



## Public Utilities Department

### ***2022 Annual Drinking Water Quality Report*** ***Smithfield South*** **PWS ID# 40-51-007**

We are pleased to present 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 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 provide you with this information. Informed customers are our best allies. If you have any questions about this report or concern about your water, please contact Steve Lane at (919) 9342661. If you want to learn more, please attend any of our regularly scheduled Town Council meetings held on the first Tuesday of each month at 7:30 pm in the Smithfield Town Hall.

## **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 (800426-4791).

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 Smithfield 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 Smithfield South Water District is provided by Johnston County Utilities.

## **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 Moderate or Lower

Assessment Reports which include maps, background information, and a relative susceptibility rating of 'Higher.' The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply (PWS) Section, and 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 Smithfield 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:

<b>Source Name</b>	<b>Susceptibility Rating</b>	<b>SWAP Report Date</b>
Neuse River	Higher	September 2020

The complete SWAP Assessment report for the Town of Smithfield may be viewed on the Web at: <http://swap.ncwater.org/website/swap/GetPWSNameForm.asp>. 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.

## Violations that Your Water System Received for the Report Year 2022

We are required to monitor you 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. During the compliance period specified in the table below, we received a MCL violation for the contaminants listed and therefore cannot be sure of the quality of you drinking water during that time.

Contaminant Group	Facility ID NO./ Sample Point ID	Compliance Period Begin Date	Number of Sample Sampling Frequency	When Sample Were Taken
TTHM	B01 Huntington	05/01/22 – 05/31/22	4 SAMPLEs PER YEAR	5/19/2022
	B02 Quail Run	08/01/22 – 08/30/22		8/11/2022
		11/01/22 – 11/30/22		11/10/2022

(TTHM) - Total Trihalomethanes - include Chloroform, Bromoform, Bromodichloromethane, and Dibromochloromethane. Samples are taken 4 times a year on a quarterly schedule. We exceeded the MCL and committed to flushing the system more often and communicating with the source water treatment plant. No further action needs to be taken at this time. Samples from previous years have always shown no MCL violation contaminants from this group of samples, and the sample submitted in February of 2023 suggests the same.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly. You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information about this violation, please contact the responsible person listed in the first paragraph of this report.

# 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 table below lists all the drinking water contaminants that we detected in the last round of sampling for all particular contaminant groups. 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.





# 2022 Annual Drinking Water Quality Report

## Johnston County Public Utilities

Water system number East: 40-51-018  
Water system number West: 03-51-070



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 from where your water comes, 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.

Este informe contiene información muy importante sobre la calidad de su agua potable. Una copia de este reporte en español está disponible en la Oficina de Servicio Público en el Centro de Land Use.

The Johnston County water system has two service areas called **Johnston East** and **Johnston West**. The Johnston East service area is generally described as the area east of the Neuse River and south of I-95. The Johnston West service area is the area west of the Neuse River and north of I-95. Please refer to the map. Water supplied to Johnston East has free chlorine as a secondary disinfectant. Water supplied to Johnston West has chloramines (a combination of chlorine and ammonia) as a secondary disinfectant. The quality data for both service areas are provided to all customers.

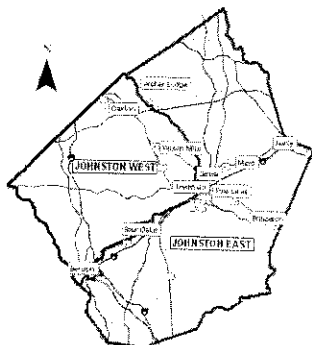
We provide service for communities, towns and cities throughout our county including most unincorporated parts of the county and the towns of Archer Lodge, Four Oaks, Princeton, Kenly, Clayton, and Wilson's Mills. The County system also supplements the towns of Micro, Benson, Pine Level, Smithfield, Selma, and Fuquay Varina with additional water.

### When You Turn on Your Tap, Consider the Source

In 2022, our water department produced and provided approximately 3.0 billion gallons of water to our customers. Our water source is surface water from the Neuse River, which forms just above Durham where the Eno and Flat Rivers converge. The Neuse River flows approximately 190 miles through eastern North Carolina to the Pamlico Sound. The Johnston County intake and treatment facility are located one half mile east of Wilson's Mills, N.C. There are two reservoirs on site. Each reservoir contains 35 million gallons. The treatment system has five main steps to remove or reduce harmful contaminants: presedimentation, coagulation, clarification, filtration by multimedia high rate filters, and disinfection. Once treatment is complete, water is pumped into elevated storage tanks for distribution throughout the water system. Johnston County also purchases water from the Town of Smithfield, Harnett County, City of Raleigh, City of Wilson, Sampson County, Northwest Wayne Sanitary District and Southwest Wayne Sanitary District on a bulk basis. The source of the Smithfield and City of Raleigh supply is the Neuse River and the Harnett County supply is the Cape Fear River. The City of Wilson utilizes Buckhorn Reservoir as their water supply source, while Sampson County and the Wayne Sanitary Districts have ground water supply wells. Their treatment processes are similar to the County's and water purchased from bulk suppliers mixes with water produced by the County in the distribution system. Annual report(s) for the County's bulk water suppliers can be viewed on each of their websites. \*\* Please see last page of report for links to all purchased water systems water quality reports.

### The U.S. Environmental Protection Agency (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 (EPA) 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, 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 that 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 storm water 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 organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water 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.



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 Water Drinking 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. Johnston County Public Utilities 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>.

In 2021, EPA finalized a major update to rules regarding lead and copper in drinking water. The update, known as the Lead and Copper Rule Revision (LCRR), provides an improved level of public health protection. The revisions focus on providing increased levels of protection from lead exposure in drinking water to children at schools and childcare facilities, identifying and removing lead service lines, and providing information about lead in drinking water to the community. Johnston County has consistently maintained compliance with all water quality requirements, including full compliance with the original Lead and Copper Rule. Over the next several months, we will be completing a study to verify compliance with the LCRR. This will include developing an inventory of all water service line materials in our community, developing a plan to sample for lead at our schools and childcare centers, and developing a program to educate our customers about lead in

drinking water. Additional information the LCRR can be found at: <https://www.epa.gov/ground-water-and-drinking-water/review-national-primary-drinking-water-regulation-lead-and-copper>

### 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 assessments 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 the source for Johnston County Public Utilities was determined by combining the contaminant rating (number and location of PCSs within watershed) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the watershed and its delineated assessment area.). It is important to understand that a susceptibility rating of "higher" does not imply poor water quality, only the systems' potential to become contaminated by PCS's in the 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
Neuse River	Higher	September 2020

The complete SWAP Assessment report for Johnston County Public Utilities 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 request to [swap@ncdenr.gov](mailto:swap@ncdenr.gov). Please indicate the system name of Johnston County, PWS# 03-51-070, 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 systems' potential to become contaminated by PCS's 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.).

If you have any questions about this report or concerning your water utility, please contact Chandra Farmer, P.E., Director of Utilities and Engineering, by calling (919) 209-8333 or by writing to this address: Johnston County Utility Dept. PO Box 2263, Smithfield, North Carolina 27577. We want our valued customers to be informed about their water utility. You can attend Board of Commissioners meetings on the first Monday of each month, at 10:00 a.m., in the Johnston County Courthouse, at 212 Market Street, Smithfield, NC. Find out more on the Internet at [www.jcutil.com/ccr](http://www.jcutil.com/ccr).

### Important Drinking Water Definitions:

- AL – Action Level – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- MCL – Maximum Contaminant Level – 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 Contaminant Level Goal – 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.
- MRDLG - Maximum Residual Disinfection Level Goal – 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.
- MRDL - Maximum Residual Disinfection Level – 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.
- 90<sup>th</sup> Percentile – 90% of samples are equal to or less than the number in the chart.
- ND – Non-Detects – Laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used.
- NTU – Nephelometric Turbidity Units – A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- N/A – Not-applicable – Information not applicable/not required for that particular water system or for that particular rule.
- Picocuries per liter (pCi/L) – Picocuries per liter is a measure of the radioactivity in the water.
- ppb – parts per billion – 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.
- ppm – parts per million – milligrams per liter (mg/l) – One part per million corresponds to one minute in two years or a single penny in \$10,000.
- RAA – Running annual average
- TT – Treatment Technique – A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- LRAA – 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.
- 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.

### 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 analyses completed from 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. Unregulated contaminants are those for which the 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.

**Water Quality Data Table(s) Johnston County WEST PWS# 03-51-070: 2022**

**Disinfectant Residuals Summary 2022**

Contaminant(units)	Year Sampled	MRDL Violation Y/N	Your Water (highest RAA)	Range		MRDLG	MRDL	Likely Source of Contamination
				Low	High			
Chlorine (ppm)	2022	N	0.55	0.06	3.42	4	4.0	Water additive used to control microbes
Chloramines (ppm)	2022	N	2.7	0.0	3.96	4	4.0	Water additive used to control microbes

**Stage 2 Disinfection Byproduct Compliance – Based on Locational Running Annual Average (LRAA) 2022**

Disinfection Byproduct	Units	MCLG	MCL	Your Water (highest LRAA)	Range: Low High	Year Sampled	MCL Violation (Yes / No)	Likely Source of Contamination
<b>TTHM</b>	ppb	N/A	80	38		2022	No	Byproduct of drinking water disinfection
B01					26 - 48			
B02					25 - 58			
B03					30 - 59			
B04					20 - 53			
B05					20 - 51			
B06					21 - 48			
B07					16 - 53			
B08					8 - 31			
<b>HAA5</b>	ppb	N/A	60	23		2022	No	Byproduct of drinking water chlorination
B01					7 - 28			
B02					9 - 25			
B03					11 - 46			
B04					8 - 32			
B05					7 - 31			
B06					8 - 24			
B07					11 - 21			
B08					4 - 13			

**For TTHM:** 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.

**For HAA5:** Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased chance of getting cancer

**Inorganic Contaminants 2022**

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Fluoride (ppm)	March 2022	N	0.25	N/A		4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

**Turbidity\* 2022**

Contaminant (units)	Treatment Technique (TT) Violation Y/N	Your Water	MCLG	Treatment Technique (TT) Violation if:	Likely Source of Contamination
Turbidity (NTU) - Highest single turbidity measurement	N	0.105 NTU	N/A	Turbidity > 1 NTU	Soil runoff
Turbidity (NTU) - Lowest monthly percentage (%) of samples meeting turbidity limits	N	100 %	N/A	Less than 95% of monthly turbidity measurements are ≤ 0.3 NTU	



\*Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU.

Synthetic Organic Chemical (SOC) Contaminants including Pesticides and Herbicides 2022								
Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Simazine (ppb)	2022	N	0.055	0.0	0.22	4	4	Herbicide runoff
Atrazine (ppb)	2022	N	0.072	0.0	0.29	3	3	Runoff from herbicide used on row crops

**Lead and Copper Contaminants:** Pregnant women, infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

Contaminant	Units	Sample Date	Your Water	# of sites found above the AL	MCLG	MCL	Likely Source of Contamination
Copper (90 <sup>th</sup> percentile)	ppm	July 2021	0.141	0	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (90 <sup>th</sup> percentile)	ppb	July 2021	0	0	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits

**Total Organic Carbon (TOC):** 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 alternative % removal. If we fail to meet the alternative % removal, we are in violation of a Treatment Technique. (2022)

Contaminant (units)	TT Violation Yes/No	Your Water (RAA Removal Ratio)	Range Monthly Removal Ratio Low - High	MCLG	MCL	Likely Source of Contamination	Compliance Method (Step 1 or ACC#)
Total Organic Carbon (removal ratio) (TOC)-TREATED	No	1.29	1.13 - 1.37	N/A	TT	Naturally present in the environment	Step 1

**Water Characteristics Contaminants:** The PWS section requires monitoring of other misc contaminants, some for which the EPA has set national secondary drinking water standards (SMCLs) because they may cause cosmetic 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.

Contaminant (units)	Sample Date	Your Water	Range Low High	Secondary MCL
Sodium (ppm)	March 2022	40.4	N/A	N/A
Sulfate (ppm)	March 2022	19.1	N/A	250 mg/l
pH	March 2022	6.9	N/A	6.5 to 8.5

Step 1 TOC Removal Requirements (%)			
Source Water TOC (mg/L)	Source Water Alkalinity Mg/L as CaCO3 (in percentages)		
	0 - 60	> 60 - 120	> 120
> 2.0 - 4.0	35.0	25.0	15.0
> 4.0 - 8.0	45.0	35.0	25.0
> 8.0	50.0	40.0	30.0

**Water Quality Data Table(s) Johnston County East PWS# 40-51-018: 2022**

<b>Stage 2 Disinfectant Byproduct Compliance- Based on Locational Running Average (LRAA) 2022</b>								
Disinfection Byproduct	Units	MCLG	MCL	Your Water (highest LRAA)	Range Low High	Year Sampled	MCL/ Violation (Yes/ No)	Likely Source of Contamination
<b>TTHM</b>	ppb	N/A	80	73		2022	No	Byproduct of drinking water disinfection
B01					31 - 79			
B02					36 - 117			
B03					50 - 116			
B04					10 - 156			
<b>HAA5</b>	ppb	N/A	60	26		2022	No	Byproduct of drinking water chlorination
B01					14 - 46			
B02					17 - 37			
B03					16 - 40			
B04					3 - 35			

**For TTHM:** 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.  
**For HAA5:** Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased chance of getting cancer.

<b>Inorganic Contaminants 2022</b>								
Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Fluoride (ppm)	April 2022	N	0.30	N/A		4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

**Lead and Copper Contaminants:** Pregnant women, infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

Contaminant	Units	Sample Date	Your Water	Number of sites found above the AL	MCLG	MCL	Likely Source of Contamination
Copper (90 <sup>th</sup> percentile)	ppm	July 2020	0.113	0	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (90 <sup>th</sup> percentile)	ppb	July 2020	0	0	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits

<b>Turbidity* 2022</b>	Treatment Technique (TT) Violation Y/N	Your Water	MCL G	Treatment Technique (TT) Violation if:	Likely Source of Contamination
Contaminant (units)					
Turbidity (NTU) - Highest single turbidity measurement	N	0.112 NTU	N/A	Turbidity > 1 NTU	Soil runoff
Turbidity (NTU) - Lowest monthly percentage (%) of samples meeting turbidity limits	N	100 %	N/A	Less than 95% of monthly turbidity measurements are ≤ 0.3 NTU	

\*Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU.

#### Disinfectant Residuals Summary

Contaminant (units)	Year Sampled	MRDL Violation Y/N	Your Water (highest RAA)	Range		MRDLG	MRDL	Likely Source of Contamination
				Low	High			
Chlorine (ppm)	2022	N	1.33	0.34	2.8	4	4.0	Water additive used to control microbes

**Total Organic Carbon (TOC):** 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 alternative % removal. If we fail to meet the alternative % removal, we are in violation of a Treatment Technique. (2022)

Contaminant (units)	TT Violation Yes/No	Your Water (RAA Removal Ratio)	Range Monthly Removal Ratio Low - High	MCLG	MCL	Likely Source of Contamination	Compliance Method (Step 1 or ACC#)
Total Organic Carbon (removal ratio) (TOC)-TREATED	No	1.26	1.07 - 1.39	N/A	TT	Naturally present in the environment	Step 1

<b>Step 1 TOC Removal Requirements (%)</b>			
Source Water TOC (mg/L)	Source Water Alkalinity Mg/L as CaCO <sub>3</sub> (in percentages)		
	0 - 60	> 60 - 120	> 120
> 2.0 - 4.0	35.0	25.0	15.0
> 4.0 - 8.0	45.0	35.0	25.0
> 8.0	50.0	40.0	30.0

<b>Water Characteristics Contaminants:</b> The PWS section requires monitoring of other misc contaminants, some for which the EPA has set national secondary drinking water standards (SMCLs) because they may cause cosmetic 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.				
Contaminant (units)	Sample Date	Your Water	Range Low High	Secondary MCL
Sodium (ppm)	April 2022	41.7	N/A	N/A
pH	April 2022	7.4	N/A	6.5 to 8.5

Purchased Water Links:

City of Raleigh: <https://www.raleighnc.gov/water-and-sewer/Raleigh-water-reports>

City of Wilson: <https://www.wilsonnc.org>

Sampson County: <https://www.sampsonnc.com>

Wayne Water Districts: <https://www.waynewaterdistricts.com/water-quality-report>

Town of Smithfield: [https://www.smithfield-nc.com/page/utilities\\_annualreports](https://www.smithfield-nc.com/page/utilities_annualreports)

Harnett County: <https://www.harnettwater.org/water-quality-report/>

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in the water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. Our staff in the Johnston County Utility Department work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

[www.johnstonnc.com/ccr](http://www.johnstonnc.com/ccr)

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