CITY OF LYONS
2016 WATER QUALITY REPORT
Georgia Water System ID #: GA2790000

Water System Contact:		**Phone Number:**
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Summary of Water Quality Information

The **City of Lyons** drinking water system is owned by the **City of Lyons** 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 the City Hall or contact Jason Hall, City Manager, by phone at 912-526-3626 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 at 912-526-362. **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 each of which is more than 300 feet deep. The water source is a confined Coastal Plain aquifer and provides ample volumes of water for your community. **Well 101** is located on Northwest Broad Street, **Well 103** is located on Southwest Broad Street, **Well 104** is located on Center Road, and **Well 105** is located northwest of the intersection of US 1 and State Road 130 in Lyons, Georgia. These properties are protected from activities which could potentially cause contamination of this water source. Treatment is performed at the wells to include removal of contaminants, the addition of chlorine disinfection, and the addition of fluoride.

A ***Wellhead Protection Plan*** has been completed by the Georgia Department of Natural Resources Environmental Protection Division for this facility. This is a report in which the Georgia Department of Natural Resources Environmental Protection Division identifies any types of pollution to which your water supply could be vulnerable and includes information regarding potential sources of contamination in your watershed. There are no cited potential pollution sources for any of the wells within the control zone in a radius of fifteen (15) feet.

Cited potential pollution sources for **Well 101** in the 100-foot management zone 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. Cited potential pollution sources for **Well 103** in the 100-foot management zone include electrical transformers, utility poles, access and secondary roads, vehicle parking, and storm water run-off potentially containing volatile organic compounds from parking areas and/or pesticides and herbicides from lawns. There are no cited potential pollution sources for **Well 104** or **Well 105** in the 100-foot management zone. **This report is available upon request at the facility office.**

The **City of Lyons** conducts laboratory tests 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. Generally, samples are collected in **City of Lyons** for analysis of inorganic compounds, volatile organic compounds, and lead and copper once in a three (3) year cycle whereas nitrates are sampled once a year. The State collects and analyzes samples for synthetic organic compounds once in a three (3) year cycle. Waivers may be issued for the analysis of synthetic organic compounds, cyanide, arsenic and/or asbestos because studies show that the distributed drinking water in this area is not vulnerable to contamination from these chemicals. **The City of Lyons has received a waiver for analysis for synthetic organic compounds, asbestos, and Cyanide at all entry points through December 31, 2019.** If radiological results during the initial radiological monitoring period were below the detection limit, the sampling

schedule of once every six (6) to nine (9) years may be utilized for radionuclides. On a monthly basis six (6) drinking water samples are collected and analyzed by **Altamaha Laboratories**. These samples are collected throughout the system and rotated among designated sampling sites.

During 2016, samples were collected in the **City of Lyons** for monthly analysis of bacteriological content, annual analysis of nitrate and nitrite content, analysis for radionuclide content, analysis for inorganic and volatile organic compound content, analysis for the presence of Total Trihalomethanes and Haloacetic Acids as well as analysis fot Lead and/or Copper content. **We are proud to inform you that City of Lyons had no violations of water quality parameters during 2016. 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.**

Twenty (20) representative locations have been selected throughout your community where Lead and Copper analyses are conducted on a periodic basis. Even though the **City of Lyons** have had **NO** facilities which exceeded the action level for Lead or Copper, analysis indicates the presence of some service lines containing both Lead and Copper. Lead and Copper may be found in household plumbing fixtures such as service lines, pipes, solders and fluxes as well as brass fixtures. Lead is found throughout the environment in the air, soil, water and household dust as well as in consumer products such as lead based paint, pottery and pewter. Lead and Copper enter drinking water as a result of the corrosion or wearing away of materials containing these metals. Lead can pose a significant risk to your health if too much of it enters your body.

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.*

To minimize exposure to Lead and/or Copper, the following measures may be taken.

- When your water has been sitting for several hours, minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.
- 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 reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. The EPA has established Maximum Contaminant Levels (MCL's) and Maximum Contaminant Level Goals (MCLG's) for potential contaminants. MCL's are the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology. MCLG's are 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. **More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 800-426-4791.**
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, and septic systems.
- ***Radioactive contaminants***, which 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
2016 WATER QUALITY DATA
WSID: GA 2790000

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	LYONS Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Barium	ppm	2	2	0.170	0.12 to 0.17	2016	No	Erosion of natural deposits
Chlorine	ppm	4	4	0.89	0.33 to 1.67	2016	No	Water additive used for control of microbes
Fluoride	ppm	4 [2]	4	0.63	0.23 to 1.2	2016	No	Erosion of natural deposits; promotes strong teeth
Manganese	ppm	[0.05]	**	0.049	0 to 0.049	2016	No	Erosion of natural deposits

DETECTED ORGANIC CONTAMINANTS TABLE

PARAMETER	UNITS	MCL	MCLG	LYONS Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Haloacetic Acids	ppb	60	**	ND	NA	2016	No	By product of drinking water disinfection
TTHMs	ppb	80	**	ND	NA	2016	No	By product of drinking water disinfection

OTHER DETECTED UNREGULATED CONTAMINANTS TABLE

PARAMETER	UNITS	MCL [SMCL]	MCLG	LYONS Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Sodium	ppm	**	**	9.9	9.1 to 9.9	2016	No	Erosion of natural deposits

LEAD AND COPPER MONITORING RESULTS

PARAMETER	UNITS	Action Level	MCLG	LYONS 90th Percentile	# of sample sites above Action Level	Sample Date	Violation No/Yes	Typical Source of Contaminant
Lead	ppb	15	0	1.8	0	2016	**Yes**	Corrosion of household plumbing
Copper	ppm	1.3	1.3	0.13	0	2016	**Yes**	Corrosion of household plumbing

MICROBIOLOGICAL MONITORING RESULTS

BIOLOGICAL PARAMETERS	MCL	MCLG	LYONS Water System Results	PositiveSample Date	Sample Year	Violation No/Yes	Typical Source of Contaminant
Presence or Absence of bacteria in sample	Number of Detections		Number of Detections	(Month/Year)			
Total Coliform	0	0	0	NA	2016	No	Naturally present in the environment
E. coli	0	0	0	NA	2016	No	Human and animal fecal waste

RADIONUCLIDES TABLE

PARAMETER	UNITS	MCL	MCLG	LYONS Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Alpha emitters	pCi/L	15*	0	<3.0	NA	2016	No	Erosion of natural deposits
Radium 226	pCi/L	5*	0	<1.0	NA	2016	No	Erosion of natural deposits
Radium 228	pCi/L	5*	0	<1.0	NA	2016	No	Erosion of natural deposits

* The MCL for alpha emitters is 4 mrem/year. EPA considers 15 pCi/L to be the level of concern for alpha emitters including Radium 226 and/or 5 pCi/L for a combined Radium 226 and Radium 228. FTM = Failure to Monitor NA = Not Applicable *** Parameters, values and/or sources vary.

** No established MCL, SMCL or MCLG M = Monitored through State analysis and facility daily R = Resampled, results below action level or not detected