

2022

CITY OF GOLDSBORO ANNUAL DRINKING WATER QUALITY REPORT

PWISD #04-96-010



We provide top quality water and services for our customers 24 hours a day, 365 days a year.

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

We are pleased to present to you this year's Annual Drinking Water Quality Report, a snapshot of the water quality for 2022. During 2022, the City of Goldsboro was in compliance with all National Primary Drinking Water regulations. The Environmental Protection Agency prescribes regulations that limit the amount of certain contaminants in water provided by public water supply systems in order to ensure that tap water is safe to drink.

This report is designed to inform you about the quality water and services we deliver to you every day. 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.

Looking Toward the Future

In 2022, the City of Goldsboro's Water Treatment Plant turned 70 years old. The building has seen billions of gallons of untreated river water enter the plant and leave as highly regulated and safe drinking water to serve the citizens of Goldsboro. Much of the old aesthetics of the plant represent the past: the bricks, the concrete, and some artifacts from the original construction in 1952. While the plant is not at the end of its' life cycle, it is time for the City of Goldsboro to look toward the future.

There were many accomplishments in 2022 that aimed to help ensure the vision of the future becomes a reality. The City has made Robert "Bert" Sherman the permanent Public Utilities director. Bert brings nearly 40 years of water and wastewater treatment to his new position. He has 29 years of service with the City of Goldsboro, 23 of which were as the Water Reclamation Facility's superintendent. Bert is extremely active in Goldsboro's community, having been a boy scout leader and a boys and girls soccer and softball coach. Another major addition to Public Utilities leadership has been the addition of a deputy director filled by Richard Hamilton.

Richard has worked at the Water Treatment Plant for 16 years; four of which were as the chief operator. The combination of these two professionals' skills and backgrounds provides the perfect foundation of leadership to take Goldsboro's drinking water into the future. Discussions are underway to determine a suitable site for a future facility. Upgrades to the current plant to ensure safe operation will continue as needed until a future site is finalized.

Public Utilities is excited for the direction we are headed in, and we look forward to continuing to provide the highest quality drinking water to the citizens of Goldsboro.



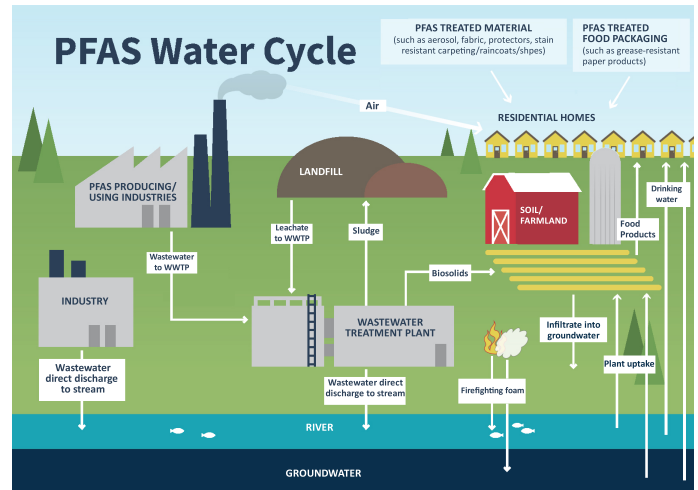
Robert Sherman



Richard Hamilton

What's New?

You may have heard of a new hot topic that has raised concerns about health and safety. That buzzword is PFAS. PFAS is a family of chemical compounds that was widely used starting in the 1940s and was highly favored for its ability to resist heat, grease, and water. PFAS is commonly found in nonstick cookware, shampoo, makeup, dental floss, sunblock, carpet, raincoats, firefighting foams, and many other products that are waterproof or heat resistant. While these chemicals have since been phased out, they are deemed “forever chemicals,” meaning they will be around for a long time before the chemical compound finally breaks down. With that in mind, there have been concerns about these chemicals making their way into drinking water. Therefore the EPA is stepping in to help protect consumers by establishing limits that align with what is deemed safe and when health is possibly affected. While the EPA is still researching these levels, it is important to ease some concerns based on what we currently know.



Source: Environmental Protection Agency

■ **Should I be concerned about my health?** EPA's lifetime health advisory levels offer information that indicates the safe levels of exposure to these individual PFAS (PFOA, PFOS, GenX Chemicals, and PFBS) through drinking water over the course of a person's lifetime to avoid adverse health effects. It is important to note that lifetime health advisories are calculated to offer a margin of protection that also takes into account exposure through other sources beyond drinking water. If you are concerned about potential health effects from exposure to these PFAS above the health advisory level, EPA encourages you to contact your doctor or health care professional.

■ **Should I stop breastfeeding my infant?** The World Health Organization, U.S. Surgeon General, and the American Academy of Pediatrics, among others, believe the advantages of breastfeeding greatly outweigh the potential risks in nearly every circumstance. EPA encourages women and people who are currently pregnant, nursing, or bottle feeding an infant with formula to consult with their physician regarding concerns related to breastfeeding and potential exposure to chemicals such as PFAS. For more information about PFAS and breastfeeding, visit the CDC's (Agency for Toxic Substances and Disease Registry) webpage on PFAS and Breastfeeding.

■ **Is my water safe for bathing/showering?** EPA's health advisories primarily focus on drinking water ingestion, not exposure through skin or breathing. However, they account for a margin of safety for other potential exposure sources, such as skin (dermal), breathing (inhalation), dietary exposure, consumer products, etc. Studies have shown that only a small amount of PFAS can get into your body through the skin.

■ **Can PFAS be boiled out of my water?** No. PFAS cannot be removed by heating or boiling water.

■ **Should I drink bottled water?** At this time, EPA is not recommending bottled water for communities based solely on concentrations of these chemicals in drinking water that exceed the health advisory levels. If you are concerned about PFAS in your tap water, EPA recommends you contact your local water utility to see whether they can provide any specific recommendations for your community. EPA notes that the U.S. Food and Drug Administration has not established standards for PFAS in bottled water at this time. If you have questions about bottled water, please contact the FDA.

For more information regarding common questions and concerns, please visit: [Questions and Answers: Drinking Water Health Advisories for PFOA, PFOS, GenX Chemicals and PFBS](#)

Source: Environmental Protection Agency. [Questions and Answers: Drinking Water Health Advisories for PFOA, PFOS, GenX Chemicals and PFBS](#).

What 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 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.

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 City of Goldsboro 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 1-800-426-4791 or at www.epa.gov/safewater/lead.

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).

**Please call Robert Sherman,
Public Utilities Director,
at 919-735-3329 if you have any questions.**

Water Testing Results

The City of Goldsboro routinely monitors for over 150 contaminants in your drinking water according to Federal and State laws. The following tables show test results for all the drinking water contaminants that we detected in the last round of sampling for the particular contaminant group. Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2022. The EPA and the State require 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.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	SAMPLE DATE	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	MCL VIOLATION	TYPICAL SOURCE
Arsenic ¹ (ppb)	5/3/22	10	0	21	N/A	Yes	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
	8/2/22	10	0	Not Detected	N/A	No	
	11/1/22	10	0	Not Detected	N/A	No	
Chloramines ² (ppm)	2022	4.0	4	2.67	1.02 – 4.0	No	Water additive used to control microbes
Chlorine (ppm)	2022	4.0	4	1.83	0.37 – 2.98	No	Water additive used to control microbes
E. coli ³ (presence or absence)	2022	N	0	0	N/A	No	Human and animal fecal waste
Nitrate (as Nitrogen) (ppm)	2022	10	10	<10	N/A	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	2022	1	1	<1.0	N/A	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Coliform Bacteria ² (presence or absence)	2022	N/A	N/A	TT*	N/A	No	Naturally present in the environment
Total Organic Carbon	2022	N	N/A	1.14 RAA RR	0.93 – 1.52 RR	No	Naturally present in the environment
Turbidity (NTU) ³	2022	>95% under 0.3	N/A	100% under 0.3	0.00 – 0.18	No	Soil Runoff
SUBSTANCE (UNIT OF MEASURE)	SAMPLE YEAR	AL	MCLG	AMOUNT DETECTED (90TH %TILE)	SITES ABOVE AL/TOTAL SITES	MCL VIOLATION	TYPICAL SOURCE
Copper (ppm) (90th Percentile)	2021	1.3	1.3	0.106	0	No	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90th Percentile)	2021	15	0	<3	0	No	Corrosion of household plumbing systems, erosion of natural deposits

¹While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

²The City of Goldsboro uses chloramines for disinfection in its drinking water. Two groups who need to be aware of this are kidney dialysis patients and tropical fish owners. Dialysis machines require water with no chlorine or chloramines. Goldsboro has informed all local dialysis centers and area hospitals of the disinfection method so that appropriate treatment was installed to remove chloramines. Tropical fish owners must remove chloramines from water before use with fish. Chloramines will not dissipate from water like chlorine will. Local pet stores are aware of the disinfection method and carry de-chloraminators that remove chlorine and ammonia.

³If a system collecting 40 or more samples per month finds greater than 5% of monthly samples are positive in one month, an assessment is required. Routine and repeat samples are total coliform-positive and either is E. coli-positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coliform-positive repeat sample for E. coli.

⁴Turbidity 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.

MISCELLANEOUS WATER CHARACTERISTICS CONTAMINANTS

The PWS Section requires monitoring for other miscellaneous 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.

CONTAMINANT (UNIT OF MEASURE)	SAMPLE DATE	YOUR WATER	SECONDARY MCL
Iron (ppm)	May 2022	<.06	0.3 mg/L
Manganese (ppm)	May 2022	.015	0.05 mg/L
Nickel (ppm)	May 2022	<.10	N/A
Sodium (ppm)	May 2022	34.4	N/A
Sulfate (ppm)	May 2022	34	250 mg/L
pH	May 2022	7.2	6.5 – 8.5

DISINFECTION BYPRODUCTS TESTING

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

Disinfection Byproduct	Year Sampled	Your Water	Range Low-High	MCL Violation
Total Trihalomethanes (TTHM) (ppb) MCL 80 / MCLG 0				
B01	2022	47	19-56	N
B02	2022	41	16-46	N
B03	2022	40	15-45	N
B04	2022	39	17-53	N
Five Haloacetic Acids (HAA5) (ppb) MCL 60 / MCLG 0				
B01	2022	40	27-49	N
B02	2022	41	26-41	N
B03	2022	41	26-39	N
B04	2022	32	26-40	N

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 risk of getting cancer.

EMERGING CONTAMINANTS

CONTAMINANT (UNITS)	SAMPLE DATE	Your Water (avg)	Range Low-High	Health Advisory
Perfluorooctanesulfonic acid — PFOS (ppt)	2022	7.56	6.7 – 8.29	*.02
Perfluorooctanoic Acid — PFOA (ppt)	2022	5.68	5.11 – 6.25	*.004
Hexafluoropropylene oxide dimer acid — GenX (ppt)	2022	0.251	0.219 – 0.27	10
Perfluorobutanesulfonic acid — PFBS (ppt)	2022	4.06	3.77 – 4.33	2000

* On June 15, 2022, EPA issued interim health advisory levels for both PFOS and PFOA. Health advisories are not regulations and are not enforceable. These interim health advisories will remain in place until EPA establishes a National Primary Drinking Water Regulation.

Key to Abbreviations and Terms

In this report, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions.

Not-Applicable (N/A) –

Information not applicable/not required for that particular water system or for that particular rule.

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) –

Picocuries per liter is a measure of the radioactivity in water.

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.

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 Goal (MRDLG) –

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfection Level (MRDL) –

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

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.

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.

Running Annual Average (RAA) –

Average of all samples pulled during that time frame.

Removal Ratio (RR) –

Represents the removal amount from source water.

Source Water Assessment Program

Our water source is a surface supply from the Neuse River. We also have an alternate water supply, the Little River, which was not used in 2022. The North Carolina Department of Environmental Quality (DEQ), Public Water Supply Section (PWS), 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.

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating	SWAP Report Date
Neuse River	Higher	Sept. 10, 2020

The relative susceptibility rating of each source for the City of Goldsboro 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 watershed and its delineated assessment area).

The complete SWAP Assessment report for the City of Goldsboro is available online 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 website may differ from the results that were available at the time this Consumer Confidence Report 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, PWSID, 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.

Protect our Resources

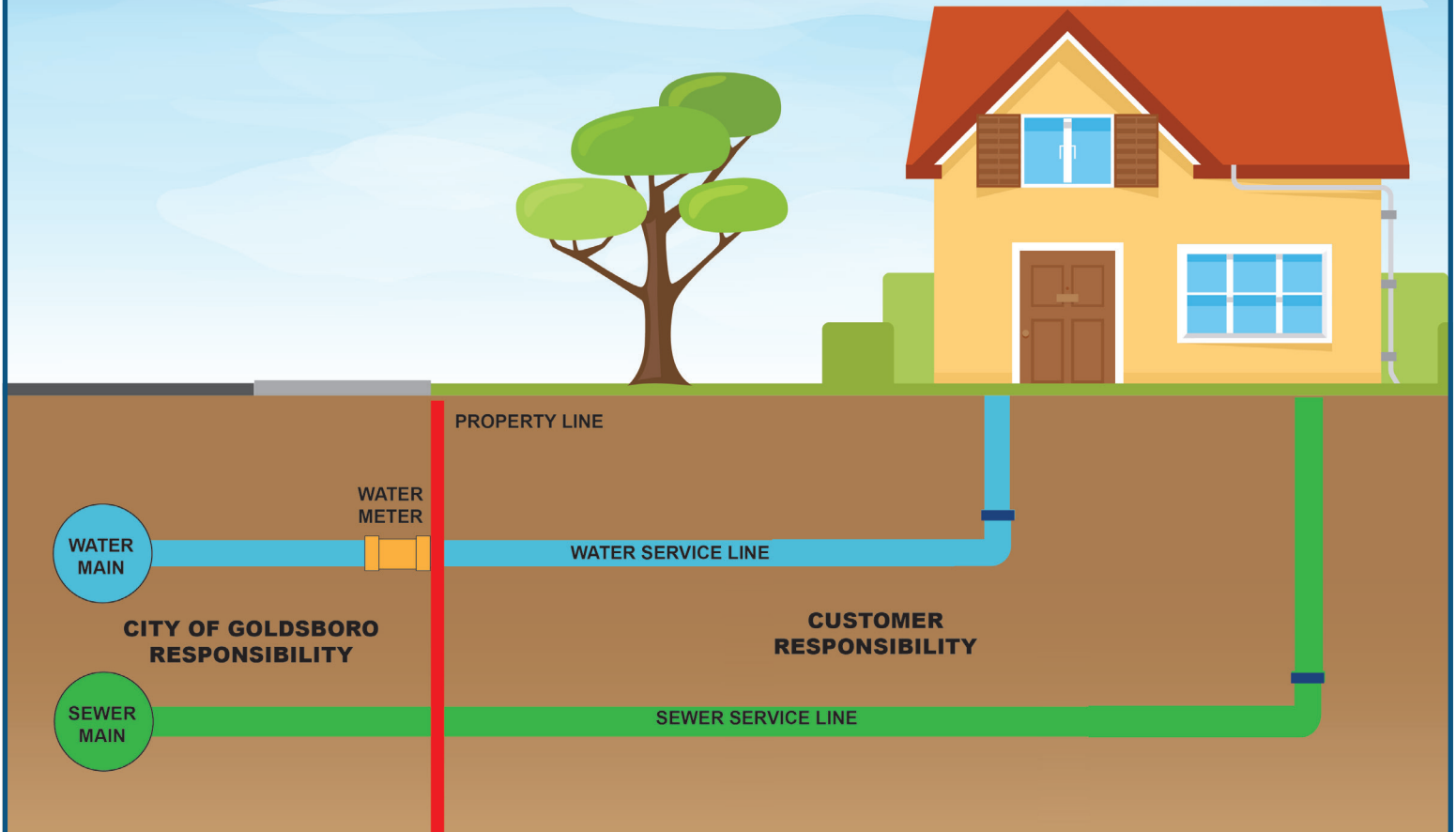
We ask that all our customers help us protect our water resources. In March 2001, Goldsboro instituted a citywide Stormwater Management Program to improve water quality in the Neuse River Basin. Everyone can help in this effort to provide clean water for the citizens of North Carolina and Goldsboro if they will:

1. Dispose of chemicals, oils, unused fertilizers, old pesticides, and other liquids properly, and do not dump them into storm sewer inlets or ditches. Contact the City’s Public Works Department at 919-734-8674 for assistance in disposal.
2. Properly dispose of fats, oils, and greases to prevent sanitary sewer overflows.
3. Fix leaking sanitary sewer pipes on their property, and notify the City’s Public Works Department whenever a leaking sanitary sewer pipeline is discovered.
4. Avoid straight piping of roof drains and floor drains to storm sewers and ditches. Roof drains should discharge directly onto grassed areas, and floor drains should be connected to the sanitary sewer.

Contact the City’s Public Works Department for assistance in correcting any problems.

5. Limit the use of pesticides and fertilizers on yards, and avoid application just prior to rain events so that a storm does not wash the pesticides and fertilizers into the storm sewer system.
6. Clean up grass clippings and yard waste and dispose of them properly, or deposit them into a mulch pile for use in gardens and flower beds.
7. Report any non-stormwater discharge (oil, foam, chemicals, sanitary waste, etc.) that have entered inlets, storm sewers or ditches to the City of Goldsboro’s Illegal Discharge Hotline at 919-580-4369.

WHO IS RESPONSIBLE?



Did you know that homeowners are responsible for water and sewer repairs from the property line to their home? For water repairs, the City's responsibility ends at the water meter. When a customer has a sewer issue, a plumber will often tell them that the problem is in the street. City crews can only check the main line if customers have a sewer cleanout on the right of way. If they have a cleanout on the ROW, Public Utilities will maintain it. We can only inspect a line with a camera if we have outside access and the line is open. If you're unsure of the source of your problem, give us a call and we'll help you pinpoint the issue.

Learn more about how we work for you.

We are committed to providing clean, safe drinking water to our customers every day, no matter what. We're passionate about our jobs, and we'd love to tell you more about what we do. We offer tours at our Water Treatment Plant at 1201 Jordan Boulevard, Water Reclamation Facility at 714 Arrington Bridge Road and the Compost Facility at 200 Westbrook Road. We are also happy to visit your school or organization to speak to your group.

For more information about facility tours or presentations, contact Robert Sherman, Public Utilities Director, at 919-735-3329.

Be Informed

We want our valued customers to be informed about their water utility. The Goldsboro City Council makes decisions regarding our utilities system. If you want to learn more, please attend any of the regularly scheduled meetings. The City of Goldsboro holds public meetings on the first and third Monday of each month unless otherwise posted. The public meetings are held at 5 p.m. and 7 p.m. in the Council Chambers on the second floor of City Hall, unless otherwise posted.