



Town of Denton

2018 Annual Report

for

Wastewater Treatment and Collection System

House Bill 1160, the Clean Water Act of 1999, was ratified by the North Carolina General Assembly on July 20th, 1999 and signed into law by the Governor on July 21, 1999. This legislation requires that the owner or operator of any wastewater treatment works or wastewater collection system, that treats or collects primarily domestic or municipal wastes, provide an annual report to its users or customers and to North Carolina Department of Environmental Quality that summarizes the treatment works' or collection system's performance over a 12 month period. The law states the report shall summarize the performance of the treatment works or collection system and state the extent to which any terms of its permit, federal laws, or any State laws, regulations or rules related to the protection of water quality have been violated.

The following personnel are recognized by the State of North Carolina as The Town of Denton Operators in Responsible Charge (ORC) and Back-up Operators in Responsible Charge (Back-up ORC) of their Publicly Owned Treatment Works (POTW).

Wastewater Treatment Plant, NPDES #0026689

ORC: Troy B. Branch/ Office 336-859-4460

Back-up ORC: Michael S. High/ Office 336-859-5885

Back-up ORC: Steven Abercrombie/ Office 336-859-4460

Wastewater Collection System Water Quality Permit # WQCS00223

ORC: Troy B. Branch /Office 336-859-4460

Back-up ORC: Michael S. High

Land Application Program, Permit # WQ0016966

ORC: Troy B. Branch/ Office 336-859-4460

Collection System

The sewage collection system of the Town of Denton has approximately 13 miles of pipe with lines sized from 6 inch to 10 inch in diameter. There are 7 sewer lift stations located in and around town to convey the wastewater from our customers to the Wastewater Treatment Plant. The sewer collection system is subject to regular inspection by the Division of Water Quality a branch of the North Carolina Department of Environmental Quality. The collection system was

last inspected in October 22, 2018. The collection system received a Notice of Deficiency during this inspection. The items noted were as follows;

- A contingency plan for pump failure is required at each pump station.
- The Town failed to meet 10% of sewer lines cleaned for year 2016 and 2017.
- A comprehensive map showing line age, material, direction of flow and pump station capacity needed to be updated.
- Records were not available to demonstrate compliance with FOG educational material distribution and non-residential grease trap inspections, pump station inspections, testing of emergency and standby equipment, or the general system observation.
- A record of public notification of public notice was not available for a spill in 2018 which required it.

All items have been rectified and a response letter has been mailed to the Winston-Salem Regional Office of the Department of Environmental Quality.

Sanitary Sewer Overflows (SSO's)

Date	Duration	Location	Cause	Total Volume	DWR Action
1/12/18	4 hours	Manhole CA-3	Inflow/Infiltration	3,300 gallons	Notice of Violation
2/7/18	6 hours	Manhole CA-3	Inflow/Infiltration	5,600 gallons	Notice of Violation
8/12/18	3 hours	Manhole 2-29A	Inflow/Infiltration	8,800 gallons	Notice of Intent to Enforce
8/12/18	3 hours	Manhole 2-30A	Inflow/Infiltration	8,800 gallons	Notice of Intent to Enforce
8/12/18	6 hours	Manhole CA-3	Inflow/Infiltration	10,000 gal.	Notice of Intent to Enforce
9/16/18	20 hours	Various manholes	Inflow/Infiltration Hurricane Florence	128,000 gal.	Notice of Violation
9/16/18	12 hours	Pump Station #4	Inflow/Infiltration Hurricane Florence	40,000 gal.	Notice of Violation
9/16/18	12 hours	Pump Station #1	Inflow/Infiltration Hurricane Florence	20,000 gal.	Notice of Violation
9/16/18	6 hours	Pump Station #6	Inflow/Infiltration Hurricane Florence	40,000 gal.	Notice of Violation
12/17/18	9 hours	Pump Station #1	Pump failure due to electrical surge	34,500 gal.	None as of date of this report

Wastewater Treatment Plant (WWTP)

The wastewater treatment facility operates under the **National Pollutant Discharge Elimination System (NPDES)**, an EPA mandated requirement for all wastewater treatment facilities nationwide. This permit includes monitoring requirements and discharge limits, some of which vary with seasons and have different maximums for daily, weekly and monthly averages. All limits are prescribed to protect the stream and down-stream users of the water. During the reporting year, January 1, 2018 – December 31, 2018, the Town of Denton treated 202 million gallons of wastewater. The previous year, we treated 174 million gallons. We also received 76 inches of rain this past year whereas 2017 saw 50 inches of rain.

The WWTP is inspected regularly by the Winston-Salem Regional Office of the Division of Water Resources to ensure compliance with Federal and State regulations. The WWTP was last inspected in October 2018. The inspection showed **no violations**.

The Town of Denton WWTP is located on Council Access Road. It is an extended aeration biological process treatment plant with a permitted flow of 800,000 gallons per day. The treatment plant, at its current location, was completed in 1984 with an expansion in 2000. After solids removal and the biological treatment has occurred, the water is disinfected with chlorine gas and subsequently de-chlorinated with Sulfur Dioxide. The outgoing water (effluent) is monitored and analyzed for some 17 permitted characteristics weekly and monthly. Annually, the wastewater is tested for an additional ~100 parameters. 6 of these analytes are tested in-house at the WWTP field parameter laboratory. The parameters include; Flow, Dissolved Oxygen, Temperature, pH, Conductivity and Ultra Low Range Chlorine Residual. Because aquatic life is more sensitive than humans to these materials, some of these parameter limits are lower than drinking water standards. The permits are complex and can be viewed upon request.

Environmental Programs and Services

As part of our commitment to support environmental awareness and promote a better understanding of our community's environmental role, Denton offers tours of the WWTP and educational materials in the form of brochures and pamphlets for FOG education, Water Conservation, Annual reports for water and sewer treatment. Bi-annually we post an ad in the newspaper in an attempt to educate the public on the dangers of Fat's, Oil's, and Grease and the importance of keeping it out of the sewer system. The same ad that runs in the newspaper will also be seen on the Town's website <http://www.townofdenton.com>.

Prohibited pollutants or liquids include:

- Pollutants which create a fire or explosive hazard
- Petroleum based products
- Any wastewater having a pH of less than 5.0 or greater than 9.5.
- Storm water, surface water, ground water, roof run-off, or swimming pool drainage.
- Fats, Oils and Greases (FOG)
- Medical wastes (i.e. needles, glass fragments, razors and expired and/or unused prescriptions/medications)
- Any wastes containing detergents or other substances which may cause excessive



foaming in the POTW.

- Solid or viscous substances in amounts which will cause obstruction in the flow in the POTW resulting in the interference but in no case solids larger than one half inch(1/2”) in any dimension.
- Any wastewater containing pollutants, including oxygen-demanding pollutants, (BOD etc.) in sufficient quantity, either singly or by interaction with other pollutants, to cause interference with the POTW.
- Any wastewater having a temperature greater than 150° F (66°C) or which will inhibit biological activity in the POTW, but in no case wastewater which causes the temperature at the introduction into the WWTP to exceed 104° F (40°C)

Sewer line inundated with grease

Fats, Oils, and Grease (FOG)

Grease is a real “pain in the drain” because it’s a major cause of problems we find in sewer lines.

Blockages occur when grease (things like oil, butter, margarine, shortening, pan drippings, and sauces) is poured down the drain. Grease can clog sewer lines. Clogged sewer lines lead to sewer spills, which are messy, bad for the environment, and can be expensive. Town of Denton does everything it can to prevent sewer spills, but we can’t do it alone. We need your help!



The best way you can prevent sewer spills is to never pour grease down the drain. Instead, pour it into a used soup can, place in freezer to harden, and throw it away in the trash.

Don't believe the old saying (1) its okay to pour grease down the drain as long as you run water at the same time, or (2) its 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 “Cease the Grease”-

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

Thank you 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.

If you have questions or comments about this report, the sewer system, prohibited pollutants or for further information about the sewer collection and treatment system, please contact Town Hall at 336-859-4231 or the Operator in Responsible Charge of the sewer system at 336-859-4460.