



THE CITY OF LAFAYETTE ANNUAL WATER QUALITY REPORT (For the year 2022)



Important Information About the Safety of Your Drinking Water

The City of LaFayette Water Department (ID# 2950002) is pleased to report your community's drinking water met or exceeded all safety and quality standards set by the State of Georgia and Environmental Protection Agency (EPA). This 2022 Water Quality Report provides our customers with monitoring and testing results gathered from water quality tests during 2022. The City of LaFayette Water Department performed hundreds of tests during the past year on your drinking water to assess water quality and safety. Tests were performed on more than 160 water quality parameters. The chart on the following page shows your community's drinking water exceeds all safety and quality standards. For more information concerning water, or the facts presented in this report please call Steve Bailey Water Treatment Plant Manager at (706) 638-4031 between the hours of 8:00 a.m. and 4:00 p.m.

Sources of your Drinking Water

- Big Springs Plant located on Indiana Street (Ground Water) produced an average of 1,060,024 gallons per day.
- Lee School Road Plant located on Lee School Road south of LaFayette (Ground Water Paleozoic-Rock aquifer, unconfined) produced an average of 893,923 gallons per day.

Purchased Sources

- Walker County Water Treatment Plant located at 333 Euclid Avenue, Chickamauga Ga. (four wells and Crawfish Spring, lake fed from the Paleozoic (Limestone) Knox aquifer and the New Alabama aquifer). We purchased an average of 985,564 gallons per day.
- Catoosa County Utilities (ground water from the limestone group of the Paleozoic aquifer). We purchased an average of 2,453 gallons per day.

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, radioactive material as well as picking up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include the following:

- Microbial contaminants such as viruses and bacteria possibly from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants such as salts and metals, occurring naturally or as a result of urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, occurring from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic organic chemicals, which are by-products of industrial processes and petroleum production, stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can naturally occur or be the result of oil and gas production and mine activities.

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 LaFayette Water System 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 minimizing exposure are available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Definitions

Maximum Contaminant level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available 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. MCLGs allow for a margin of safety.

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

NA: Not Applicable.

N/D: Not Detectable at testing limit.

NTU: Nephelometric turbidity unit

ppm: Parts per million means 1 part per 1,000,000 corresponds to 1 minute in 2 years, or 1 penny in 10,000.00 dollars.

ppb: Parts per billion means 1 part per 1,000,000,000 and corresponds to 1 minute in 2,000 years or 1 penny in 10,000,000.00 dollars.

(a) Fluoride is added in treatment to bring the natural level to EPA optimum of 0.85 parts per million.

(b) Water from the Treatment Plants does not contain lead or copper. However, under EPA test protocol, water is tested at the customer tap. Tap tests show that where a customer may have lead pipes or lead soldered copper pipes, the water is not corrosive. This means the amount of lead or copper absorbed by the water is limited to safe levels.

(c) This level is based on a system-wide 4 Quarter running average of several samples, as required by EPA Testing Protocol. In order to ensure your tap water is safe to drink, EPA prescribes regulations limiting the level 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 the public.

REGULATED SUBSTANCES

Parameter	MCL	MCLG	LaFayette Water System	Range of Detections	Sample Date	Violation	Typical Source of Contaminant
ALUMINUM (ppb)	51.00	51.00	N/D	0.01-51.00	2022	No	Aluminum is the most abundant metal in the earth's crust and can be found in many different mineral and rock formations.
ARSENIC (ppb)	10.00	10.00	N/D		2022	No	Nearly all arsenic found in drinking water is inorganic. There are two types of inorganic arsenic, Arsenic(III) and Arsenic(V), and both are toxic. While arsenic-containing pesticides can contaminate water, most arsenic contamination comes from the area's natural geology.
Barium (ppm)	2.0	2.0	N/D	ND-0.100	2022	No	Erosion of natural deposits
CADMIUM (ppb)	500	500	N/D		2022	No	Cadmium is a soft, silver or white heavy metal found in the earth's crust. This metal is extracted as a byproduct in the mining of other metals, like lead, copper, and zinc ores. Cadmium is also commonly found with sulfur (as cadmium sulphate), chlorine (as cadmium chloride), and oxygen (as cadmium oxide). Cadmium has wide-ranging industrial uses, including in the production of metal coatings and plating's, battery technology, stabilizers in plastics, pigments, and photovoltaic cells. Cadmium is known to affect water quality, but doesn't change the taste, smell, or appearance of water.
CHROMIUM (ppb)	100	100	N/D		2022	No	Chromium is an odorless and tasteless metallic element. Chromium is found naturally in rocks, plants, soil and volcanic dust, and animals.
Chlorine (ppm)	4	4	1.34	1.07-1.70	2022	No	Water Additive to control microbes
Copper (ppm)	AL=1,300	1,300	240(b)	N/A	2022	No	Corrosion of household plumbing system
Fluoride (ppm)	4	4	0.89 (a)	0.01 - 1.13	2022	No	Water additive to promote strong teeth
Iron	0.30	0.03	N/D	0.01 - 0.03	2022	No	Iron can come from natural sources like groundwater and miner can also enter supply systems by leaching (washing) natural deposits on buried piping or discharging from storm sewers.

MERCURY (ppb)	2	2	N/D	0.01-2.00	2022	No	Mercury is a naturally occurring chemical element found in rock in the earth's crust, including in deposits of coal.
NICKEL (mg/l)	0.1	0.5	N/D	0.01 – 0.05	2022	No	The primary source of nickel in drinking-water is leaching from metals in contact with drinking-water, such as pipes and fittings
Manganese (ppb)	50	50	0.04	ND-2.00	2022	No	Erosion of natural deposits
Lead (ppb)	AL= 15	0	4.4 (b)	N/A	2022	No	Corrosion of household plumbing system
Total Nitrate and Nitrite (ppm)	10	10	1.15	0.20-10.0	2022	No	Runoff from fertilizer use: Leaching from septic tanks, sewage : Erosion of natural deposits
IDSE Total Trihalomethanes (ppb)	80	NA	4.46 (c)	ND-34.3	2022	No	By-product of drinking water chlorination
IDSE Haloacetic Acids (HAA) (ppb)	60	NA	0.00 (c)	ND-14.07	2022	No	By-product of drinking water chlorination
SELENIUM (ppm)	0.5	0.5	N/D	N/A	2022	No	Selenium in drinking water can come from discharge from mine natural deposits, discharge from refineries, or from agricultural runoff leaching natural selenium compounds from dry, undeveloped land
SODIUM (ppb)	20 mg/l	20 mg/l	2	N/A	2022	No	Both Sodium and Chlorides are found naturally in water supplies. Sodium in water supplies can result from the natural erosion of ancient underground salt deposits
Turbidity * (ntu)	TT	NA	0.33 ntu max.	.01-0.33	2022	No	Soil Runoff
	Percentage of samples <.30		99.999%				
Total Coliform (Bacteria)***	1 sample	0 Samples	0 samples***	N/A	2022	No	Bacteria naturally present in the environment used as an indicator that other potentially harmful bacteria may be present
ANTIMONY, TOTAL Mg/l	0.006mg/l	0.006 mg/l	N/D	N/A	2022	No	More common sources of antimony include effluent from mining or smelting operations.
BERYLLIUM, TOTAL	2ppb	2ppb	N/D	N/A	2022	No	Beryllium is a metallic element, it dissolves in water, and it can occur naturally in formations of bedrock.
THALLIUM, TOTAL	0.002 mg/l	0.002 mg/l	N/D	N/A	2022	No	The leaching of thallium from ore processing operations is the major source of elevated thallium concentrations in water. It is known to stay in the air, water, and soil for a long period of time after it is released. Thallium (TI) is a rare heavy metal in drinking water, but its extreme toxicity makes its removal crucial to consumer health.
ZINC	5mg/l	5mg/l	N/D	N/A	2022	No	water that contains a lot of carbon dioxide can carry zinc from pipes into the drinking water. Zinc is also an ingredient in fertilizers, insecticides and fungicides. These zinc-containing compounds can end up in the water through rain, spraying and leakage.

*Turbidity is the measure of the cloudiness of water. We monitor turbidity because it is a good indicator of water quality and the effectiveness of our filtration system.
*** From 20 to 25 samples are collected and tested monthly. No more than one sample can be positive for total coliform.

On June 29, 2021, City of Lafayette submitted finished water samples from Big Springs Plant to the Georgia Environmental Protection Division (EPD) laboratory for analysis for per- and Polyfluoroalkyl Substances (PFAS). On August 26, 2021, the Georgia EPD laboratory completed their analyses and finalized a sampling report for these samples.
The sampling report summary shows that both PFOS & PFOA are below the detection limit in the finished drinking water.

What are PFOA and PFOS?

PFOA and PFOS are fluorinated organic chemicals that are part of a larger group of chemicals referred to as perfluoroalkyl substances (PFASs). PFOA and PFOS have been the most extensively produced and studied of these chemicals. They have been used to make carpets, clothing, fabrics for furniture, paper packaging for food and other

materials (e.g., cookware) that are resistant to water, grease, or stains. They are also used for firefighting at airfields and in a number of industrial processes. Because these chemicals have been used in an array of consumer products, most people have been exposed to them.

What is the Health Advisory Level?

To provide Americans, including the most sensitive populations, with a margin of protection from a lifetime of exposure to PFOA and PFOS from drinking water, EPA established health advisory levels at 70 parts per trillion. When both PFOA and PFOS are found in drinking water, the combined concentrations of PFOA and PFOS should be compared with the 70 parts per trillion health advisory level. This health advisory level offers a margin of protection for all Americans throughout their life from adverse health effects resulting from exposure to PFOA and PFOS in drinking water.

What are the potential adverse health effects with exposure to PFOS and PFOA?

EPA's health advisories are based on the best available peer-reviewed studies of the effects of PFOA and PFOS on laboratory animals (rats and mice) and were also informed by epidemiological studies of human populations that have been exposed to PFASs. These studies indicate that exposure to PFOA and PFOS over certain levels may result in adverse health effects, including developmental effects to fetuses during pregnancy or to breastfed infants (e.g., low birth weight, accelerated puberty, skeletal variations), cancer (e.g., testicular, kidney), liver effects (e.g., tissue damage), immune effects (e.g., antibody production and immunity), thyroid effects and other effects (e.g., cholesterol changes).

EPA's health advisory levels were calculated to offer a margin of protection against adverse health effects to the most sensitive populations: fetuses during pregnancy and breast-fed infants. The health advisory levels are calculated based on the drinking water intake of lactating women, who drink more water than other people and can pass these chemicals along to nursing infants through breastmilk.

The City of LaFayette monitors for unregulated parameters in order to assist EPA in determining where certain contaminants occur and whether additional regulations may be necessary.

Parameter	MCL	MCLG	LaFayette Water System	Range of Detections	Sample Date	Typical Source of Contaminant
HAA5 (ug/l)	N/A	Not regulated	5.05	0.60-11.20	2018-2019	By-product of drinking water chlorination
HAA6Br (ug/l)	N/A	Not regulated	2.60	0.22-6.44	2018-2019	By-product of drinking water chlorination
HAA9 (ug/l)	N/A	Not regulated	2.89	0.29-5.79	2018-2019	By-product of drinking water chlorination

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 contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

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. More information can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Additional Information Sources:

<http://www.dnr.state.us/epa>

<http://www.epa.gov>

<http://www.awwa.water.org>

The City of LaFayette Council meets the second Monday of each month at 7:30 pm, at City Hall 207 South Duke Street.

Water Conservation Tips

Inside water use

- Faucets can drip at a rate of one drop per second, wasting more than 3,000 gallons of water a year.
- Toilets can leak at a rate of 200 gallons a day, which can add up to 73,050 gallons of water a year. To find out if you have a leak, place a drop of food coloring in the tank. If the color shows in the bowl without flushing, you have a leak.
- Taking a five-minute shower uses 10 to 25 gallons of water. Install a water-saving showerhead to reduce the flow.
- A full bathtub requires about 70 gallons of water. Place a stopper in the drain immediately and adjust the temperature as you fill the tub to limit waste.
- The average washing machine uses about 41 gallons of water per load. High efficiency washing machines use less than 28 gallons of water per load.
- Wash only full loads of laundry or use the appropriate load size selection on the washing machine to save water.
- If your toilet was made before 1993, you probably have an inefficient model that uses at least 3.5 gallons per flush. New high-efficiency models use less than 1.3 gallons per flush. Installing a new toilet could save a family of four more than \$90 on their water bill annually, \$2,000 over the lifetime of the toilet.

OUTSIDE USE

- Don't exceed watering recommendations for plants and shrubs, if in doubt consult with your local nursery. Most homeowners are surprised to learn that more plants and shrubs die from overwatering than anything else.
- Take advantage of the cool and moist air during the early morning and late afternoon when watering the lawn. Due to the natural heat of the sun during the middle of the day, much of the water intended for the lawn will evaporate before it ever penetrates the soil.
- Use a spray nozzle for your garden hose, especially one with a shut off valve. This will reduce the flow rate of water while tending to the lawn or cleaning the car.