

BARROW COUNTY ANNUAL WATER QUALITY REPORT - 2017

INTRODUCTION

The Barrow County Water and Sewerage Authority (BCWSA) is pleased to provide you with this Annual Water Quality Report for the past year's performance of our water suppliers. 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 BCWSA is committed to provide our service area with clean, safe and reliable drinking water. For more information, please call the BCWSA office at 770-307-3014.

This report contains very important information about your drinking water. Translate it or speak with someone who understands it.

Este informe contiene información muy importante. Tradúscalo o hable con un amigo quien lo entienda bien.

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 by-products 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.

WATER QUALITY DATA

The following tables list all the drinking water contaminants that we detected during the 2017 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, 2017.

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>.

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.

Upper Oconee Basin Water Authority

DETECTED CONTAMINANTS TABLE 2017

<u>Substance</u>	<u>Units</u>	<u>MCL</u>	<u>MCLG</u>	<u>Highest Level</u>	<u># of Samples</u>	<u>Violations (YES/NO)</u>	<u>Source Of Substance</u>
<u>Copper</u>	mg/L	1.3	1	N/A	N/A	NO	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives.
<u>Lead</u>	mg/L	0.015	0.0	N/A	N/A	NO	Corrosion of household plumbing system.

UNREGULATED VOLATILE ORGANIC SUBSTANCES

<u>Substance</u>	<u>Units</u>	<u>MCL</u>	<u>MCLG</u>	<u>Amount Detected</u>	<u>Violations (YES/NO)</u>	<u>Source Of Substance</u>
<u>Bromodichloromethane</u>	ppb	N/A	N/A	7.5	NO	By-product of drinking water chlorination.
<u>Chloroform</u>	ppb	N/A	N/A	33	NO	By-product of drinking water chlorination.
<u>Chlorodibromomethane</u>	ppb	N/A	N/A	1.6	NO	By-product of drinking water chlorination

PRIMARY INORGANIC SUBSTANCE

<u>Substance</u>	<u>Units</u>	<u>MCL</u>	<u>MCLG</u>	<u>Amount Detected</u>	<u>Violations (YES/NO)</u>	<u>Source Of Substance</u>
<u>Fluoride</u>	ppm	4.0	4.0	0.75	NO	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
<u>Nitrate/Nitrite</u>	ppm	10.0	10.0	not detected	NO	Run off from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

DISINFECTION BY-PRODUCTS

<u>Substance</u>	<u>Units</u>	<u>MCL</u>	<u>Amount Detected</u>	<u>Violations (YES/NO)</u>	<u>Source Of Substance</u>
<u>Total Trihalomethanes</u>	ppb	80	30.45	NO	By-product of drinking water chlorination.
<u>Total Haloacetic Acids</u>	ppb	60	30	NO	By-product of drinking water chlorination.
<u>Total Organic Carbon</u>	N/A	TT	1.5	NO	By-product of drinking water chlorination

TURBIDITY

<u>Substance</u>	<u>Units</u>	<u>MCL</u>	<u>MCLG</u>	<u>Highest Reported</u>	<u>Violation (YES/NO)</u>	<u>Lowest % of Samples Meeting Limits</u>	<u>Source Of Substance</u>
<u>Turbidity</u>	NTU	<0.3 in 95% of samples/month	N/A	0.10	NO	100%	Soil Runoff

MICROBIOLOGICAL

<u>Substance</u>	<u>MCL</u>	<u>MCLG</u>	<u># of System Positive Results</u>	<u>Violation (YES/NO)</u>	<u>Source in Drinking Water</u>
<u>Total Coliform Bacteria</u>	0	0	0	NO	Naturally present in the environment.

Barrow County Water Authority

DETECTED CONTAMINANTS TABLE 2017

<u>Substance</u>	<u>Units</u>	<u>MCL</u>	<u>MCLG</u>	<u>Highest Level</u>	<u># of Samples</u>	<u>Violations (YES/NO)</u>	<u>Source Of Substance</u>
<u>Copper</u>	mg/L	1.3	1	0.093	30	NO	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives.
<u>Lead</u>	mg/L	0.015	0.0	0.00059	30	NO	Corrosion of household plumbing system.

UNREGULATED VOLATILE ORGANIC SUBSTANCES

<u>Substance</u>	<u>Units</u>	<u>MCL</u>	<u>MCLG</u>	<u>Amount Detected</u>	<u>Violations (YES/NO)</u>	<u>Source Of Substance</u>
<u>Bromodichloromethane</u>	ppb	N/A	N/A	5.1	NO	By-product of drinking water chlorination.
<u>Chloroform</u>	ppb	N/A	N/A	34	NO	By-product of drinking water chlorination.
<u>Chlorodibromomethane</u>	ppb	N/A	N/A	1.1	NO	By-product of drinking water chlorination

PRIMARY INORGANIC SUBSTANCE

<u>Substance</u>	<u>Units</u>	<u>MCL</u>	<u>MCLG</u>	<u>Amount Detected</u>	<u>Violations (YES/NO)</u>	<u>Source Of Substance</u>
<u>Fluoride</u>	ppm	4.0	4.0	0.75	NO	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
<u>Nitrate/Nitrite</u>	ppm	10.0	10.0	0.14	NO	Run off from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

DISINFECTION BY-PRODUCTS

<u>Substance</u>	<u>Units</u>	<u>MCL</u>	<u>Amount Detected</u>	<u>Violations (YES/NO)</u>	<u>Source Of Substance</u>
<u>Total Trihalomethanes</u>	ppb	80	69.25	NO	By-product of drinking water chlorination.
<u>Total Haloacetic Acids</u>	ppb	60	62	YES	By-product of drinking water chlorination.
<u>Total Organic Carbon</u>	N/A	TT	1.5	NO	By-product of drinking water chlorination

TURBIDITY

<u>Substance</u>	<u>Units</u>	<u>MCL</u>	<u>MCLG</u>	<u>Highest Reported</u>	<u>Violation (YES/NO)</u>	<u>Lowest % of Samples Meeting Limits</u>	<u>Source Of Substance</u>
<u>Turbidity</u>	NTU	<0.3 in 95% of samples/month	N/A	0.10	NO	100%	Soil Runoff

MICROBIOLOGICAL

<u>Substance</u>	<u>MCL</u>	<u>MCLG</u>	<u># of System Positive Results</u>	<u>Violation (YES/NO)</u>	<u>Source in Drinking Water</u>
<u>Total Coliform Bacteria</u>	0	0	0	NO	Naturally present in the environment.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for GA0130031 BARROW COUNTY WATER SYSTEM

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. We did not complete the required monitoring or testing for LEAD & COPPER that was due during the 1/1/2015-12/31/2017 compliance period and therefore cannot be sure of the quality of your drinking water during the last compliance period.

What should You do? There is **nothing** you need to do at this time.

The table below gives more detailed information about this monitoring violation:

Contaminant?	Required # of samples that should have been taken?	# of samples that were taken (if any)?	When samples should have been taken?	When samples were taken (if any) or when will samples be taken next?
Lead	30	30	Between June 1-Sept 30 of scheduled compliance year	October 22, 2017 of the compliance year
Copper	30	30	Between June 1-Sept 30 of scheduled compliance year	October 22, 2017 of the compliance year

What is being done?

Barrow County Water System mistakenly scheduled the sample collection 22 days after the sampling period for the compliance year. We have revised the sampling schedule protocol to ensure that sampling is completed within the required period for the next sampling period.

Please note that the samples were collected and tested. The test results were found in compliance with EPA regulations.

For more information, please contact Sam Mark at 770.307.3014
or 625 Hwy 211, NE, Winder, GA 30680.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Date public notice was distributed: CCR – 04/12/2018

**PUBLIC NOTIFICATION
IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Total Haloacetic Acids (HAA5) Violations
at Barrow County BOC Transmission Mains Water System**

Water System Name: Barrow County BOC Transmission Mains (GA0130034)
County: Barrow
Date Distributed: March 23, 2018
Contact Person: Sam Mark
Phone: (770) 307-3014
Mailing Address: 625 Highway 211, NE
City: Winder State: GA Zip: 30680

Our community water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did to correct this situation.

Violation ID	Compliance Period	Site #	Analyte	Concentration	MCL
2018-16	3Q2017 – 07/02/2017 – 09/30/2017	501	HAA5	0.062 mg/L	0.060 mg/L
2018-17	3Q2017 – 07/02/2017 – 09/30/2017	502	HAA5	0.061 mg/L	0.060 mg/L

What should I do?

There is **nothing** you need to do. These violations do not pose a threat to the quality of the water supplied. You do **not need** to boil your water or take other corrective actions. Residents should not be alarmed and do not need to seek alternative water supplies. The supplier is taking corrective actions to insure that adequate monitoring and reporting will be maintained.

Some people who drink water-containing Total Haloacetic Acids in excess of the maximum containment level (MCL) **over many years**, experience problems with their liver, kidneys or central nervous system, and may have an increased risk of getting cancer. If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

What happened? What is being done?

HAA5 is a by-product of the chlorination process. We have modified the chlorine dosing protocol while maintaining disinfection quality, which has reduced the HAA5 levels. All subsequent sampling has shown that HAA5 levels are below the standard. We will continue to monitor for the presence of drinking water contaminants.

For more information, please contact Barrow County Water at 770.307.3014 or 625 Highway 211, NE, Winder, GA, 30680.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.