

The Jackson County Water and Sewerage Authority is committed to providing you with the safest and most reliable water supply.

## Community Participation

Informed consumers are our best allies in maintaining safe drinking water. We encourage public interest and participation in our community's decisions affecting drinking water. You can learn more about your water system when the Jackson County Water and Sewerage Authority board meets on the second Thursday of each month at 6:00 p.m. at the Jackson County Water Authority main office.

If you have any questions please call the Jackson County Water and Sewerage Authority at (706) 367-1741; or you may contact Josh Scarborough our Water Quality Technician at (706) 367-1741 ext. 255. Water Quality Data for community water systems throughout the United States is available at [www.waterdata.com](http://www.waterdata.com). A copy of this Water Quality Report is available online at <http://jcwsa.com/2021-water-quality-report/> and paper reports are available at the Jackson County Water and Sewerage Authority main office located at 117 MLK Avenue in Jefferson.



## Authority Manager Statement

Dear Customers,

Thank you for taking a moment to review this Annual Drinking Water Quality Report. Providing your treated drinking water test results is a federal requirement under the Safe Drinking Water Act (SDWA).

Jackson County Water and Sewerage Authority (JCWSA) currently delivers water to 11,248 retail customers and six municipal customers, including Braselton, Hoschton, Jefferson, Nicholson Water Authority, Commerce, and Arcade. In 2021, JCWSA provided 1.1 billion gallons of safe and reliable drinking water throughout Jackson County.

In the past few years, we have faced unprecedented challenges and exponential regional growth. I am proud of JCWSA staff and our contract operators at Upper Oconee Basin Water Authority, who have provided continuous, uninterrupted services during these challenging times. I am amazed by the profound sense of duty and selfless service exhibited by the water and sewer professionals around me. Water distribution operators repair broken water mains in extreme temperatures. Chemists assure your community water supply is safe to drink. Engineers solve complex problems. Wastewater workers treat our sewage while protecting our environment. At the same time, customer service and finance representatives help concerned citizens with unique questions and financial situations. These people help protect the health and quality of life in Jackson County, and for this, I am grateful. I consider water and sewer professionals unsung heroes who rarely get the attention they deserve who are truly first responders by definition and action.

I want to thank YOU, our customer. It is our pleasure to serve you. We are focused on developing lasting connections to our community and customers. You will be seeing more of us in your community, and we hope to offer you more ways to connect with us in the future.

Please feel free to contact us if you have any concerns, as YOU are our #1 priority.

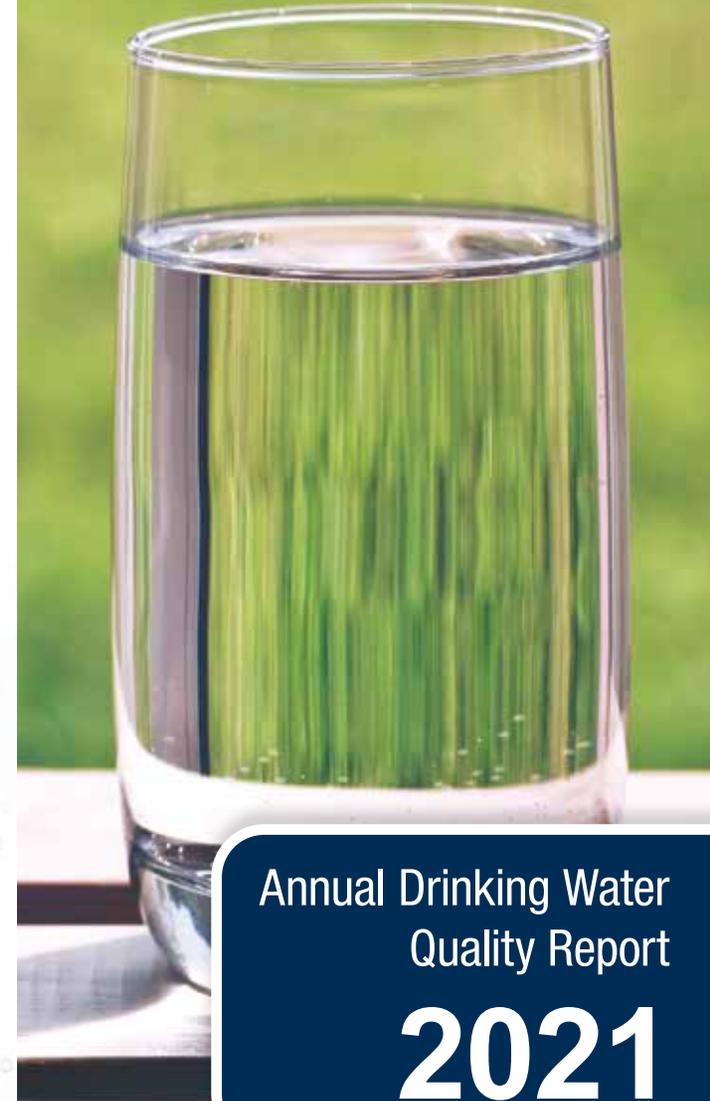
Yours in service,

A handwritten signature in black ink, appearing to read 'Joey P. Leslie'.

Joey P. Leslie, PE  
Authority General Manager



PWS ID: #1570117



Annual Drinking Water  
Quality Report

2021

## Our Drinking Water Is Regulated

JCWSA is pleased to share this report with you. This report is a summary of the quality of the water we provide our customers. The analysis covers January 1 through December 31, 2021, and was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

## Where Do We Get Our Drinking Water?

During 2021, the JCWSA obtained a majority of its water supply from the 505-acre Bear Creek Reservoir managed by the Upper Oconee Basin Water Authority and treated at the Bear Creek Water Treatment Facility, and a small portion of its water supply from Barrow County. The Bear Creek Reservoir is located at the extreme south tip of Jackson County. Source Water Assessment Program (SWAP) identifying potential pollution sources which pose a risk to Bear Creek's water sources was conducted in July 2002 by Brown & Caldwell. A copy of this report is available at Bear Creek Water Treatment Facility for review. In addition, Jackson County received a small portion of water from the City of Commerce Water Treatment Plant which obtains its water from Grove River Reservoir located in the City of Commerce. A SWAP was conducted for the City of Commerce in May 2003 by Stevenson & Palmer. A copy of this report is available at City of Commerce Water Treatment Plant for review.

## Source of Drinking Water

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:

1. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
2. 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.
3. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
4. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
5. Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

## Unregulated Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Any unregulated contaminants detected are reported in this table. For additional information and data visit <http://www.epa.gov/safewater/ucmr/ucmr2/index.html> or call the Safe Drinking Water Hotline at (800) 426-4791.



## Required Additional Health 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 water service lines and home plumbing. JCWSA 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

# 2021 Test Results

PWS ID: #1570117

The tables shown list all of the drinking water contaminants that we detected during the calendar year of this report. The presence of 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 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 change frequently.

## All Drinking Water May Contain Contaminants

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. 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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Bear Creek	INORGANIC CONTAMINANTS		DATE	UNITS	MRDL	MRDLG	DETECTED (HIGHEST)	RANGE	MAJOR SOURCES	VIOLATION?
	Chlorine Residual	Daily	mg/L	4	4	1.83 <sup>a</sup>	1.8-1.9	Water additive used to control microbes	No	
	Fluoride	Daily	ppm	4	4	0.78 <sup>a</sup>	0.76-0.81	Erosion of natural deposits; water additive which promotes strong teeth	No	
	Total Trihalomethanes (TTHMs)	2021	ppb	80	NA	34.4	22.7-50	By-product of drinking water chlorination	No	
	Haloacetic Acids (HAA5s)	2021	ppb	60	NA	36.0	30-37	By-product of drinking water chlorination	No	
	Total Organic Carbon	2021	ppm	TT	N/A	1.5	1.3-1.6	Naturally present in the environment	No	
	Nitrate	2021	ppm	10	10	0.21	N/A	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	No	
	MICROBIOLOGICAL		DATE	UNITS	MCL	MCLG	VALUE	RANGE	MAJOR SOURCES	VIOLATION?
	Turbidity <sup>b</sup>	Cont.	NTU	<0.3 in 95% of samples/ month TT = 0.3	NA	0.02	0.01-0.07	Soil runoff	No	
	Total Coliforms	Cont.		0	0	0	N/A	Naturally present in the environment	No	
UNREGULATED CONTAMINANTS			UNITS	MCL	MCLG	VALUE	RANGE	MAJOR SOURCES	VIOLATION?	
Chloroform		ppb	NA	NA	22.6	N/A	By-product of drinking water chlorination	No		
Bromodichloromethane		ppb	NA	NA	5.1	N/A	By-product of drinking water chlorination	No		
Chlorodibromomethane		ppb	NA	NA	0.26	N/A	By-product of drinking water chlorination	No		
Sodium		ppm	NA	NA	10	N/A	Erosion of natural deposits	No		

Barrow County	INORGANIC CONTAMINANTS		DATE	UNITS	MCL	MCLG	DETECTED	RANGE	MAJOR SOURCES	VIOLATION?
	Chlorine Residual	Monthly	mg/L	4	4	1.07	0.93-1.23	Water additive used to control microbes	No	
	Total Trihalomethanes (TTHMs)	Quarterly	ppb	80	N/A	70	21-120	By-product of drinking water chlorination	Yes	
	Haloacetic Acids (HAA5s)	Quarterly	ppb	60	N/A	59.9	14-61	By-product of drinking water chlorination	No	
	MICROBIOLOGICAL		DATE	UNITS	MCL	MCLG	VALUE	RANGE	MAJOR SOURCES	VIOLATION?
	Total Coliforms	2021	P/A	Not more than 5%	0	0	N/A	Naturally present in the environment	No	
	LEAD & COPPER		DATE	UNITS	MCL	MCLG	HIGHEST LEVEL	# ABOVE AL	MAJOR SOURCES	VIOLATION?
Copper	2019	ppb	1300	0	26	0	Corrosion of household plumbing	No		
Lead	2019	ppb	15	0	0.31	0	Corrosion of household plumbing	No		

City of Commerce	INORGANIC CONTAMINANTS		DATE	UNITS	MRDL	MRDLG	DETECTED (YEARLY AVG.)	RANGE	MAJOR SOURCES	VIOLATION?
	Chlorine Residual	Daily	ppm	4	4	0.99 <sup>a</sup>	0.30-1.77	Added to water for disinfection	No	
	Fluoride	Daily	ppm	2	4	0.74 <sup>a</sup>	0.41-0.97 <sup>c</sup>	Water additive which promotes strong teeth	No	
	Total Trihalomethanes (TTHMs)	Quarterly	ppb	80	N/A	67.17 <sup>a</sup>	38.4-124.0	By-product of drinking water chlorination	No	
	Haloacetic Acids (HAA5s)	Quarterly	ppb	60	N/A	46.93 <sup>a</sup>	29.6-63.7	By-product of drinking water chlorination	No	
	Total Organic Carbon	Monthly	ppm	TT ≤ 2.0	N/A	1.26 <sup>c</sup>	1.10-1.46 <sup>d</sup>	Naturally present in the environment	No	
	MICROBIOLOGICAL		DATE	UNITS	MCL	MCLG	VALUE	RANGE	MAJOR SOURCES	VIOLATION?
	Turbidity <sup>b</sup>	Cont.	NTU	<.3 in 95% of samples TT = 0.3	NA	Yearly avg. (100%)	0.01-0.29	Soil runoff	No	
	LEAD & COPPER		DATE	UNITS	AL	MCLG	DETECTED	# ABOVE AL	MAJOR SOURCES	VIOLATION?
	Copper	2019	ppb	1300	0	124	0	Corrosion of household plumbing	No	
Lead	2019	ppb	15	0	1.1	0	Corrosion of household plumbing	No		
UNREGULATED CONTAMINANTS			UNITS	MCL	MCLG	VALUE	RANGE	MAJOR SOURCES	VIOLATION?	
Sodium		ppm	N/A	N/A	7.21	N/A	Erosion of natural deposits	No		

INORGANIC CONTAMINANTS	DATE	UNITS	MRDL	MRDLG	DETECTED (HIGHEST)	RANGE	MAJOR SOURCES	VIOLATION?
Chlorine Residual	Monthly	mg/L	4	4	1.8	0.2-1.8	Water additive to control microbes	No
Total Trihalomethanes (TTHMs)	Quarterly	ppb	80	0	73.9	15.5 - 79.8	By-product of drinking water chlorination	No
Haloacetic Acids (HAA5s)	Quarterly	ppb	60	0	42.5	28.0 - 56.0	By-product of drinking water chlorination	No
MICROBIOLOGICAL	DATE	MCL		MCLG	YOUR WATER	RANGE	MAJOR SOURCES	VIOLATION?
Total Coliforms	8/23/2021	2 positives in 1 month		0	0	0	Naturally present in the environment	Yes
LEAD & COPPER	DATE	UNITS	AL	MCLG	DETECTED	# ABOVE AL	MAJOR SOURCES	VIOLATION?
Copper	2020	ppb	1300	0	18	0	Corrosion of household plumbing	No
Lead	2020	ppb	15	0	0	0	Corrosion of household plumbing	No
UNREGULATED CONTAMINANT MONITORING RULE 4 (UCMR4)			YEAR SAMPLED	UCMR4 MRL	AVERAGE	RANGE	MAJOR SOURCES	
Manganese (ppb)			2019	N/A	3.82	1.91 - 5.13	Leaching from natural deposits	

INORGANIC CONTAMINANTS	DATE	UNITS	MRDL	MRDLG	DETECTED (HIGHEST)	RANGE	MAJOR SOURCES	VIOLATION?
Total Trihalomethanes (TTHMs)	2021	mg/L	80	N/A	27.7	17-40.9	By-product of drinking water chlorination	No
Haloacetic Acids (HAA5s)	2021	mg/L	60	N/A	18.4	14.4 - 21.7	By-product of drinking water chlorination	No
Chlorine	2021	mg/L	4	4	1.52	0 - 2.1	Water additive used to control microbes	No
Fluoride	2021	mg/L	2	4	0.61	0.1 - 0.89	Erosion of natural deposits; water additive which promotes strong teeth	No
Total Organic Carbon	2021	mg/L	TT	N/A	1.05	0.53 - 1.1	Naturally present in the environment	No
Nitrate/Nitrite	2021	mg/L	10	10	0.44	0.35-0.52	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	No
Barium	2021	mg/L	2	2	0.11	N/A	Erosion of natural deposits	No
MICROBIOLOGICAL	DATE	MCL		MCLG	VALUE	RANGE	MAJOR SOURCES	VIOLATION?
Total Coliforms	Monthly	No more than 5% of monthly sample		0	0.15% <sup>e</sup>	0-2%	Naturally present in the environment	No
Turbidity <sup>b</sup>	Monthly	NTU	1	N/A	<.3 in 95% of samples/ month TT = 0.3	0.1 - 0.28	Soil Runoff	No
LEAD & COPPER	DATE	UNITS	AL	MCLG	DETECTED	# ABOVE AL	MAJOR SOURCES	VIOLATION?
Copper	2021	mg/L	1300	0	60	0-150	Corrosion of household plumbing	No
Lead	2021	mg/L	15	0	3	1 over AL	Corrosion of household plumbing	No
UNREGULATED CONTAMINANT MONITORING RULE 4 (UCMR4)			YEAR SAMPLED	AVERAGE	RANGE			
HAA9 Group (ppm)			2019 <sup>f</sup>	0.02	0.009 - 0.028			
Total Brominated HAAs (ppm)			2019 <sup>f</sup>	0.004	0.002 - 0.006			
Total Haloacetic Acids (ppm)			2019 <sup>f</sup>	0.016	0.008 - 0.023			
Manganese (ppm)			2019 <sup>f</sup>	0.002	0.001 - 0.004			
TOC (ppm)			2019 <sup>f</sup>	1.838	1.21 - 2.35			

Note: Water from the City of Gainesville is an emergency connection only.

**Keynotes Legend:**

- a Annual average
- b Turbidity is a measure of the cloudiness of water and is monitored because it is a good indicator of the effectiveness of the filtration system.
- c Average of monthly averages
- d Range detected
- e. Values represent highest single measurement unless otherwise noted
- f. The last testing occurred in 2019 in accordance with EPA regulations. The next testing will take place in 2025.

**From the EPA** 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 (1-800-426-4791).

**Definitions**

We routinely monitor for constituents in your drinking water according to Federal and State laws. The test results table shows the results of our monitoring for the period of January 1st to December 31st, 2021. In the table you might find terms and abbreviations you are not familiar with. To help you better understand these terms we've provided the following definitions:

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

**Action Level Goal (ALG)** – the level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

**Avg.** – Regulatory compliance with some MCLs is based on running annual average of monthly samples.

**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 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. MCLGs allow for a margin of safety.

**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 microbial 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.

**Minimum Reporting Level (MRL)** – the smallest measured concentration of a substance that can be reliably measured by using a given analytical method.

**NA** – not applicable.

**ND** – not detected.

**NTU** – Nephelometric Turbidity Units.

**Parts per billion (ppb)** – micrograms per liter (µg/l) or one ounce in 7,350,000 gallons of water.

**Parts per million (ppm)** – milligrams per liter (mg/L) or one ounce in 7,350 gallons of water.

**P/A** – present/absent per 100 ml.

**Turbidity** – measure of the cloudiness of water and is monitored because it is a good indicator of the effectiveness of the filtration system.