LYONS TOWN OF 2019 Drinking Water Quality Report
For Calendar Year 2018

Public Water System ID: CO0107496

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

We are 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 VICTORIA SIMONSEN at 303-823-6622 with any questions or for public participation opportunities that may affect water quality.

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 http://water.epa.gov/drink/contaminants.

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.

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 http://www.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 www.colorado.gov/cdphe/ccr. The report is located under "Guidance: Source Water Assessment Reports". Search the table using 107496, LYONS TOWN OF, or by contacting VICTORIA SIMONSEN at 303-823-6622. 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. Potential sources of contamination in our source water area are listed on the next page.

Please contact us to learn more about what you can do to help protect your drinking water sources, any questions about the Drinking Water Quality Report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

Our Water Sources

Sources (Water Type - Source Type)	Potential Source(s) of Contamination
PURCHASED WATER FROM LONGMONT (Surface Water-Consecutive Connection)	EPA Hazardous Waste Generators, EPA Chemical Inventory/Storage Sites, Permitted Wastewater Discharge Sites, Aboveground, Underground and Leaking Storage Tank Sites, Existing/Abandoned Mine Sites, Other Facilities, Commercial/Industrial/Transportation, Low Intensity Residential, Row Crops, Fallow, Pasture / Hay, Deciduous Forest, Evergreen Forest, Septic Systems, Road Miles

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 an MCL or TT.
- **Non-Health-Based** − A violation that is not an 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 an 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.
- **LRAA = Locational Running Annual Average** − The average of analytical results for samples taken at a specific monitoring location during the previous four calendar quarters.

Detected Contaminants

LYONS TOWN OF 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, 2018 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.

Microbiological Contaminants

Contaminant Name	# of Samples	MCL	MCLG	Unit	Result	Probable Source of Contamination
Total Coliform Bacteria*	30#	1 positive monthly sample (systems that collect <40 samples/month)	0% Present	Absent or Present	All Samples were Absent	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.
E. coli Bacteria*	30#	0% Present	0% Present	Absent or Present	All Samples were Absent	Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes.

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

Disinfectant Name	Time Period	Results	Number of Samples Below Level	Sample Size	TT Violation	MRDL
Chlorine	December, 2018	Lowest period percentage of samples meeting TT requirement: 100%	0	2	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
Copper	08/14/2018 to 09/28/2018	0.06	10	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	08/14/2018 to 09/28/2018	3	10	ppb	15	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfection Byproducts Sampled in the Distribution System										
Name	**Year**	**Average**	**Range Low – High**	**Highest LRAA** (Locational Running Annual Average)	**Sample Size**	**Unit of Measure**	**MCL**	**MCLG**	**MCL Violation**	**Typical Sources**
Total Haloacetic Acids (HAA5)	2018	22.05	17.6 to 30.1	30.1	4	ppb	60	N/A	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2018	48.52	42.1 to 53.6	53.6	4	ppb	80	N/A	No	Byproduct of drinking water disinfection

City of Longmont Drinking Water Quality Report
For Calendar Year 2018

We purchased all our water from the City of Longmont and have included Longmont's test results from their water quality report. The following table shows the most recent test results for contaminants that were detected in Longmont's drinking water at the entry point to the distribution system and have limits set by EPA and CDPHE regulations. Possible sources of the contaminants are noted in the last column. These are not necessarily the source of contaminant in Longmont's water.

Total Organic Carbon (Disinfection Byproducts Precursor) Removal Ratio of Raw and Finished Water						
Contaminant Name	**Year**	**Average**	**Range Low – High**	**TT**	**TT Violation**	**Typical Sources**
Total Organic Carbon (TOC)	2018	Source Water: 3.30 ppm Treated Water: 1.37 ppm	Source Water: 2.30 to 4.12 ppm Treated Water: 1.10 to 1.90 ppm	There is no MCL for TOC. TOC is a measure of the effectiveness of a treatment technique used by the water treatment plant to remove organic material.	No	Naturally present in the environment

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	2012	0.6	0.6 to 0.6	1	pCi/L	15	0	No	Erosion of natural deposits
Combined Radium	2012	0.2	0.2 to 0.2	1	pCi/L	5	0	No	Erosion of natural deposits

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	2012	0.01	0.01 to 0.01	1	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	2012	0.68	0.68 to 0.68	1	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	2018	0.11 ppm	0.11 ppm	1	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Organics 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**
Di(2-ethylhexyl) phthalate[1]	2018	Average of Detected Results: 0.62 ppb	Not Detected to 0.62 ppb	2	ppb	6.0 ppb (Action level 0.6 ppb)	0	No	Sampling or testing procedures. Discharge from rubber and chemical factories

Unregulated Contaminants Monitoring Rule (UCMR)[2] Sampled at the Entry Point to the Distribution System								
Contaminant Name	**Year**	**Average**	**Range Low – High**	**Sample Size**	**Unit of Measure**	**Note**	**MCL Violation**	**Typical Sources**
Manganese	2018	2.5 ppb	0.93 to 3.6 ppb	2	ppb	At this time, the recommended health reference concentration is 300 ppb. The aesthetic (non-health based) recommended concentration is 50 ppb.	No	Naturally present in the environment and essential nutrient used in fertilizer, steel production, batteries, fireworks and in drinking water and wastewater treatment plants.

Footnotes

[1] Di(2-ethylhexyl)phthalate was detected but below the MCL of 6 ppb; the action required is quarterly monitoring.

[2]Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether the Agency should consider regulating those contaminants in the future. In 2018 Longmont participated in the fourth round of unregulated contaminant monitoring as prescribed by EPA. This table lists the contaminants with detected results. More information about UCMR is available on the EPA website at https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule and https://www.epa.gov/dwucmr/occurrence-data-unregulated-contaminant-monitoring-rule.

Violations, Significant Deficiencies, Backflow/Cross-Connection, and Formal Enforcement Actions

Violations					
Name	**Category**	**Time Period**	**Health Effects**	**Compliance Value**	**TT Level or MCL**
STORAGE TANK RULE	FAILURE TO MEET STORAGE TANK REQUIREMENTS - HEALTH-BASED - F334	11/30/2018 - Open	May pose a risk to public health.	N/A	N/A
CROSS CONNECTION RULE	FAILURE TO MEET CROSS CONNECTION/BACKFLOW REQUIREMENTS - NON-HEALTH-BASED - M610	11/30/2018 - Open	N/A	N/A	N/A
CROSS CONNECTION RULE	FAILURE TO MEET CROSS CONNECTION/BACKFLOW REQUIREMENTS - HEALTH-BASED - M615	11/30/2018 - Open	May pose a risk to public health.	N/A	N/A
CROSS CONNECTION RULE	FAILURE TO MEET CROSS CONNECTION/BACKFLOW REQUIREMENTS - HEALTH-BASED - M614	11/30/2018 - Open	May pose a risk to public health.	N/A	N/A
CROSS CONNECTION RULE	FAILURE TO MEET CROSS CONNECTION/BACKFLOW REQUIREMENTS - HEALTH-BASED - M612	11/30/2018 - Open	May pose a risk to public health.	N/A	N/A

Additional Violation Information

*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. *

Explanation of the violation(s), the steps taken to resolve them, and the anticipated resolved date:

FAILURE TO MEET STORAGE TANK REQUIREMENTS - HEALTH-BASED - F334 – The Town has Developed and implemented a Storage Tank Inspection Plan. The plan was uploaded to the State's Drinking Water Portal on February 28, 2019.

CROSS CONNECTION RULE FAILURE TO MEET CROSS CONNECTION/BACKFLOW REQUIREMENTS - NON-HEALTH-BASED - M610, M612, M614, AND M615 – On November 14, 2018, a representative with the Colorado Department of Public Health and Environment conducting a Sanitary Survey of the Town of Lyons. At that time, deficiencies with the Town of Lyons Backflow and Cross Connection Control Program were identified. The deficiencies identified were specifically non-compliance with regulations (M615) Backflow Method Inspection Compliance Ratio, (M614) Backflow Assembly Testing Compliance Ratio, (M612) Inadequate Survey Compliance Ratio and (M610) Backflow Prevention and Cross-Connection Control Program.

Immediately after the survey meeting was complete the Town proceeded to rectify these issues. Through an educational campaign and some compliance actions, we were able to reach compliance with the required method inspection, assembly testing and survey compliance ratios as required by CDPHE. We also made available the Town of Lyons Backflow Prevention and Cross-Connection Control Program document, as required in the survey. We have corresponded with CDPHE in recent months and believe we have rectified all survey identified issues and will continue to make the necessary steps to maintain compliance with all CDPHE Regulation 11 standards.

Backflow and Cross-Connection
We have an inadequate backflow prevention and cross-connection control program. Uncontrolled cross connections can lead to inadvertent contamination of the drinking water.
We either have installed or permitted an uncontrolled cross-connection or we experienced a backflow contamination event.