

TOWN OF WINTERVILLE

Annual Drinking Water Quality Report – 2018

Water System Number: NC0474040

May 2019

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is a snapshot of last year's water quality. Included are details about your sources of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and to providing you with this information because informed customers are our best allies. **If you have any questions about this report or concerning your water, please contact Travis Welborn at (252) 215-2427. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second Monday of each month at 7:00 p.m. at the Winterville Town Hall Assembly Room.**

What EPA Wants You to Know

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).

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 (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 Town of Winterville 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>.

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 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 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 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.

When You Turn on Your Tap, Consider the Source

The water that is used by the Town of Winterville system comes from two different sources, the Town's wells and purchased water from Greenville Utilities Commission. The Town's wells provide ground water that comes from three (3) wells. The Hunsucker Well is located on Church Street Extension, the Ragland Well is located on Cannon Road, and the Ballpark Well is located off Division Street in the Recreation Park area. The Greenville Utilities Commission water is obtained from the Tar River which is classified as surface water. Additionally, GUC has eight water supply wells which supplement the surface supply with ground water.

Source Water Assessment Program (SWAP) Results

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate or Lower.

The relative susceptibility rating of each source for the Town of Winterville was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area). The assessment findings are summarized in the table below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating	SWAP Report Date
Hunsucker Well	Lower	April 24, 2017
Ragland Well	Lower	April 24, 2017
Ballpark Well	Moderate	April 24, 2017

The complete SWAP Assessment report for the Town of Winterville may be viewed on the Web at:

<https://www.ncwater.org/?page=600>. Note that 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. 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.

It is important to understand that a susceptibility rating of “higher” does not imply poor water quality, only the system's potential to become contaminated by PCSs in the assessment area.

Help Protect Your Source Water

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source(s) in several ways: (examples: dispose of chemicals properly; take used motor oil to a recycling center, volunteer in your community to participate in group efforts to protect your source, etc.).

Violations that our water system received for the report year

During the 2018 calendar year the Town of Winterville received no violations.

Water Quality Data Table of Detected Contaminants

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The table below lists all the drinking water contaminants that we detected in the last round of sampling for each particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2018.** The EPA and the State allow us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

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 regulations are warranted.

Important Drinking Water Definitions:

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

Level 1 Assessment - A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment - A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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 Disinfectants and Disinfection Byproducts Rule.

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 Disinfection 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.

Maximum Residual Disinfection 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.

Not-Applicable (N/A) – Information not applicable/not required for that particular water system or for that particular rule.

Non-Detects (ND) - Laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used.

Parts per million (ppm) or Milligrams per liter (mg/L) - One part per million corresponds to one minute in two years or a single penny in \$10,000.

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

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.

Parts per quadrillion (ppq) or Picograms per liter (picograms/L) - One part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

Million Fibers per Liter (MFL) - Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

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.

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

Minimum Reporting Level (MRL) – The minimum concentration that may be reported by a laboratory as a quantified value for a method analyte following analysis. The MRLs were established based on the capability of the analytical method, not based on a level established as “significant” or “harmful.”

Reference Concentration – The reference concentrations are based on publicly-available health information found in the following EPA resources: 2018 Edition of the Drinking Water Standards and Health Advisories Tables, the CCL 4 Contaminant Information Sheets, and the Human Health Benchmark for Pesticides. The primary sources of the health information used to derive the guideline values in the resources referenced above are peer reviewed assessments from EPA or other governmental agencies. The reference concentrations are subject to change as new health assessments are completed. Reference concentrations are not legally enforceable federal standards.

Tables of Detected Contaminants

Inorganic Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Fluoride (ppm)	9/7/2016	N	1.00	0.61	1.00	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Lead and Copper Contaminants

Contaminant (units)	Sample Date	Your Water	# of sites found above the AL	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90 th percentile)	8/29/18	0.156	0	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90 th percentile)	8/29/18	0	0	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

Disinfectant Residuals Summary

	Year Sampled	MRDL Violation Y/N	Your Water (highest RAA)	Range		MRDLG	MRDL	Likely Source of Contamination
				Low	High			
Chlorine (ppm)	2018	N	2.80	2.0	3.7	4	4.0	Water additive used to control microbes
Chloramines (ppm)	2018	N	2.81	1.0	4.0	4	4.0	Water additive used to control microbes

Stage 2 Disinfection Byproduct Compliance - Based upon Locational Running Annual Average (LRAA)

Disinfection Byproduct	Year Sampled	MCL Violation Y/N	Your Water (highest LRAA)	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
TTHM (ppb)						N/A	80	Byproduct of drinking water disinfection
Location B01	2018	N	23	17.0	28.2			
Location B02	2018	N	17	10.1	24.0			
HAA5 (ppb)						N/A	60	Byproduct of drinking water disinfection
Location B01	2018	N	28	21.4	33.7			
Location B02	2018	N	22	13.1	27.5			

The PWS Section requires monitoring for other misc. contaminants, some for which the EPA has set national secondary drinking water standards (SMCLs) because they may cause cosmetic effects or aesthetic effects (such as taste, odor, and/or color) in drinking water. The contaminants with SMCLs normally do not have any health effects and normally do not affect the safety of your water.

Other Miscellaneous Water Characteristics Contaminants

Contaminant (units)	Sample Date	Your Water	Range		SMCL
			Low	High	
Iron (ppm)	9/7/16	.022	ND	.066	0.3 mg/L
Sodium (ppm)	9/7/16	105.31	89.38	124.15	N/A
pH	9/7/16	7.73	7.7	7.8	6.5 to 8.5

Unregulated Contaminant Monitoring Rule 4 Data

Contaminant (units)	Sample Date	Your Water	MRL	Reference Concentration
Cylindrospermopsin (ppm)	10/23/18	< MRL	0.09 mg/L	0.7 mg/L (bottle-fed infants and young children; 3 mg/L (school-age children and adults
Anatoxin-a (ppm)	10/23/18	< MRL	N/A	N/A
Total Microcystin	10/23/18	< MRL	0.3 mg/L	0.3 mg/L (bottle-fed infants and young children; 1.6 mg/L (school-age children and adults

The Town of Winterville participated in the EPA's Unregulated Contaminant Monitoring Rule (UCMR 4) Program during the 2018 calendar year. Each of the samples returned results lower than the Minimum Reporting Level.

Greenville Utilities Commission Consumer Confidence Report Data - 2018

SUBSTANCES (Measuring Units)	Highest Level Allowed [MCL]	Highest Level Detected	Range Detected	Ideal Goals [MCLG]	Description and Origin of Substance	Health Effects Language
Beta Emitters (pCi/L)	50	18	18.0 – 4.0	0	Decay of natural and man-made radioactive deposits	
Bromate (ppb)	10 (Running Annual Average)	1.0 (Running Annual Average)	4.2 - <1.0 (Highest & Lowest Site)	0	By-product of drinking water disinfection	
Chloramines (ppm)	4 (Running Annual Average)	2.9 (System Average)	4.4 - 1.0 (Highest and lowest site value)	4	Water additive used to control microbes	
Chlorine (ppm)	4 (Running Annual Average)	2.4 (System Average)	3.8 – 0.6 (Highest and lowest site value)	4	Water additive used to control microbes	
Fluoride (ppm)	4	1.4	1.4 – 0.6	4	Natural occurring mineral; also added to water to promote dental health.	
Total Organic Carbon Raw (ppm)*	TT	13.3	13.3 – 5.3 (Highest and lowest site value)	n/a	Naturally present in the environment.	
Total Organic Carbon Treated (ppm)*	TT	3.5	3.5 – 2.7 (Highest and lowest site value)	n/a	Naturally present in the environment.	
Turbidity (NTU)	1.0 and 95% of samples below 0.3 (Treatment Technique)	0.18 and 100% of samples below 0.3	n/a	0.3	Turbidity is a measure of cloudiness in water. It may be caused by inorganic soil particles or fragments of organic matter that can interfere with treatment.	
Cryptosporidium (oocyst) Raw Water	TT	1	2 out of 12 samples	0	Animal waste, sewage	

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Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating
WTP	Higher
WSW Well	Moderate
EPW Well	Lower
SSW Well	Moderate
BWW Well	Moderate
IBW Well	Lower
NSW Well	Moderate

The complete SWAP Assessment report for Greenville Utilities Commission may be viewed on the Web at: <http://www.deh.enr.state.nc.us/pws/swap> To obtain a printed copy of this report, please mail a written request to:

Source Water Program – Report Request
 1634 Mail Service Center
 Raleigh, NC 27699-1634

Or email request to swap@ncmail.net

If you have any questions about the SWAP report please contact the Source Water Assessment by phone at (919) 715-2633.

Susceptibility rating of “higher” does not imply poor water quality, only the systems’ potential to become contaminated by PCS’s in the assessment area.

Unregulated Contaminant Monitoring Rule 4 Data				
Substances	Highest Level Detected	Range	Description and Origin Substance	
Bromochloroacetic Acid ppb	5.5	5.5 -3.0	By-product of drinking water chlorination	
Bromodichloroacetic Acid ppb	1.9	1.9 - 0.8	By-product of drinking water chlorination	
Chlorodibromoacetic Acid ppb	0.33	0.33 - 0.3	By-product of drinking water chlorination	
Dibromoacetic Acid ppb	0.85	0.85 - 0.34	By-product of drinking water chlorination	
Dichloroacetic Acid ppb	32	32 - 10.3	By-product of drinking water chlorination	
Monobromoacetic Acid ppb	0.35	0.35 - .30	By-product of drinking water chlorination	

Monochloroacetic Acid ppb	9.4	9.4 - 3.1	By-product of drinking water chlorination
Trichloroacetic Acid ppb	7	7.0 - 2.6	By-product of drinking water chlorination

Bromide ppb	37	37 - 20	Naturally present in the environment.
TOC ppm	12.1	12.1 - 9.8	Naturally present in the environment.

Manganese ppb	14.5	14.5 - <0.4	Naturally-occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemicals; essential nutrient
Quinoline ppb	0.1	0.1 - <0.02	Used as a pharmaceutical (anti-malarial) and flavoring agent; produced as a chemical intermediate; Component of coal.

HOW TO CONTACT US:

**Town of Winterville
2571 Railroad Street
Post Office Box 1459
Winterville, NC 28590**

(252) 756-2221

Want more information? Contact the EPA Drinking Water Hotline at 1-800-426-4791.