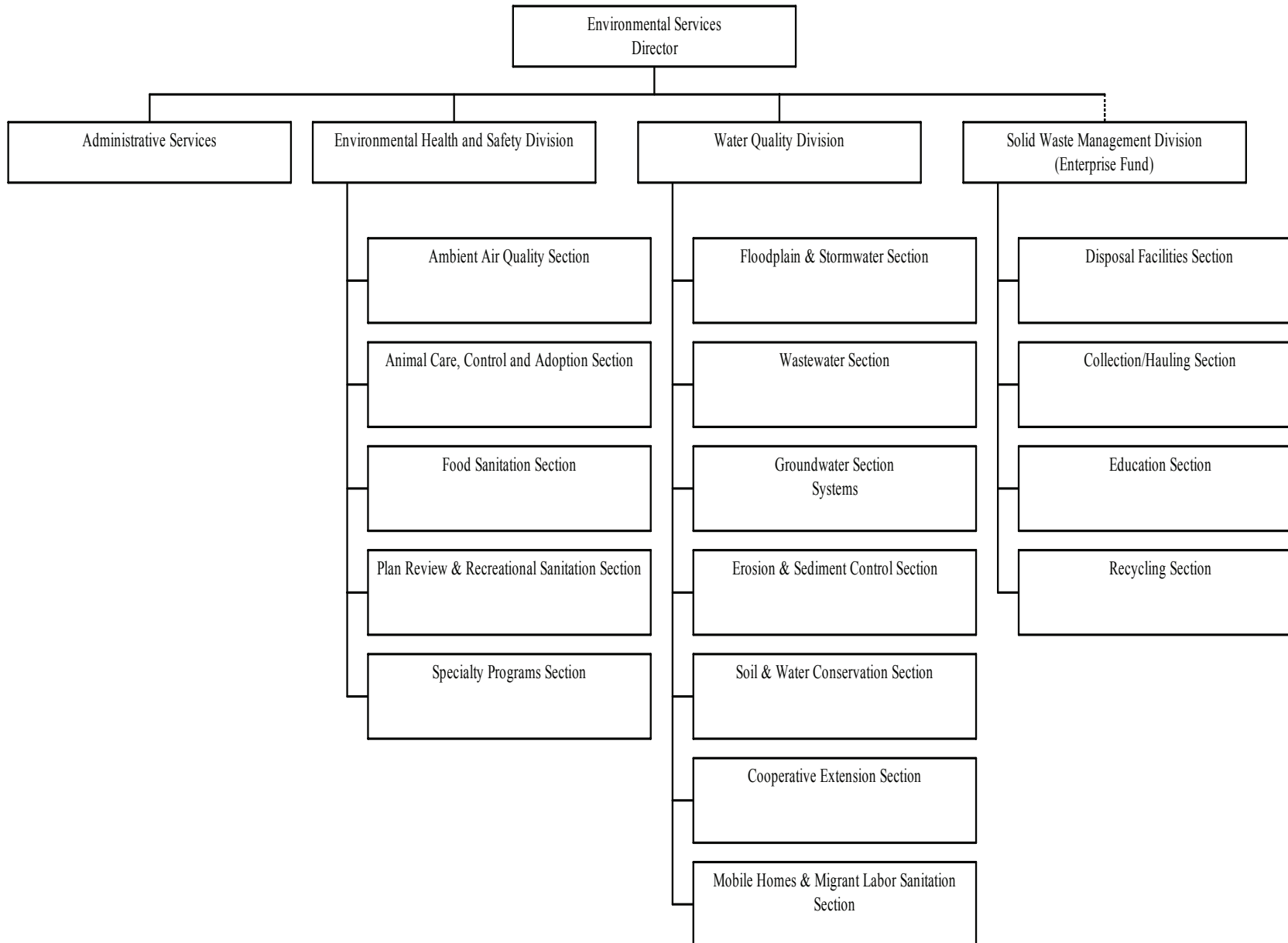


# ENVIRONMENTAL SERVICES

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# ENVIRONMENTAL SERVICES

## Department Summary

		<b>FY 2006 Actual</b>	<b>FY 2007 Adopted Budget</b>	<b>FY 2007 Current Budget</b>	<b>FY 2008 Adopted Budget</b>
Personnel Services	\$	6,387,074	6,615,617	6,798,957	6,925,628
Operating Expenses		2,082,976	1,913,509	2,187,731	1,960,191
Capital Outlay		7,686	16,077	8,577	12,500
<b>Expenditure Totals</b>	\$	<b>8,477,736</b>	<b>8,545,203</b>	<b>8,995,265</b>	<b>8,898,319</b>
Intergovernmental Revenues	\$	1,002,553	60,556	116,456	59,000
Fee & Other Revenues		2,241,334	2,584,333	2,532,170	2,586,914
<b>Revenue Totals</b>	\$	<b>3,243,887</b>	<b>2,644,889</b>	<b>2,648,626</b>	<b>2,645,914</b>
<b>Number of FTEs</b>		<b>100.00</b>	<b>101.00</b>	<b>101.00</b>	<b>103.00</b>

## Department Purpose and Goals

As Wake County continues to grow, issues regarding the quantity and quality of water in the County, the protection of public health, safety and the environment and the management of solid waste are of vital concern to citizens across the community. The Department's long-term goal is to ensure that future generations enjoy the same or better levels of environmental quality and public health that current citizens enjoy. To achieve this goal, the Environmental Services department is dedicated to proactively implementing the adopted Environmental Stewardship Agenda through research, education and regulatory programs. Environmental Services consolidates a number of programs that address water quality, air quality, environmental health and safety, animal care, control and adoption and solid waste.

The department's current functional areas are profiled in the following pages:

- Environmental Health & Safety, combining food, institution and sanitation inspections, animal control and sheltering, ambient air

issues, mobile home inspections and the swimming pool program.

- Water Quality, combining the on-site water and wastewater, Cooperative Extension, Soil and Water Conservation District and erosion, flood and storm water programs.
- Solid Waste Management, combining disposal, recycling, collection & hauling, collaborative development, enforcement and education/information.

All Environmental Services divisions plus the Wake County Department of Community Services are involved in environmental education. Cooperative Extension, which is a part of Environmental Services, is the lead agency for environmental education and is fashioning a comprehensive approach to environmental education.

By combining programs that deal with similar issues, program staffs are better able to coordinate and collaborate on common issues. This collaborative approach is needed in order to make the best use of staff tal-

## ENVIRONMENTAL SERVICES

ents and County resources. This collaborative approach is also provides flexibility to the department to respond to changes in service demands.

### Future challenges

Wake County's July 2007 population is estimated at around 790,000 people, and it is projected to increase to 1 million people by 2015, an annual increase of about 98 people per day. The land uses needed to accommodate that population growth will increase stresses on our water quality; the increase in vehicle miles traveled by motor vehicles will affect air quality; the solid waste stream generated by that population will place increasing demands on our solid waste management program; and the increased number of food and institutional establishments needed to serve the population will require inspections. The increased pet population and wildlife affected by increased urbanization of previ-

ously undeveloped lands will also increase demands upon our animal care, control and adoption program. In order to be effective, Wake County's population will need to understand how to be good environmental stewards, increasing demands upon our environmental education programs. Wake County has a significant challenge ahead.

### Division Summary - Administration

		<b>FY 2006 Actual</b>	<b>FY 2007 Adopted Budget</b>	<b>FY 2007 Current Budget</b>	<b>FY 2008 Adopted Budget</b>
Personnel Services	\$	446,987	426,228	609,572	351,274
Operating Expenses		84,628	116,176	124,301	113,150
Capital Outlay		-	-	-	-
<b>Expenditure Totals</b>	\$	531,615	542,404	733,873	464,424
Intergovernmental Revenues	\$	6,000	-	-	-
Fee & Other Revenues		206	-	-	-
<b>Revenue Totals</b>	\$	6,206	-	-	-
<b>Number of FTEs</b>		5.00	5.00	5.00	5.00

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## Division Summary - Environmental Health and Safety

		<b>FY 2006 Actual</b>	<b>FY 2007 Adopted Budget</b>	<b>FY 2007 Current Budget</b>	<b>FY 2008 Adopted Budget</b>
Personnel Services	\$	2,431,341	2,544,132	2,500,582	2,631,711
Operating Expenses		943,284	1,116,665	1,166,665	1,188,535
Capital Outlay		3,843	8,577	8,577	5,000
<b>Expenditure Totals</b>	\$	<b>3,378,468</b>	<b>3,669,374</b>	<b>3,675,824</b>	<b>3,825,246</b>
Intergovernmental Revenues	\$	71,826	60,556	60,556	59,000
Fee & Other Revenues		573,554	581,845	581,845	580,325
<b>Revenue Totals</b>	\$	<b>645,380</b>	<b>642,401</b>	<b>642,401</b>	<b>639,325</b>
<b>Number of FTEs</b>		<b>44.00</b>	<b>44.00</b>	<b>45.00</b>	<b>46.00</b>

### Environmental Health and Safety Purpose and Goals

Wake County citizens and visitors enjoy and expect a high quality of life regarding public health and safety. The Division protects public health and safety by monitoring, investigating, and correcting environmental conditions that may jeopardize the quality of life in Wake County. The Division aligns its goals with the Board's adopted Environmental Stewardship Agenda and supports the County objective of ensuring a healthy and safe environment for the citizens.

The Division's overarching goal of preventing and minimizing communicable disease, food borne illness, zoonotic disease, and environmentally induced illness and injury is achieved by the following:

- Minimize the incidence of food borne illness, communicable disease, and injury with a particular emphasis on inspection of food-service establishments and institutional facilities, ensuring that facilities are designed with "built-in sanitation" considerations.

- Ensure the public is protected from incidences of disease and accidents at public swimming pools and recreational waters with plan review, inspections, and water quality sampling.
- Minimize the likelihood of infectious disease outbreaks, such as West Nile Virus, encephalitis, vector borne, and zoonotic diseases.
- Reduce the incidence of child lead poisoning through surveillance, investigation, and sampling of child occupied facilities
- Identify and reduce the occurrence of asthma triggers and medical issues associated with poor ambient and indoor air quality
- Reduce countywide pet overpopulation and improve shelter adoption services, while continuing to decrease the euthanasia of abandoned or stray animals.
- Protect and enhance the environment and public health by partnering with other County agencies, State and local governments, and the private sector to provide improved service, and leverage (limited) resources
- Educate and empower citizens and facility operators/managers to

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become environmentally aware and active through increased environmental education outreach.

## Major Accomplishments

### Animal Care, Control and Adoption

- Spay Day USA 2006 – Second Annual Spay Day with an outcome of 113 low income owned animals being spayed/neutered.
- Rabies Clinics – Six clinics were held during Spring 2006 resulting in 743 animals being vaccinated against rabies.
- Microchip Clinics-Initiated microchip clinics in FY06 resulting in 30 animals being microchipped. Chip technology is the only permanent form of pet ID linked to a national database. Animal reclamation is greatly facilitated through this process.
- Expanded partnership with NCSU College of Veterinary Medicine to improve general shelter health and to provide spay/neuter services to adopted animals in response to canine respiratory disease outbreak.
- Third and fourth year veterinary students participate in clinical rotation, parasitology selective, and community practice selective at Wake County Animal Care, Control & Adoption Center.
- Supported the Hurricane Katrina disaster relief by providing a temporary onsite animal shelter facility.
- Employee received National Animal Control Association (NACA) employee of the year award and named the News and Observer's "Tarheel of the Week."
- Established New Hope Placement Partners, an authorization process that approves rescue providers to increase live exits for animals. Partners assist in emergency by providing capacity for sheltering.
- Implemented quarterly educational opportunities for staff.
- Implemented round the clock dispatch for Animal Control enforcement. Partnered with the Sheriff's Office to achieve this function.

### Food Sanitation

- Piloted quality assurance (QA) program for internal controls and program evaluation. The QA program focuses on behavior modifications realized in the regulated community.

- Strengthened the relationship with the County epidemiology team. Monthly meetings keep staff apprised of common goals of communicable disease prevention.
- Collaborated with Communicable Disease (CD) staff to investigate a food borne outbreak involving 300 persons of which approximately 100 were symptomatic
- Trained approximately 125 food service managers in the ServSafe® manager certification program jointly with Cooperative Extension staff. The ServSafe® manager's training course is a DENR recognized course that engages managers to implement and monitor best practices related to the "Food Code."
- Developed and instituted new filing system resulting in a significantly more efficient filing and retrieval of paper data for staff, citizen and media inquiries.
- Provided establishment scores and copies of the full inspection record to the public through the Wake County Website.
- Partnered with Community Health to make smoking information and Winners Circle Participants (State Nutrition Program) available on the Wake County website.

### Specialty Programs

- Developed pilot program to provide Indoor Environmental Assessment for Asthma triggers in children, in partnerships with Wake County Human Services.
- Partnered with North Carolina Department of Environment and Natural Resources (NC DENR) to provide tattoo artist inspection training at Centralized Intern Training.
- Provided significant support for the rewrite of the North Carolina Temporary Food Establishment rules by serving on a statewide committee.
- Partnered with Wake County Water Quality Division and the North Carolina Radiological Branch to provide radon-training outreach for area homebuilders.
- Three additional staff awarded Certified Indoor Environmentalist (CIE) credentials. This involved a four-day course and the successful completion of a four-hour exam.

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## **Plan Review and Recreational Sanitation**

- Expanded public recreational water ambient sampling areas to include Lake Wheeler and Swift Creek watershed areas.
- Increased the number of swimming pool inspections by one-third and the frequency of inspections by one week with the addition of three public swimming pool technicians.
- Migrated plan review data to a common data platform involving other County trades such as fire services and commercial permitting which resulted in improved customer service.
- Expanded the “express plan review” process to include the towns of Apex and Cary.
- Partnered with the City of Raleigh for “Netforces” nightclub/restaurant safety program.
- Staff became Certified Pool Operators (CPOs) through American Pool and Spa Association.
- Expanded the Food Service Advisory Committee, an advisory group that hears industry concerns, makes recommendations for policy changes, and promotes enhanced customer service.

## **Ambient Air Quality**

- Partnered with Wake County Public School System to receive a grant on their behalf to retrofit diesel school buses with diesel oxidation catalysts.
- Participated in the SmartCommute™ Challenge- 276 Wake County employees participated.
- Experienced no “Code Red” days during the 2006 ozone action season.
- Achieved “Best Workplaces for Commuters” goal. Fourteen percent of Wake County employees used an alternative method of transportation other than the single-occupant automobile to commute to work.

## **Issues for FY 2008**

### **Animal Care, Control and Adoption**

- Study the potential and feasibility of a countywide differential licensure program with input from citizens, non-profit, and municipal partners.
- Study potential efficiencies of unifying Animal Control enforce-

ment throughout the county.

- Increase spay/neuter services through humane alliances, and a public educational campaign directed at social change. Enhance spay/neuter outreach by expanding “Spay Day” and public awareness.
- Expand rabies and microchip clinics
- Seek adequate staffing to meet demands of population growth to include 2 Animal Health Care technicians, 4 shelter attendants, 8 Animal Control Officers, 1 Administrative assistant, and create a volunteer event coordinator position.
- Improvements at the Sheltering Facility: Seek grant for sound baffles in dog kennels, minor renovations, security enhancements, etc.
- Maintain FDA Drug Enforcement Administration (DEA) licensure and North Carolina firearms licensure.
- Develop an Animal Control Advisory Board for citizen input related to Animal Welfare issues and strategic planning for Animal Services programs.
- Partner with Wake County Public School System (WCPSS) on animal welfare issues.
- Convert existing Animal Control software application to a new platform.
- Provide training for emerging zoonotic and vector borne diseases.
- Create volunteer steering committee and redevelop volunteer program.
- Initiate salary comparison study of local industry for hiring and retaining adequate staff.
- Develop policies and procedures in response to “Pet Sheltering and Transportation Act of 2006,” which requires local governments to provide for onsite sheltering of animals during emergency events.

### **Food Sanitation**

- Implement risk-based inspection frequency.
- Collaborate with local Law Enforcement to assist in the enforcement of illegal vendors.
- Seek adequate staffing to meet growth in number of regulated establishments.
- Fully implement quality assurance (QA) program for internal controls & program evaluation.

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- Enroll in the Food & Drug Administration (FDA) National Retail Food Regulatory Standards Program.
- Research new data collection software system options for use in collecting electronic data..
- Study possibility of aligning the coordination of Temporary Food Establishment (TFE) program into the Food Sanitation Section.
- Develop policies and procedures to response to embargo authority, granted December 1, 2006 to the local health director. New law G.S. 130-A-21 extends the authority to exercise embargo authority concerning food and drink to the Secretary of Environment and Natural Resources or a local health director.

### Specialty Programs

- Expand services for indoor home assessments for asthma/allergy triggers *and partnership with Community Health for screening and evaluation of potential assessments.*
- Increase involvement with “Tools for Schools” indoor air quality program.
- Provide additional specialized indoor air training for staff.
- Develop a county ordinance for clandestine methamphetamine lab site decontamination.
- Coordinate indoor air (radon, asthma, mold, etc.) outreach, utilizing grants if possible.
- Procure specialized indoor air quality testing equipment.
- Investigate approximately 50 additional cases related to 10-19 microgram/deciliter blood lead level action level in response to proposed state law changes.
- Expand online availability of Food Talk (food safety newsletter) to facility operators.
- Fully implement quality assurance program.
- Research home basing option of staff to maximize efficiency and leverage resources.
- Provide training for emerging zoonotic and vector borne diseases.
- Seek adequate staffing for indoor air, methamphetamine laboratory decontamination follow-up, routine sanitation inspections, and Temporary Food Establishment (TFE) follow-up.
- Partner with NC Department of Environment and Natural Resources (DENR) to train environmental health specialists for tattoo

authorization.

- Expand services for in-home environmental investigations for asthma triggers and further strengthen partnership with Wake County Human Services for screening of patients and to measure effectiveness of project.
- Increase involvement with the “Tools for Schools” indoor air quality program and further develop working relationship with Wake County Public School System concerning environmental issues.

### Plan Review and Recreational Sanitation

- Expand recreational water ambient sampling. Partner with municipalities affected by closures of recreational waters.
- Expand training and improved communications with Certified Pool Operators (CPO) and implement Pool Advisory Committee.
- Implement electronic plan review for food service establishments
- Seek adequate staffing to meet growth in number of regulated establishments, pools, and increased recreational water sampling.
- Develop quality control measures.
- Seek changes in Wake County Swimming Pool regulations to meet current technological changes in industry.
- Add pool training coordinator/plan review position to manage staff authorizations, train Certified Pool Operators (CPOs), and manage seasonal pool technicians.
- Procure grants for water quality program. (Personnel, equipment, etc.)

### Ambient Air Quality

- Comply with National Ambient Air Quality Standards.
- Increase use of flex-fuel and hybrid vehicles in fleet.
- Increase the availability of affordable alternative fueling stations for County vehicles.
- Enhance education and promotion for commuter options for employees.

# ENVIRONMENTAL SERVICES

## FY 2007 to FY 2009 Business Plan Key Programs, Objectives and Measures

### Program Area: Food Sanitation

**Key Objectives:**

- Investigate foodborne illness complaints.
- Conduct mandated inspections to prevent foodborne illness.
- Educate foodservice employees to reduce the incidence of foodborne illness.

Key Measures	FY06 Actual	FY07 Estimated	FY08 Target	Desired Level
<b>Workload (Output)</b>				
<i>Demand indicator: Number of Permitted Facilities</i>	2,755	2844	2,936	2,936
<i>Demand indicator: Number of Required Inspections</i>	10,635	11,135	11,659	11,659
Inspections performed	5,717	5,800	5,884	5,884
Complaints investigated	535	560	586	586
Quality Assurance visits	5	85	95	95
<b>Efficiency</b>				
Number of facilities per Environmental Health Specialist	250	260	270	270
Average number of inspections per Environmental Health Specialist	479	527	580	580
Inspection Coverage	54%	52%	50%	50%
Service Request turnaround time (days)	3	3	3	3
<b>Effectiveness</b>				
Facility complaints per 1000 population	0.61	0.6	0.6	0.6
Customer Service approval rating (QA)	100%	90%	90%	100%

\*Proposed measurements

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## Program Area: Air Quality

### Key Objectives:

- At least 14% of Wake County staff using alternatives to single-occupant automobiles for commuting to work.
- Educate and increase awareness of employees and visitors of Wake County facilities of the impact of ozone to air quality

Key Measures	FY06 Actual	FY07 Estimated	FY08 Target	Desired Level
<b>Workload (Output):</b>				
Air Awareness posters displayed and updated daily in Libraries, Parks and Wake County Office Buildings	100%	100%	100%	100%
<b>Efficiency</b>				
Utilize Insights to publicize air quality issues	5 articles	12 articles	12 articles	12 articles
<b>Effectiveness:</b>				
Number of code red ozone days	0	0	0	0

## Program Area: Plan Review and Recreational Sanitation

### Key Objectives:

- Assure built-in sanitation compliance in regulated facilities
- Assure public health and safety in swimming pool operations
- Monitor public recreational waters to reduce incidence of disease

Key Measures	FY06 Actual	FY07 Estimated	FY08 Target	Desired Level
<b>Workload (Output)</b>				
Swimming pools permitted	934	970	1,031	1,031
Pool inspections performed	4,947	5,725	6288	6288
Plans for new food institutions and pools reviewed	287	300	331	331
Plans for new pools, spas, wading pools	54	80	90	90
Restaurant Construction Visits	912	957	993	993
<b>Efficiency</b>				
Inspections per technician per year	667	900	900	900
Recreational water quality sampling (man hours)	496 hrs./62 days	1856hrs/232 days	1856 hrs/ 232 days	1856 hrs/ 232 days
<b>Effectiveness</b>				
Complaints	30	35	35	35

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## Program Area: Animal Care, Control and Adoption

### Key Objectives:

- Reduce the incidence of zoonotic diseases
- Reduce the number of unwanted dogs and cats through aggressive spay/neuter programs
- Protect the safety of citizens in the County by reducing the number of strays.
- Increase adoption rates
- Increase transferred animals to New Hope placement partners
- Decrease euthanasia rates
- Increase educational outreach

Key Measures	FY06 Actual	FY07 Estimated	FY08 Target	Desired Level
<b>Workload (Output)</b>				
Service calls	7,038	7,672	8,363	8,363
Animals impounded	7,250	8,120	9,094	9,094
<b>Efficiency</b>				
Service calls per officer per year	1,173	1,279	1,395	1,395
<b>Effectiveness</b>				
Animal adoption rate (total population)	25%	30%	35%	35%
Animal euthanasia rate	67%	72%	62%	62%
Owner reclaim rate	2.10%	5.00%	7.50%	7.50%
Animals moved to other facilities	528	581	639	639
Number of impoundments/Shelter Staff (5.5)	1,318	1,476	1,653	1,653

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## Program Area: Specialty Programs

### Key Objectives:

- Reduce the incidence of vector-borne diseases
- Educate the public to reduce the exposure to asthma triggers
- Increase efficiency of mandated inspections
- Reduce incidence of communicable disease and environmentally induced illness
- Increase educational outreach to public and facility operators

Key Measures	FY06 Actual	FY07 Estimated	FY08 Target	Desired Level
<b>Workload (Output)</b>				
<i>Demand indicator: Number of Permitted/Licensed Facilities</i>	1,140	1,165	1,191	1,191
<i>Demand indicator: Number of Required Inspections</i>	1,533	1,565	1,598	1,598
Inspections performed	1,178	1,300	1,435	1,435
Indoor air quality complaint consultations	237	250	264	264
Vector complaints investigated	55	65	77	77
Temporary food service permits issued	478	525	577	577
<b>Efficiency</b>				
Number of facilities per Environmental Health Specialist	402	430	460	460
Average number of inspections per Environmental Health Specialist	615	650	687	687
Inspection Coverage	75%	72%	69%	69%
Elevated Blood Lead cases investigated within seven days	100%	100%	100%	100%
<b>Effectiveness</b>				
Facility complaints per 1000 population	0.03	0.04	0.05	0.05
In-Home Asthma Triggers Assessments	0	24	25	25
Percentage tattoo artists permitted on initial inspection	100%	100%	100%	100%
Customer Service approval rating (QA)	*	85%	100%	100%

\*Proposed measurements

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## Division Summary - Water Quality

		<b>FY 2006</b>	<b>FY 2007</b>	<b>FY 2007</b>	<b>FY 2008</b>
		<b>Actual</b>	<b>Adopted</b>	<b>Current</b>	<b>Adopted</b>
			<b>Budget</b>	<b>Budget</b>	<b>Budget</b>
Personnel Services	\$	3,508,746	3,645,257	3,688,803	3,942,643
Operating Expenses		1,055,064	680,668	896,765	658,506
Capital Outlay		3,843	7,500	-	7,500
<b>Expenditure Totals</b>	\$	<b>4,567,653</b>	<b>4,333,425</b>	<b>4,585,568</b>	<b>4,608,649</b>
Intergovernmental Revenues	\$	924,727	-	55,900	-
Fee & Other Revenues		1,667,574	2,002,488	1,950,325	2,006,589
<b>Revenue Totals</b>	\$	<b>2,592,301</b>	<b>2,002,488</b>	<b>2,006,225</b>	<b>2,006,589</b>
<b>Number of FTEs</b>		<b>51.00</b>	<b>52.00</b>	<b>51.00</b>	<b>52.00</b>

### Water Quality Purpose and Goals

Water Quality Division's strategy for managing Wake County's water resources. The strategy is based on community values of healthy, sustainable, and uncontaminated surface and ground water for future generations. Fundamental goals to ensure comprehensive, coordinated, and long-range water-resources management are as follows:

- Deliver services and products that implement County strategic plans including, but not limited to, the Environmental Stewardship Agenda, Watershed Management Plan, Comprehensive Groundwater Investigation, and Water and Sewer Plan.
- Develop and lead partnerships with County agencies, State and local governments, and the private sector to achieve regional protection and enhancement of the environment and public health.
- Develop partnerships with the public at large by increasing scientific and environmental literacy and promoting their actions on wa-

ter quality and public health initiatives.

- Administer development ordinances, with effectiveness, efficiency, and equity, and minimize adverse impacts from land disturbance and operations of groundwater and wastewater treatment systems.
- Develop new strategies and practices to conserve water, soil, and other natural resources that are critical to continued health of the hydrologic cycle.

### Major Accomplishments

#### Wells and Groundwater Protection

- The Groundwater Sustainability Committee was formed to initiate a stakeholders process to determine if groundwater sustainability can be achieved long term in Wake County and what actions or remedies will be necessary to effect the goal of sustainability.
- Recommendations from the Groundwater Sustainability Committee will be presented to governing committees and boards for acceptance and approval to begin enacting the recommendations

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- Five Mobile Home Parks that have had the most serious violations based on past inspection results, will be the focus of staff to effect improvement in the sanitary conditions of these parks.
- Groundwater Protection ordinance will be reviewed to verify compliance with recently enacted Safe Wells legislation. Necessary changes will be drafted for adoption.
- Public education campaign- Website will be enhanced and promoted. Public, regulated communities and other internal departments will be advised of automated systems and information available on website as part of effort to reduce call volume.
- Multi-phased assessment of radon in groundwater continues to be an initiative of great interest to the program. Indoor air quality with respect to the presence of radon is being assessed in conjunction with the assessment of radon in groundwater; especially considering the majority of health concerns associated with radon are from inhalation of radon gas. The three-phased assessment has been completed with analysis of data and reporting currently underway. A comprehensive assessment report summarizing Phases I, II, and III indoor air and groundwater data analysis and study conclusions and recommendations will be prepared.

## **Wastewater Management**

- Conduct a study to develop a specific wastewater management strategy for implementation of the Septic tank pilot study recommendations.
- Continue development of wastewater management section with respect to implementation of NPDES Phase II measures for illicit discharge detection/elimination, repair and verification of wastewater systems, and implementation of wastewater management strategies for the septic tank pilot study recommendations.
- Conduct education and training sessions (Lunch and Learn) for the homebuilder/realtor customer base about the wastewater permitting process and problems. Reprinted the homeowners information guide to septic and well maintenance
- Upgrading a field staff position to a Team Leaders position in the Wastewater Management Section. Complete hiring full staff by March 1, 2007.

## **Sediment & Erosion Control**

- Made revisions to simplify and update the Sedimentation & Erosion Control (S&EC) Ordinance, incorporating input from stakeholders, including the Planning Board, UDO stakeholders group, Water Quality Committee, Human Services and Environmental Services Board, Soil and Water Conservation Board, and NCDENR.
- Monitored environmental legislation by the NC General Assembly, which will necessitate additional ordinance amendments in 2007.
- Started requiring all single-family lots to install sedimentation and erosion control devices regardless of size.
- Completed the Sedimentation & Erosion Control Policy and Procedures Manual.
- Developed a traveling display of photos of good and bad erosion control devices.
- Established a Lunch & Learn Program with the Wake County Home Builders Association to educate homebuilders on the proper protection of single lots from off-site sedimentation.
- Staff received training on Illicit Stormwater Discharge Detection and Good Housekeeping Policies and Procedures in compliance with Wake County's NPDES Phase II permit.

## **Stormwater Management**

- In keeping with the Stormwater staffing level approved for FY 07, implemented part of the new Stormwater Management Ordinance & Design Manual approved by the Commissioners on May 15, 2006.
- Establish a Stormwater Information System to tract activity including, but not limited to: development plan review and approval, floodplain development certifications, impervious surface deviations, BMP installation, inspections, and enforcement activity.
- Conducted education and training sessions (Lunch and Learn) for the homebuilder/realtor customer base about the stormwater individual lot permitting.
- Implemented new procedures and improved synchronization of the plan review process with Wake County Wastewater and Well Programs.
- Countywide Stormwater Management Task Force created to assess Stormwater needs and make recommendations of collective and

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individual solutions to stormwater problems. Final report expected 2007.

## **Floodplain Management**

- Implemented the new FEMA requirement for Elevation Certificates, Form 81-31, for structures located in close proximity to Special Flood Hazard Areas.
- Revise Article 14 Flood Hazard Areas of the UDO, incorporating suggestions from the NC Floodplain Mapping Office pertaining to Future Conditions regulations. Anticipated completion in fall of 2007.
- Assisted IDPP staff in the continued implementation of the Floodplain Certification review of the document management process.

## **Soil and Water Conservation**

- Successfully secured a State Non-point Source Grant (319 program) for \$180,500 to start the project: An Integrated Approach to Watershed Management Planning and Implementation in Selected Watersheds of Falls Lake.
- Leveraged County with State, Federal, and Private funds to fund conservation "best management practices" on at least 1,000 acres to improve the resource base and protect water quality of watersheds.
- Investigated cost and benefits of a mitigation banking program to boost capital projects, economic development, and environmental stewardship.
- Assisted County partners with planning, fund acquisition, and implementation to acquire protect and enhance the County's open spaces in accord with the Open Space Plan.
- Performed stream and watershed assessments as part of the Watershed Management Plan in priority areas to assess watershed health.
- Developed and conduct environmental education programs for County citizens on watershed protection. Included will be the planning of community conservation projects.
- Provided technical assistance to citizens regarding watershed protection and solutions to resource management issues.
- Provided technical assistance on conceptual design for the Randleigh project, which partners Wake County with City of Raleigh and Wake County Public Schools on an environmental

friendly development including community facilities and private land uses.

## **Issues for FY 2008**

### **Wells and Groundwater Protection**

- Implement recommendations from the Groundwater Sustainability Stakeholders Committee process. Implementation of recommendations may necessitate an expansion request.
- Implementation and enforcement of amended Groundwater Protection ordinance. To meet the conditions of the Safe Wells legislation may require additional staff.
- Continue to promote public education and continue to provide training opportunities to well contractors, builders, realtors, etc.
- Partnership with other departments within Wake County Government on the Applied Technologies Plans and Permitting project.

### **Wastewater Management**

- Continue to pursue approaches to reduce staff turnover to manageable levels and assure that all staff positions are allocated to proper personnel bands.
- Provision of resources for implementation of the wastewater management strategy.
- Reduce backlog for all permit applications to less than 10 day objective
- Section to work with EE/EI committees to develop education strategies related to EE/EI Business Plan
- Continue to work with E Gov Department on development of Internet Access to site plans and permits.
- Continue to promote public education and continue to provide training opportunities to septic contractors, builders, realtors, etc.

### **Sediment & Erosion Control**

- Implementation and enforcement of new regulations approved in the revised Erosion and Sedimentation Control Ordinance.
- Continue educational program for the Wake County Home Builders Association and include municipal staff for the seven jurisdictions contracting with Wake County for S&EC services.
- Ensure that all staff has received training in Illicit Stormwater Dis-

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charge Detection and Good Housekeeping Policies and Procedures for compliance with the County's NPDES Phase II Permit.

## **Stormwater**

- Establish a stormwater inspection and enforcement program for verification of installation and maintenance of stormwater management devices and Best Management Practices (BMPs) installed in developments to comply with Article 9 Stormwater Management of the Unified Development Ordinance. Will request two (2) FTEs for Stormwater inspections and enforcement.
- Countywide Stormwater Management Task Force will complete its report in 2007 and will make recommendations to the Board of Commissioners on stormwater initiatives that should be taken to address priority issues either collectively or individually by the local jurisdictions.
- Continue participation in the Stormwater Implementation Group (SWIG) to remain current on NPDES Phase II regulatory, implementation and compliance issues.
- Update web page to serve as the primary source for stormwater program information.
- Provide technical assistance to the Board of Adjustment and Planning Board through stormwater review and analysis of site plans and preparation and presentation development of staff recommendations and reports.
- Reduce backlog for initial completeness review for all stormwater management permit certification applications to less than 5-day.

## **Floodplain Management**

- Implement enforcement of the revised Neuse River and Cape Fear FEMA Flood Insurance Rate Maps.
- Provide technical assistance to the Board of Adjustment and Planning Board by stormwater review and analysis of site plans and development of staff recommendations and reports.
- Update web page to serve as primary source for Floodplain program information.
- Reduce backlog for all floodplain management permit certification applications too less than 5-day objective.

## **Soil and Water Conservation**

- Consistent with the successfully secured 319 Grant for \$180,500 develop and carry out the project: An Integrated Approach to Watershed Management Planning and Implementation in Selected Watersheds of Falls Lake.
- If cost and benefits so merit, begin the process of establishing a mitigation banking program to boost capital projects, economic development, and environmental stewardship.
- Implement education and other best management practices warranted by the Commissioners' Countywide Stormwater Management Evaluation.
- Seek more funding opportunities for open space acquisition to offset rising land prices to further implement the Open Space Plan.
- Provide nutrient and waste management solutions for horse operations and others
- Begin implementing community conservation projects as coordinated with the State Division of Soil and Water
- Provide technical assistance on implementing the Randleigh Project in partnership with Raleigh and Wake County Public Schools.

## **Horizon Issues**

### **Wells and Groundwater Protection**

- Expanded water quality monitoring (including organic and radiological).
- Data collection of groundwater use by large volume wells such as community water supply wells.
- Continue with efforts to provide the public easy access to groundwater data.
- Explore ways to provide services in a more efficient manner (technology, work schedules, work locations, etc).

### **Wastewater Management**

- Develop and implement the framework for management to facilitate the long-term sustainability of decentralized (on-site) wastewater disposal technology.
- Working within section on employee efficiency and other related departments (IDPP) to further decrease turn around time on all applications. This includes restructuring of work hours, work location

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and use of technology advances to limit office time.

- Increasing salary of staff to decrease turnover and maintain quality staff. This will also decrease turnaround time on applications
- Implement the EE/EI Business Plan

## **Sediment and Erosion Control**

- Continue on-going evaluation of staffing levels. Anticipate need to request additional staff resources to handle expected substantial increase in development levels in eastern portion of county as major projects extending new sewer service are completed.
- Evaluate desirability of seeking delegation to administer the NPDES Phase II post-construction program countywide in the unincorporated areas in lieu of the States' administration of program.
- Continue to provide education to our municipal partners regarding our Sedimentation & Erosion Control Program.
- Streamlining the Notice of Violation procedures.

## **Stormwater**

- Secure funding source(s) to implement the recommendations of the Stormwater Management Task Force and the **Collective Stormwater Management Evaluation**.
- Develop interlocal agreements for implementation of collaborative stormwater initiatives/programs with municipalities.
- Develop an inspection program for stormwater & floodplain management enforcement.
- Further refine and implement local and regional approaches to complying with NPDES Phase II requirements.
- Develop database to track Stormwater & Floodplain Management including BMP type, location and maintenance performed with a GIS link..
- Explore the use of new technologies to meet the objectives of stormwater attenuation and water quality.

## **Floodplain Management**

- Evaluate benefits of participation in FEMA's Community Rating System Program, which can be used to reduce flood insurance rates to determine if compliance with this voluntary program is desirable.
- Maintain compliance with the National Federal Insurance Program

(NFIP)-Hazard Mitigation Plan

## **Soil and Water Conservation**

- If cost and benefit investigation so merits, start a mitigation banking program to boost capital projects, business recruitment, and environmental stewardship.
- Implement education and other best management practices warranted by the County Commissioners' Countywide Stormwater Management Evaluation.
- Continual focus on protecting the County's natural resource base and improving water quality by maintaining technical expertise in planning, design, and implementation of conservation projects.
- In partnership with County agencies and others, provide leadership and solutions to maintenance problems facing the Crabtree Flood Control Structures.
- Secure resources to address with partners increased environmental education needs

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## FY 2007 to FY 2009 Business Plan Key Programs, Objectives and Measures

### Program Area 1: Wells and Groundwater Protection

**Key Objectives:**

- Ensure all private and semi-public wells are properly located, constructed and tested.
- Ensure all abandoned wells that are potential conduits for ground-water contamination and possible safety hazards are properly closed out.

Key Measures	FY06 Actual	FY07 Estimated	FY08 Target	Desired Level
<i>Workload (Output)</i>				
Permit Applications	921	900	925	N/A
Well Construction Inspections	1354	1300	1300	N/A
Private Well Samples	2067	2020	2000	N/A
Investigations/Consultations	217	225	230	N/A
<i>Efficiency</i>				
Wellhead Inspections Completed Within Three (3) Working Days	74%	80%	90%	100%
Well Grout Inspections Completed	82%	85%	90%	100%
Water Samples Completed Within Ten (10) Working Days	96%	95%	95%	100%

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## Program Area 2: Wastewater Management

### Key Objectives:

- Protect water quality by ensuring that wastewater disposal systems are properly sited, constructed, permitted and maintained and,
- Ensuring proper operation and maintenance of County and NCDENR permitted facilities.
- Provide timely service related to builder applications and complaint response.

Key Measures	FY06 Actual	FY07 Estimated	FY08 Target	Desired Level
<i>Workload (Output)</i>				
Applications Submitted	1699	1800	1800	
Final Operation Permits	2073	2000	2000	NA
Complaint Responses Relative to On-site Inspections	522	NA	NA	NA
Final Subdivision Review	106	150	150	NA
Operation/maintenance inspections	307	325*	350*	NA
<i>Efficiency</i>				
Average Turnaround Time for Permit Applications (days)	7.6	8	8	10
<i>Effectiveness</i>				
% of systems 3yrs old that are functioning properly	99.60%	100%	100%	100%

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## Program Area 3: Sedimentation & Erosion Control

**Key Objectives:**

- Ensure development complies with the Erosion and Sedimentation Control Ordinance
- Reduce off-site sedimentation through increased site inspections.

Key Measures	FY06 Actual	FY07 Estimated	FY08 Target	Desired Level
<i>Workload (Output)</i>				
Plans Submitted	278	225	225	225
Plans Approved	220	200	200	200
Site Inspections	5404	5200	5200	5200
<i>Efficiency</i>				
Number of Inspections Completed Per Engineer	850	800	800	
Percentage of Plan Reviews Completed within Required Timeframe	95	97	98	100
Percentage of Enforcement Proceedings Initiated on Violation Sites within 24 Hours	95	97	98	100

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## Program Area 4: Stormwater and Floodplain Management

### Key Objectives:

- Administer and enforce Wake County's Stormwater and Floodplain Ordinances, FEMA floodplain regulations, the Neuse River Basin

Nutrient Management Strategy, and appropriate components of NPDES Phase II Stormwater Management Program

Key Measures	FY06 Actual	FY07 Estimated	FY08 Target	Desired Level
<i>Workload (Output)</i>				
Flood Certifications Processed	308	300	300	300
Stormwater Deviation Certifications Processed	77	75	80	80
Flood Studies Reviewed	31	30	35	35
<i>Efficiency</i>				
Percentage of Stormwater Management Plans and Construction Drawings Reviewed and Acted Upon within 30 Days	12	75	75	90
Percentage of Flood Studies Reviewed Within 30 Days	17	75	75	90
<i>Effectiveness</i>				
Percentage of Applications Complete For Review Upon Receipt	20	50	50	75

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## Program Area 5: Soil & Water Conservation

### Key Objectives:

- Implement conservation practices to manage natural resources and implement portions of Wake County's Watershed Management

Plan, Open Space Plan, Environmental Stewardship Agenda, and Collaborative Stormwater Management Evaluation

Key Measures	FY06 Actual	FY07 Estimated	FY08 Target	Desired Level
<i>Workload (Output)</i>				
New Acres Under Land Management Planning	1,100	1,000	1,000	1,000
Application Acres	800	1,000	1,000	1,000
<i>Efficiency</i>				
Percentage of Land Management Contracts Implemented within Contractual Time	70%	80%	80%	80%
<i>Effectiveness</i>				
Funds From Outside Partners (Private, State, and Federal) to Preserve, Protect, and Enhance Natural Resources (Note: some private and governmental partners pay project-costs directly and do not send funds through County budget.)	\$1,190,000	\$300,000	\$300,000	\$300,000
Tons of Sediment Kept From Surface Waters	3,400	3,000	3,000	3,000

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