

**City of Locust**  
Post Office Box 190  
Locust, North Carolina 28097-0190  
(704) 888-5260

**City of Locust  
Annual Wastewater Collection Report  
2020-2021**

**Introduction:**

This report is produced in compliance with House Bill 1160 passed by the General Assembly of the State of North Carolina requiring that all entities that own or operate a wastewater collection system make an annual report available to their customers. This report includes information regarding system operations, violations, and educational material.

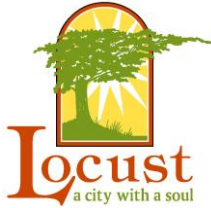
This report is designed to provide an understanding and informative description of the wastewater collection system and promote a general public awareness of its operations.

**General Information:**

System Name: City of Locust Wastewater Collection System  
Responsible Entity: City of Locust  
Persons in Charge: ORC: Tim Flieger, Cert# 994828  
Backup ORC: Chris McLain, Cert# 1002246  
Backup ORC: Larry Norris, Cert# 1007411  
Backup ORC: Robbie Pickler, Cert# 1009849  
Applicable Permit: Collection System Permit #WQCS00365

**Collection System Overview:**

The City of Locust Wastewater Collection System has approximately 1463 sewer connections that serve residential, commercial, and industrial customers. The system is unique in design, because it has all types of available sewer service technology in service. It consists of approximately 10 miles of forcemain, 13 miles of vacuum main, 23 miles of gravity main, and 2600' of low pressure. There are 3 main pump stations and 8 lift stations that help convey the untreated sewer to the POTW, located in Oakboro. The purpose of the wastewater collection system is to collect and transport the sewage generated by the city's customers to the wastewater treatment plant which is owned and operated by Stanly County Utilities.



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## **Performance:**

The City of Locust's Public Works Department performs the operation and maintenance of the collection system. During the reporting period, the City of Locust Wastewater Collection System collected and conveyed 94,075,322 gallons of untreated wastewater. The department consists of 5 full time employees. This department performs all the station and system maintenance that arises within the wastewater system. Station maintenance includes, but not limited to, daily station visits, landscape/lawn maintenance, housekeeping, wet well cleaning, inflow and infiltration reduction, and all mechanical maintenance/repairs. System maintenance includes, but not limited to, line cleaning, inflow and infiltration reduction, service tap installation, maintenance and repairs of the low-pressure system (23 grinder pumps), repair to all sewer main lines, customer collection/disconnection enforcement, 24/7 customer call ins, new construction inspection, and mowing/inspections of sewer right of ways/easements.

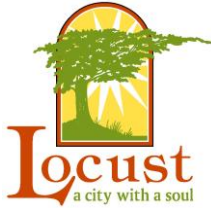
## **Collection Station/System Maintenance Accomplishments:**

- Responded to 38 after-hour station calls.
- Responded to 20 after-hour system calls.
- Conducted PM services on all vacuum pumps at BHVS#1 & MCVS#2 (4x).
- Installed 6 new service taps.
- Inspected 55 new connections
- Inspected, mowed, and maintained 78.4 miles of off road right of way (9x).
- Completed 1048 utility locates

## **How We Protect Our Environment and Collection System:**

We would like to reduce sanitary sewer overflows (SSO) to 0% so we work hard through preventative, pro-active measures to protect our system. The following is an overview of some of the programs we've activated to protect our system and environment to prevent overflows:

***I/I Reduction*** continued to be a major focus this past year. Inflow and infiltration play a large role in the efficiency of a system; therefore, our focus has been to minimize this issue. Primarily through visual inspections, we've reduced unwanted stormwater in our system tremendously. Manhole maintenance was our primary focal point in this year's I/I Reduction Program. Raising rim and covers and adding lid pans were the most common process used. These types of repairs were made immediately after following detection. By focusing on these issues, we maximized our systems capacity, reduced energy consumption, reduced financial burden, and most importantly protected our environment.



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The City of Locust continues to improve our ***Fats, Oils, and Grease (FOG) Program*** as well. Most Sanitary Sewer Overflows (SSO's) are caused by F.O.G and can be prevented through education and training. Food Service Establishments (FSE) are the biggest contributors to this program and receive most of our attention. Random site visits/inspections are conducted at all FSE's and this is how we educate and enforce our FOG ordinance/ program. During the reporting period, 42 on-site visits were recorded. While (0) Notice of Violations (NOV) were issued. Education, training, and follow through have been our key approaches to a more effective and pro-active FOG reduction program.

***Sewer Line Cleaning*** is another activity that we work on to eliminate environmental contamination. Certain sub-basins in our wastewater collection system are more problematic than others and require more frequent inspections and cleaning. During the reporting period, our team hydro jetted 17,418' of gravity sewer main.

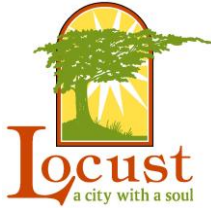
#### **How We're Advancing Our Collection System:**

For a wastewater system to thrive, it must grow and evolve over time. The longevity of a sanitary sewer system not only relies on a good maintenance plan, but it relies on the evolution of technology. Over the years, many advancements have been made to help the operations and efficiency of our wastewater systems. The following are advancements that we've utilized over the past year:

**Increased Capacity** has taken place in our Redah Acres Sanitary Sewer Sub Basin (***RASSSB***). The improvements that took place here were a new 8" forcemain and a complete station overhaul that included upsizing the wetwell, controls, stand-by generator, and pumps. Basin capacity went from 120,960 gpd to 792,000 gpd.

**SCADA** based Mission Communications System Implementation Program now allows our operations department to monitor and operate various functions remotely, making us more efficient. This was year 2 of the improvement program and it included, 200NLS#3 and CVLS#4. This addition now completes the entire Meadow Creek Sanitary Sewer/Northern Basin.

**Energy Efficiency** was another major focal point this year. The vacuum portion of our sanitary sewer system is largely reliant on electrical energy and the aging infrastructure makes it very challenging to be energy efficient. Therefore, we're working aggressively to make some major upgrades to our infrastructure. Step #1 was conducting an energy efficiency assessment. This assessment was conducted by City of Locust Utility (***CLU***) staff and the North Carolina Rural Water Association (***NCRWA***). This assessment will help guide us through the next steps of upgrading to a more efficient vacuum sewer system, through new vacuum pumps and controls. This year we assessed and began the designed/planning part of the improvements, now to implement the changes.



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**Violations:**

The City of Locust had (1) one reportable spills (SSO) during the reporting period.

**Availability of Report:**

A copy of this report is available at City Hall 186 Ray Kennedy Dr. Locust, North Carolina; and on the city's website at [www.locustnc.com](http://www.locustnc.com)

**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 and customers of the City of Locust.

  
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Date: 7-19-2021

Timothy C. Flieger  
Director of Public Works  
City of Locust  
Department of Public Works