

# 2021 Lakeshore Forest Water System Annual Water Quality Report, WSID: 1390011

**Is my water safe?**

**As of: June 15, 2022**

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA) which provides information about the quality of our drinking water and includes data from January 1 - December 31, 2021. This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies. LFWS collects over 22 water samples annually, and they are sent to the state approved Lab in Norcross Georgia. The lab tests for over 134 contaminants, and the results are sent immediately to the state EPD office and to us for any required action.

**Do I need to take special precautions?**

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

**Where does my water come from?**

In addition to our owned sources of water, LFWS is connected to the City of Gainesville municipal water system in the event we need an emergency source of water. A portion of their annual report showing their testing results is attached to the end of this report. The entire report is available online at <https://www.gainesville.org/Archive.aspx?AMID=46>

LFWS' water supply comes from two groundwater wells, one well approximately 250 feet deep and one well approximately 750 feet deep. We get unusually clean water from these sources. In addition, LFWS has equipment installed at each well site that chlorinates the water supply automatically with Sodium Hypochlorite, to ensure disinfecting of viruses and bacteria. The level is monitored daily by a water attendant to ensure proper dosages are being added to your water supply. No fluoride (to enhance dental health) is being introduced into your water supply.

In addition, all wellheads are enclosed within locked concrete block buildings to prevent any potential contamination of the water source. The block buildings are fenced and have locked gates with barbed wire around the top of the fence and gate. Furthermore, the distribution of the water from the well heads to each home in the subdivision is through an underground network of PVC pipes that total over 6 miles and includes a 14,000 gallon water storage tank. Both the pipeline and the water storage tank are protected from activities that could potentially cause contamination of the water source.

The only possible avenue for contamination of your drinking water is from the consumer sites. At this time, 90 of the subdivisions' 110 water users have a back-flow check valve installed where they tap on to the main water line. A back-flow check valve will prevent poisons or chemicals that might be used at a site from back flowing into our drinking water (for example, a water hose left attached to a bug sprayer). LFWS is currently excavating the remaining consumer sites and adding a water meter, back-check and shut-off valves. 1

Well #302 is located at the end of Chestatee Lane on property owned by the LFWS. Well #303 and the water storage tank are located on top of the hill, across from the horse pasture, at 7134 Barkers Bend Drive. This location is also owned by the LFWS. Each well is capable of producing 30 gallons of water a minute or about 43,000 gallons per day if needed. At the present time, the average daily consumption is around 10,000 gallons of water. However, on weekends and holidays particularly during the summer months, usage peaks at about 14000 gallons of water a day.

### **Source water assessment and its availability**

Source Water Assessment is a study by the EPD done periodically for every water system in GA. It provides basic information about the quality of your drinking water. LFWS has completed this examination in good standing. The state Source Water Assessment is available from Mr Ray McCaskill and is located at his home office.

Source Water Name	Type of water	Status	Location
7134 Barkers Bend Drive Well #303	GW	9/16/14	President File
7576 Chestatee Lane Well #302	GW	9/16/14	President File

### **Why are there contaminants in my drinking water?**

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 about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (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: microbial contaminants, such as viruses and bacteria, that 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 stormwater 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 stormwater 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 stormwater runoff, and septic systems; and 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### **How can I get involved?**

The LFWS water system Board of Directors meets quarterly and as needed at the Yellow Creek Clubhouse on Yellow Creek Road in Murrayville. Your participation or comments are welcome at any meeting. You can send your comments to the LFWS at P O Box 166 Murrayville, GA 30564 or attend a meeting in person. If you wish to attend a meeting, contact any board member and they will let you know when a meeting is called so that you can attend.

### **Description of Water Treatment Process**

Your water is treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to

kill dangerous bacteria and microorganisms that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

### **Other Information About Our System**

Water Restrictions: LFWS remains under the state outdoor watering restriction that only allows outdoor water usage from 4pm until 10 am daily. In addition, LFWS requires use of hand held watering devices only - no automatic sprinklers or soaker hose systems. All water use restrictions are listed on our website: [lfws.homestead.com](http://lfws.homestead.com)

### **Monitoring and reporting of compliance data violations**

In 2020, we failed to collect required samples for Inorganic Chemicals (IOCs) in a timely manner. These samples were later collected, and all tested within tolerances.

### **Results of voluntary monitoring: mg/L**

Item	Date	Value Low	Value High	Monthly Average
Chlorine	2021	.28	.70	.31

### **Additional Information for Lead**

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. Lakeshore Forest Water System GA1390011 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>.

---

## **Water Quality Data Table**

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violatio n	Typical Source
				Low	High			
<b>Disinfectants &amp; Disinfection By-Products</b>								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Haloacetic Acids (HAA5) (ppb)	NA	60	16.2	NA	NA	2021	No	By-product of drinking water chlorination
<b>Inorganic Contaminants</b>								
Fluoride (ppm)	4	4	.31	.31	.31	2021	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	NA	NA	NA	2021	No	Runoff from fertilizer use leaching from septic tanks erosion of natural deposits
<b>Microbiological Contaminants</b>								
Total Coliform (RTCR)	NA	TT	NA	NA	NA	2021	No	Naturally present in the environment
Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source	
<b>Inorganic Contaminants</b>								
Copper - action level at consumer taps (ppm)	1.3	1.3	.15	2020	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Lead - action level at consumer taps (ppb)	0	15	6.5	2020	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

## Coliform Bacteria

MCLG	MCL	Highest no positives	FC or e.Coli MCL	Total no. of Positives	Violation	Likely Source of Contamination
0	1 positive monthly sample	4	N/A	0	No	Naturally present in the environment

## Violations and Exceedances

### Level 2 Assessment and Sanitary Defects

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliform indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were required to conduct one Level 2 Assessment. One Level 2 Assessment was completed. In addition, we were required to take zero corrective actions.

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter ( $\mu\text{g/L}$ )
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	Definition

<b>Important Drinking Water Definitions</b>	
MCLG	MCLG: Maximum Contaminant Level Goal: 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.
MCL	MCL: Maximum Contaminant Level: 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 treatment technology.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
MRDL	MRDL: Maximum residual disinfectant level. 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

<b>TT Violation</b>	<b>Explanation</b>	<b>Length</b>	<b>Health Effects Language</b>	<b>Explanation and Comment</b>
Ground Water Rule violations	In 2020, we failed to collect follow-up samples within 24 hours of learning of the total coliform-positive sample. These needed to be tested for fecal indicators from all sources that were being used at the time the positive sample was collected. Repeat samples showed no contamination.	14 days	Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	We increased the disinfectant level, and retrained our staff to be more reactive when a re-sampling notice is received.

For more information or a copy of this report please contact:

Contact Name: Bob Boyd  
Address: PO Box 166  
Murrayville, Ga 30564  
Phone: 678-267-9713

Attached: Data Table Gainesville Water System Annual Report for 2021

# 2021 TEST RESULTS

This chart shows the findings of the City of Gainesville Department DWR water testing after treatment and how they compare to national standards. ALL RESULTS MEET EPA STANDARDS. Unless otherwise noted, the data presented in this table is from testing completed from January 1 - December 31, 2021.

Regulated Substances/Contaminants and Disinfection Substances						
Type	Meets EPA Standard	Substance	Typical Source	EPA Ideal Goal (MCLG, MRDLG)	Highest EPA Allowed Level (MCL, MRDL, TT)	Detected Level (what we found)
Disinfectants & Disinfection By-Products	✓	Chlorine	Drinking water disinfectant	MRDLG 4.0 ppm	MRDL 4.0 ppm	1.52 ppm (Actual range 0 - 2.11 ppm)
	✓	Chlorite	By-product of drinking water disinfection	0.8 ppm	1 ppm	0.19 ppm (Actual range 0.01 - 0.45 ppm)
	✓	Haloacetic Acids (HAA5)	By-product of drinking water disinfection	N/A	60 ppb	18.4 ppb <sup>1</sup> (Actual range 14.4 - 21.7 ppb)
	✓	Total Organic Carbon (TOC)	Decay of naturally occurring organic matter in the water withdrawn from sources	N/A	TT	1.05 ppm (Actual range 0.53 - 1.10 ppm)
	✓	Total Trihalomethanes (TTHM)	By-product of drinking water disinfection	N/A	80 ppb	28 ppb <sup>1</sup> (Actual range 17 - 41 ppb)
Inorganic Contaminants	✓	Barium	Erosion of natural deposits	2.0 ppm	2.0 ppm	0.11 ppm
	✓	Fluoride <sup>2</sup>	Water additive that promotes strong teeth	4.0 ppm	4.0 ppm	0.61 ppm (Actual range 0.10 - 0.89 ppm)
	✓	Nitrate/Nitrite <sup>3</sup>	Runoff from fertilizer	10.0 ppm	10.0 ppm	0.44 ppm (Actual range 0.35 - 0.52 ppm)
Microbiological Contaminants	✓	Total Coliform Bacteria (+/-)	Naturally present in the environment	0.0 %	5 % of monthly samples are positive	0.15 % monthly samples positive (Actual range 0 - 2%, Average 0%)
	✓	Turbidity (NTU)	Soil runoff & erosion	N/A	TT = 1 NTU	TT = 95 % of samples at ≤ 0.3 % (Highest value reported 0.28 %)
Inorganic Contaminants	✓	Copper <sup>4</sup>	Corrosion of household plumbing systems	0.0 ppm	AL 1.3 ppm	0.06 ppm 0 over AL (Actual Range 0 - 0.15 ppm)
	✓	Lead <sup>4</sup>	Corrosion of household plumbing systems	0.0 ppb	AL 15.0 ppb	3 ppb 1 over AL

1 This number represents the highest locational running annual averages reported during 2021.

2 Fluoride is added to water to help promote dental health in children.

3 Nitrate and Nitrite are measured together.

4 Gainesville is required to test a minimum of 50 homes for lead and copper every three years. The last testing occurred in 2021 and the next testing will take place in Fall 2024. Compliance with the Lead and Copper Rule is based on obtaining the 90th percentile of the total number of samples collected and comparing it against the lead and copper action levels. To have an exceedance, the 90th percentile value must be greater than 15 ppb for lead or 1.3 ppm for copper. Of the homes tested in 2021, 1 site exceeded the action level (AL) for lead. No sites exceeded the action level for copper.

Unregulated Contaminants (2019 data) <sup>5</sup>						
Meets EPA Standard	Substance	Typical Source	EPA Ideal Goal (MCLG)	Highest EPA Allowed Level (MCL)	Detected Level (what we found)	
✓	HAA9 Group	By-product of drinking water disinfection	N/A	N/A	Average 20 ppb (Actual range 9 - 28 ppb)	
✓	Manganese	Naturally present in the environment	N/A	N/A	Average 2 ppb (Actual range 1 - 4 ppb)	
✓	Total Brominated HAAs	By-product of drinking water disinfection	N/A	N/A	Average 4 ppb (Actual range 2 - 6 ppb)	
✓	Total Haloacetic Acids	By-product of drinking water disinfection	N/A	60 ppb	Average 16 ppb (Actual range 8 - 23 ppb)	
✓	Total Organic Carbon (TOC)	Decay of naturally occurring organic matter in the water withdrawn from sources	N/A	TT	Average 1.84 ppm (Actual range 1.20 - 2.35 ppm)	

5 The last testing occurred in 2019 in accordance with EPA regulations. The next testing will take place in 2025.