

## 2022 Consumer Confidence Report (CCR) Certification Form

Water System Name: Stokes Regional Water Corporation

Water System No.: NC0474060

Report Year: 2022

Population Served: 3327

The Community Water System (CWS) named above hereby confirms that all provisions under 40 CFR parts 141 and 142 requiring the development of, distribution of, and notification of a consumer confidence report have been executed. Further, the CWS certifies the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the primacy agency by their NC certified laboratory. In addition, if this report is being used to meet Tier 3 Public Notification requirements, as denoted by the checked box below, the CWS certifies that public notification has been provided to its consumers in accordance with the requirements of 40 CFR 141.204(d).

**Certified by:** Name: Ray Baldree

Title: General Manager

Signature: \_\_\_\_\_

Phone #: (252) 757-7751

Delivery Achieved Date: \_\_\_\_\_

Date Reported to State: \_\_\_\_\_

The CCR includes the mandated Tier 3 Public Notice for a monitoring/reporting violation (check box, if yes).

Check **all** methods used for distribution (see instructions on back for delivery requirements and methods):

- Paper copy to all       US Mail       Hand Delivery
- Notification of availability of paper copy (Provide a copy of the notice.)  
Notification Method \_\_\_\_\_ (i.e., US Mail, door hanger)
- Notification of CCR URL (must be direct URL):  
**<https://stokesregional.myruralwater.com/water-quality-report>**  
Notification **Method On Water Bills** (i.e., on bill, bill stuffer, separate mailing, email)
- Direct email delivery of CCR       Attached       Embedded  
Notification Method \_\_\_\_\_ (i.e., on bill, bill stuffer, separate mailing)
- Newspaper (attach copy) Name of Paper? \_\_\_\_\_ Date Published: \_\_\_\_\_  
Notification Method \_\_\_\_\_ (i.e., on bill, bill stuffer, separate mailing, email)

**“Good faith” efforts** (in addition to one of the above required methods) were used to reach non-bill paying consumers such as industry employees, apartment tenants, etc. Extra efforts included the following methods:

- posting the CCR on the Internet at URL:  
**<https://stokesregional.myruralwater.com/water-quality-report>**
- mailing the CCR to postal patrons within the service area
- advertising the availability of the CCR in news media (attach copy of announcement)
- publication of the CCR in local newspaper (attach copy of newspaper)
- posting the CCR in public places such as: (attach list if needed) **Water Office**
- delivering multiple copies to single bill addresses serving several persons such as: apartments, businesses, and large private employers
- delivery to community organizations such as: (attach list if needed) \_\_\_\_\_

**Note:** Use of social media (e.g., Twitter or Facebook) or automated phone calls DO NOT meet existing CCR distribution methods under the Rule.

# ***2022 Annual Drinking Water Quality Report***

## ***Stokes Regional Water Corporation***

Water System Number: **NC 04-74-060**

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 source(s) 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 Ray Baldree at (252) 757-7751. 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 at Stokes Regional Water Corporation Office every fourth Thursday of each month.**

### **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. **Stokes Regional Water Corporation** 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 this system is groundwater and surface water purchased water from (GUC) Greenville Utilities Commission.

### Source Water Assessment Program (SWAP) Results

The North Carolina Department of Environmental Quality (DEQ), 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 **Stokes Regional Water Corporation** 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
Well # 3 Hardy	Moderate	September 10, 2020
Well # 4 Barnhill	Lower	September 10, 2020

The complete SWAP Assessment report for **Stokes Regional Water Corporation** 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](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.

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. We have implemented the following source water protection actions: 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 Your Water System Received for the Report Year

During 2022, or during any compliance period that ended in 2022, we received a LEAD CONSUMER NOTICE violation that covered the time period of 4-1-2021 thru 4-22-2021. We are/have reviewed our public notice procedures with staff to assure this does not happen again. We have since returned to compliance.

## **Important Drinking Water Definitions:**

- ***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.
  - ***Variations and Exceptions*** – State or EPA permission not to meet an MCL or Treatment Technique under certain conditions.
  - ***Action Level (AL)*** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
  - ***Treatment Technique (TT)*** - A required process intended to reduce the level of a contaminant in drinking water.
  - ***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.
  - ***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.
  - ***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.
  - ***Running Annual Average (RAA)*** – The average of sample analytical results for samples taken during the previous four calendar quarters.
  - ***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.
  - ***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.
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## Water Quality Data Tables of Detected Contaminants

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The tables below list 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, 2022.** 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.

### Inorganic Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Fluoride (ppm)	12/29/21	N	1.7 (ppm)	1.7 (ppm)		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	Number of sites found above the AL	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90 <sup>th</sup> percentile)	12/21/20	0.076 (ppm)	0	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90 <sup>th</sup> percentile)	12/21/20	0.0 (ppb)	0	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits

### Radiological Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Combined radium (pCi/L) Well# 4	12/30/19	N	1.0 (pCi/L)	1.0 (pCi/L)		0	5	Erosion of natural deposits

### Lead and Copper Contaminants

Contaminant (units)	Sample Date	Your Water	Number of sites found above the AL	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90 <sup>th</sup> percentile)	12/21/20	0.076 (ppm)	0	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90 <sup>th</sup> percentile)	12/21/20	0.0 (ppb)	0	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits

### Disinfectant Residuals Summary

	MRDL Violation Y/N	Your Water (highest RAA)	Range		MRDLG	MRDL	Likely Source of Contamination
			Low	High			
Chlorine (ppm)	N	1.47 (ppm)	1.1 (ppm) - 1.8 (ppm)		4	4.0	Water additive used to control microbes
Chloramines (ppm)	N	1.39 (ppm)	1.0 (ppm) - 2.7 (ppm)		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)	2022	N				N/A	80	Byproduct of drinking water disinfection
Location								
B01			41.5 (ppb)	25 (ppb) - 48 (ppb)				
B02			44.0 (ppb)	30 (ppb) - 50 (ppb)				
HAA5 (ppb)	2022	N				N/A	60	Byproduct of drinking water disinfection
Location								
B01			31.75 (ppb)	16 (ppb) - 40 (ppb)				
B02			23.5 (ppb)	10 (ppb) - 30 (ppb)				

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) Well #3	6/29/20	0.121 (ppm)	0.121 (ppm)		0.3 mg/L
Iron (ppm) Well#4	6/29/20	0.065 (ppm)	0.065 (ppm)		0.3 mg/L
Sodium (ppm) Well #3	6/29/20	261.45 (ppm)	261.45 (ppm)		N/A
Sodium (ppm) Well #4	6/29/20	253.05 (ppm)	253.05 (ppm)		N/A
Sulfate (ppm) Well #3	6/29/20	122.0 (ppm)	122.0 (ppm)		250 mg/L
Sulfate (ppm) Well #4	6/29/20	120.0 (ppm)	120.0 (ppm)		250 mg/L
pH Well #3	6/29/20	7.3	7.3		6.5 to 8.5
pH Well# 4	6/29/20	7.4	7.4		6.5 to 8.5



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# Water Quality Report

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2022

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*This report contains information about the high-quality water  
Greenville Utilities treats and delivers to our customers.*

**Atención**

Este folleto tiene información importante acerca de la calidad del agua que provee la Ciudad de Greenville. Si tiene preguntas acerca de la calidad del agua, llame al Departamento de Water Resources al Greenville Utilities durante las horas de trabajo.

# Our goal is to provide you with a safe and dependable supply of drinking water.

The highly-trained, state-certified staff at our Water Treatment Plant (WTP) continuously monitors the treatment process to ensure our water quality meets regulatory requirements. More than 100,000 tests are performed on hundreds of substances each year to ensure that your drinking water is safe. The WTP currently has the capacity to treat 22.5 million gallons per day (mgd).



Photo courtesy of Greer Media Productions

During 2021, GUC treated an average of 14.5 million gallons of water a day.

GUC met or surpassed all federal and state drinking water standards. GUC is committed to providing the highest quality drinking water to our customers. GUC was awarded its 6th consecutive Area Wide Optimization Award and the Partnership for Safe Water Directors Award in 2020. Both programs set water quality goals that are more stringent than EPA drinking water regulations.

We welcome questions and feedback, or any general inquiries you may have. Please contact us at (252) 551-1551.

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## Connected To You

*We treat more than 14.5 million gallons of water each day, serving more than 140,000 people.*

Sources of drinking water – both tap and bottled – include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive materials, and may pick up substances resulting from human activity or the presence of animals.

Substances that may be present in source water include: biological contaminants, such as viruses and bacteria; inorganic

contaminants, such as salts and metals; pesticides and herbicides; organic chemicals from industrial or petroleum use; and natural or man-made radioactive materials.

To ensure tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations limiting the amount of certain substances in water provided by public systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that must

provide the same protection of public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants, but 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 from the EPA's Safe Drinking Water Hotline 1-800-426-4791.





**WHERE YOUR WATER COMES FROM** | GUC's Water Treatment Plant receives its water from the Tar River, which is classified as a surface water supply. Additionally, three area deep wells supplement the surface water supply.

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## The Treatment Process

Water from the Tar River is pumped into a 63-million-gallon pre-settling reservoir where large, heavy dirt particles begin to settle out as the water slowly moves to the outlet of the reservoir. From there, the water flows to the plant where a coagulant (chemical to help smaller dirt particles come together to form larger particles called floc) is added. The water then passes through a series of mixers, called flocculators, designed to facilitate the formation of floc. After the mixers, the water slows to a snail's pace as it enters the sedimentation

basins. As it passes through the basins, about 95% of the floc settles to the bottom. The cleaner water from the top of the basin is then channeled to ozone tanks where it is ozonated. This part of the process is called primary disinfection. Harmful bacteria, germs, viruses and microorganisms are killed or inactivated by this process.

Next, the water is filtered where a majority of the remaining particles are removed. Additional chemical treatment happens next. Fluoride is added to help prevent tooth

decay, sodium hydroxide (caustic) is added to increase pH, phosphate is added for corrosion control and chlorine and ammonia are added to form chloramines, which function as the secondary disinfection in the distribution system.

Finished water is then pumped into three, 3,000,000-gallon ground storage tanks and into the distribution system, which includes two elevated tanks as well as our customers' homes and businesses.

# Our Findings

Listed are substances detected in GUC's treated water during 2021, unless otherwise noted. Not listed are other substances that were tested for (i.e., MTBE, Mercury, Petroleum products, etc.), but were not detected.

Substances Description and Origin of Substance	Highest Level Allowed [MCL]	Highest Level Detected	Range Detected	Ideal Goals [MCLG]
<b>Asbestos</b> (MFL)	7.0	<0.16	n/a	0.0
<b>Bromate</b> (ppb): By-product of drinking water disinfection.	10.0 (Running Annual Avg.)	<1.0 (Running Annual Avg.)	3.0 - <1.0 (Highest and lowest site values)	0.0
<b>Chloramines</b> (ppm): Water additive used to control microbes.	4.0 (Running Annual Avg.)	3.05 (System Avg.)	4.6 - 1.2 (Highest and lowest site values)	4.0
<b>Chlorine</b> (ppm): Water additive used to control microbes.	4.0 (Running Annual Avg.)	2.38 (System Avg.)	4.1 - 0.6 (Highest and lowest site values)	4.0
<b>Fluoride</b> (ppm): A naturally occurring mineral; also added to water to promote dental health.	4.0	0.94	0.94 - 0.6	4.0
<b>Haloacetic Acid</b> (ppb): By-product of drinking water chlorination.	60.0 (Locational Running Annual Avg.)	25.0 (Highest Locational Running Annual Avg.)	37.0 - 12.0 (Highest and lowest site values)	n/a
<b>Total Coliform</b> (One Total Coliform detected during routine testing (RT). (RT=1007/month)	Presence of coliform bacteria in >5% of monthly samples	n/a	n/a	0/0
<b>Total Organic Carbon Treated</b> Naturally present in the environment.	TT no violation	3.2	3.2 - 2.1 (Highest and lowest site values)	n/a
<b>Trihalomethanes</b> (ppb): By-product of drinking water chlorination.	80.0 (Locational Running Annual Avg.)	24.0 (Highest Locational Running Annual Avg.)	35.0 - 12.0 (Highest and lowest site value)	n/a
<b>Turbidity</b> (NTU): A measure of cloudiness in water. It may be caused by inorganic soil particles or fragments of organic matter that can interfere with treatment.	1.0 and 95% of samples below 0.3 (Treatment Technique)	0.17 and 100% of samples below 0.3	n/a	0.3

Substances Description and Origin of Substance	Highest Level Allowed [MCL]	Highest Level Detected	Range Detected	Ideal Goals [MCLG]
<b>Lead</b> (ppb): No sample site exceeded the action level	15.0 (Action Level)	<3.0 (90 <sup>th</sup> percentile)	n/a	0.0
<b>Copper</b> (ppm): No sample site exceeded the action level	1.3 (Action Level)	0.119 (90 <sup>th</sup> percentile)	n/a	0.0

### Note From Chart

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.

GUC provides high quality drinking water, but cannot control the variety of materials used in home plumbing components. Minimize the potential for lead exposure by flushing the tap for 30 seconds to two minutes before using water

for drinking or cooking. Information on lead in drinking water, testing methods, and steps to take to minimize exposure are available from the Safe Drinking Water Hotline at (800) 426-4791 or at [water.epa.gov/drink/info/lead/index.cfm](http://water.epa.gov/drink/info/lead/index.cfm).

### Glossary Of Terms

**Action Level** – The concentration of a contaminant which, if exceeded, triggers additional treatment measures by the public water system.

**Locational Running Annual Average** – 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 allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technique.

**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 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.

**Nephelometric Turbidity Units (NTU)** – Turbidity is a measure of cloudiness in water.

**Ninetieth Percentile** – The concentration value exceeding the lower ninety percent of samples analyzed and exceeded by the upper ten percent.

**Parts Per Billion (ppb)** – One part per billion is comparable to one minute in two thousand years or one penny in \$10,000,000.

**Parts Per Million (ppm)** – Equivalent to milligrams per liter. One part per million is comparable to one minute in two years, or one penny out of \$10,000.

**Picocuries Per Liter (pCi/L)** – A measurement of radioactivity per liter.

**Treatment Techniques (TT)** – A required process intended to reduce the level of contaminants.

> – is greater than; < – is less than.

# Unregulated Contaminant Monitoring Rule (UCMR)

Every five years, the EPA issues the UCMR, a list of unregulated contaminants to be monitored by public water systems. The first UCMR was issued in September 1999.

Through the UCMR, public water

systems provide the EPA data about the presence of these unregulated contaminants in drinking water. The data allows the EPA to determine if the population is being exposed, quantify the level of exposure, and assess the impact of these unregulated contaminants on the

environment and public health. This is the first step in the EPA's process to determine what new contaminants may need to be regulated.

For more information, visit the EPA Web site at [water.epa.gov](http://water.epa.gov).

## Unregulated Contaminant Monitoring Rule 4 Data

Substances Description and Origin of Substance	Highest Level Detected	Range Detected
Anatoxin-a (ug/L): Cyanobacteria; Source Water	<0.03	0.03
Cylindrospermopsin (ug/L): Cyanobacteria; Source Water	<0.09	0.09
Total Microcystins & Nodularins (ug/L): Cyanobacteria; Source Water	<0.3	0.3

## Source Water Assessment Program

The NC Department of Environmental Quality (DEQ), Public Water Supply (PWS) section's 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 Contaminants Sources (PCSs). The results of the assessment are available in the 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 Greenville Utilities 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 to the right.

The report for GUC may be viewed on the web at: <https://www.ncwater.org/?page=600>. To obtain a printed copy of this report,

please mail a written request to: Source Water Assessment Program, Report Request, 1634 Mail Service Center, Raleigh NC 27699-1634, or email a request to [swap@ncmail.net](mailto:swap@ncmail.net). If you have any questions about the SWAP report, please contact the Source Water Assessment Program by phone at (919) 715-2633.

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.

### SOURCE WATER ASSESSMENT PROGRAM FINDINGS

Greenville Utilities has four water sources from which to draw: the Tar River (Water Treatment Plant) and three wells located throughout GUC's system. Susceptibility ratings are as follows:

#### SUSCEPTIBILITY WATER SOURCES

Higher: Water Treatment Plant  
Moderate: WSW Well, SSW Well, EPW Well



*Photo courtesy of Greer Media Productions*

## System Improvements

Greenville Utilities embarked on both a water treatment plant and a distribution system expansion in 2020. We began with the construction of a three million gallon ground storage tank at the plant, which holds finished drinking water until it is ready to be pumped into the distribution system. This increased our storage resiliency by 50% and gives the water treatment plant a storage capacity of nine million gallons.

Construction of the plant expansion began in 2021. When finished, it will increase our plant's treatment capacity by nearly 10 million gallons per day (MGD), going from 22.5 to 32 MGD. The plant expansion includes the addition of a 10 MGD superpulsator, four additional filters, a new clearwell pump station, and a new bulk chemical storage facility. The project is expected to be completed in Spring 2023.

## What You Should Know About Chloramines

The WTP uses chloramines as its secondary disinfectant. Chloramines are intended to form fewer chemicals (by-products) in water, improve the taste and odor of water (compared to chlorine), and last longer in the distribution system to prevent bacterial growth.

Chloraminated water is safe for bathing, drinking, cooking and all

uses we have for water every day. However, there are two groups of people who need to take special care with chloraminated water: kidney dialysis patients and fish owners. Just like chlorine, chloramines must be removed from water used in kidney dialysis machines. If you are a dialysis patient or have questions, please call your physician or dialysis center.

Like chlorine, chloramines are toxic to fish. Fish owners need to remove chlorine, ammonia and chloramines from the water before use with tropical fish. Local pet stores carry water conditioners that remove chloramines. If you have questions, contact your pet store for information and detailed instructions. For further information about chloramines and chlorine, please call (252) 551-1551.

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## What You Should Know About Cryptosporidium

Cryptosporidium is a microscopic organism that can cause diarrhea, fever and other gastrointestinal symptoms if ingested. The organism occurs in human and

animal wastes and may be present in local streams and lakes. State and Federal regulations do not require Greenville Utilities to test for cryptosporidium. We go the extra

mile to protect our customers and conduct tests quarterly. The WTP includes an ozonation process that inactivates cryptosporidium.

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## Information For At-Risk Customers

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those undergoing chemotherapy, organ transplant patients, people with HIV/AIDS

or other immune system disorders, some elderly, and infants can be particularly at risk for infections. These people should seek advice about drinking water from their healthcare providers. EPA/Center for Disease Control 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.

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## Learn More About Water And Get Involved

While temporarily stopped due to COVID restrictions, we usually provide tours of the WTP and make presentations to groups, including civic organizations and schools. We also have a variety of educational brochures available upon request.

Please contact us at (252) 551-1562 for more information. Our Board of Commissioners meets on the third Thursday of every month at noon, except in June. Meetings are normally held in the Board Room on the second floor of our Main

Office, 401 South Greene Street. The public is welcome to attend. Call 252-551-1500 ahead of time to see if the meeting will be held in person or virtually.

# Backflow Prevention

All customers expect their water to be clean and safe. That is why GUC makes sure the water delivered to each customer is of the highest quality. When water leaves the WTP, it is at its freshest and purest. One of the ways GUC safeguards the water delivered to customers is through the cross-connection control program. This program is designed to prevent contamination of the public water system through an unprotected cross-connection. Whether these connections are permanent or temporary, they can be dangerous and could contaminate or pollute the public water system through backflow. Protective measures must be taken to prevent this potential backflow hazard.

Federal law requires GUC to protect the water supply from potential contamination or pollution. To do

this, all industrial, most commercial and all irrigation customers are required to install backflow prevention assemblies. These assemblies must be installed before any branching of the customer's plumbing can occur. Different types of backflow preventers are required depending on the hazard. Severe hazards exist when there is potential that backflow could create a health threat. Lawn irrigation systems, hospitals, medical offices and manufacturing plants using chemicals are some examples of a severe hazard. Moderate hazards exist from a backflow occurrence that causes discolored or aesthetically objectionable water, but is not a health threat. Restaurants and convenience stores are examples of moderate hazards.

Facilities on GUC's public water system are evaluated to determine

which hazard(s), if any, may potentially exist and the type of backflow prevention assembly that is required. After an approved backflow prevention assembly has been installed and tested, it must be re-tested annually. Only individuals who have been certified through a GUC-approved testing school can test backflow assemblies.

Greenville Utilities constructed a backflow testing lab to ensure contractors and plumbers have the knowledge and skills needed to install and test backflow assemblies. Opened in March 2008, the Lab is housed in its own building on the grounds of the WTP and provides a site for quarterly recertification classes and bi-annual training classes. For more information on the Cross-Connection Control Program, call (252) 551-1551.

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# Water Conservation & Protection

## Save Water and Money—Use Water Wisely:

- Repair all leaks and drips. At one drop per second, a leaky faucet wastes nearly 2,500 gallons/year—enough water for 160 full dishwasher cycles.
- Limit showers to five minutes or less.
- Catch water in an empty tuna can to measure sprinkler output. 3/4 to 1 inch of water is enough to apply each time you irrigate.
- Ensure sprinklers water only the landscape, not driveways/streets.

## To Properly Dispose of Hazardous Products:

- Motor Oil/Batteries: Take to the Pitt County Landfill on Allen Road, (252) 902-3350.

- Paint: Remove container lid and let paint harden completely. Containers with lids removed will be collected curbside.
- Pesticides/Herbicides: Contact North Carolina Cooperative Extension Service at (252) 902-1700.
- You can prevent sanitary sewer overflows by disposing of cooking oils and grease as solid waste in your home garbage collection.

## For More Information:

**Environmental Protection Agency  
Ariel Rios Building**  
1200 Pennsylvania Avenue NW  
Mail Code 3213A  
Washington, DC 20460  
(202) 260-2090 (fax)  
[www.epa.gov](http://www.epa.gov)

**Safe Drinking Water Hotline**  
(800) 426-4791

**NC Department of  
Environmental Quality**  
1601 Mail Service Center  
Raleigh, NC 27699-1601  
(919) 733-4984  
[deq.nc.gov](http://deq.nc.gov)

**American Water Works Association**  
6666 West Quincy Avenue  
Denver, CO 80235  
(800) 926-7337  
[www.awwa.org](http://www.awwa.org)

[www.waterwiser.org](http://www.waterwiser.org)

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