



## City of Bessemer City 2016 Consumer Confidence Report

**PWSID# 01-36-025  
February 7, 2017**

The staff of the J. V. Tarpley Water Treatment Facility is pleased to present this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality and services we deliver to you every day. Our constant goal is to provide our customers with a safe and dependable supply of water for drinking, domestic, and recreational purposes. Our primary water source is Arrowood Lake, located on Sunset Drive; however, we periodically draw from Long Creek and Ben Webber Reservoir during periods of low levels in Arrowood Lake.

The NC SWAP (Source Water Assessment Program) has rated our source water as moderate in susceptibility. The complete SWAP Assessment report for Bessemer City may be viewed on the web at: [www.ncwater.org/pws/swap](http://www.ncwater.org/pws/swap). Because SWAP results and reports are periodically updated by the PWS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. If you are unable to access your SWAP report on the web, you may mail a written request for a printed copy to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634, or email requests to [swap@ncdenr.gov](mailto:swap@ncdenr.gov). Please indicate your system name, number, and provide your name, mailing address, and phone number. If you have any questions about the SWAP report please contact the Source Water Assessment staff by phone at 919-707-9098.

If you have any questions regarding this report or concerning your water quality, please contact Melinda Beard, Assistant Director of Public Works, at 704-629-5684 Monday through Friday from 8:00 AM until 4:00 PM. We encourage you to attend any of our regularly scheduled City Council Meetings which are held the second Monday of each month at 7:00 PM in the Council Chambers of City Hall located at 132 W. Virginia Ave.

The J. V. Tarpley Water Treatment Facility routinely monitors for contaminants in your drinking water according to Federal and State Laws. This table shows the results of our monitoring for the period of January 1, 2016 through December 31, 2016.

As water travels over the land or underground it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water may be reasonably expected to contain at least small amounts of these contaminants. It is important to remember that the presence of these contaminants does not necessarily pose a health risk. In this table you will find many terms and abbreviations with which you might not be familiar. To help you better understand these terms we've provided the following definitions:

Non-Applicable (N/A) – Information no applicable/not required for that particular water system or for that particular rule.

Non-Detects (ND) – Laboratory analysis indicates the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) – One part per million corresponds to one minute in 2 years, or a single penny in \$10,000.00.

Parts per billion (ppb) or Micrograms per liter – One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.00.

Parts per trillion (ppt) or Nanograms per liter (nanograms/L) – One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.00.

Maximum Contaminant Level – The “Maximum Allowed” (MCL) is the highest level of a contaminant allowed in drinking water. MCL’s are set as close to the MCLG’s as feasible using the best available treatment technology.

Maximum Contaminant Level Goal – The “Goal” (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG’s allow for a margin of safety.

Allowable Limits (AL) – This is the limit that is allowed by EPA and State Public Water Supply Section

Pico curies per liter (PCi/L) – A unit of measurement for radioactivity. A Pico curie is equivalent to the radioactivity present in one trillionth of one gram of pure radium.

Nephelometric Turbidity Unit (NTU) – Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Locational Running Annual Average (LRAA) – The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters under the Stage 2 Disinfection Byproducts Rule.

Some people who drink water containing trihalomethanes in excess of the MCL over many years, may experience problems with liver, kidneys, or central nervous system and may increase the risk of getting cancer.

We’re proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

Please note that the City of Bessemer City Water Treatment Facility has not used Fluoride in its water treatment since 2011. The City of Kings Mountain uses Fluoride and during the time Bessemer City purchased water from Kings Mountain during the recent drought(September and October, 2015) there was Fluoride in the system.

We are continually using corrective action to remove Chlorine from our water system and are flushing hydrants throughout the City on a regular basis, to try to prevent high levels of TTHM’s.. We have been treating all of our water needs since July 1, 2014 and have seen a great improvement in our TTHM sample analysis results.

During 2015 the City experience a severe drought. This caused an increase in manganese for a few days and caused some discoloration in the water. We are working diligently to prevent this from causing a problem in the future.

During 2016 the City experienced another drought. We are consistently monitoring the water parameters including Iron and Manganese to catch any problems at the water treatment plant before the water enters the City’s system.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency’s Safe Drinking Water Hotline at 1-800-426-4791.

“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 Bessemer City 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. Lead in drinking water is rarely the sole cause of exposure. All potential sources of lead in the household should be identified and removed, replaced, or reduced. 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 Safety Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

**MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a million chance of having the health effects that have been determined by the Environmental Protection Agency.**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791). March 22, 2016 was World Water Day. As you make coffee, shower, brush your teeth, flush the toilet, and wash your clothes and/or dishes, please realize what luxuries you have in the form of accessible, running potable water and think of the 1 billion people sharing our world who do not have safe drinking water.

Please call our office if you have questions.

Respectfully,

A handwritten signature in cursive script that reads "Melinda E. Beard". The signature is written in black ink on a light-colored background.

Melinda E. Beard  
Assistant Director of Public Works  
J. V. Tarpley Water Treatment Facility  
City of Bessemer City

**ANALYSIS FOR JANUARY 1, 2016 THROUGH DECEMBER 31, 2016**

Contaminants	MCL Violation Y/N	Units	Your Water	Range Low/High	# of sites above the AL	MCLG	MCL	Likely Source of Contamination	
<b>Microbiological Contaminants</b>									
Total Coliform Bacteria - None Detected							1 positive sample/month Note: If either an original routine sample and/or its repeat sample(s) are fecal coliform or E. coli positive, a Tier 1 violation exists	Naturally Occuring	
Fecal Coliform Bacteria - None Detected								Naturally Occuring	
<b>Turbidity</b>	Yes	NTU	0.1	.03 - 0.340	N/A	N/A	Less than 95% of monthly turbidity measurements are <=/= 0.3 NTU	Soil Run Off	
<b>Inorganic Contaminants</b>									
Sodium	No	mg/L	13.200	N/A	N/A	N/A	N/A	Natural & Man Made	
Fluoride	The City of Bessmer City does not feed Fluoride							Natural & Man Made	
			<b>Average</b>						
<b>Lead - 2015</b>	No	mg/L	ND	N/A	N/A	0	0.015	Natural & Man Made	
<b>Copper - 2015</b>	No	mg/L	ND	N/A	N/A	1.3	1.3	Natural & Man Made	
<b>Nitrates - No Detect</b>									
<b>Unregulated Volatile Organic Chemicals - No Detect</b>									
<b>Disinfection By-Product Precursors Contaminants</b>									
			<b>Average</b>						
Total Organic Carbon - RAW	No	mg/L	2.9	2.3 - 3.5	0	N/A	TT	Naturally present in the environment	
Alkalinity	No	mg/L	24.0	22 - 28	0	N/A	TT	Naturally present in the environment	
Total Organic Carbon - TREATED	No	mg/L	1.3	0.0 - 1.7	0	N/A	TT	Naturally present in the environment	
NOTE: Depending on the TOC in our source water the system MUST have a certain % removal of TOC or must achieve alternative compliance criteria. If we do not achieve that % removal there is an "alternate % removal". If we fail to meet that, we are in violation of a Treatment Technique. Our system used Step 1 and ACC 2.									
<b>Step 1 TOC Removal Requirements</b>							<b>ACC 2 TOC Removal Requirements</b>		
Source Water TOC (mg/L)	Source Water Alkalinity mg/L as CaCO3 ( in percentages)							Treated Water TOC <2.0 mg/L	
	0 - 60	> 60 - 120				> 120			
> 2.0 - 4.0	35.0	25.0				15.0			
> 2.0 - 8.0	45.0	35.0				25.0			
> 8.0	50.0	40.0				30.0			
<b>Disinfection By-Product Contaminants</b>			<b>Average</b>						
Total Trihalomethanes	No	mg/L	0.071	0.036 - 0.124	2	N/A	0.080	By-product of drinking water disinfection	
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Total Haloacetic Acids	No	mg/L	0.0519	0.0486 - 0.0556	0	N/A	0.060	By-product of drinking water disinfection	
<b>Asbestos - 2013</b>	No	MFL	0.1700	N/A	0	N/A	7.000	Decay of asbestos cement in water mains Erosion of natural deposits	

Contaminants	MCL Violation	Units	Your Water	Range Low/High	# of sites above the AL	MCLG	MCL	Likely Source of Contamination
Pesticides & Synthetic Chemicals	No Detect in 2014		Not scheduled for analysis again until 2017					
Distribution Residual Summary						MRDLG	MRDL	
Chlorine	No	mg/L	1.56	0.13 - 4.52	1	4	4.000	Water additive used to control microbes