



***2025 Annual Drinking Water Quality Report***  
South Granville Water and Sewer Authority  
PWSID # NC 02-39-107

**REPORT OVERVIEW**

The SGWASA Water Plant routinely monitors contaminants in your drinking water according to federal and state laws. This report shows the results of our monitoring for the period January 1st through December 31st, 2025, and includes contaminant testing results from previous years that were not scheduled to be tested in 2025.

We are pleased to present to you the Annual Drinking Water Quality Report. Included in this report are details about SGWASA’s water source, the water composition, and how the water compares to standards set by regulatory agencies. Our goal is to provide you with a safe and dependable supply of drinking water. We are committed to ensuring the water meets all federal and state regulations. We want our valued customers to be informed about their water utility. Therefore, if you have any questions about this report, please contact Jonathan Yancey, Water Plant Superintendent at 919-575-3118 Monday-Friday between 8:30 am – 4:30 pm. Should you want to learn more SGWASA, please consider attending any of our regularly scheduled monthly Board meetings that are held at 6:00 pm on the 2nd Tuesday of the month at the Butner Town Hall. Please see our website at [www.sgwasa.org](http://www.sgwasa.org) for more information.

**SGWASA’S WATER SOURCE**

SGWASA’s water source is the R.D. Holt Reservoir (“reservoir”) located off Old Oxford Highway 75, just northwest of Butner, NC. The reservoir is a 2.2-billion-gallon surface water supply covering an area of approximately 374 acres. The reservoir is part of the Upper Neuse River basin and is nestled within a heavily forested watershed that helps to minimize outside impacts on the lake. The reservoir provides excellent seasonal, non-contact (no swimming or water-skiing allowed) recreation such as fishing, boating, and picnicking. The reservoir provides over 13 million gallons of water for treatment each day. The R.D. Holt Reservoir is a valuable natural water resource for SGWASA and its customers.

**HOW SGWASA TREATS THE WATER FROM THE RESERVOIR**

Water is withdrawn from the R.D. Holt Reservoir and treated at the SGWASA Water Plant. The water plant can treat up to 7.5 million gallons of water a day. The treatment process has five (5) main steps: coagulation, flocculation, sedimentation, filtration, and disinfection. The first step in

the process, known as coagulation, adds chemicals to the raw water where the chemicals form solid material around solid particles such as silt, mud, sand, etc. The second step in the process, known as flocculation, occurs as the particles move along the treatment process clumping together forming larger and heavier particles. Step three, the sedimentation process, is when the heavier particles from step two settle to the bottom of large settling basins, where they are removed later. Step four, the filtration process, is where the water gets its first addition of disinfectant (chlorine) to eliminate any bacteria that may be present before flowing through additional filters. The filters remove any remaining particles in the water. Finally, step five, known as the disinfection process, is where the water gets one last dose of disinfectant (chloramine) added to the water to ensure the water is safe to drink.

The SGWASA Water Plant laboratory is certified by the State of North Carolina for bacteriological analysis. Lab staff have gained individual certifications through the State Laboratory of Public Health certification program. Compliance and process control monitoring are routinely performed with all National Primary Drinking Water Regulations being met.

## WHAT THE 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).

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

Radioactive Contaminants: which can be naturally occurring or be the result of oil and gas production and mining activities.

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.

### Lead in Drinking 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. SGWASA 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 Jonathan Yancey, Water Plant Superintendent at 919-575-3118 Monday-Friday between 8:30 am – 4:00 pm. 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 access this inventory, <https://experience.arcgis.com/experience/4121041d114b4681aa6e5e7f9c6c3ca9>

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## **WHEN YOU TURN ON YOUR TAP, CONSIDER THE SOURCE**

The water that is used by this system is surface water from Knapp of Reeds Creek Impoundment (Holt Reservoir) and is located off Old Highway 75 just northwest of Butner.

## **PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)**

On April 10, 2024, the U.S. Environmental Protection Agency (EPA) announced the final National Primary Drinking Water Regulation (NPDWR) for six PFAS. The NPDWR establishes legally enforceable PFAS levels, called Maximum Contaminant Levels (MCLs), for six PFAS in drinking water.

The Final Rule Requires:

- Public water systems must monitor for these PFAS, and they have three years to complete initial monitoring (by 2027), followed by ongoing compliance monitoring. Water systems must also provide the public with information on the levels of these PFAS in their drinking water beginning in 2027.
- Public water systems have until April 26, 2029, to implement solutions that reduce these PFAS if monitoring shows that drinking water levels exceed the MCLs.
- Beginning in five years (2029), public water systems that have PFAS in drinking water which violates one or more of these MCLs must take action to reduce levels of these PFAS in their drinking water and must provide notification to the public of the violation.



SGWASA, in coordination with CDM Smith (professional engineering company highly experienced in design-build solutions for PFAS reduction in drinking water) are conducting a PFAS Pilot Testing program at the SGWASA water treatment plant. The PFAS Pilot Testing program started in late 2024 and will run through 2025. The results of the PFAS Pilot Testing program will provide the criteria for the engineering design necessary to reduce the PFAS in the drinking water to meet state standards. Following the engineering design process, SGWASA will move toward construction to install the necessary equipment to reduce the PFAS in the drinking water.

## **SOURCE WATER ASSESSMENT PROGRAM (SWAP) RESULTS**

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

The relative susceptibility rating of each source for SGWASA 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)

<b>Source Name</b>	<b>Susceptibility Rating</b>	<b>SWAP Report Date</b>
Knapp of Reeds Creek Impoundment (Holt Reservoir)	Lower	Sept. 2020

The complete SWAP Assessment report for SGWASA may be viewed on the Web at: <https://www.ncwater.org/?page=600> and may also be found on the SGWASA website. 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. 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 SGWASA RECEIVED FOR 2025**

NONE

### **Important Drinking Water Definitions:**

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

***Herbicide*** – Any chemical(s) used to control undesirable vegetation.

***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.

***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.

***Pesticide*** – Generally, any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest.

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

**Maximum 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.

**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.

**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 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.

**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.

**Variances and Exceptions** – State or EPA permission not to meet an MCL or Treatment Technique under certain conditions.

## 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, 2025.** 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.

**Lead and Copper Contaminants**

Contaminant (units)	Sample Date	Your Water (90 <sup>th</sup> Percentile)	Number of sites found above the AL	Range		MCLG	AL	Likely Source of Contamination
				Low	High			
Copper (ppm) (90 <sup>th</sup> percentile)	01Jun2024 - 30Sep2024	0.3 mg/L	0	0 mg/L	0.6 mg/L	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90 <sup>th</sup> percentile)	01Jun2024 - 30Sep2024	3 µg/L	0	0 µg/L	4 µg/L	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits

The table above summarizes our most recent lead and copper tap sampling data. If you would like to review the complete lead tap sampling data, please email Jonathan Yancey, Water Treatment Plant Superintendent at [jyancey@sgwasa.org](mailto:jyancey@sgwasa.org).

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### Stage 2 Disinfection Byproducts (DBPs) Total Trihalomethanes (TTHM) and Haloacetic Acids (five) (HAA5)

Disinfection Byproduct	Year Sampled	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
TTHM (ppb)	2025	N	39	23	60	N/A	80	Byproduct of drinking water disinfection
HAA5 (ppb)	2025	N	40	18	52	N/A	60	Byproduct of drinking water disinfection

### Disinfectant Residuals Summary

	MRDL Violation Y/N	Your Water (RAA)	Range		MRDLG	MRDL	Likely Source of Contamination
			Low	High			
Chlorine (ppm)	N	2.40	1	4.0	4	4.0	Water additive used to control microbes
Chloramines (ppm)	N	2.04	1	3.1	4	4.0	Water additive used to control microbes

### Asbestos Contaminant

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Total Asbestos (MFL)	4/14/20	N	0.1419	N/A		7	7	Decay of asbestos cement water mains; erosion of natural deposits

### Turbidity\*

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	.293	N/A	Turbidity > 1 NTU	Soil runoff
Turbidity (%) - Lowest monthly percentage (%) of samples meeting turbidity limits	N	100%	N/A	Less than 95% of monthly turbidity measurements are $\leq$ 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.

### Total Organic Carbon (TOC)

Contaminant (units)	TT Violation Y/N	Your Water (lowest RAA)	Range Monthly Removal Ratio Low - High	MCLG	Treatment Technique (TT) violation if:	Likely Source of Contamination
Total Organic Carbon (TOC) Removal Ratio (no units)	N	1.47	1.47 – 1.72	N/A	Removal Ratio RAA <1.00 and alternative compliance criteria was not met	Naturally present in the environment

### Other Miscellaneous Water Characteristics Contaminants

Contaminant (units)	Sample Date	Your Water	Range		SMCL
			Low	High	
Manganese (ppm)	02/06/25	0.034			0.05
Sodium (ppm)	02/06/25	22.3			N/A
Sulfate (ppm)	02/06/2025	31.6			250
pH	02/06/25	7.1			6.5 to 8.5

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

## WHAT CAN YOU DO TO PROTECT DRINKING WATER?

**Get involved with water issues.** Contact the water plant at (919) 575-3118 for information.

**Use water wisely.** Check your plumbing for leaks and fix them. Use water for irrigation only in the early morning or late evening.

**Be environmentally conscious around the lake.** Try to prevent oil and fuel spills while boating. Minimize pet waste to the lake.

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency Safe Drinking Water Hotline at **1-800-426-4791**.