



## **Enterprise Fund**

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

Water and sewer operations are included in the Enterprise Fund.

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# ENTERPRISE FUND

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## MISSION

The mission of the Durham County Engineering and Environmental Services 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 connections (customers), and the County's Sewer System revenue collections. The Triangle Wastewater Treatment Plant is a 12,000,000 gallon per day 5-stage Enhanced Biological Nutrient Removal facility with tertiary filtration and ultraviolet disinfection. Wastewater residuals are dewatered using centrifuges, and the dewatered cake is transported, composted to Class A standards and distributed by McGill Environmental. A portion of the treated wastewater effluent is further disinfected with sodium hypochlorite and distributed as ReUse Water for irrigation, and industrial cooling towers.

The County has provided sewage treatment for the western portion of the Town of Cary customers since 2005. In the 2014 fiscal year, Cary was discharging approximately 2,500,000 gallons per day to the Triangle Wastewater Treatment Plant. Cary is scheduled to begin reducing their flow to the County facility in July 2014 and to stop their flow by late September 2014; however, Cary has stated they may have to continue the flow until December 2014 dependent upon the start-up of the new Western Wake Water Reclamation Facility.

The Utility Division Office is located at 5926 NC Hwy 55 East, Durham, North Carolina, 27713. Office hours are Monday – Friday, 8:30 AM – 5:00 PM, Telephone: 919-544-8280; Fax: 919-544-8590.

## 2013-14 ACCOMPLISHMENTS

- Met the NCDENR Division of Water Quality performance standards as an "Exceptionally Performing Facility."
- Awarded the "Collection System of the Year" award from the North Carolina American Water Works Association and the Water Environment Association for a collection system less than 100 miles in length.
- USGS Report, "Relation of Watershed Setting and Stream Nutrient Yields at Selected sites in Central and Eastern North Carolina, 1997-2008" finds that following the wastewater treatment plant improvement in 2005, the Northeast Creek – Genlee watershed had 64 percent reduction in total Nitrogen yield.

# Sewer Utility Fund

Fund: 6006600000

| Summary                   | 2012-2013<br>Actual<br>Exp/Rev | 2013-2014<br>Original<br>Budget | 2013--2014<br>12 Month<br>Estimate | 2014-2015<br>Department<br>Requested | 2014-2015<br>Manager<br>Recommended |
|---------------------------|--------------------------------|---------------------------------|------------------------------------|--------------------------------------|-------------------------------------|
| <b>Expenditures</b>       |                                |                                 |                                    |                                      |                                     |
| Personnel                 | \$1,511,385                    | \$1,631,672                     | \$1,476,746                        | \$1,522,462                          | \$1,522,462                         |
| Operating                 | \$2,609,464                    | \$3,404,336                     | \$3,042,530                        | \$3,064,783                          | \$3,058,188                         |
| Capital                   | \$75,802                       | \$122,750                       | \$126,201                          | \$160,000                            | \$160,000                           |
| Transfers                 | \$836,592                      | \$3,276,876                     | \$1,084,411                        | \$900,900                            | \$1,105,619                         |
| Other                     | \$5,092,629                    | \$2,910,000                     | \$3,189,367                        | \$2,675,000                          | \$2,675,000                         |
| <b>Total Expenditures</b> | <b>\$10,125,872</b>            | <b>\$11,345,634</b>             | <b>\$8,919,255</b>                 | <b>\$8,323,145</b>                   | <b>\$8,521,269</b>                  |
| <b>Revenues</b>           |                                |                                 |                                    |                                      |                                     |
| Licenses & Permits        | \$4,500                        | \$3,000                         | \$5,100                            | \$3,000                              | \$3,000                             |
| Investment Income         | \$18,657                       | \$9,000                         | \$17,308                           | \$17,500                             | \$17,500                            |
| Service Charges           | \$450                          | \$0                             | \$101                              | \$0                                  | \$0                                 |
| Enterprise Charges        | \$11,108,013                   | \$10,824,694                    | \$11,119,265                       | \$8,044,625                          | \$8,044,625                         |
| Sewer Connect. Fees       | \$636,001                      | \$508,940                       | \$213,000                          | \$258,020                            | \$258,020                           |
| Other Revenues            | \$44                           | \$0                             | \$0                                | \$0                                  | \$0                                 |
| Other Fin. Sources        | \$0                            | \$0                             | \$0                                | \$0                                  | \$198,124                           |
| <b>Total Revenues</b>     | <b>\$11,767,666</b>            | <b>\$11,345,634</b>             | <b>\$11,354,774</b>                | <b>\$8,323,145</b>                   | <b>\$8,521,269</b>                  |
| <b>Net Expenditures</b>   | <b>(\$1,641,793)</b>           | <b>\$0</b>                      | <b>(\$2,435,519)</b>               | <b>\$0</b>                           | <b>\$0</b>                          |
| FTEs                      | 23.00                          | 23.00                           | 23.00                              | 22.00                                | 22.00                               |

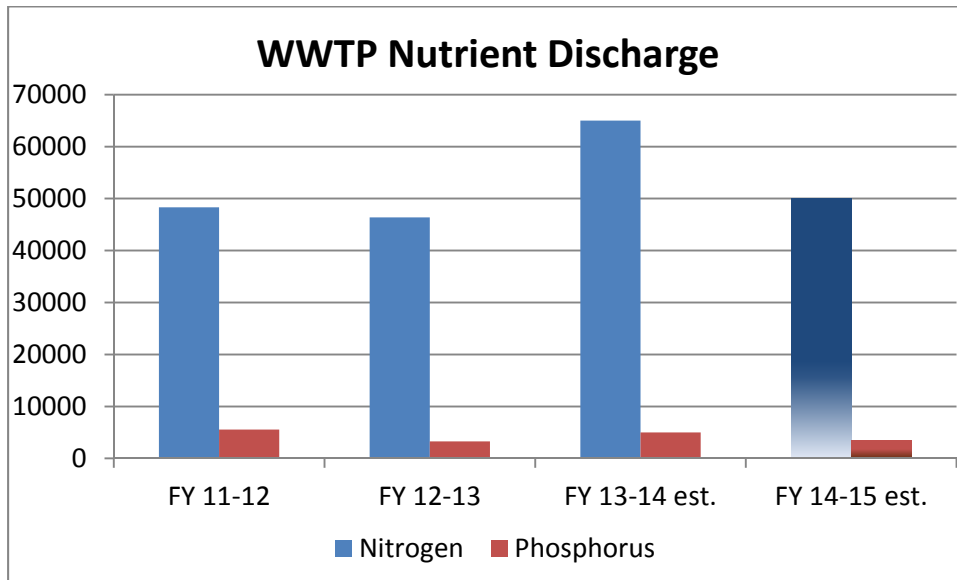
## 2014-15 HIGHLIGHTS

- Modify utility worker and project coordinator positions from time-limited appointment to permanent positions.
- Eliminate vacant pretreatment lab technician position.
- The operations expenditure request has decreased from the budget approved for FY 2013-2014. The decrease is primarily due to the separation of the Town of Cary from the system during FY 2014-15. A termination date of December 1, 2014, was used to develop the included budget.
- Sewer consumption rates will be increased by 2.07% (listed in the fee schedule). The increase is mainly due to the loss of the Town of Cary wastewater discharge.
- Capital recovery charges will increase 1.83% in order to recover capital costs associated with the sludge facility improvements (listed in the fee schedule).

| Payments for Enterprise Fund Debt Service |                       |                        |                          |
|---|-----------------------|------------------------|--------------------------|
|   | 2013-2014<br>Approved | 2014-2015<br>Requested | 2014-2015<br>Recommended |
| <b>PRINCIPAL</b>                          | \$2,100,000           | \$2,070,000            | \$2,070,000              |
| <b>INTEREST</b>                           | \$810,000             | \$605,000              | \$605,000                |
| <b>TOTAL</b>                              | <b>\$2,910,000</b>    | <b>\$2,675,000</b>     | <b>\$2,675,000</b>       |

## 2014-15 PERFORMANCE MEASURE

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



**Why is this measure important to the overall goal or mission of the department? How does tracking this performance measure improve or help maintain a high level of service?**

The Triangle Wastewater Treatment Plant discharges to Northeast Creek which then discharges into Jordan Lake. Jordan Lake has been identified as nutrient sensitive, and dischargers are being required to reduce their nutrient discharge to minimize the effects of the discharge. The Triangle Wastewater Treatment Plant is allowed to discharge up to 111,207 pounds per year of total nitrogen and 8,432 pounds per year of total phosphorus. The data indicates the facility is well below these limits.

**What initiatives or changes to programs will the department take on next year in hopes to improve the overall performance of the related program or goal?**

Further expansion of the use of the reclaimed water for irrigation, for cooling tower make-up water, and for industrial process water will reduce the nutrient load. Additionally, the new sludge dewatering facilities will reduce the summertime peak loads of nutrients associated with the previously used sludge lagoon.

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