

CITY OF LYONS
2019 WATER QUALITY REPORT
Georgia Water System ID #: GA2790000

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Summary of Water Quality Information

The **City of Lyons** drinking water system is owned and operated by the **City of Lyons**. The facility office is located at 161 Northeast Broad Street in Lyons, Georgia. If there are ever any comments or inquiries to be made, please feel free to visit City Hall or contact Jason Hall, City Manager, by phone during regular working hours.

Included in this report is information about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. The **City of Lyons** is committed to providing your community with clean, safe, and reliable drinking water for everyone. For more information about your water or this report please contact Jason Hall. **A copy of this report is available upon request at City Hall or may be viewed at www.lyonsga.org.**

Your water comes from four (4) community *groundwater* wells. These wells derive water from the confined Coastal Plain aquifer to provide ample volumes of water for your community. **Well 101** is located at the intersection of Northwest Broad Street and Nellie Rose Street, **Well 103** is located on Jefferson Street, **Well 104** is located on Lyons Center Road near Toombs County High School, and **Well 105** is located at Industrial Park, northwest of the intersection of US 1 and State Road 130 in Lyons, Georgia. Treatment is performed at the wells to include removal of contaminants, the addition of chlorine disinfection, and the addition of fluoride. These properties are protected from activities which could potentially cause contamination of this water source through the implementation of a **Wellhead Protection Plan (WHPP)**.

A **WHPP** identifies sources of pollution which could potentially contaminate the water supply. The Georgia Department of Natural Resources Environmental Protection Division has issued a **WHPP** for the **City of Lyons**. There are no cited potential pollution sources for any of the wells within the control zone, a radius of fifteen (15) feet. Cited potential pollution sources for in the management zone (100-foot sector) include electrical transformers, utility poles, vehicle parking, fuel storage, access and secondary roads, storage yard for the **City of Lyons**, and storm water run-off potentially containing volatile organic compounds from parking areas and/or pesticides and herbicides from lawns. **This report is available upon request at the facility office.**

The **City of Lyons** water system is tested for more than eighty (80) drinking water parameters on a periodic basis determined by the Georgia Department of Natural Resources Environmental Protection Division Drinking Water Program and/or the United States Environmental Protection Agency. Sample/testing schedules are based on initial contaminant level assessments and can be changed by EPD if deemed necessary. EPD may also issue waivers for the analysis of any of the mentioned compounds if analytical data shows that the distributed drinking water in this area is not vulnerable to contamination from these chemicals. Generally, samples are collected in **City of Lyons** for analysis of inorganic compounds, volatile organic compounds, synthetic organic compounds, and lead and copper once in a three (3) year cycle. Samples are analyzed yearly for nitrate-nitrites, total trihalomethanes, and haloacetic acids. Monitoring for the presence of bacteriological content throughout the system is performed monthly.

During 2019, the **City of Lyons** water system was sampled for the analyses of bacteriological content, nitrate-nitrite, total trihalomethanes, haloacetic acids, inorganic compounds, volatile organic compounds, lead and copper. **All detected contaminants are delineated in the accompanying charts. Any constituents not listed in the accompanying charts had results less than the detection limits and/or maximum contaminant levels.**

We regret to inform you that the **City of Lyons** water system has been issued a failure to monitor violation beginning 10/1/2019. We failed to submit enough samples to successfully complete the most recent lead and copper monitoring event. Because of this failure health effects are unknown, and we cannot be sure of the quality of our drinking water during this period. The **City of Lyons** did submit fifteen (15) of the twenty (20) required sample for the analysis of lead and copper. These samples were taken from representative locations throughout your community. While NO sample site exceeded the action level for lead or copper, detectable levels of these contaminants were found in at least one sample. This indicates the presence of some service lines containing lead and/or copper.

The **City of Lyons** will collect twenty (20) samples during the 2020 calendar year and will continue to monitor the sites triennially, as scheduled, to correct this violation.

Lead and copper are metals naturally found throughout the environment in soil and water. These metals can also be found in lead, copper, or brass household plumbing pipes and fixtures. Even consumer products such as paints, pottery, and pewter can contain lead and/or copper. Corrosion or deterioration of lead or copper-based materials, as well as erosion of natural deposits can release these metals into the drinking water.

Infants and children who drink water containing lead in the excess of the action level could experience delays in their physical or mental development. Children could show slight defects in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Copper is an essential nutrient, but some people who drink water containing copper exceeding the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper greater than the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

*If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The **City of Lyons** is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. **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.** If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.*

The following measures may also be taken to minimize exposure to lead and/or copper:

- Use cold water for drinking or cooking.
- Do not cook with or consume water from the hot water faucet.
- Do not use hot water for making baby formula.
- Use only “lead-free” solder, fluxes and materials in new household plumbing and repairs.

Drinking water, including bottled water, may be expected to contain at least small amounts of contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. **More information about contaminants and potential health effects can be obtained by calling the EPA’s Safe Drinking Water Hotline.**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 from infections. These people should seek advice about drinking water from their health care providers. **EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 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 the following:

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

- **Organic chemical contaminants** including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.
- **Radioactive contaminants** 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The **City of Lyons** strives to maintain the highest standards of performance and quality possible. In order to maintain a safe and dependable water supply, improvements that benefit the community must be made. Please help keep these costs as low as possible by utilizing good water conservation practices.

DEFINITION OF TERMS AND ABBREVIATIONS USED IN THIS REPORT

Maximum Contaminant Level (MCL): *“The highest level of a contaminant that is allowed in drinking water. MCL’s are set as close to the MCLG 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. MCLG’s allow for a margin of safety.”*

Action Level (AL): *“The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.”*

Secondary Maximum Contaminant Level (SMCL): Reasonable goals for drinking water quality. Exceeding SMCL’s may adversely affect odor or appearance, but there is no known risk to human health.

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

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 microbiological contaminants.”*

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.”*

Not Detected (ND): By regulation, this substance or group of substances was tested for in our finished tap water; however, none was detected at the testing limit.

TTHMs (Total Trihalomethanes): One or more of the organic compounds chloroform, bromodichloromethane, chlorodibromomethane, and/or bromoform.

HAA5s (Haloacetic Acids): One or more of the organic compounds monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid.

NA: Not applicable to this contaminant

ppb or ug/l: parts per billion or micrograms per liter

ppm or mg/l: parts per million or milligrams per liter

pCi/l: picocuries per liter, a measurement of radiation

**CITY OF LYONS WATER SYSTEM
2019 WATER QUALITY DATA
WSID: GA2790000**

The table below lists all the drinking water contaminants that have been detected in your drinking water. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The data presented in this table is from testing done during the year noted. The Federal Environmental Protection Agency (EPA) and the Georgia Department of Natural Resources Environmental Protection Division (EPD) require monitoring for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year.

DETECTED INORGANIC CONTAMINANTS TABLE								
Parameter	Units	MCL [SMCL]	MCLG	City of Lyons Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Barium	ppm	2	2	0.20	0.11 to 0.20	2019	No	Erosion of natural deposits
Chlorine	ppm	4	4	0.91	0.91 to 0.91	2019	No	Water additive used for control of microbes
Fluoride	ppm	4 [2]	4	0.79	0.69 to 0.79	2019	No	Erosion of natural deposits; water additive promotes strong teeth

DETECTED ORGANIC CONTAMINANTS TABLE								
Parameter	Units	MCL	MCLG	City of Lyons Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Haloacetic Acids	ppb	60	**	0	NA	2019	No	By product of drinking water disinfection
TTHMs	ppb	80	**	2	NA	2019	No	By product of drinking water disinfection

DETECTED UNREGULATED CONTAMINANTS TABLE								
Parameter	Units	MCL [SMCL]	MCLG	City of Lyons Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Iron	ppm	[0.3]	**	0.082	0.061 to 0.082	2019	No	Erosion of natural deposits
Manganese	ppm	[0.05]	**	0.038	NA	2019	No	Erosion of natural deposits
Sodium	ppm	**	**	11	9.8 to 11	2019	No	Erosion of natural deposits

LEAD AND COPPER MONITORING RESULTS								
Parameter	Units	Action Level	MCLG	City of Lyons 90th Percentile	# of sample sites above Action Level	Sample Date	Violation No/Yes	Typical Source of Contaminant
Lead	ppb	15	0	1.6	0	2019	No ¹	Corrosion of household plumbing
Copper	ppm	1.3	1.3	0.112	0	2019	No ¹	Corrosion of household plumbing

MICROBIOLOGICAL MONITORING RESULTS								
Parameter	Units	MCL	MCLG	City of Lyons # of Positive Samples	Positive Sample Date (Month)	Sample Year	Violation No/Yes	Typical Source of Contaminant
Total Coliform	Present/ Absent	1*	0	1	September	2019	No	Naturally present in the environment
E. coli		0	0	0	NA	2019	No	Human and animal fecal waste

RADIONUCLIDES TABLE								
Parameter	Units	MCL	MCLG	City of Lyons Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Alpha emitters	pCi/L	15	0	ND	NA	2016	No	Erosion of natural deposits
Combined Radium 226/228	pCi/L	5	0	ND	NA	2016	No	Erosion of natural deposits

Parameters, values, and or sources may vary

*Total Coliform Rule MCL= 1 positive sample for systems that collect < 40 samples a month

** No established MCL, SMCL or MCLG

¹Failure to monitor violation, see Water Quality Report Summary