



Enterprise Fund

A fund established to account for operations that are financed and operated in a manner similar to private business where the services provided are funded directly through user charges.

Water and sewer operations are included in the Enterprise Fund.

SEWER UTILITY FUND



GOAL 4 ENVIRONMENTAL STEWARDSHIP AND COMMUNITY PROSPERITY: Protect natural resources and support and promote community and economic vitality for all residents of Durham County.

Description

The Utility Division is responsible for the operation of the County-Owned Triangle Wastewater Treatment Plant (TWWTP) and reclaimed water system, associated collection system, Wexford subdivision collection system, and the Rougemont Water System. The Utility Division's primary purpose is to provide wastewater services to Research Triangle Park and surrounding areas to support the Durham County portion of the Research Triangle Park Economic Engine. The Utility Division provides water service to a portion of Rougemont. Support for these services are provided through utility charges to users of the system. The Utility Division Office is located at 5926 NC Hwy 55 East, Durham, North Carolina, 27713. Office hours are Monday – Friday, 8:00 AM – 5:00 PM, Telephone: 919-560-9033; Fax: 919-544-8590

Budget

Category	FY 2018-19 Actual	FY 2019-20 Original	FY 2020-21 Requested	FY 2020-21 Approved	% Change Orig. v. Appr..
Expenditure	\$8,518,674	\$9,161,600	\$10,742,100	\$10,742,100	17.25%
Personnel	\$1,931,397	\$2,228,017	\$2,355,740	\$2,355,740	5.73%
Operating	\$4,462,460	\$3,686,733	\$4,067,843	\$4,067,843	10.34%
Capital	\$301,639	\$651,000	\$600,000	\$600,000	-7.83%
Other Expenditure	\$1,823,179	\$1,812,364	\$1,798,416	\$1,798,416	-0.77%
Transfers Out		\$783,486	\$1,920,101	\$1,920,101	145.07%
Revenue	\$12,659,769	\$9,611,600	\$11,192,100	\$11,192,100	16.44%
Licenses and Permits	\$15,300	\$5,000	\$10,000	\$10,000	100.00%
Sewer Connection Fees	\$3,368,601	\$794,000	\$793,500	\$793,500	-0.06%
Service Charges	\$1,096				
Enterprise Charges	\$9,274,772	\$8,812,600	\$10,388,600	\$10,388,600	17.88%
Net County Cost	(\$4,141,095)	(\$450,000)	(\$450,000)	(\$450,000)	0.00%

FY 2018-19 Actual FTE	FY 2019-20 Original FTE	FY 2019-20 Estimated FTE	FY 2020-21 Requested FTE	FY 2020-21 Approved FTE
27.00	27.00	27.00	29.00	29.00

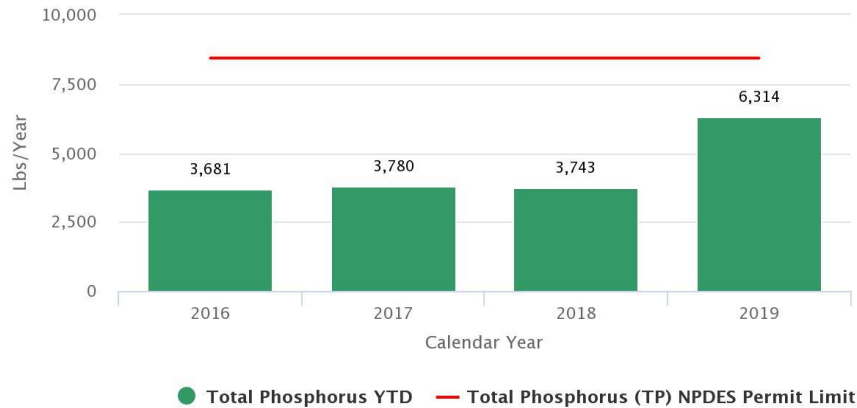
Payments for Sewer Utility Debt Service		
	FY 2019-20	FY 2020-21
PRINCIPAL	\$1,436,146	\$1,456,146
INTEREST	\$371,218	\$337,270
Bond Agency Fees	\$5,000	\$5,000
TOTAL	\$1,812,364	\$1,798,416

Budget Highlights

- Sewer consumption rates will be increased by 6.8% to address anticipated re-investments as well as costs related to operations to continue to ensure our high level of operational readiness and environmental protection. (listed in the fee schedule).
- Two new FTEs:
 - Plant Maintenance Technician: This position would provide additional support to the current Collection System and Maintenance crew. The technician will perform all maintenance activities, preventative and reactive, on the equipment at the wastewater plant, water plant, and the thirteen pump stations; the technician will assist in handling inspections, CCTV and jetting tasks, and work sewer spills as needed
 - GIS Analyst: The Analyst will be part of the Project Management and Compliance teams assisting in tracking the capacity and reliability of County sanitary sewer infrastructure and required to track industrial permits and ensure County sewer mapping is as updated as possible.

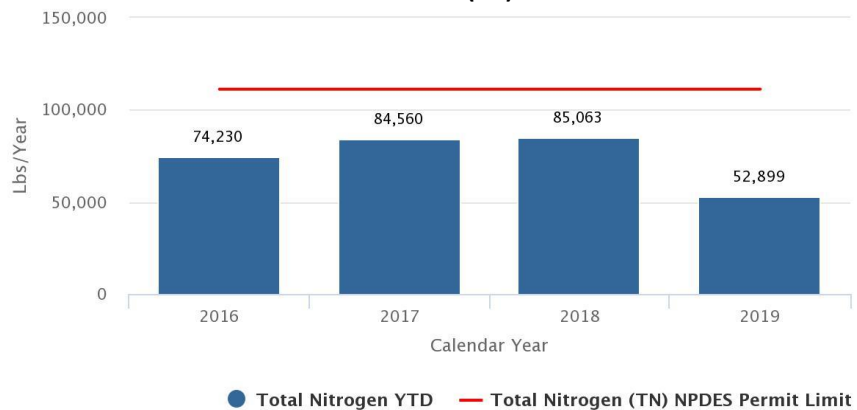
Performance Measures

Measure: ANNUAL POUNDS OF TOTAL PHOSPHORUS (TP) DISCHARGED FROM TRIANGLE WWTP



Measure description: This measure shows the total phosphorus discharged into Northeast Creek from the Triangle Wastewater Treatment Plant (WWTP). Under natural conditions, phosphorus is typically not found in water, but due to human activities, excessive loadings in freshwater systems occur, causing algal growth. Water quality gets further impaired when bacteria consume dead algae and use up the dissolved oxygen causing fish kills. Per NPDES permit, the WWTP can discharge a certain quantity of phosphorus per year. The limits are strict and were incorporated into the NPDES permit to fulfill the Jordan Lake Nutrient Rules requirements. Phosphorus in the right amount is needed to sustain life but too much can make water harmful. Levels fluctuate based on concentrations discharged by users, concentrations discharged by the POTW from chemical use in the system to reduce odor complaints, types and population of microorganisms at that time, and temperature changes. Total phosphorus removal occurs through some biological treatment, but the biggest reduction is through chemical treatment. A larger reduction can occur, but the WWTP must account for the higher chemical cost. The target is to be below 8,432 lbs./year, which is the current NPDES permit limit.

Measure: ANNUAL POUNDS OF TOTAL NITROGEN (TN) DISCHARGED FROM TRIANGLE WWTP



Measure description: This measure shows the total nitrogen discharged into Northeast Creek from the Triangle WWTP. Under natural conditions, nitrogen is abundant in the environment and is used in agriculture as fertilizers. Due to human activities, excessive loadings of nitrogen in freshwater systems cause over-stimulation of aquatic plants and algae. This can lead dissolved oxygen to be used up in the water from decomposition, causing fish kills, clogging of water intakes, and blocking of light deeper into water. Per NPDES permit, the WWTP can discharge a certain quantity of nitrogen per year. The limits are strict and were incorporated into the NPDES permit to fulfill the Jordan Lake Nutrient Rules requirements. Nitrogen in the right amount is needed to sustain life but too much can make water harmful. Levels fluctuate based on concentrations discharged by users, concentrations discharged by the POTW from chemical use in the system to reduce odor complaints, types and population of microorganisms at that time, and temperature changes. Total nitrogen removal occurs through biological treatment. The target is to be below 111,207 lbs./year, which is the current NPDES permit limit.

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STORMWATER ENTERPRISE FUND



GOAL 4 ENVIRONMENTAL STEWARDSHIP AND COMMUNITY PROSPERITY: Protect natural resources and support and promote community and economic vitality for all residents of Durham County.

Description

The purpose of the Stormwater and Erosion Control program is to protect water quality through enforcing compliance for development activity with state regulations and County ordinances. The Stormwater Enterprise Fund consists of revenues from plans review and permitting fees as well as the Durham County Stormwater Utility Fee.

The Durham County Stormwater and Erosion Control Division is tasked with finding ways to manage the ongoing challenge of stormwater impacts to the unincorporated areas of the County and meet state requirements (Jordan Lake and Falls Lake Rules) to reduce pollutants, especially nutrients like phosphorous and nitrogen, in our waterways. As the County continues to grow, the need to address increasing stormwater runoff and the pollutants it carries is a necessity. Nutrient management for both existing and new development is mandated by the North Carolina Department of Environmental Quality.

In order to pay for the projects that will be needed to address nutrient loading from existing development and meet state stormwater requirements, Durham County has implemented a Stormwater Utility Fee, to go into effect in FY2021. It is a fair, equitable, and stable way for Durham County to collect revenue to help fund the activities required to meet the nutrient rules. It is estimated that it may cost Durham County more than \$70 million dollars over the next 20 years to reduce pollutants in our waterways to meet the state requirements.

Previously, the Stormwater and Erosion Control Division were included as part of the General Fund in the Engineering and Environmental Services. However, with the adoption of the Durham County Stormwater Utility Fee, the entirety of the Division was moved to its own Enterprise Fund. Revenues for existing activities including stormwater and erosion control plans reviews, land disturbance permits, stormwater permits and annual inspection fees, and reinspection fees associated with enforcement actions, will be combined with revenues from the Stormwater Fee to fund water quality protection programs throughout the County.

Programs

Erosion Control

The Erosion Control Program administers and enforces the sedimentation and erosion control sections of the Durham City-County Unified Development Ordinance. A state-delegated local program, it includes all privately funded, non-agricultural land-disturbing activities of more than 12,000 square feet in both the City of Durham and the unincorporated areas of the County. The Program conducts plan reviews, issues land disturbance permits & inspects permitted projects for compliance.

Stormwater

The Stormwater Program is responsible for administering the Durham County Stormwater Ordinance, which applies to all unincorporated areas of Durham County, and for enforcing the Neuse River, Falls Lake, and Jordan Lake nutrient management new development rules through development reviews including flood control, water quantity, and water quality control measures. It is also responsible for maintaining the County's compliance with the rules through stormwater retrofit identification, illicit discharge detection and elimination, and education and outreach activities.

Stormwater Utility

The Stormwater Utility Fee is charged to all properties in the unincorporated areas of Durham County with development. The fee is based on the amount of impervious surface area on a property. It is divided into residential and non-residential charges, with residential properties paying one of three flat rate tiers. Non-residential properties pay per the total amount of impervious area with no maximum charge. Revenues from the Stormwater Utility Fee fund compliance actions required by the Neuse River, Falls Lake, and Jordan Lake nutrient management strategies.

Budget

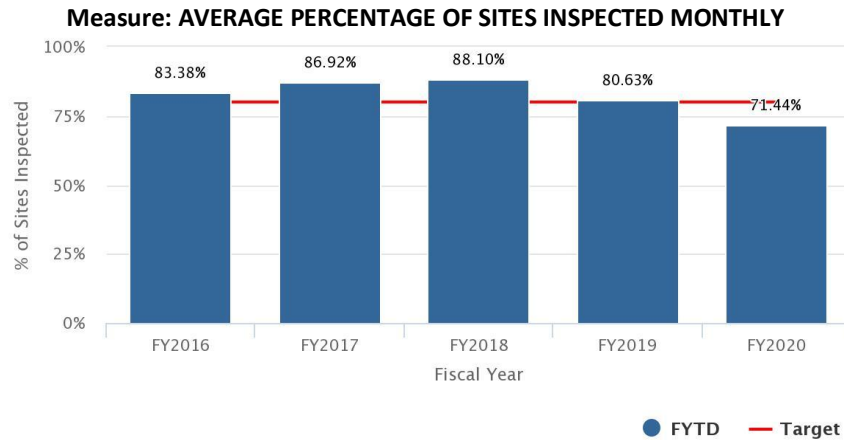
Category	FY 2018-19 Actual	FY 2019-20 Original	FY 2020-21 Requested	FY 2020-21 Approved	% Change Orig. v. Appr..
Expenditure				\$1,413,936	
Personnel				\$692,396	
Operating				\$487,540	
Capital				\$4,000	
Transfers Out				\$230,000	
Revenue				\$1,413,936	
Licenses and Permits				\$594,500	
Sewer Connection Fees				\$5,000	
Enterprise Charges				\$813,936	
Other Revenues				\$500	

FY 2018-19 Actual FTE	FY 2019-20 Original FTE	FY 2019-20 Estimated FTE	FY 2020-21 Requested FTE	FY 2020-21 Approved FTE
				8.00

Budget Highlights

- Stormwater and Erosion Control has completely moved to a new self-funded enterprise fund. The enterprise fund will be fully supported through fees for service to appropriate land parcels.
- Six positions have been moved from The General Fund to Stormwater enterprise fund in support of this program.
- Two new FTEs:
 - Erosion Control Supervisor: The Supervisor will assist the Division in managing land disturbance fees, perform inspections, plans review, and complaint response. Adding the supervisor to the Division will add another inspector to the Division and provide additional guidance to the current technicians lightening their workload particularly with regards to plans review and enforcement.
 - GIS Analyst: The Analyst will assist the Division in maintaining the GIS data, particularly for Stormwater Utility Fee. They will also provide additional assistance in developing how the Utility funds are spent with regards to compliance with the Jordan and Falls Lake Rules such as watershed mapping, GIS layer development and maintenance, map generation, and other projects. Additionally, the position will support already existing programs, including land disturbance permitting and inspection and stormwater permitting.

Performance Measures



Measure description: This measure shows the average percentage of permitted sites inspected monthly. Monthly inspections are critical in maintaining compliance with land disturbance permits and erosion control plans. Maintaining compliance is the best way to keep sediment out of Durham County streams and rivers, thus protecting the environment. Most sites require a monthly inspection, but some do not. Smaller sites and those with long histories of compliance may be inspected closer to every six weeks. The second quarter is typically a difficult quarter for inspections due to weather and holidays; that was certainly the case in FY 2020 when there were a number of rain events in the fall of 2019 that kept sites wet and inaccessible. Additionally, the department continues to be at a higher number of permitted projects than ever before and is down a staff member as hiring has been difficult. Filling the vacant position will be a significant step in getting more “boots on the ground” for inspections. Additional staff would also spread the workload across more people and allow for more inspections.