
ENTERPRISE FUND

MISSION

The mission of the Durham County Engineering Department is to protect regional water quality through the administration of the sewer use, stormwater and erosion control ordinances; to improve county facilities through the management of capital projects; to improve the county's environmental management particularly related to greenhouse gas emissions; and to preserve natural and scenic lands, farms and forests.

PROGRAM DESCRIPTION

The Utility Division is responsible for the operation and maintenance of the county's Triangle Wastewater Treatment Plant, the county's wastewater collection system, the coordination of new customer connections and the county's sewer system revenue collections.

The Triangle Wastewater Treatment Plant and collection system were operated and maintained under a contract with United Water from July 1, 2005 through February 17, 2009. Beginning February 18, 2009, the Triangle Wastewater Treatment Plant and collection system are operated and maintained directly by Durham County.

In addition to ongoing operations, one of the major initiatives of this division has been upgrades and expansions of the treatment plant to meet regulatory requirements and to provide adequate capacity for growth in the county's service area. The third phase of these improvements will provide new sludge handling facilities to produce a dewatered residual, which can be transported to an offsite facility for Class A stabilization. The dewatering facility design is currently being reviewed by the NCDENR Division of Water Quality, with construction scheduled to begin in Fiscal Year 2011 and operation in Fiscal Year 2012.

The Reuse Wastewater Capital Project scope was re-assessed with the two project partners (Wake County and the Town of Cary). The interlocal agreement on the supply capacity of the Reuse System was completed in Fiscal Year 2010. The design is being finalized, with construction scheduled to begin in Fiscal Year 2011 and operation to begin on July 1, 2011.

The county's treatment of wastewater from the Town of Cary is being extended until at least June 31, 2013 under an agreement between the county and the town. Cary currently sends approximately 1.8 million gallons per day to the county's plant for treatment. The proposed agreement between Durham County and Cary provides treatment of up to 6 million gallons per day.

The Utility Division is located at 5926 N.C. Highway 55 East. Office hours are Monday through Friday, 8:30 a.m. to 5:00 p.m. The division can be reached by telephone at (919) 544-8280 or by fax at (919) 544-8590.

2010-11 ACCOMPLISHMENTS

- 100% NPDES permit limit compliance.
- NCDENR DWQ Laboratory certification was achieved for fecal coliform and total suspended solids testing.
- Produced a higher quality effluent (less nitrogen and less phosphorus discharged) in 2011 calendar year as compared to 2010 calendar year.
- Received low-interest (2.22%) State Revolving Fund Loans for the Phase III project and the Reuse Water Project.
- Tested chemical odor control on two force mains and odor complaints from downstream customers stopped.

Sewer Utility Fund

Fund: 6006600000

Summary	2009-2010 Actual Exp/Rev	2010-2011 Original Budget	2010-2011 12 Month Estimate	2011-2012 Department Requested	2011-2012 Commissioner Approved
▽ <i>Expenditures</i>					
Personnel	\$1,182,259	\$1,371,782	\$1,367,600	\$1,535,543	\$1,535,543
Operating	\$1,976,424	\$2,681,763	\$2,278,008	\$2,621,273	\$2,621,273
Capital	\$47,660	\$70,000	\$70,000	\$219,000	\$219,000
Transfers	\$794,084	\$754,640	\$754,640	\$1,771,267	\$1,771,267
Other	\$1,035,719	\$4,034,170	\$2,907,562	\$2,140,947	\$2,140,947
Total Expenditures	\$5,036,146	\$8,912,355	\$7,377,810	\$8,288,030	\$8,288,030
▽ <i>Revenues</i>					
Licenses & Permits	\$5,700	\$2,300	\$5,150	\$2,300	\$2,300
Investment Income	\$21,016	\$66,000	\$23,485	\$25,000	\$25,000
Enterprise Charges	\$9,051,806	\$8,526,524	\$7,990,590	\$8,052,130	\$8,052,130
Sewer Connect. Fees	\$505,847	\$313,360	\$195,323	\$208,600	\$208,600
Other Revenues	\$3,792	\$4,171	\$0	\$0	\$0
Other Fin. Sources	\$46,706	\$0	\$0	\$0	\$0
Total Revenues	\$9,634,866	\$8,912,355	\$8,214,548	\$8,288,030	\$8,288,030
Net Expenditures	(\$4,598,720)	\$0	(\$836,738)	\$0	\$0
FTEs	21.00	22.00	22.00	23.00	23.00

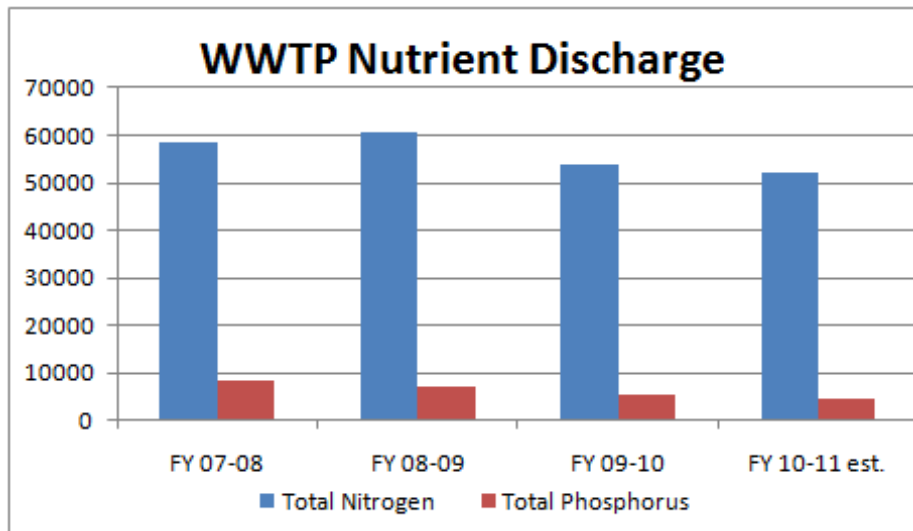
2011-12 HIGHLIGHTS

- The approved operations expenditure for the Utility Division is a continuation request with a decrease of \$60,490 (2.26%) from the FY 2010-11 approved budget.
- A new position is approved for a General Utility Worker. This position is time limited until termination of Town of Cary wastewater service. The worker will complete simple operation and maintenance tasks, so that experienced staff can focus on more complex tasks.
- The budget also includes funds to evaluate classifications of current positions and make adjustments.
- Service rates for users will be increased by 4% (listed in the fee schedule). The increase is due to higher costs for chemicals and electricity costs at the waste water treatment plant, and to minimize large rate increases in FY 2012-13, 2013-14, and 2014-15 as a result of loan repayments for Phase III and Reuse Water projects and the termination of Town of Cary wastewater service revenue.
- Monthly sewer service charges are listed in the fee schedule. Prior to FY 2011-12, these charges were set by the City of Durham.

Payments for Enterprise Fund Debt Service			
	2010-2011 Commissioner Approved	2011-2012 Department Requested	2011-2012 Commissioner Approved
PRINCIPAL	\$2,744,170	\$1,319,831	\$1,319,831
INTEREST	\$1,290,000	\$821,116	\$821,116
TOTAL	\$4,034,170	\$2,140,947	\$2,140,947

2011-12 PERFORMANCE MEASURES

Performance Measure: Triangle Wastewater Treatment Plant (TWWTP) Nitrogen Reduction



Story Behind the Last Two Years of Performance

On February 18, 2009, the Triangle Wastewater Treatment Plant changed from private contractor operation and maintenance to Durham County staff operation and maintenance. The private contractor's staff had difficulties maintaining and operating the facility. Durham County staff have improved the maintenance and operation of the facility. The NPDES annual permit load limits for nitrogen is 111,207 pounds and for phosphorus is 8,432 pounds. The Triangle Wastewater Treatment Plant is specifically designed for a combination of biological and chemical nutrient removal, and the annual discharge data shows the improvement in operation. The sludge dewatering project and the reuse project will both serve to further reduce the nutrient load from the plant's discharge. Additionally, alternative nutrient removal chemicals are being pilot tested, and oxygen transfer efficiency improvements are being considered.

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