

2019 Annual Drinking Water Quality Report

City of Goldsboro | PWSID # 04-96-010

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

We are pleased to present to you this year's Annual Drinking Water Quality Report, a snapshot of the water quality for 2019. During 2019, the City of Goldsboro was in compliance with all National Primary Drinking Water regulations. The Environmental Protection Agency prescribes regulations which 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 because informed customers are our best allies.

Clean, safe water when you turn on the tap ...

Members of the water plant are state-certified operators working 24 hours a day, 365 days a year. On a daily basis, the water plant staff runs bacteriological and dozens of additional laboratory analyses on the drinking water before it is sent to our customers.

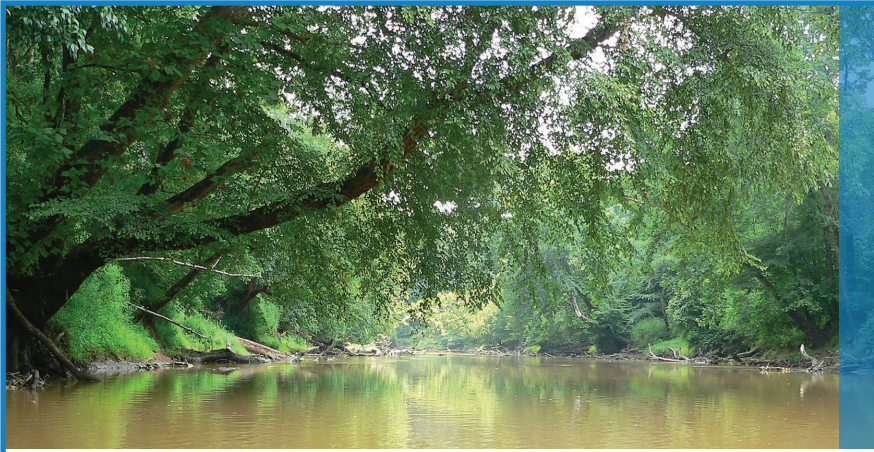


Scott Summers, Water Treatment Plant Operator

Preparing for future growth needs

The upcoming plate settler project will expand capacity at our water treatment plant from 12 million gallons per day (MGD) to 14 MGD. This increased capacity will be a crucial asset as our area continues to grow and develop.





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 2019.

Drinking Water and Contaminants

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.

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

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).

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.



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. in the Large Conference Room in the City Hall Annex and 7 p.m. in the Council Chambers on the second floor of City Hall, unless otherwise posted.

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, 2019. 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 YEAR	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2019	10	0	Not Detected	N/A	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Chloramines ¹ (ppm)	2019	[4.0]	[4]	2.63	1.19 – 3.69	No	Water additive used to control microbes
Chlorine (ppm)	2019	[4.0]	[4]	1.77	0.41 – 2.86	No	Water additive used to control microbes
Dalapon (ppb)	2019	200	200	Not Detected	N/A	No	Runoff from herbicide used on rights of way
E. coli ² (presence or absence)	2019	SEE FOOTNOTE ²	0	0	N/A	No	Human and animal fecal waste
Fluoride (ppm)	2019	4	4	0.59	N/A	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen) (ppm)	2019	10	10	Not Detected	N/A	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Coliform Bacteria ² (presence or absence)	2019	TT*	N/A	0	N/A	No	Naturally present in the environment
Total Organic Carbon	2019	TT	N/A	1.25 RAA RR	1.11 – 1.39 RR	No	Naturally present in the environment
Turbidity (NTU) ³	2019	>95% under 0.3	N/A	99% under 0.3	0.00 – 0.56	No	Soil Runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

SUBSTANCE (UNIT OF MEASURE)	SAMPLE YEAR	AL	MCLG	AMOUNT DETECTED (90TH %TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm) (90th Percentile)	2018	1.3	1.3	0.130	0	No	Corrosion of household plumbing systems; erosion of natural deposits
Lead* (ppb) (90th Percentile)	2018	15	0	4.1	1	No	Corrosion of household plumbing systems, erosion of natural deposits

UNREGULATED SUBSTANCES

Those for which EPA has not established drinking water standards. Assists EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.

SUBSTANCE (UNIT OF MEASURE)	SAMPLE DATE	AMOUNT DETECTED	SECONDARY MCL
Sulfate (ppm)	May 2019	33.0	250 mg/L

WATER CHARACTERISTICS

CHARACTERISTIC	SAMPLE DATE	YOUR WATER	SECONDARY MCL
pH	May 2019	7.31	6.5 – 8.5
Sodium (ppm)	May 2019	5.59	N/A

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	2019	54	33-58	N
B02	2019	53	31-50	N
B03	2019	50	32-46	N
B04	2019	51	30-47	N
Five Haloacetic Acids (HAA5) (ppb) MCL 60 / MCLG 0				
B01	2019	59	30-73	N
B02	2019	50	25-50	N
B03	2019	48	23-51	N
B04	2019	43	23-48	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.

¹The City of Goldsboro uses chloramines 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.

²If 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

³Turbidity 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.

UNREGULATED CONTAMINANT MONITORING RULE (UCMR4) RESULTS

Substance (Unit of Measure)	Sample Date	Distribution			
		B01	B02	B03	B04
Bromochloroacetic acid (ug/L)	8/2019 11/2019	6.7 4.2	5.5 3.7	5.3 3.9	6.0 4.2
Bromodichloroacetic acid (ug/L)	8/2019 11/2019	5.7 3.7	5.7 3.9	5.4 4.1	5.9 4.0
Chlorodibromoacetic acid (ug/L)	8/2019 11/2019	1.1 0.67	1.2 0.86	1.1 0.94	1.2 0.69
Monobromoacetic acid (ug/L)	8/2019 11/2019	0.35 0.35	0.42 Not Detected	0.30 Not Detected	0.41 0.49
Dibromoacetic acid (ug/L)	8/2019 11/2019	0.90 0.71	0.77 0.64	0.75 0.68	0.81 0.69
Dichloroacetic acid (ug/L)	8/2019 11/2019	30 17	21 14	21 14	23 16
Monochloroacetic acid (ug/L)	8/2019 11/2019	3.4 Not Detected	2.9 Not Detected	2.8 Not Detected	Not Detected
Trichloroacetic acid (ug/L)	8/2019 11/2019	21 12	18 11	18 12	20 12

Location	Sample Date	Manganese (ug/L)
Entry Point	August 6, 2019	23
	November 5, 2019	5.7

Location	Sample Date	Bromide (ug/L)	TOC (mg/L)
Neuse River	August 6, 2019	30	5.2
	November 5, 2019	45	5.8

Lead and Drinking Water

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.



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.

Extra note: MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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

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)

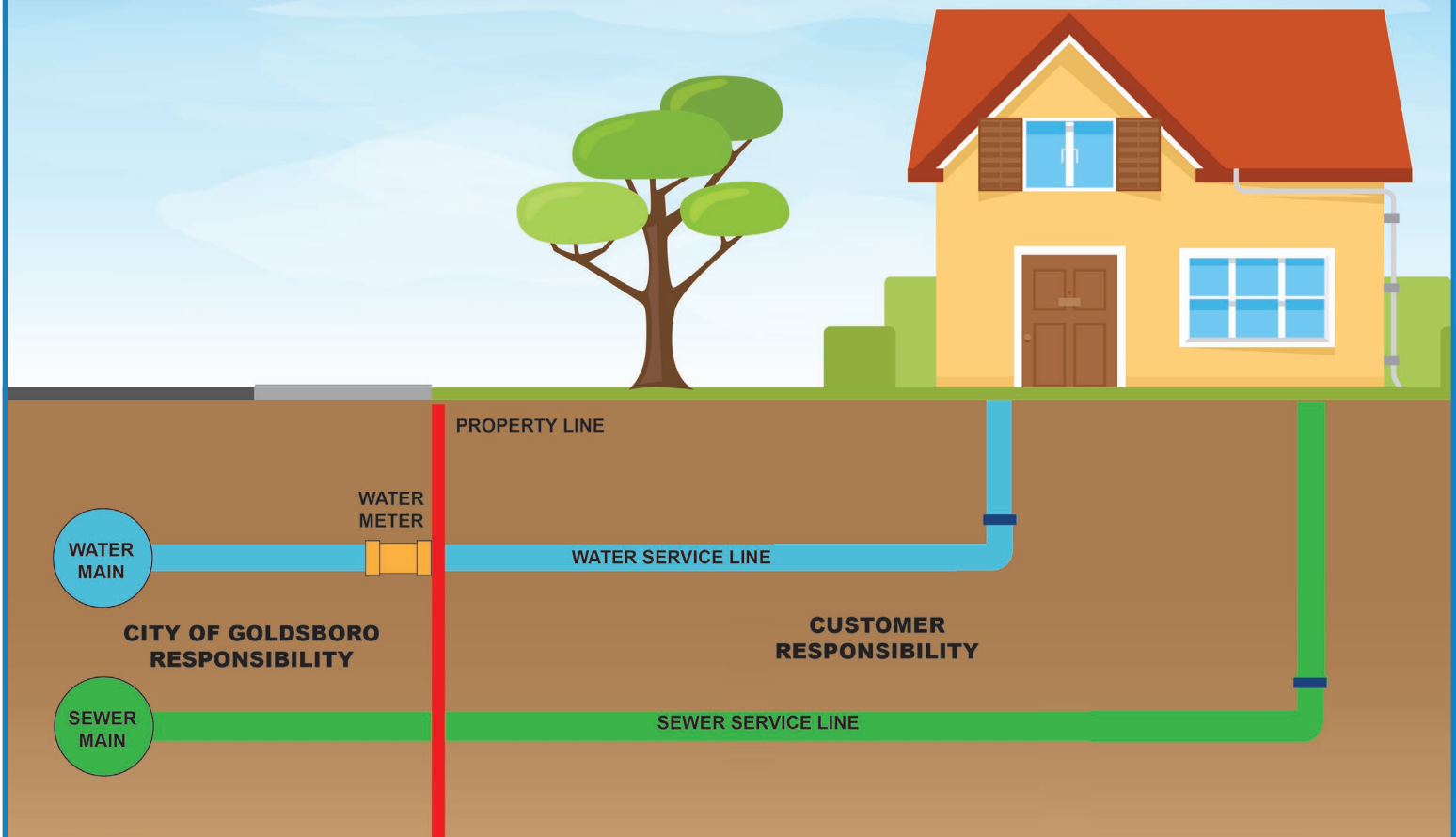
Source Name	Susceptibility Rating	SWAP Report Date
Neuse River	Higher	Sept. 1, 2017

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 www.ncwater.org/pws/swap.

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.

WHO IS RESPONSIBLE?

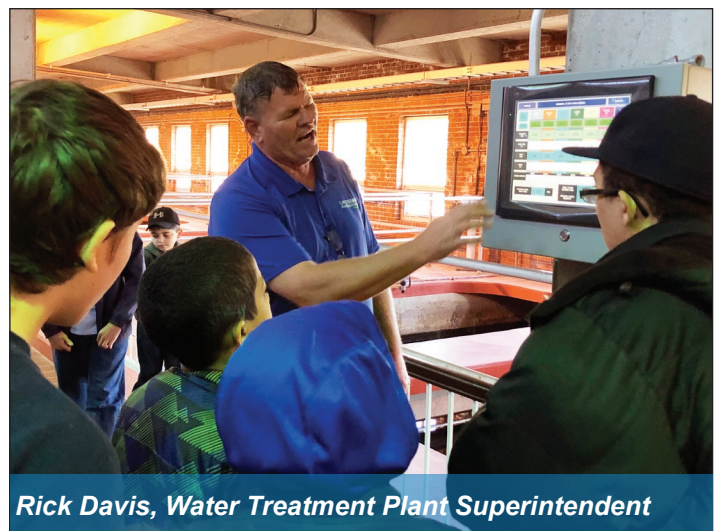


Did you know that homeowners are responsible for water and sewer repairs from the property line to their home? For water repairs, the City's responsibility ends at the water meter. When a customer has a sewer issue, a plumber will often tell them that the problem is in the street. City crews can only 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 Mike Wagner, Public Utilities Director at 919-735-3329.



Rick Davis, Water Treatment Plant Superintendent