



**City of Kingsland, Georgia
Annual Water Quality Report
Calendar Year 2022**

The City of Kingsland Drinking Water System is owned and operated by the City of Kingsland. This system is permitted by the State of Georgia Department of Natural Resources Environmental Protection Division (DNR/EPD) **Permit #CG0390000**. The office address is 358 East Colerain Rd., Kingsland, Georgia. If there are ever any comments or inquiries, please feel free to contact **Brian Gaddy at (912) 552-4036**.

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 Kingsland is committed to providing clean, safe, and reliable drinking water for everyone. For more information about your water or this report, please contact Mr. Gaddy at the number provided above.

Your water comes from four (4) community groundwater wells. Wells #1 and #2 are located at Water Treatment Plant #1 on South Grove Blvd. Well #1 is approximately 860 feet deep and Well #2 is approximately 820 feet deep. Well #3 and Well #4 are located at Water Treatment Plant #2 on East Colerain Rd. These wells are approximately 720 feet deep. The water source for these wells is commonly called the **Upper Floridian Aquifer**. The property surrounding these wells is protected from activities that could potentially cause contamination of the water source. Treatment of the water is performed at the well sites including removal of contaminants and sodium hypochlorite disinfection.

The City of Kingsland has a **Wellhead Protection Ordinance** to insure the provision of a safe and sanitary drinking water supply for the city by the establishment of wellhead protection zones surrounding the wellheads for all wells which are the supply sources for the city water system and by the designation and regulation of property uses and conditions which may be maintained within such zones.

The City of Kingsland 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 (EPA). On a daily basis, employees of the city monitor chlorine residuals at all three wells. On a monthly basis, twenty (20) drinking water samples are collected at various locations throughout the city for bacteriological analysis for microbial content. Generally, samples are collected in the City of Kingsland for analysis of inorganic compounds and volatile organic compounds once in every three (3) years whereas nitrates/nitrites and synthetic organic compounds are sampled once a year. A waiver may be issued for synthetic organic compounds, which would extend the sampling frequency to possibly every six (6) years. A waiver may also be issued for Cyanide and Asbestos because studies show that the distributed

drinking water in this area is not vulnerable to contamination from these chemicals. The State collects samples for radionuclide evaluation approximately every five (5) years.

During 2022, in addition to the monthly bacteriological samples, samples were collected for nitrates/nitrites.

We are proud to inform you that the City of Kingsland had only 1 violation of water quality parameters during 2022. All detected contaminants on samples collected during the year are delineated in the accompanying tables. Any constituents not listed in the accompanying tables had results less than the detection limits and/or maximum contaminant levels.

Even though the City of Kingsland had violations unrelated to Lead and Copper, Lead and Copper analyses indicate the presence of some service lines containing these contaminants. Results indicated NO sites sampled contained quantities of Lead and Copper that exceeded the Action Levels for these parameters. To minimize exposure to Lead and/or Copper, the following measures may be taken:

- Flush the cold water faucet until the water becomes as cold as it will get. This removes the water that has stagnated in plumbing over several hours.
- Use cold water for drinking and 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.

Lead and Copper may be found in household plumbing fixtures such as service lines, pipes, solders and fluxes and brass and bronze fixtures. Lead is found throughout the environment in the air, soil, water, and household dust, and in consumer products such as lead based paint, pottery and pewter. Lead and Copper enter drinking water as a result of corrosion or wearing a way of materials containing these metals.

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 Kingsland 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 **EPA's Safe Drinking Water Hotline at 800-426-4791 or at <http://www.epa.gov/safewater/lead>**.

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 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, radiological 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 wastewater treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from the 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 following table lists all the drinking water contaminants that were detected during the 2022 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done From January 1, 2022 through December 31, 2022 The Georgia Department of Natural Resources Environmental Protection Division requires 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.

Terms and Abbreviations

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's 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, when 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.

n/a: 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.

su: Standard Units

pCi/L: Picocuries per liter, a measurement of radiation.

2022 Water Quality Data

The Table below lists all the drinking water contaminants that were detected during the 2022 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done from January 1 through December 31, 2022. The Georgia Department of Natural Resources Environmental Protection Division (EPD) requires monitoring for certain contaminants less than once a year because the concentration of these contaminants are not expected to vary significantly from year to year.

Violation Type	Violation Begin	Violation End	Violation Explanation
CCR ADEQUACY/AVAILABILITY /CONTENT ADEQUACY	10/01/2022	2022	We failed to provide to you, our drinking water customers, an annual report that adequately informed you about the quality of our drinking water and the risks from exposure to contaminants Detected in our drinking water.

Detected Inorganic Contaminants Table								
PARAMETER	UNITS	MCL(SMCL)	MCLG	City of Kingsland System Results	Range of Detection	Sample Date	Violation Yes/No	Typical Source of Contaminant
Fluoride	ppm	4(2)	4	0.56	0.51 to 0.56	2020	no	Erosion of Natural Deposits, Promotes Strong Teeth
pH	su	(6.5-8.5)	n/a	7.8	n/a	2022	no	Erosion of Natural Deposits

Detected Organic Contaminants Table								
PARAMETER	UNITS	MCL	MCLG	City of Kingsland System Results	Range of Detection	Sample Date	Violation Yes/No	Typical Source of Contaminant
TTHM's	ug/L	0.080	n/a	61	19.1 - 89	2022	no	By products of drinking water chlorination
HAA's	ug/L	0.060	n/a	14	3.4 - 22.7	2022	no	By products of drinking water chlorination

Lead and Copper Monitoring Table								
PARAMETER	UNITS	Action Level	MCLG	City of Kingsland 90th Percentile	Number above AL	Sample Date	Violation Yes/No	Typical Source of Contaminant
Lead	ppb	15	n/a	0	0	2022	no	Corrosion of household plumbing
Copper	ppb	1300	n/a	0.028	0	2022	no	Corrosion of household plumbing

Chlorine monitoring								
PARAMETER	UNITS	MCL	MCLG	City of Kingsland System Results	Range of Detection	Sample Date	Violation Yes/No	Typical Source of Contaminant
Chlorine	ppm	MRDL=4	MRDLG=4	1	1-1	2022	no	Water additive used to control microbes

BIOLOGICAL PARAMETER (presence or absence of bacteria)	MCL (No. of Detections)	MCLG (No. of Detections)	City of Kingsland System Results (No. of Detections)	Sample Date	Violation Yes/No	Typical Source of Contaminant
Total Coliform	0	0	0	2022	no	Naturally present in the environment
E. Coli	0	0	0	2022	no	Warm blooded animals

Radionuclide Table								
PARAMETER	UNITS	MCL	MCLG	City of Kingsland System Results	Range of Detection	Sample Date	Violation Yes/No	Typical Source of Contaminant
Alpha Emitters	pCi/L	15*	0	<2.65	<1.87 to <3.62	2012	no	Erosion of Natural Deposits
Beta Emitters	pCi/L	5*	0	<3.1	<2.32 to <4.08	2012	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. **No established MCL M-Monitored through state analysis and facility daily. ***Parameter's values and/or source vary. FTM-Failure to monitor; violation for not collecting number of samples. R-Resample; results below action level or not detected.