

**The following water quality report is presented to the citizens of the City of Auburn using information provided by the Barrow County water and sewerage authority and from Gwinnett County water authority, also from testing in and around the City of Auburn. Should you have any questions regarding the information in this report, you may contact Elbert Blackstock, Auburn's public water licensed operator at (770)963-4002. This report details information on our water system for the calendar year of 2018, January 1st to December 31<sup>st</sup>**

**During the calendar year of 2018 the City of Auburn purchased 100% of our drinking water from Barrow County Water and sewer Authority (BCWSA).**

**We have the ability to purchase water from Gwinnett County if needed.**

#### **WHERE DOES MY WATER COME FROM?**

The BCWSA purchased all of its drinking water from the Upper Oconee Basin Water Authority. The water supply sources for the Upper Oconee Basin Water Authority are Bear Creek and the Middle Oconee River.

#### **NOTES ABOUT CONTAMINANTS**

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). This same traveling water can pick 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, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- · · · · Inorganic contaminants, such as salt 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 chemicals (which are byproducts of industrial processes and petroleum production) can also come from gas stations, urban storm water runoff and septic systems.

· · Radioactive contaminants, which can be naturally occurring or be the results of oil and gas production and mining activities.

· · Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

In order to insure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations established limits for contaminants in bottled water, which must provide the same protection for public health.

## **CONTAMINANTS AND HEALTH RISK**

**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. Barrow County Water and Sewerage Authority 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>.**

**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 EPA's Safe Drinking Water Hotline (1-800-426-4791).**

## **IMPORTANT HEALTH INFORMATION**

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 persons 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)**.

## **WHAT IS CRYPTOSPORIDIUM?**

Cryptosporidium (Crypto) is a one-celled parasite protozoan, which is often found in water sources that receive runoff from animal waste. Crypto can infect humans and have severe impacts on certain people including organ transplant recipients, immuno-compromised persons, young children and persons undergoing cancer treatment. Under the U.S. EPA's Information Collection Rule, quarterly samples have been collected from the Upper Oconee Basin Water Authority's raw and treated water and analyzed. Crypto has not been detected in neither source water or drinking water. Samples have been analyzed for over five years and Crypto has never been detected.

## **READING THE RESULTS - Definitions of Terms and Abbreviations Used in the Report**

**AL** Action Level (AL): The concentration of a contaminate which if exceeded, triggers treatment or other requirements which a water system must follow.

**MCL** Maximum Contaminate 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.

**MCLG** Maximum Contaminate 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.

**m/L** Milliliter: A milliliter is one thousandth of a liter. One liter is equal to slightly more than a quart.

**n/a** Not applicable.

**nd** Not detectable at testing limit.

**NTU** Nephelometric Turbidity Unit (NTU): A measure of suspended material in water.

**ppm** A part per Million means one part per 1,000,000 (same as milligrams per liter) and corresponds to 1 minute in 2 years, or 1 penny in \$10,000.

**ppb** A part per Billion means one part per 1,000,000,000 (same as micrograms per liter) and corresponds to 1 minute in 2,000, or 1 penny in \$10,000,000.

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

**Turbidity** Turbidity is a measure of the cloudiness of water.

**(a)** Water from a treatment plant does not contain lead or copper. However, based upon the Georgia Environmental Protection Division (EPD) testing requirements, water is tested at the tap. These test show that where a customer may have lead 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.

**(b)** Fluoride is added in treatment to bring the natural levels to the EPA Optimum of 1 part per million. This optimum concentration promotes strong teeth.

**(c)** The EPD requires that no single reading for turbidity exceed 2 NTUs.

**(d)** The EPD requires that no more than 5% of all readings exceed 0.5 NTU.

> Greater than.

< Less than.

**ne** Not Established.

## **WATER QUALITY DATA**

The following tables list all the drinking water contaminants that we detected during the 2018 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 these tables is from testing done January 1-December 31,2018.

### **IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OUR OPERATIONS?**

EPD and EPA require us to test our water on a regular basis to ensure its safety. During 2016, we submitted monthly water samples for bacteriological analysis in accordance with our Operating Permit. All samples tested satisfactory.

The 1996 Amendments to the Federal Safe Drinking Water Act (SWDA,) brought about a new approach for either past strengths of the Surface Water Treatment Rule, expansion of water monitoring, and other compliance measures, the EPA advocates prevention of contamination as an important tool in the protection of public water supplies. Georgia's EPD mission is to develop a source water assessment plan for each public water system to help protect the sources ensuring quality drinking water that meets all state and federal regulations and to assist the promotion and implementations of the protection plans. Barrow County is pleased to inform you that all of our water suppliers are in full compliance with the comprehensive Source Water Assessment Programs (SWAP). You can access detailed information of the plans on the Georgia Regional Development Center's website.

<http://www.negrdc.org/swap/index.html>.

The Barrow County Water System is pleased to present a summary of the quality of water provided to

you during the past year. The Safe Drinking Water Act (SDWA) requires that utilities issue an annual "Consumer Confidence" report to its customers. This report details where our water comes from, what it contains, and the risks our water testing and treatment are designed to prevent. Barrow County Water System is committed to providing you with the safest and most reliable water supply. Informed consumers are our best allies in maintaining safe drinking water. We encourage public interest and participation in our community's decisions affecting our drinking water. The Barrow County Board of Commissioners meets each month on the second and fourth Tuesday at 7:00 pm in the Commission Meeting Room located on the second floor of the Historic Courthouse, 30 North Broad Street in Winder, GA. Any comments are welcomed; please contact our office at 770-307-3014.



**Water Source:** Barrow County purchased all of its drinking water from the Upper Oconee Basin Water Authority. The Water supply sources for the Upper Oconee Basin Water Authority are Bear Creek and the Middle Oconee River.

### How to Read this Table

The chart in this report provides representative analytical results of water samples, collected in 2018 unless otherwise noted from the Barrow County Water System. Please note the following definitions:

**Maximum Contaminant Level or 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 or MCLG:** The level of contaminant in drinking water below, which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Action Level:** The concentration of a contaminant, which triggers treatment or other requirement, which a water system must follow.

Inorganic Contaminant	Date	Units	MCL	MCLG	Detected	# Above AL	Major Sources	Violations?
<b>Lead<sup>1</sup></b>								
Barrow County	2014	ppb	AL=15	0	0.2	0	Corrosion of household plumbing systems, erosion of natural deposits	NO
<b>Copper<sup>2</sup></b>								
Barrow County	2014	ppb	AL=1300	1300	24	0	Corrosion of household plumbing systems, erosion of natural deposits	NO
<b>Fluoride</b>								
Bear Creek		ppm	4	4	0.77	0.63-1.01	Erosion of natural deposits, water additive that promotes strong teeth	NO
Organic Contaminant	Date	Units	MCL	MCLG	Detected	Range	Major Sources	Violations?
<b>Chlorine Residual</b>								
Barrow County		ppm	4	4	1.05	0.89-1.23	Water disinfectant	NO
Bear Creek		ppm			1.8	1.2-2.5		
<b>TTHM's</b>								
Barrow County		ppb	80	n/a	59.75	20-113	By-product of drinking water chlorination	NO
Bear Creek		ppb			27.8	28.2-38.5		
<b>HAA5</b>								
Barrow County		ppb	60	n/a	47.25	18-69	By-product of drinking water chlorination	NO
Bear Creek		ppb			28.9	25.4-35.3		
Microbiological Contaminant	Date	Units	MCL	MCLG	Detected	Range	Major Sources	Violations?
<b>Turbidity<sup>3</sup></b>								
Bear Creek		NTU	TT=1	n/a	0.04	0.02-0.09	Soil Runoff	NO
<b>Turbidity</b>								
Bear Creek		NTU	95% samples	n/a	100%	n/a	Soil Runoff	NO
<b>Total Coliform</b>		p/a	No more	0			Naturally present in the	

Barrow County	p/a	than 5% of monthly samples	0	n/a	environment	NO
Bear Creek	p/a		0	n/a		NO
<b>Total Organic Carbon</b>	ppm	TT	n/a		Naturally present in the environment	
Bear Creek			1..3	1.1-1.7		NO

Table Key	Water-Quality Table Footnotes
AL = Action Level	1 ppb of lead reported as the 90th percentile of samples taken
MCL = Maximum Contaminant Level	2 ppb of copper reported as the 90th percentile of samples taken
MRDL = Maximum Residual Disinfectant Level	3 Turbidity is a measure of the cloudiness in water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system.
MCLG = Maximum Contaminant Level Goal	
MRDLG = Maximum Residual Disinfectant Level	
ppm = parts per million or milligrams per liter (mg/L)	
ppb = parts per billion or micrograms per liter (ug/L)	
p/a = presence/absence (microbial)	

**Required Additional Health Information:**

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottle 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 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 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:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) 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.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.
- (D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- (E) 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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than is 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* are available from the Safe Drinking Water Hotline (800-426-4791).

#### **Lead in Drinking Water**

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 Town of Braselton 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 minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

#### **National Primary Drinking Water Regulation Compliance**

If you have any questions please contact the Barrow County Water System Distribution Superintendent, Dewayne Moss at (404) 597-8867 or email at [dmoss@barrowga.org](mailto:dmoss@barrowga.org). Water Quality Data for community water systems throughout the United States is available at [www.waterdata.com](http://www.waterdata.com). Water system customers will receive notice of availability of the CCR through a notice posted on the water bill. A copy of this Water Quality Report will not be mailed to each individual customer; additional copies will be available at the Barrow County water department. This report contains water quality information from the Barrow County Water System (WSID0130031/01360034).



*Este informe contiene information muy importante. Traduscalo o hable con un amigo quien lo entienda bien.*

# The City of Auburn

The Chlorine detectable residual .90 ppm average.

**Substance** Units MCL MCLG System Violations Source of Substance

Results (YES/NO)

**Fluoride** ppm 4.0 4.0 detectable residual .81 ppm average no mcl violations.

Water additive that promotes  
Strong teeth; discharge from  
Fertilizer and aluminum factories

**Average P.H 7.17**

**Turbidity** NTU <.30 NTU in 95% of N/A **Average turbidity 0.10 ntu** NO mcl violations

100% Soil Runoff  
Samples/month

**Substance** Units MCL Violation Amount Source of Substance

(YES/NO) Detected

**Total Trihalomethanes** ppb 80 detectable level 16.02 NO mcl violations.

By-product of drinking  
Water chlorination.

**Total Haloacetic Acids** ppb 60 detectable level 41.32 no mcl violations

By-product of drinking  
Water chlorination.

**Chloroform** ppb N/A 58.23 **ppb** NO mcl violation

By-product of drinking  
Water chlorination.

## MICROBIOLOGICAL

The mcl is 1 per month in 2018 the city of Auburn had no positive for bacteria samples.  
Naturally present in the environment.

# Gwinnett County 2018 Water quality report.

Water Quality Data EPA Regulated Inorganic Substances or Contaminants Substance (Unit) Analysis Frequency MCL MCLG Average Range Major Sources Violation Fluoride1 (ppm) Annually 4 4 0.75 0.63 – 0.85 Erosion of natural deposits; water additive which promotes strong teeth No Nitrate/Nitrite2 (ppm) Annually 10 10 0.545 0.44 – 0.65 Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits No 1 Fluoride is added to water to help promote dental health in children. 2Nitrate and Nitrite are measured together.

Gwinnett County Water Distribution System – Lead and Copper Levels at Residential Taps Substance (Unit) Action Level 90% 90th Percentile sample result Number of sites exceeding Action Level (AL) Major Sources Violation Lead3 (ppb) 15 1.1 1 Corrosion of household plumbing systems No Copper4 (ppm) 1.30 0.16 0 Corrosion of household plumbing systems No Gwinnett is required to test a minimum of 50 homes for lead and copper every three years. The last testing occurred in 2017, and the next testing will take place in 2020. 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. 3Of the 50 homes tested in 2017, one site exceeded the lead action level (AL) for lead. 4Of the 50 homes tested in 2017, no sites exceeded the lead action level (AL) for copper. Disinfection By-Products, By-Product Precursors, and Disinfectant Residuals Substance (Unit) Analysis Frequency MCL (LRAA) MCLG (LRAA) Highest Detected LRAA5 Range Major Sources Violation TTHMs (Total Trihalomethanes) (ppb) - Stage 2 Quarterly 80 0 60.1 9.5 – 60.1 By-products of drinking water disinfection No HAA5s (Haloacetic Acids) (ppb) - Stage 2 Quarterly 60 0 32 8.525 – 32.0 By-products of drinking water disinfection No TOC (Total Organic Carbon) (ppm) Monthly TT N/A Average=1.17 0.89 – 1.5 Decay of naturally-occurring organic matter in the water withdrawn from sources such as lakes and streams No Chlorine (ppm) Monthly MRDL=4 MRDLG=4 Average=2.15 0.58 – 2.15 Drinking Water Disinfectant No Bromate (ppb) Monthly 10 0 Average < 5.0 <5.0 – 6.1 By-product of drinking water disinfection utilizing ozone No 5LRAA= Locational Running Annual Average

## Turbidity

Substance (Unit) Analysis Frequency MCL MCLG Highest value reported

Lowest % of samples meeting limit

Major Sources Violation

Turbidity (NTU) Continuous

TT, <0.3 in 95% of monthly samples

0 0.17 100 Soil Runoff No



Note: Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

#### Microbiological Contaminants

Substance (Unit) Analysis Frequency MCL MCLG

Highest % positive samples (monthly)

Range Major Sources Violation

Total Coliform Bacteria<sup>6</sup> (+/-) Monthly

<5% positive samples (monthly)

0 0.364 0 – 0.364 Naturally present in the environment No