



2019 - 2020 System Performance Annual Report
Collection System

The Town of Leland is pleased to present the Annual Wastewater Collection System Report for fiscal year 2019 -2020. As a requirement of the Collection System Permit issued by the State of North Carolina, the Town of Leland Public Utilities Department is required to report the system performance to all of its customers on an annual basis. This report provides information about the performance of wastewater collection system for the period of July 1, 2019 through June 30, 2020. All of the information contained in this report is accurate and complete. This report is required under the provisions of the Clean Water Act of 1999, House Bill 1160 ratified on July 20, 1999.

WASTEWATER COLLECTION SYSTEM

I. General Information

Facility Name: Leland Collection System
Responsible Entity: Town of Leland
Person in Charge: Brandon Faircloth, Operator in Responsible Charge
Contact Information: 910/332-5008
Applicable Permit: WQCS00333

II. System Description

The network of pipes that constitutes the wastewater collection system includes over 70 miles of gravity pipeline and 12 miles of pressure pipeline ranging in size from 4" to 16" diameter. The gravity pipelines receive flow from over 6,500 connections and transport it to one of thirty (30) pump stations. The wastewater is then pumped via the pump stations and pressure pipelines to the Northeast WWTP which is owned and operated by Brunswick County, where it is treated prior to being returned to the Cape Fear River. This network of pipelines and pump stations collects and transports over 946,000 gallons of wastewater every day from homes and businesses in the Town of Leland.

Our wastewater collection system is operated and maintained under a system- wide Wastewater Collection System Permit (#WQCS00333) issued by the State of North Carolina Division of Water Resources. Construction of the system is accomplished through individual non- discharge permits issued by the State for each new extension. The ORC of the system is Brandon Faircloth, Public Utilities Superintendent, phone number 910- 332- 5008.

III. Performance

The Town of Leland is routinely working to maintain and improve the efficiency of our Collection System by increasing routine maintenance of lines and lift stations and participating in an ongoing education program in which citizens are instructed in the importance of proper disposal of household waste, including

fats, oils, and grease. The Town is encouraging its citizens and system users to recycle used cooking oil and avoid the use of 'flushable' wipes.

Sanitary Sewer Overflows (SSOs): Sanitary sewer overflows may result from a variety of causes: inflow and infiltration due to high water levels; blocked pipes from rags, roots, and grease accumulation; broken lines from corrosion or construction activity; power failures at pump and lift stations within the system. The Town of Leland Collection System had one reportable sewer SSO during this report period. The Town was in compliance with all other conditions of the permit. The SSO was reported in accordance with State regulations to the NC Division of Water Resources. There were no environmental impacts noted as a result of the sewer overflow. A summary of reportable sanitary sewer overflow for this report period:

| Date | Location | Reported Gallons | Cause |
|-----------|---------------------------------|------------------|-------------------|
| 10/7/2019 | Pump Station at Magnolia Greens | 800 | Equipment Failure |

How We Protect The System

We'd like to reduce system overflows to zero so we work hard to protect our system. The following is an overview of the ways we try to protect our system and prevent overflows:

I/ I Investigations. Infiltration/ Inflow (I/ I) is extraneous water that gets into the wastewater collection system—any water other than sewage. We have an extensive program that includes smoke testing, closed-circuit TV inspection and flow monitoring to assist us in identifying areas of extraneous flow. Once we have located problem areas, we take steps to remediate the problem.

Routine Pipe Cleaning. Each year we routinely have at least 10% of the collection system cleaned, an average of more than 45,000 linear feet of sewer pipe, with special high-pressure equipment designed to remove grease and other debris from the system and inspected manholes. This routine cleaning and inspection program further reduces the potential for system blockages and overflows.

Priority Cleaning. Portions of the wastewater collection system are considered to be high priority over others and require more frequent cleaning. These portions of the system are cleaned a minimum of once annually to prevent blockages and/ or overflows.

Fats, Oils and Grease (FOG) Program. Residual fats, oils and grease are a by-product of food service establishments and individual homes. Commercial customers that serve food or process meat, etc. are required to have grease interceptors. These grease removal devices are designed to remove animal fats and vegetable oils, leading causes of sewer line blockages. Commercial customers that service or wash motorized vehicles are also required to have sand/oil interceptors. These devices help protect the wastewater collection system by removing sediments, oil, grease and light petroleum products from the wastewater discharge.

Education. We have an educational campaign involving newsletters designed to inform the public on ways they can help us protect the sanitary sewer system.

Help Prevent Overflows

Essentially, a wastewater collection system is like a transportation highway. A series of pumps and pipes transports wastewater from our customers to the Wastewater Treatment Plant. We have to do all we can to make sure "traffic" isn't allowed to back up. On the highway it would be called a traffic jam. In our case, when "traffic" backs up, it causes an overflow. Overflows are bad for the environment and can result in stiff penalties from state regulators. Most overflows occur when a blockage prevents the normal flow of wastewater. This causes a build-up in the pipe that can eventually spill out of the top of a manhole or clean-out. Historically, the majority of blockages on our system are from the homeowner's sewer service running from the house to the town's sewer main. Often this is caused as a result of improper disposal of grease, flushable wipes, and other debris. Some overflows are caused by excessive inflow and infiltration or leaks into the sewer system. In addition, some problems are caused by tree roots, pipe failure or pipes damaged by private utilities contractors. If you are experiencing a blockage in your line STOP using any water, this will help prevent any spills from occurring in your home, and before you call a plumber call the Town of Leland Utilities Department. Dial 910-332-5000 or 910-540-2600 and we will come out and see if the blockage is on the residential side or the Town's side.

Cease the Grease

Grease is a real "pain in the drain" because it can clog sewer lines, which can lead to sewer spills. The Town of Leland does everything it can to prevent sewer spills, but we can't do it alone. We need your help!

The best way you can "cease the grease" is to never pour grease (things like oil, butter, margarine, shortening, pan drippings and sauces) down the drain. Instead, let it cool down, collect it in a container—like a used soup can or mayonnaise jar—and throw it away in the trash.

And don't believe the following sayings: (1) it's okay to pour grease down the drain as long as you run the water at the same time, or (2) it's perfectly fine to dump grease if you use your garbage disposal to break it up. These are myths. It's never okay to pour any type of grease down the drain. Here are some more ways to help prevent sewer spills:

- Wipe or scrape your dishes before washing them.
- Remove excess oil from pots and pans with a paper towel and throw away the towel in a trash can.
- Use strainers in sink drains to collect food scraps and throw away the scraps in the trash.

Thanks for your help, and please spread the word about how important it is to "cease the grease." Together, we can protect our sewer system and the environment.

Flushable Items and Your Wastewater System

Human waste and toilet paper should be the only thing going down the toilet. Unfortunately, over the years, some people have turned the toilet into a trash can. From medications and sanitary products to deceased pet fish and cigarette butts, if it fits, people flush it. Flushing these types of items down the toilet unnecessarily wastes water (up to five gallons of water with every flush), causes blockages in home plumbing and the public wastewater system and most importantly can result in huge impacts on our sewers, the environment and the water we strive to protect. Below is a list of items that people commonly flush that should NOT be going down the toilet:

- Sanitary Products
- Paper Towels

- Diapers
- Baby Wipes
- Facial Tissues
- Condoms
- Dental Floss
- Prescription/ Over-the-Counter Medications

All of these are made of materials that don't break down and must be physically removed by wastewater personnel as they are collected throughout the system. They can also cause blockages and over-flows. The trash is the proper place for the disposal of these items.

IV. Notification

This report is published on the Town of Leland's website at <https://www.townofleland.com/>. In addition, copies are available for review at the Town Hall offices at 102 Town Hall Drive, in Leland.

V. Certification

I certify under penalty of law that this report is complete and accurate to the best of my knowledge. I further certify that this report has been made available to the users or customers of the named system and that those users have been notified of its availability.



Brandon Faircloth

Operator in Responsible Charge
Town of Leland