

# **Town of Mocksville-Wastewater Annual Report**

**July 1, 2015-June 30, 2016**

The Clean Water Act of 1999, passed by the North Carolina General Assembly, required utilities like the Town of Mocksville to provide an annual report to their wastewater customers. This report summarizes the performances of our Wastewater Collection System and Wastewater Treatment Plant over a 12-month period (July 1, 2015-June 30, 2016).

Each day, we collect and treat an average of 450 thousand gallons of wastewater; about 160 million gallons a year. We are proud of our collection/treatment system and the job we do in protecting public health and the environment, meeting regulatory requirements and accommodating the orderly growth of the community.

## **Our Mission**

Overall, there are two key elements in wastewater treatment- the collection system and the treatment process. Our highly trained, state certified staff does an excellent job with both. Wastewater collection/treatment is a 24-hour-a-day, 7day-a-week responsibility.

Ultimately, our goal is to protect both the environment and the quality of life not only for the Town of Mocksville, but for our neighboring communities as well. Each city and town along Dutchman Creek is affected by the quality of water we discharge from our respective wastewater treatment plants. Today is more important than ever for all of us to join together to protect the quality of life that only a clean river can offer.

## **What is Wastewater Treatment?**

Wastewater Treatment is the biological process of removing pollutants from the water so it can be returned safely to the environment. It is the “last line of defense” against water pollution. The Town of Mocksville Wastewater Treatment Plant protects the environment from water which may cause disease-causing bacterial or other pollutants.

Our Community is continuously expanding with the addition of new industries, businesses and homes. Along with this growth comes added waste to be collected and treated. It is an enormous task to keep up with this growth and properly manage the increases in wastewater collection and treatment. The Town of Mocksville accepts this task by planning and upgrading its wastewater and collection facilities as necessary in order to meet our customers’ needs.

## **About Our Collection System**

The Town of Mocksville Utilities Wastewater Collection System includes 81 miles of sanitary sewer mains (pipes) and 7 pump stations with their associated force mains. These pipes and pump stations collect and transport an average of 400 thousand gallons of wastewater per day

from homes and businesses in Mocksville and parts of Davie County. Wastewater is collected through approximately 2500 individual connections to the system and delivered through a network of pipes ranging from 6” to 18” in diameter. The collected wastewater is transported to the Wastewater Treatment Plant where it is treated prior to being returned to Dutchman Creek.

### **Overflows Create Problems**

Essentially, the collection system is like a transportation system. The pumps and pipes transport wastewater from our customers to the Wastewater Treatment Plant. We have to do all we can to make sure “traffic” is not allowed to back up. On the highway it would be called a traffic jam. In our case, when the “traffic” backs up, it is called a Sanitary Sewer Overflow (SSO). SSOs are bad for the environment and result in stiff penalties from State Regulators.

SSOs occur when wastewater builds up in the pipe and cannot get out. The water potentially could seep out of the top of a manhole or cleanout. The majority of overflows on our system are caused by blockages, which often occur as a result of improper disposal of grease. Some overflows are caused by excessive inflow and infiltration (I&I) or leaks into the sewer system. To a lesser extent some problems are caused by tree roots, pipe failure or construction damage, but most result from grease and/or other debris.

### **How We Protect the System**

We work very hard to protect our system from SSOs in a variety of ways and our record is excellent. The following is a brief overview of the various ways we try to protect our system and prevent overflows.

- **Pre-treatment Program**

There are provisions in our Sanitary Sewer Use Ordinance for pre-treatment of wastewater, principally by our industrial customers. We issue permits to applicable industries and they pretreat their wastewater before it is discharged to the Town of Mocksville.

- **Grease Interceptors**

Commercial customers that serve food or process meat, etc. are required to have grease interceptors. These devices are designed to remove grease, a leading cause of sewer line blockages.

- **Inspections**

We regularly inspect our sewer lines for obvious problems. We also inspect other locations such as streams, creek crossings, and outfalls. We inspected over 6,163 feet of sewer pipe with our sewer camera.

- **Pipe Cleaning**

This year we cleaned 40,000 feet of sewer pipe with special high pressure equipment designed to remove grease and other debris from the system. This routine cleaning program further reduces the potential for system blockages and overflows.

- **I&I Investigations**

I&I (inflow/infiltration) 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 enable us to identify areas of extraneous flow. Once we have located problem areas, we take the necessary steps to remediate the problem.

- **Public Education**

We are in the process of an educational campaign with our customers involving fliers, door hangers, newsletters and advertising designed to inform the public on ways they can help us protect the sanitary sewer system.

### **What You Can Do**

Mocksville Utilities does everything it can to prevent sewer spills, but we cannot do it alone. You play an important role in helping us maintain an efficient public sanitary sewer system. Since the majority of overflows are caused by improper disposal of items into the sewer system, we ask you to be aware of the following guidelines:

- Avoid pouring fats, oils, and grease from cooking down the drain. Instead, collect them in a container and dispose in the trash.
- Don't use your toilet as a wastebasket. Place a wastebasket in the bathroom to dispose of items such as disposable diapers and personal hygiene products.
- Unless you have a garbage disposal, please don't use your drain to dispose of food scraps. Place food scraps in waste containers or garbage bags for disposal or composting.
- Don't pour hazardous products such as paint, pesticides or herbicides down the drain.
- If your Business generates waste grease, fats or oils, you should have a grease interception system that works effectively. A company that recycles fats, oils and grease should regularly clean out the grease trap. Commercial grease traps are checked quarterly.

### Wastewater Treatment Process and System Performance

Our Wastewater Treatment Plant (WWTP) is responsible for removing debris, solid materials and pollutants from the water which comes into the facility and then disinfecting the water before it is returned into Dutchman Creek. The following table is related to Notices of Violations during the reporting period.

<b>Date</b>	<b>Parameter</b>	<b>Permit Limit</b>	<b>Reported Value</b>	<b>Violation</b>
8/31/2015	BOD	5.0 mg/L	8.2 mg/l	Monthly Limit Exceeded
12/7/15 to 12/11/15	Nh3-N	12 mg/L	15.04 mg/l	Weekly Limit Exceeded
12/31/2015	Nh3-N	4 mg/L	4.67 mg/l	Monthly Limit Exceeded
12/7/15 to 12/11/16	BOD	15 mg/L	18.33 mg/l	Weekly Limit Exceeded
11/30/15 to 12/4/15	Fecal	400/100 mL	543/100 ml	Weekly Limit Exceeded
12/7/15 to 12/11/15	Fecal	400/100 mL	531/100 ml	Weekly Limit Exceeded
12/14/15 to 12/18/15	Fecal	400/100 mL	763/100 ml	Weekly Limit Exceeded

### **Collection System Performance**

The North Carolina General Assembly enacted legislation in July 1999, requiring municipalities, animal operations, industries, and others who operate waste handling facilities to issue news releases when a wastewater spill of 1,000 or more reaches surface waters. A wastewater spill of 15,000 gallons or more requires a news release as well as a paid public notice. The following table is related to the Sanitary Sewer Overflows that occurred during the reporting period.

<b>Date</b>	<b>Location</b>	<b>Total Volume (Gallons)</b>	<b>Total Volume Reaching Surface Water (Gallons)</b>	<b>Cause of SSO</b>
12/12/16	Behind 166 Wandering Lane	5,000	750	Vandalism
4/6/15	Behind 771 Sanford Ave.	5,000	0	Debris in line

The Town of Mocksville Staff and Employees continue to improve maintenance and pollution prevention procedures. Please do not hesitate to contact our office if you have any questions concerning this report.