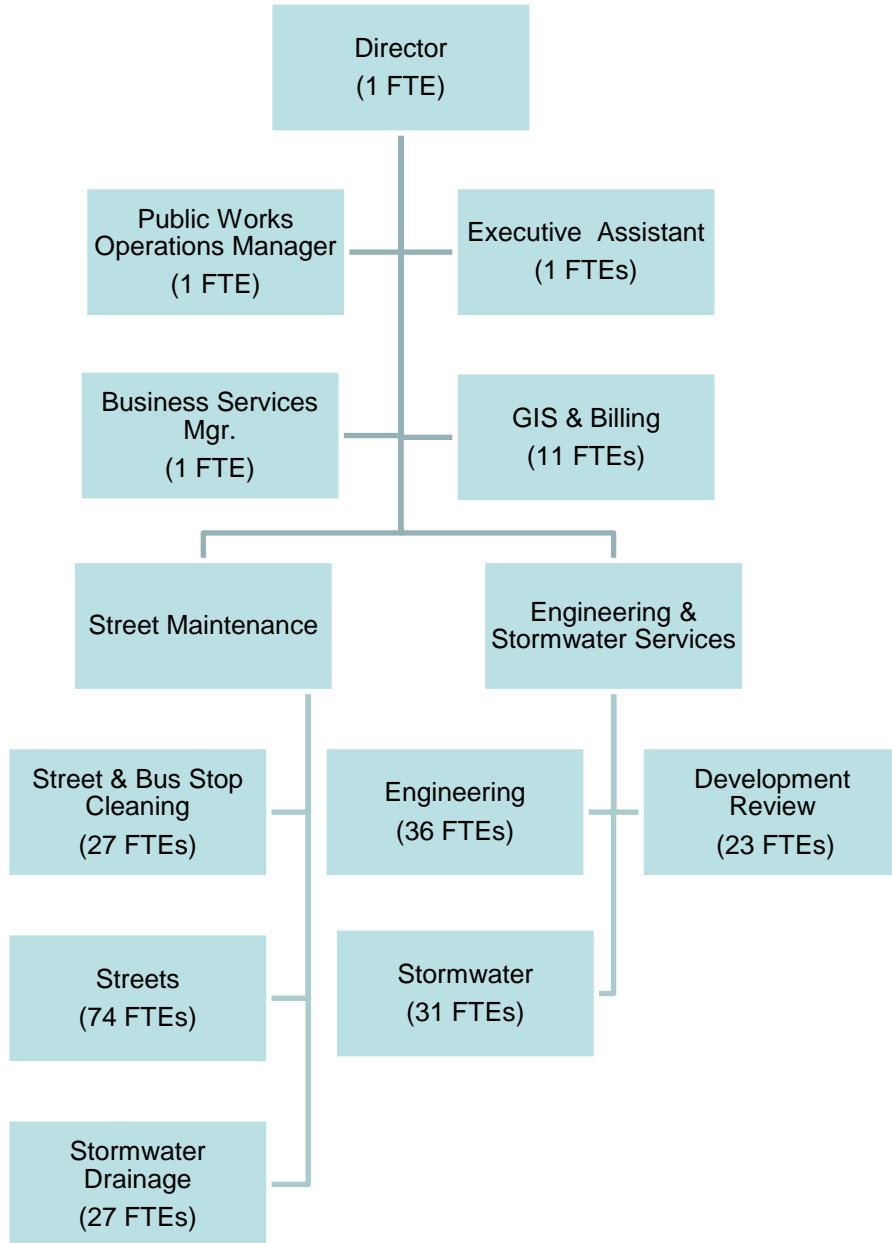




# Public Works (233 FTEs)



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## PUBLIC WORKS

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### **Mission:**

To operate, maintain and improve the City's utility infrastructure and programs in a manner that cost effectively enhances the community's livability.

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### DEPARTMENT DESCRIPTION

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#### **Office of the Director**

**\$527,349**

**4.1 FTEs**

The Office of the Director provides administrative, technical planning and leadership support for programs in the department. GIS & Billing, while budgeted separately, is recognized as an integral part of the Office of the Director.

#### **GIS & Billing**

**\$940,872**

**11 FTEs**

GIS & Billing is responsible for maintaining the water and sewer Geographic Information System (GIS) collection and distribution system. The system includes stormwater infrastructure GIS layers (and scanning supporting documents) which contain all of the pipes, catch basins, channels, manholes, fire hydrants, valves, blow-offs, etc. that the City maintains as well as those maintained by NCDOT (in the case of stormwater) and private entities. This data is utilized by water and sewer maintenance personnel, stormwater maintenance personnel as well as internal and external engineers and external planners, developers, and citizens. This division also maintains all of the street centerlines within the City of Durham and Durham County. This data provides information to departments throughout the City and County with street names, street maintenance responsibilities and addressing information as well as the general public. This information helps support the E911 dispatch system for emergency response. In addition this division is responsible for all aspects of billing for the stormwater utility: customer service inquiries, bill verification and adjustment, new fee implementation, mapping of stormwater impervious areas within the City limits (which is used to calculate the stormwater bill) and acquisition of satellite imagery and impervious area extraction (which is used for quality control purposes). The division also maintains the City of Durham city limits GIS layer and supporting documents. The division supports and maintains the Azteca Cityworks software which is the City of Durham's GIS-enabled service request and work order management software. This software is utilized citywide to track incoming service requests and labor, equipment, and material associated with work done by various City departments and the Durham One Call operation.

#### **Street Maintenance**

**\$6,760,996**

**101 FTEs**

This division has responsibility for public roadway maintenance, street resurfacing, alley and sidewalk maintenance in the city and the maintenance of the stormwater drainage system within the city's right-of-way. Street Maintenance also plans and executes the city's winter weather plan to reduce the hazard to traffic created by snow and ice and assists other departments in debris removal from natural disasters. Through a municipal agreement with NCDOT, the City receives a reimbursement for the cost associated with some maintenance for the part of the state highway system that is within city limits. A contract for continued reimbursement from NCDOT for winter weather service on state roads is in the approval process.

#### **Stormwater Management**

**\$3,242,195**

**31 FTEs**

This division provides services related to the management and improvement of surface waters through compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Activities include managing the construction, repair, cleaning and preventative maintenance of stormwater infrastructure and the location and mapping of the infrastructure. Construction projects include assistance to private property owners with drainage repairs on private property, drainage systems on City-owned property, and maintaining the drainage system within street rights-of-way. The program is responsible for floodplain management activities that include management of the FEMA FIRM Map Repository, flood mitigation, and technical support of the local Floodplain Administrator. Mandated stormwater quality management activities include development review; industrial/municipal inspections and education; chemical, physical and biological monitoring; public education and involvement; and investigating and eliminating unauthorized connections and illegal waste disposal into the city's stormwater system. The Development Review group provides comprehensive reviews and permitting of plans for stormwater infrastructure improvements and as-built certification verification. This division is responsible for the coordination of all stream restoration activities within the city. The stormwater billing unit is responsible for

maintaining the GIS impervious area database and stormwater billing accounts database for which all developed land is billed. The billing unit is also responsible for handling all customer service inquires and appeals.

**Engineering**

**\$3,630,621**

**58.9 FTEs**

This division provides general engineering services including contract administration, engineering design, and surveying, construction inspection, mapping services, and development review and NPDES permitting. A major activity is the implementation of the Capital Improvement Program (CIP) for streets, thoroughfares, sidewalks, water extensions and sewer extensions. The Engineering Design section provides professional engineering designs for street, sidewalk, storm drainage, water and sewer improvements and general engineering services. The Contract Administration section provides contracting and project management services. The Surveying section provides surveying services necessary to support all the work units within the Engineering Division. The Construction Inspection section provides for the inspection and monitoring of all extensions to the city's street, sidewalk, storm drainage, and water and sewer systems in addition to utility relocations resulting from NCDOT highway projects. The Mapping section provides for the continuous system mapping of the city's street, sidewalks, stormwater, water distribution and sewer collection systems. The Development Review section provides comprehensive reviews and permitting of plans for conformance to city standards and specifications for infrastructure improvements. The Engineering Services section is charged primarily with customer service responsibilities including petitions, ordering improvements, assessments and processing water and sewer service applications in addition to maintaining Powell Bill records.

**Street/Bus Stop Cleaning**

**\$1,617,099**

**27 FTEs**

The division provides a variety of services that contribute to the positive visual appearance of the city. These services include cleaning debris off catch basin tops, sweeping street curbs and gutters, dead animal removal from streets and vet hospitals, and litter removal from ditches, sidewalks, downtown areas and other public street rights-of-way. Street Cleaning also provides staff support during severe winter weather situations assisting with snow removal and salt dispersal. Bus Stop Cleaning provides general cleaning services, mowing and trash collection for all City bus shelters. Enhancements of this service include pressure washing, and maintaining appearance and conditions that are beneficial to the community.

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**RESOURCE ALLOCATION**

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	Actual FY 2008-09	Adopted FY 2009-10	Estimated FY 2009-10	Adopted FY 2010-11	Change
<b>Appropriations</b>					
Personal Services	\$ 13,585,791	\$ 12,934,095	\$ 12,671,095	\$ 13,213,657	2.2%
Operating	3,015,715	3,088,462	3,189,610	3,431,456	11.1%
Capital	158,214	103,596	202,604	74,019	-28.6%
<b>Total Appropriations</b>	<b>\$ 16,759,720</b>	<b>\$ 16,126,153</b>	<b>\$ 16,063,309</b>	<b>\$ 16,719,132</b>	<b>3.7%</b>
<b>Full Time Equivalents</b>					
Full Time Equivalents	250	221	221	226	5
Part Time	6	6	6	1	(5)
<b>Revenues</b>					
Discretionary	\$ 7,011,273	\$ 6,564,785	\$ 6,328,494	\$ 5,887,230	-10.3%
Program	1,114,676	810,000	1,048,304	1,059,433	30.8%
<b>General Fund Subtotal</b>	<b>\$ 8,125,949</b>	<b>\$ 7,374,785</b>	<b>\$ 7,376,798</b>	<b>\$ 6,946,663</b>	<b>-5.8%</b>
Water & Sewer Fund	2,265,009	2,249,853	2,206,835	2,501,191	11.2%
Storm Water Fund	6,368,762	6,501,515	6,479,676	7,271,278	11.8%
Transit Fund	-	-	-	-	0.0%
<b>Total Revenues</b>	<b>\$ 16,759,720</b>	<b>\$ 16,126,153</b>	<b>\$ 16,063,309</b>	<b>\$ 16,719,132</b>	<b>3.7%</b>
<b>Capital Improvement Program</b>					
Personal Services	\$ -	\$ 508,197	\$ 512,163	\$ 519,527	2.2%
<b>Total Appropriations</b>	<b>\$ -</b>	<b>\$ 508,197</b>	<b>\$ 512,163</b>	<b>\$ 519,527</b>	<b>2.2%</b>
<b>Full Time Equivalents</b>					
Full Time Equivalents	-	7	7	7	-
<b>Capital Improvement Grant Revenues</b>					
Capital Improvement Grant Revenues	\$ -	\$ 508,197	\$ 512,163	\$ 519,527	2.2%

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**BUDGET ISSUES FOR FY 2010-11**

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- Implement proposed stormwater fee increase (if adopted).
- Continued reduced service levels in Street Maintenance and Stormwater Maintenance due to lost positions and operating materials in FY10.
- Reassignment of staff to cover changed work load requirements in development review, design, inspections and contracting.

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**COMPLETED INITIATIVES FOR FY 2009-10**

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- Made substantial progress on completion of Automated Vehicle Locator System to enhance efficiency.
- Implemented annual stormwater billing for residential and stormwater-only accounts.
- Implemented a new 3<sup>rd</sup> Tier residential stormwater rate.
- Repaired or replaced 2,500+ linear feet of concrete sidewalk in various locations within the city.
- Provided maintenance on 22 miles of dirt streets once per year.
- Repaired 2000+ potholes within the city.
- Provided 16,000+ bus stop cleanings.
- Provided 12,000+ miles of street cleaning.
- Cleaned downtown sidewalks 3.3 times per week.
- Contracted 64 drainage improvement or repair projects (52 on private property, 12 in right-of-way); completed construction of 24 repair projects (20 on private property, 4 in right-of-way).

- Completed 3,800 linear feet of stream restorations for Northgate Park/Ellerbe Creek and Long Meadow Park/Goose Creek.
- Contracted 1 multi-year stormwater watershed planning analysis.
- Developed Stream Monitoring and Assessment Program for current stormwater permit.
- Developed 2 Water Quality Recovery Programs for current stormwater permit.
- Implemented compliance assistance program for industrial stormwater permits.
- Revised Stormwater Development Performance Standards.
- Completed split sampling lab contract for stormwater.
- Discovered and controlled over 100 pollution sources.
- Awarded Water and Sewer Extension Contract (WS-81).
- Prepared and resurfaced 84 lane miles (42 miles) of city streets by contract.
- Repaired and replaced 1,460 linear feet of concrete sidewalk in various locations within the City.

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**DEPARTMENT INITIATIVES FOR FY 2010-11**

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- Fully implement software program to automatically convert digital as-built submittal data into GIS features.
- Organize and input pending as-built backlog into water and sewer GIS layer.
- Add all existing Public Works projects into GIS Project Polygon layer.
- Develop GIS layer of street cleaning routes and monthly report.
- Develop GIS layer of impervious surface for streets in right-of-way.
- Work with Engineering Inspections to capture work plan data with new database application.
- Repair or replace 3,000 linear feet of concrete sidewalk.
- Provide maintenance on 21.4 miles of dirt streets and 4.1 miles of alleys once per year.
- Provide 16,000+ bus stop cleanings.
- Clean 12,000 miles of streets.
- Clean downtown sidewalks 3 times per week.
- Continue to administer the 2005 & 2007 Bond programs.
- Continue Stream Monitoring and Assessment Program for current stormwater permit.
- Continue implementation of Water Quality Recovery Programs for current stormwater permit.
- Contract for installation of Atmospheric Nitrogen monitoring equipment.
- Complete 20 drainage repair projects on private property or in city rights-of-way.
- Complete NCDOT funded sidewalk projects.
- Monitor and track progress of NCDOT construction projects.
- Repair and replace 15,000 linear feet of concrete sidewalk by contract in various locations.
- Resurface 90 lane miles (45 miles) of city streets by contract.
- Coordinate and inspect 5 NCDOT construction projects.

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**GOALS, OBJECTIVES & STRATEGIES FOR FY 2010-11**

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**GOAL:** *To provide maintenance and repair necessary for safe and well-maintained streets and sidewalks.*

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**OBJECTIVE:** To continue servicing (ITRE) identified Street Condition Report crack pouring repairs.

**STRATEGY:** Continue crack pouring crew and machine for a dedicated work assignment.

<b>MEASURE:</b>	<b>Actual FY 2009</b>	<b>Adopted FY 2010</b>	<b>Estimated FY 2010</b>	<b>Adopted FY 2011</b>
Linear feet of crack pouring	137,900	100,000	89,600	100,000

**OBJECTIVE:** To perform regular maintenance on the City's sidewalk system and repair potholes.

**STRATEGY:** Assign weekly production targets by team, and monitor weekly and monthly.

<b>MEASURES:</b>	<b>Actual FY 2009</b>	<b>Adopted FY 2010</b>	<b>Estimated FY 2010</b>	<b>Adopted FY 2011</b>
Linear feet of sidewalk repaired	6,641	2,500	2,700	3,000
# Potholes repaired	2,029	1,000	3,600	1,600

**GOAL:** To improve drainage and water quality through inspections, development reviews and drainage construction projects to achieve Council's goals that Durham citizens enjoy sustainable, thriving neighborhoods with efficient and well maintained infrastructure and a healthy environment.

**OBJECTIVE:** To maintain timely stormwater review of construction drawings and development plans.

**STRATEGY:** Use staff resources strategically to accomplish the objective.

<b>MEASURES:</b>	<b>Actual FY 2009</b>	<b>Adopted FY 2010</b>	<b>Estimated FY 2010</b>	<b>Adopted FY 2011</b>
# Construction drawings submitted for review	169	220	140	200
# Development plans submitted for review	577	550	375	425

**OBJECTIVE:** To improve the process for locating and identifying sources of water pollution.

**STRATEGY:** Promote the water pollution hotline via press releases and community outreach activities.

<b>MEASURES:</b>	<b>Actual FY 2009</b>	<b>Adopted FY 2010</b>	<b>Estimated FY 2010</b>	<b>Adopted FY 2011</b>
# Water quality investigations	169	200	287	200
Average water quality index	81.0	79.8	79.0	79.0

**GOAL:** To ensure the safe and effective expansion of the City's infrastructure.

**OBJECTIVE:** To improve the condition of city streets.

**STRATEGY:** Resurface city streets in accordance with priorities established by the ITRE Pavement Condition Survey.

<b>MEASURES:</b>	<b>Actual FY 2009</b>	<b>Adopted FY 2010</b>	<b>Estimated FY 2010</b>	<b>Adopted FY 2011</b>
# Street miles maintained (includes unpaved)	670	690	690	690
Total annual expenditures for street resurfacing	\$2,208,182	\$6,000,000	\$5,257,000	\$6,390,000
Lane Miles of streets resurfaced	48.2	60.0	64.0	90.0

**OBJECTIVE:** To maintain timely review of construction drawings and development plans.

**STRATEGY:** Use staff resources strategically to accomplish the objective.

<b>MEASURES:</b>	<b>Actual FY 2009</b>	<b>Adopted FY 2010</b>	<b>Estimated FY 2010</b>	<b>Adopted FY 2011</b>
# Construction drawings submitted for review	565	600	310	450
# Development plans submitted for review	599	600	470	550

**GOAL:** To maintain a city rich in aesthetic beauty by keeping the streets, sidewalks and bus stops clean.

**OBJECTIVE:** To reduce the amount of litter on streets, sidewalks and at bus stops.

**STRATEGY:** Maintain street sweeping, sidewalk vacuuming and bus stop cleaning schedules.

<b>MEASURES:</b>	<b>Actual FY 2009</b>	<b>Adopted FY 2010</b>	<b>Estimated FY 2010</b>	<b>Adopted FY 2011</b>
# of tons collected by street crews	3,870	4,000	4,000	4,000
Times per week downtown sidewalks are vacuumed	2.5	3	3	3
# of bus stop cleanings	16,253	16,000	16,671	16,460