



Carolina Trace Water System

PWS ID: **NC0353101**

Annual Water Quality Report 2024

Message from Don Denton, President

Dear Carolina Water Service, Inc. of North Carolina Customers,

I am pleased to present your Annual Water Quality Report for 2024. We strive to do our part in delivering vital, safe and reliable water services that empower our communities to flourish. Included in this report are details about where your water comes from, what it contains, and how it compares to regulatory standards.

We are proud to share this report which is based on water quality testing through December 2024. We continually strive to supply water that meets and/or exceeds all federal and state water quality regulations at your tap.

Providing a safe and reliable water supply is hard work, but it is satisfying. Our team of local water experts are proudly dedicated to providing safe, reliable, and cost-effective service every day. This commitment includes acting with integrity, protecting the environment, and enhancing the local community.

Best regards,

Visit us online at www.carolinawaterservicenc.com Or



Join us on Facebook & Twitter

@CarolinaWaterNC



[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.](#)

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

To access your utility account anytime, anywhere, please register for our customer portal & download

My Utility Account at <https://account.myutility.us>

Source of Drinking Water

Your water is purchased from the City of Sanford (TriRiver Water), which draws surface water from the Cape Fear River. The Deep, Haw, and Rocky Rivers form the headwaters of the Cape Fear River basin.

Water Conservation

Please be reminded that our water systems in North Carolina are always in some stage of either voluntary or mandatory water conservations restriction. These restrictions may vary weekly due to drought conditions and are dictated by a system established by the North Carolina Utilities Commission in an order dated May 23, 2008. Customers are encouraged to keep informed of current restrictions by visiting www.carolinawaterservicenc.com and clicking the "NC Drought Report" icon under Water Smart - Conservation or call our customer service at (800) 525-7990.

Help Protect our Resources

Help put a stop to the more than **1 trillion gallons of water lost annually** nationwide due to household leaks. These easy to fix leaks waste the average family the amount of water used to fill a backyard swimming pool each year. Plumbing leaks can run up your family's water bill an extra 10 percent or more, but chasing down these water and money wasting culprits is as easy as 1—2—3. Simply check, twist, and replace your way to fewer leaks and more water savings:

⇒ **Check** for silent leaks in the toilet with a few drops of food coloring in the tank, and check your sprinkler system for winter damage.

⇒ **Twist** faucet valves; tighten pipe connections; and secure your hose to the spigot. For additional savings, twist a WaterSense labeled aerator onto each bathroom faucet to save water without noticing a difference in flow. They can save a household more than 500 gallons each year—equivalent to the amount water used to shower 180 times!

⇒ **Replace** old plumbing fixtures and irrigation controllers that are wasting water with WaterSense labeled models that are independently certified to use 20 percent less water and perform well.

For more information visit www.epa.gov/watersense.

EPA Wants You To Know

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:

- A. **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- B. **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.
- C. **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- D. **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.
- E. **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

What measures are in place to ensure water is safe to drink?

In order to ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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).

Special notice from EPA for the elderly, infants, cancer patients and people with HIV/AIDS or other immune system problems

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).

Information Concerning Lead in Water

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. Carolina Water Service, Inc. of North Carolina is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact Carolina Water Service, Inc. of North Carolina by emailing lead.lines@nexuswg.com. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

We have been working to identify service line materials throughout the water system and prepared an inventory of all service lines in our water system. To request access to this inventory or request to review the complete lead tap sampling data, email us at: lead.lines@nexuswg.com.

Drain Disposal Information

Sewer overflows and backups can cause health hazards, damage home interiors, and threaten the environment. A common cause is sewer pipes blocked by grease, which gets into the sewer from household drains. Grease sticks to the insides of pipes. Over time, the grease can build up and block the entire pipe. Help solve the grease problem by keeping this material out of the sewer system in the first place:

- Never pour grease down sink drains or into toilets. Scrape grease into a can or trash.
- Put strainers in sink drains to catch food scraps / solids for disposal.

Prescription Medication and Hazardous Waste

Household products such as paints, cleaners, oils, and pesticides, are considered to be household hazardous waste. Prescription and over-the-counter drugs poured down the sink or flushed down the toilet can pass through the wastewater treatment system and enter rivers and lakes (or leach into the ground and seep into groundwater in a septic system). Follow the directions for proper disposal procedures. **Do not flush hazardous waste or prescription and over-the-counter drugs down the toilet or drain.** They may flow downstream to serve as sources for community drinking water supplies. Many communities offer a variety of options for conveniently and safely managing these items. For more information, visit the EPA website at: www.epa.gov/hw/household-hazardous-waste-hhw.

The Safe Drinking Water Act was passed in 1974 due to congressional concerns about organic chemical contaminants in drinking water and the inefficient manner by which states supervised and monitored drinking water supplies. Congress' aim was to assure that all citizens served by public water systems would be provided high quality water. As a result, the EPA set enforceable standards for health-related drinking water contaminants. The Act also established programs to protect underground sources of drinking water from contamination.

Understanding This Report In order to help you understand this report, we want you to understand a few terms and abbreviations that are contained in it.

Action level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
EPA	Environmental Protection Agency.
Maximum Contaminant Level (MCL)	The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
Maximum Contaminant Level Goal (MCLG)	The "goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
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 Disinfectant 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.
Not applicable (N/A)	Information not applicable/not required for that particular water system or for that particular rule.
Not Detected (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.
Picocuries per liter (pCi/L)	A measure of radioactivity in the water.
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.
Treatment Technique (TT)	A required process intended to reduce the level of a contaminant in drinking water.
Nephelometric Turbidity Unit (NTU)	A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Source Water Assessment Program (SWAP)

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 TriRiver Water system 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)

TriRiver Water-(City of Sanford) (NC0353010)		
Source Name	Susceptibility Rating	SWAP Report Date
Cape Fear River	Higher	9/10/2020

The complete SWAP Assessment report for TriRiver Water system may be viewed on the Web at: 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.

Monitoring Your Water

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, 2024.** 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.

If You Have Questions Or Want To Get Involved

Carolina Water Service, Inc. of North Carolina does not hold regular public meetings. If you have any questions about this report or concerning your water, or would like a company representative to attend an upcoming homeowners association meeting, please contact Customer Service at 1-800-525-7990.

Carolina Water Service, Inc. of North Carolina is required by State and Federal Regulations to analyze certain parameters in the water system in addition to the sampling conducted by TriRiver Waters - Sanford.

Water Quality Test Results - Carolina Water Service, Inc. of North Carolina

Disinfectant Residuals Summary

Contaminant (units)	Sample Date	MRDL Violation Y/N	Your Water (RAA)	Range Low High	MRDLG	MRDL	Likely Source of Contamination
Chlorine (ppm)	2024	N	1.69	1.3 - 2.1	4	4.0	Water additive used to control microbes
Chloramines (ppm)	2024	N	2.59	1.3 - 3.3	4	4.0	Water additive used to control microbes.

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

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water*	Range Low High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb) [Total Trihalomethanes]	2024	N	69.5	34 - 111**	N/A	80	Byproduct of drinking water disinfection.
HAA5 (ppb) [Total Haloacetic Acids]	2024	N	41.08	2.1 - 58.4	N/A	60	Byproduct of drinking water disinfection.

*"Your Water" is the highest quarterly LRAA recorded and may reflect an average based on sample results from 2023 not reported in this table.

**We collect quarterly samples for disinfection byproducts at two locations (B01 & B02) in the distribution system. The August 2024 sample showed elevated levels of TTHM; however, compliance is based on a four-quarter average; therefore, our system was not in violation.

Lead and Copper Contaminants

Contaminant (units)	Sample Date	Action Level Exceedance Y/N	Your Water	Number of sites found above the AL	Range Low - High	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90 th percentile)	2023	N	0.15	0	ND - 0.32	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90 th percentile)	2023	N	0	0	ND - 3.3	0	15	Corrosion of household plumbing systems; erosion of natural deposits

PFAS Testing

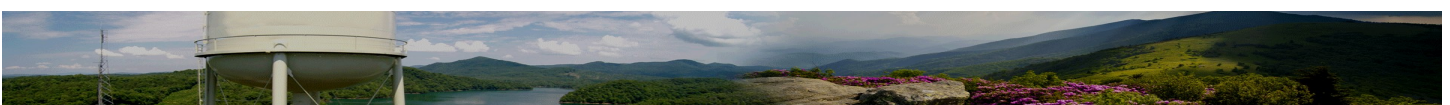
Carolina Water Service, Inc. of North Carolina continues efforts to conduct statewide drinking water testing for Per- and Polyfluoroalkyl Substances (PFAS). These man-made compounds are used in the manufacturing of products resistant to water, grease or stains including firefighting foams, cleaners, cosmetics, paints, adhesives and insecticides. PFAS can migrate into the soil, water, and air and is likely present in the blood of humans and animals all over the world.

On April 10, 2024, the EPA approved new sampling requirements and drinking water limits for six PFAS including PFOA, PFOS, PFNA, PFHxS, PFBS, and GenX Chemicals. We are completing PFAS sampling ahead of the 2027 initial monitoring deadline and will take appropriate action to meet new regulations as needed.

Our focus will remain, as always, on supplying our customers with quality, reliable water service.

To view PFAS results, visit our website at www.carolinawaterservicenc.com and click Water Quality Reports under Water Safety. For more information visit <https://www.epa.gov/pfas>.

Violations: In 2024, Carolina Water Service, Inc. of North Carolina performed all required monitoring for contaminants. In addition, **no violations** from the North Carolina Department of Environmental Quality were received and we were in compliance with applicable testing and reporting requirements.



Water Quality Test Results - TriRiver Waters-Sanford Water Filtration Facility

The following substances were detected in TriRiver Waters-Sanford public water supply during the 2024 calendar year. The full report can be viewed online at <https://www.tririverwater.com/185/Annual-Water-Quality-Reports>. For questions relating to the TriRiver Waters-Sanford water quality report, please contact Scott Christiansen at (919) 777-1803

Regulated Substances

Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount detected	Range Low - High	Violation	Typical Source
Atrazine (ppb)	2024	3	3	0.2	ND - 0.2	No	Runoff from herbicide used on row crops
Fluoride (ppm)	2024	4	4	0.7	0.04 - 0.81	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Simazine (ppb)	2024	4	4	0.12	ND - 0.12	No	Herbicide runoff
Total Organic Carbon (TOC) (removal ratio)	2024	TT	NA	1.23	1.06 - 1.54	No	Naturally present in the environment

Depending on the TOC in the source water, the system must have a certain percentage removal of TOC or achieve alternative compliance criteria. If that percentage removal is not achieved, there is an alternative percentage removal. If the alternative percentage removal is not met, the water system is in violation of a treatment technique.

Turbidity (NTU)	2024	TT = 1 NTU	NA	0.13	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limits)	2024	TT = 95% of samples meet the limit	NA	100	NA	No	Soil runoff

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

Emerging Contaminants

Emerging contaminants, or contaminants of emerging concern, are unregulated synthetic or naturally occurring chemicals that are not commonly monitored by water utilities. The health significance of these trace contaminants is under review and the subject of further study and research.

Beginning March, 2020, the water system started monitoring for per and polyfluoroalkyl substances, and 1,4 Dioxane monthly. The data presented in the tables is testing done from January 1 through December 31, 2024.

Per and polyfluoroalkyl substances (PFAS) are a class of man-made chemicals used for consumer products such as waterproof and stainproof products, nonstick cookware, food packaging and fire suppression foams.

1,4 Dioxane is a clear, flammable liquid used as a solvent or stabilizer in the manufacturing of chemicals, cosmetics, detergents, and shampoos.

Unregulated Substances

Contaminant	Year Sampled	Amount Detected	Range Low - High
1,4 Dioxane (ppb)	2024	0.5	ND - 6
Perfluorobutanesulfonic Acid (PFBS) (ppt)	2024	1.75	ND - 3.6
Perfluoroheptanoic acid (PFHpA) (ppt)	2024	2.7	ND - 5
Perfluorohexanesulfonic Acid (PFHxS) (ppt)	2024	1.78	ND - 3.6
Perfluorononanoic Acid (PFNA) (ppt)	2024	0.11	ND - 1.3
Perfluorooctanesulfonic Acid (PFOS) (ppt)	2024	10.75	10 - 14
Perfluorooctanoic Acid (PFOA) (ppt)	2024	4.79	ND - 101
Perfluorodecanoic Acid [PFDA] (ppt)	2024	0.07	ND - 0.92
Perfluorohexanoic acid (PFHxA)	2024	2.54	ND - 8.4

CRYPTOSPORIDIUM

TriRiver Waters - Sanford Location monitored for Cryptosporidium in both the Cape Fear River and the facility's reservoir in 2018. Monitoring detected a level of 0.091 oocyst per liter in the Cape Fear River during February.

Cryptosporidium is a microbial parasite found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.