



Environmental Protection

Departments and services supporting the conservation and development of natural resources.

Business Area Name	FY 2020-21 Actuals	FY 2021-22 Original	FY 2021-22 Estimated	FY 2022-23 Requested	FY 2022-23 Approved	% Change Orig. v. Appr.	Dept. % of Funct. Area
General Services	\$2,245,851	\$2,442,757	\$2,144,658	\$2,369,008	\$2,361,559	-3.32%	47.26%
Engineering & Environ Svcs	\$2,791,934	\$2,088,773	\$2,531,720	\$2,665,605	\$2,544,506	21.82%	50.93%
Other Environmental Protection	\$53,653	\$58,640	\$58,640	\$90,444	\$90,444	54.24%	1.81%
Total	\$5,091,437	\$4,590,170	\$4,735,018	\$5,125,057	\$4,996,509	8.85%	100.00%

GENERAL SERVICES – SOLID WASTE



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

General Services' Solid Waste Management Division provides safe, efficient, and effective waste collection, disposal, litter control, and waste reduction outreach and educational services to County residents in order to protect and maintain the natural environment while supporting Goal 4 – Environmental Stewardship of the Strategic Plan.

The Solid Waste Management program provides residents living in the unincorporated areas of Durham County means to properly dispose solid waste, recyclable materials, and special wastes such as white goods and used motor oil at four local convenience sites. The County's four residential solid waste and recycling convenience sites are in the areas of Bahama, Parkwood, Redwood, and Rougemont. Solid Waste management is also charged with contracting roadside recycling collection, litter control investigations, and educational waste reduction outreach efforts. Maintenance and monitoring of the closed landfills formerly operated by the County and the enforcement of the Solid Waste and Junked and Abandoned Vehicles ordinances is also a duty of Solid Waste. Additional services provided by the Division include County Government include building recycling collection.

Budget

Category	FY 2020-21 Actual	FY 2021-22 Original	FY 2021-22 Estimated	FY 2022-23 Requested	FY 2022-23 Approved	% Change Orig. v. Appr.
Expenditure	\$2,245,851	\$2,442,757	\$2,144,658	\$2,369,008	\$2,361,559	-3.32%
Personnel	\$884,583	\$887,032	\$923,768	\$949,156	\$949,156	7.00%
Operating	\$1,361,268	\$1,555,725	\$1,205,570	\$1,419,852	\$1,412,403	-9.21%
Capital			\$15,320		\$0	
Revenue	\$2,495,415	\$2,391,257	\$2,414,259	\$2,464,144	\$2,464,144	3.05%
Taxes	\$66,568	\$42,000	\$42,000	\$42,000	\$42,000	0.00%
Intergovernmental			\$20,000			
Service Charges	\$2,427,881	\$2,349,257	\$2,352,259	\$2,422,144	\$2,422,144	3.10%
Other Revenues	\$967					
Net County Cost	(\$249,564)	\$51,500	(\$269,601)	(\$95,136)	(\$102,585)	-299.19%

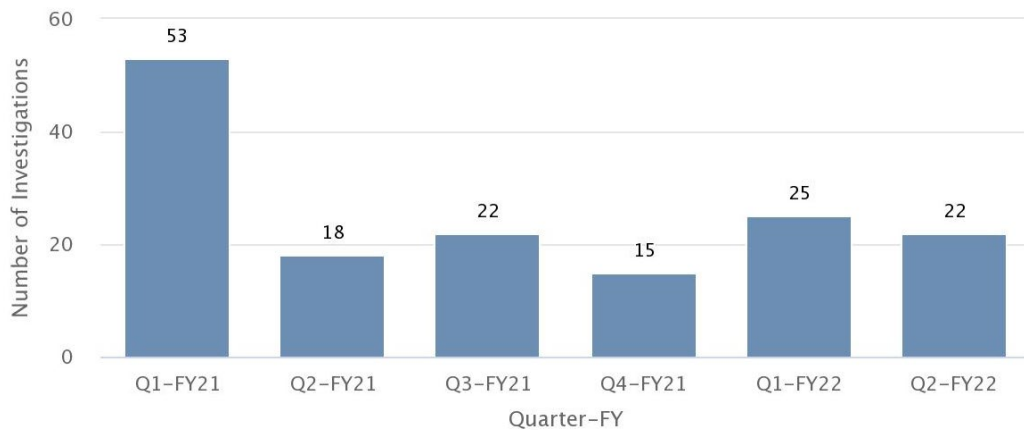
FY 2020-21 Actual FTE	FY 2021-22 Original FTE	FY 2021-22 Estimated FTE	FY 2022-23 Requested FTE	FY 2022-23 Approved FTE
18.00	18.00	18.00	18.00	18.00

Budget Highlights

- Solid Waste has lost approximately 300 households through the annexation to the City of Durham. The consolidation of Bahama and Rougemont to the Northern Convenience site has led to system savings and reorganization. In the FY 2021-22 budget, the sticker fee was decreased to \$164. In the FY 2022-23 budget, the sticker fee will increase by \$1 to \$165 per household annually.
- A replacement Ford F-250 Truck for the Solid Waste division is supported in the FY 2022-23 budget. The actual expense for the vehicle is in the non-departmental fund center.

Performance Measures

Measure: SOLID WASTE CODE ENFORCEMENT INVESTIGATIONS



● Investigations

Measure description: This measure shows our enforcement of Durham County’s Solid Waste Ordinance and Junk Vehicle Ordinance. Investigations are initiated by citizen complaints, staff observations, and referrals from City/County departments. A property may be inspected more than one time over the course of an investigation. We had a large number of investigations in FY21 Q1 due to a backlog of cases from FY20 Q4 caused by the malware attack, COVID-19 pandemic, and a retirement. We were caught up in Q2 and primarily conducting reinspections. We should end the year with 118 inspections, which is equal to the number of inspections conducted in FY 2020. We are training additional staff to assist with reinspections, which should increase our capacity to complete inspections. The case is closed when the property comes into compliance with the ordinance, or if no violations were found during the inspection. It matters because these two ordinances help ensure that the unincorporated areas are clean, safe, and healthy.

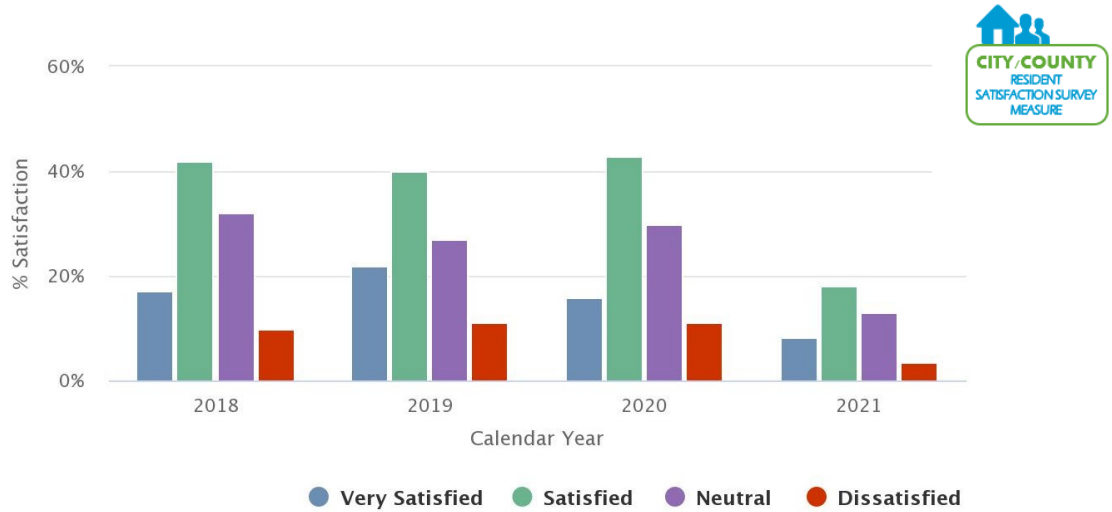
Measure: TONS OF HOUSEHOLD RECYCLABLES COLLECTED



Measure description: The tons of recyclables collected by residents in our Roadside Recycling (curbside) program is being measured. It matters because we want to ensure that residents are taking advantage of the program. The tipping fees for recycling (the amount we are charged per ton to recycle) has increased significantly over the last two years. This measure has strong implications for our budget. With the reopening of schools and implementation of vaccines, we anticipate that less people will be at home and the numbers will return to pre-pandemic numbers.

*FY 2022 only includes the first two quarters of the fiscal year.

Measure: OVERALL SATISFACTION WITH DURHAM COUNTY SOLID WASTE CONVENIENCE CENTERS (FROM CITY/COUNTY RESIDENT SATISFACTION SURVEY)



Measure description: This measures the overall customer satisfaction with Durham County Convenience Centers. In response to the ongoing pandemic, in 2020 we reduced Saturday hours and began to enforce the prohibition of construction and demolition debris at the sites. This has resulted in some customers being less satisfied. The new Northern Convenience Site is expected to open in late 2022. The decrease in overall satisfaction shown in 2021 is due to a significant increase in non-response, with over 50% of individuals surveyed not answering this question on by the City/County Resident Satisfaction Survey.

COUNTY ENGINEERING & ENVIRONMENTAL SERVICES



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 Engineering and Environmental Services Department protects regional water quality through the administration of the sewer use, stormwater and erosion control ordinances; improves County facilities through the management of capital projects consistent with the High-Performance Building policy; protects and improves Durham's environment through wise use of natural resources; and preserves natural and scenic lands, farms, and forests. The department consists of the Stormwater and Erosion Control, Sustainability, Capital Project Development and Management, Open Space/Real Estate Management divisions, Economic Development, and Utility divisions. Budget information for the Utility Divisions, Stormwater and Erosion Control, and Economic Development can be found under the Enterprise Fund, Stormwater and Erosion Control Enterprise Fund, and Economic Development tab respectively in the budget document.

Programs

Capital Project Development and Management

The Capital Improvement Development and Management program is responsible for improving the functional operation and efficiency of County facilities for the benefit of staff and the citizens of Durham County. The Program is responsible for managing the planning, design, and construction of capital improvement projects related to County-owned facilities. Projects include major renovations and new construction. This includes meeting the Durham County High-Performance Building Policy requiring all newly constructed facilities to achieve LEED Silver or Gold level certification and major renovation projects to achieve LEED Certified level certification.

Open Space Preservation

The Durham County Open Space Program works to enhance the quality of life and sustainability of current and future generations by protecting scenic, natural and historic landscapes, conserving significant habitats, working lands, and cultural and natural resources; and by providing natural areas for public enjoyment. With specific guidance from adopted open space and farmland preservation plans and by leveraging county funds with outside funding sources, the Open Space Program works with landowners, farmers, non-profit groups, public groups, and other stakeholders to identify and protect important lands. The program staff is responsible for easement stewardship and monitoring and management of the County's open space lands, four of which are open to the public for low impact recreational use. Durham's Open Space and Trails (DOST) Matching Grant Program is also administered by Open Space Division staff.

Real Estate

The purpose of the Real Estate program is to guide the County as it acquires, leases, and tracks real property so the County can optimize the use and value of those assets. The Real Estate Program is responsible for all County real property by identifying appropriate lands for County facilities, leased land and office space, and the sale/disposal of all County-owned surplus properties.

Sustainability

The Sustainability Office helps protect and improve Durham's environment through wise use of natural resources by providing guidance and resources to county employees, businesses, and residents. The County Sustainability Office implements Durham's Greenhouse Gas Emissions Reduction Plan and Renewable Energy Plan. Staff are responsible for tracking and reporting greenhouse gas emissions, managing renewable energy projects, identifying opportunities to reduce energy use and emissions, developing policies to improve sustainability, managing the County's electric vehicle charging stations, and providing guidance to Departments and the public on how to improve environmental performance.

Budget

Category	FY 2020-21 Actual	FY 2021-22 Original	FY 2021-22 Estimated	FY 2022-23 Requested	FY 2022-23 Approved	% Change Orig. v. Appr.
Expenditure	\$2,791,934	\$2,088,773	\$2,531,720	\$2,665,605	\$2,544,506	21.82%
Personnel	\$1,608,945	\$1,725,733	\$1,857,948	\$2,048,915	\$1,965,915	13.92%
Operating	\$815,346	\$363,040	\$673,772	\$616,690	\$578,591	59.37%
Capital	\$367,643					
Revenue	\$191,659	\$13,350	\$24,327	\$12,000	\$12,000	-10.11%
Intergovernmental	\$174,107		\$14,000			
Service Charges	\$3,303		\$377			
Enterprise Charges	\$14,248	\$13,000	\$9,950	\$12,000	\$12,000	-7.69%
Other Revenues		\$350				-100.00%
Net County Cost	\$2,600,275	\$2,075,423	\$2,507,393	\$2,653,605	\$2,532,506	22.02%

FY 2020-21 Actual FTE	FY 2021-22 Original FTE	FY 2021-22 Estimated FTE	FY 2022-23 Requested FTE	FY 2022-23 Approved FTE
15.00	16.00	16.00	18.00	17.00

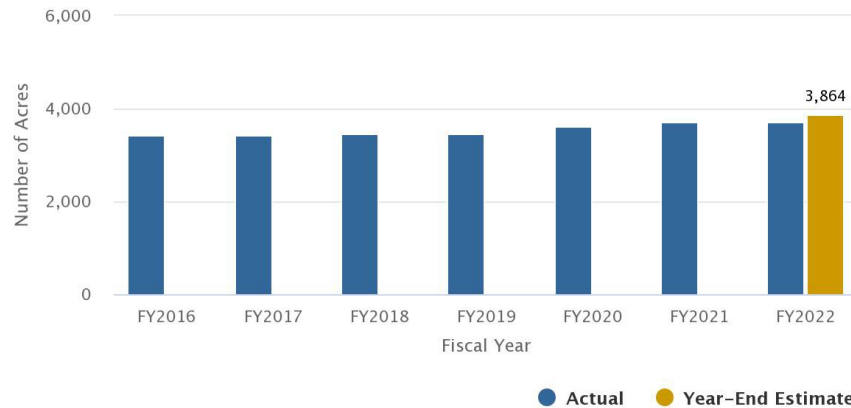
*The FY 2021-22 Estimate is greater than the FY 2021-22 Original Budget because more than \$300,000 was transferred from the Open Space & Farmland Conservation Capital Project to the General Fund to purchase conservation easements in the Open Space Preservation program.

Budget Highlights

- The budget supports an Energy Project Manager who will oversee implementation of Durham County's Renewable Energy Plan, which the Durham County Board of County Commissioners adopted in February 2022. The County's goal is to transition county operations to 80 percent renewable energy by 2030 and 100 percent by 2050. The Energy Project Manager position will oversee the selecting and sequencing of projects, hiring and managing contractors, evaluating technologies, and collecting and analyzing data. The project will work with several of the county divisions inside and outside of Engineering & Environmental Service, taking direction on project selection from the Sustainability Division and implementation direction from the Project Management Division. It will also work closely with General Services on existing facilities and fleet projects and the Triangle Wastewater Treatment Plan on water-system related project. The total cost of the Renewable Energy Plan is estimated at \$40 million and expected to be completed by 2050. (\$77,700)
- The budget also supports a \$150,000 appropriation to the Durham Cultural Advisory Board for a Durham Community Cultural Plan. The previous cultural master plan was adopted in 2004 and expired in 2019. The new plan will address challenges such as the constrained real estate market and the COVID-19 impact, as well as reflect the city's current demographics and cultural identity. Durham City will match the funding for a total appropriation of \$300,000 to the Durham Cultural Advisory Board. The plan is expected to be completed in one and a half to two years. (\$150,000)
- The budget supports a \$15,146 increase to Durham County's share of the Little River Regional Park budget. Durham County co-owns the park with Orange County, and Orange County operates the park, per the Interlocal Agreement. The anticipated cost of park operations will increase due to two full-time Orange County staff reclassifications, an increase in the wage paid to part-time Orange County workers, and a request for 330 additional hours in part-time and seasonal help.
- The budget includes \$55,000 for the Solarize the Triangle program. The program, which is administered by the Triangle J Council of Governments, provides affordable solar panels to residents and businesses. The cost of participating in the program is \$5,000, and the remaining \$50,000 would subsidize solar panel purchase and installation in low-to-moderate income households. (\$55,000)

Performance Measures

Measure: NUMBER OF TOTAL ACRES OF OPEN SPACE AND FARMLAND THAT HAVE BEEN PROTECTED/INFLUENCED BY DURHAM COUNTY



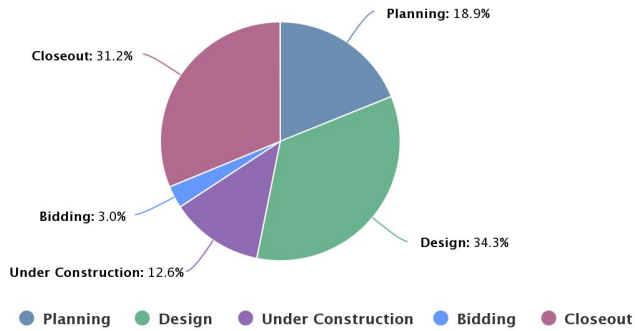
Measure description: Acres protected means the total acreage protected by Durham County, either through acquisition, or through other permanent means such as conservation easements. This is important because the amount of open space protected in a community helps with environmental protection, water quality, local biodiversity, and local lands preserved for food and fiber production – all important for the quality of life in a growing community. Durham County has adopted five different open space plans prepared by the Durham City/County Planning Department with citizen input, and these are used as implementation guides. Open space protection projects typically take several years to complete since they are partly based on grant funds, and the needs and the requirements of the funding agencies must be followed. During the 2021-22 fiscal year, Durham County protected 56.8 acres in 4 different open space projects, including three farm easements and a 2-acre open space easement, bringing the total amount of open space permanently protected by Durham County to 3775 acres. In FY 2022-23, the County is anticipated to close on 3 smaller easement projects totaling 89 acres (smaller easements take as much work as larger acreage projects); therefore, the total goal by the end of FY 2022-23 is roughly 3,864 acres.

Measure: COSTS AVOIDED THROUGH SUSTAINABILITY ENERGY SAVINGS PERFORMANCE CONTRACTING



Measure description: This measure quantifies the amount of money saved by conserving energy and water in Durham County facilities through the Performance Contracting program. Performance Contracting is a way of implementing energy and water saving measures quickly and paying off the cost through guaranteed utility savings over time. This is important because Durham County is saving taxpayer dollars that can be used for other important County functions. In addition, staff is reducing Durham County's greenhouse gas emissions and conserving natural resources through energy and water savings. Data for this measure is collected through a third party verified process to calculate how much energy, water, and money Durham County is saving due to the retrofits completed on Durham County buildings. Some of the savings are calculated while others are based on the actual utility bills. This measure is trending in a positive direction (more costs avoided) because Durham County continues to save energy and water in facilities and because energy costs are increasing. As energy costs increase over time, the amount of money saved also goes up. The FY 2021-22 year-end estimate of \$417,779 is the verified energy and water savings for the Performance Contract project. The cumulative savings for this project over the past seven years is more than \$3.3M. The FY 2022-23 target of \$376,958 is the annual savings amount guaranteed by the contractor for the next year.

**Measure: CAPITAL PROJECTS ACTIVE PROJECT PORTFOLIO: PERCENT OF TOTAL PROJECT PORTFOLIO IN EACH PHASE
*44 TOTAL PROJECTS***



Measure description: This is a measure of the activity level of projects throughout the Capital Improvement Plan (CIP) process. This measure provides insight into staffing requirements for the division. The number and scheduling of projects undertaken is based on decisions made by the Board of County Commissioners and County Management. Typical construction processes also factor into timelines for projects. The department's projects are based primarily on the specific authorizations included in the Capital Improvement Plan and preliminary planning studies/assessments. The trending along the project development timeline is dependent upon the timing of funding for each project, as determined in the CIP, as well as the relative complexity of each project. The CIP program count will remain relatively consistent, chiefly dependent upon Board and Management direction. The incorporation of retail spaces, public art, extensive public engagement, and co-location and other partnering initiatives add to project complexity and continue to stretch the resources of the division.

FOREST PROTECTION



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

Durham County provides financial support for State-administered forest protection services under a contract with the North Carolina Department of Agriculture and Consumer Services of N.C. Forest Service, which maintains field offices in all counties of the State. The County pays 40 percent of the cost of operations and the State pays 60 percent. One assistant ranger is assigned full-time to Durham County. A second ranger is assigned equal time to Durham and Orange Counties and serves as a supervisor over both regions. A Forest Fire Equipment Operator (shared with Wake County and stationed in Wake County), a Service Forester, a Water Quality Forester, a Forest Fire Equipment Operator, and various other District and administrative staff provide support as necessary in Durham County.

Serving all County residents, the Forest Protection Program provides services including, but not limited to: forest fire suppression and prevention, forest management, financial assistance, urban and community forestry planning, and insect and disease protection. In addition, the program publicizes the importance of prevention and protection measures through ongoing information and educational programs. Approximately 100,000 acres of forest exist in Durham County.

Budget

Category	FY 2020-21 Actual	FY 2021-22 Original	FY 2021-22 Estimated	FY 2022-23 Requested	FY 2022-23 Approved	% Change Orig. v. Appr.
Expenditure	\$53,653	\$58,640	\$58,640	\$90,444	\$90,444	54.24%
Operating	\$53,653	\$58,640	\$58,640	\$90,444	\$90,444	54.24%
Net County Cost	\$53,653	\$58,640	\$58,640	\$90,444	\$90,444	54.24%

Budget Highlights

- The budget supports salary increases and the purchase of two replacement vehicles. While Durham County Government funds increases via a contract with Forest Protection, positions and vehicles do not fall under Durham County Government jurisdiction.