ENVIROMENTAL PROTECTION PROGRAMS

WANTED!!

FATS, OILS, AND GREASE (FOG) ENFORCEMENT STAFF SEARCHING FOR THIS INDIVIDUAL......

YOU CAN HELP!



Environmental Commitment

The General assembly of North Carolina requires that all entities that operate a wastewater collection system make an annual report available to their customers.

The following professionals are designated by the State of North Carolina as the Operator in Responsible Charge (ORC) and the Back-up ORC of the City of Locusts' wastewater collection system:

ORC: Tim Flieger, Cert# 994828 Backup ORC: Chris McLain, Cert# 1002246

Larry Norris, Cert# 1007411 Robbie Pickler, Cert# 1009849

Copies of this report are available @ City Hall and on the City's website @ www.locustnc.com.

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 named system and that those users have been notified of its availability .

Timothy C Flieger Director of Public Works, City of Locust



City of Locust 2020-2021 Annual Wastewater System Performance Report



Wastewater Collections System Town Center North Lift Station #11 Kerri Dawn Ln Locust NC



Wastewater Collections System Meadow Creek Vacuum Station #2 Meadow Creek Church Rd Locust NC



<u>2020-2021 Annual</u> <u>Report</u>

What is Wastewater?

Wastewater is a term applied to water that has been used to bathe, wash dishes, do laundry, and flush toilets at home, as well as what is created as a by product through manufacturing, industrial or commercial activities. The City of Locust has an extensive system of pipes that collects both the domestic and industrial wastewater and transports it to the wastewater treatment plants in Oakboro, operated by Stanly County Utilities.

The City of Locust wastewater collection system has approximately 1,463 sewer connections that serve residential, commercial, and industrial customers. The system is unique in design, because it has all types of available sewer (gravity, vacuum, low-pressure, and force main) serving our city. There are approximately 48 miles of sewer line ranging from 4 to 12 inches in diameter. There are 481 gravity manholes, 266 vacuum pits, and 23 grinder pumps. There are 8 lift stations and 3 pump stations that convey the sewer through the system and on to the West Stanly Treatment Plant in Oakboro. Lift stations are located in areas where gravity flow can no longer be achieved and pump stations convey the sewer to the treatment plant.

During the reporting period (2020-2021) the City of Locust Utility collected approximately **94.09 million** gallons of wastewater.

PERFORMANCE AND ACCOMPLISHMENTS

The City of Locust's Public Works Department performs the operation and maintenance of the collection system and its stations. The department consists of 5 full-time employees, who are ready to respond 24/7 to all wastewater opportunities. Maintenance staff responded to $\bf 38$ after hours station calls during the reporting period and $\bf 20$ after hours system calls.

During the 2020-2021 reporting period, we have been busy planning/ engineering/implementing significant improvements to two of our most rapidly growing sanitary sewer sub-basins, Meadow Creek (MCVSSSB) and Redah Acres (RASSSB). One of the greatest challenges in managing and operating a wastewater system is managing its system capacity. It takes steady forecasting of population growth, monitoring current infrastructure, and then planning upgrades to this infrastructure to meet the demands caused by the population growth. The RASSSB primarily serves the Locust Town Center and Redah Acres SD area. This project consisted of a new 8" force main and a newly constructed pump station at the existing site. This improvement project increased our daily flow capacity in this sub-basin from 120,960 GPD to 792,000 GPD. Another challenge that utility systems face, especially aging ones, is energy efficiency. This was our focus in the MCVSSSB. The City of Locust Utility staff worked with the North Carolina Rural Water Association on conducting an energy efficiency assessment. This assessment will be used to steer improvements at the Meadow Creek Vacuum Station, primarily upgrading pumps and pump controls. Construction will take place during reporting year 2021-2022. In addition to these projects, we continue the process of upgrading all our stations with a SCADA based Mission Communications System. This will allow our operations department to monitor and operate various functions remotely, making us more efficient. To properly manage the expense of this project, this project will be implemented over the course of a few years. This years portion of the improvement project included, 200NLS#3 and CVLS#4. This complete the entire Meadow Creek Sanitary Sewer/Northern Basin.

Inflow and infiltration is one of the largest obstacle in running an efficient system. We continue to manage this challenge with an aggressive I/I Reduction Program. During 2020/2021 we conducted visual manhole inspections and flow evaluations all to minimize the unwanted presence of storm water. In addition, through an aggressive and pro-active approach, we isolated areas in our vacuum system that were failing and allowing vacuum to leak out. These areas didn't cause SSO's, but they did contribute to our I/I and increase electrical consumption at our vacuum stations. By focusing on these opportunities, we've maximize our system capacity, reduced energy consumption, reduced financial burden, and most importantly protected our environment.

The City of Locust continues to enforce our Fats, Oils, and Grease (FOG) Program. We do this by conducting random inspections of Food Service Establishment (FSE) and their facilities. During the current reporting period, Public Works staff conducted 42 on-site inspections. Education is the best tool we have in the fight against F.O.G. During FSE inspections we're constantly working with members to make sure they're using Best Management Practices (BMP). In addition, we continue to utilize our website for educational purposes.

EDUCATIONAL

Flushable and your wastewater system

Human waste and toilet paper should be the only thing going down the toilet. Unfortunately, over the years people have decided to turn the toilet into a trash can. From medication and sanitary products to deceased pet fish, if it fits, people flush it.

Flushing these items unnecessarily wastes water (up to 5 gallons per flush), can cause backups in the customers plumbing and the public sewer, excessive damage to pumps, and most importantly can create major impacts on our sewers, the environment, and the water we strive to protect.

The following is a list of items you should $\ensuremath{\mathbf{NEVER}}$ flush....

Sanitary products

Paper towels

Diapers

Baby wipes

Facial tissues

Condoms

Dental floss

VIOLATIONS

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