in water.

Nephelometric Turbidity Unit (NTU) – Measure of the clarity or cloudiness of water. Turbidity in excess of 5 NTU is just noticeable to the typical person.

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 Annual Average (LRAA).

Average (x-bar) – Typical value.

Range (R) – Lowest value to the highest value.

Sample Size (n) – Number or count of values (i.e. number of water samples collected).

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.

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.

Not Applicable (N/A) – Does not apply or not available.

Level 1 Assessment – A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment – A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.