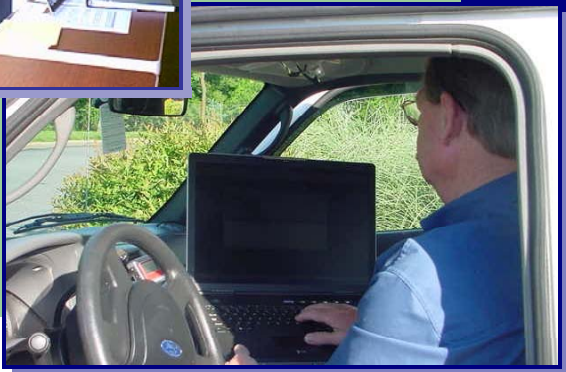




Utilities and Engineering
Annual Report
2005-06



DIRECTOR'S MESSAGE

Dear Fellow Citizens:

Thank you for allowing us to serve you, the citizens of Catawba County, customers and clients through a focus on exemplary customer service. It is my pleasure to present to you the 2005-06 Catawba County Utilities and Engineering Annual Report reflecting the work of dedicated and skilled individuals.

The Utilities and Engineering Department functions include Administration, Building Services, Plan Review, Permit Center, Erosion Control, and Water and Sewer Administration. Building Services, Plan Review, Erosion Control, and Water and Sewer divisions strive to provide services funded by fees in lieu of ad valorem taxes.

Utilities and Engineering is also responsible for Water and Sewer Construction Projects and Solid Waste Management functions, which are reported herein. Solid Waste Management operates as fully self-supporting through the implementation of user fees incorporated into an enterprise fund with no ad valorem tax contributions.

Catawba County is a great community in which to live, work, and raise a family. The professional leadership from elected Board Members to knowledgeable and dedicated staff contributes to our excellent community.

If you have questions about any part of this report, our services, or any other Utilities and Engineering Department concerns, please feel free to contact our offices at (828) 465-8261.

Sincerely,



Barry B. Edwards, PE
Director



Barry B. Edwards, PE

Mission Statement: Coordinate and manage Solid Waste, Utilities & Engineering, Building Services, Erosion Control, and Water and Sewer in order that the citizens of Catawba County can live, work, and recreate in a clean and safe environment. The approach will be economically viable and environmentally friendly.

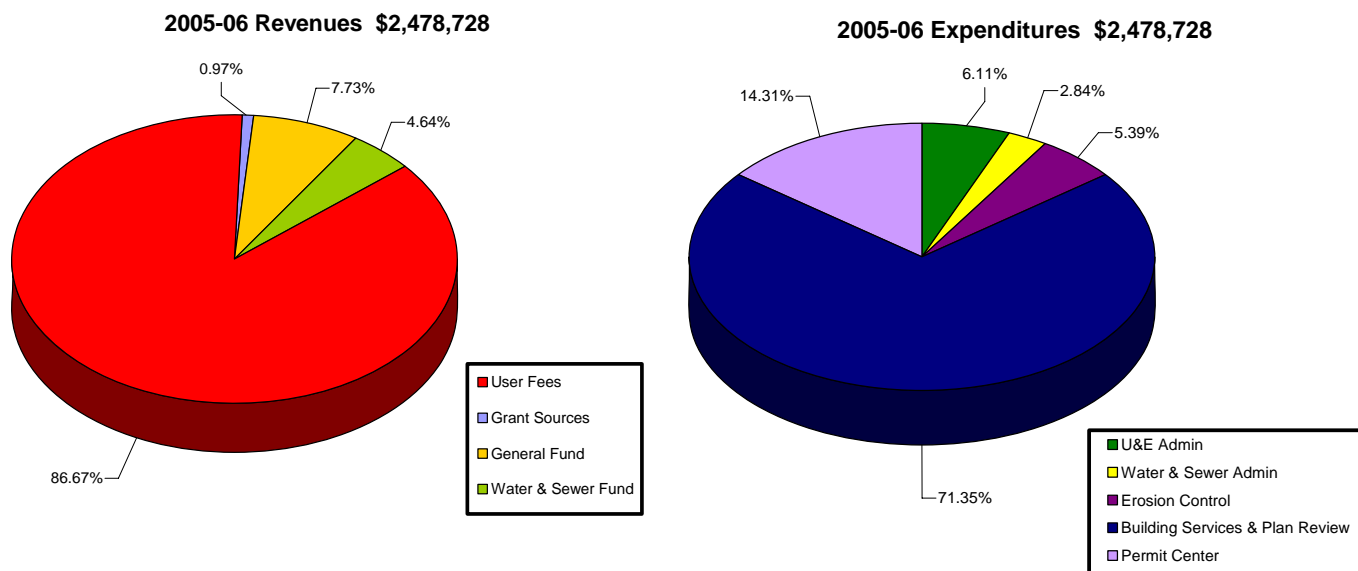
USER FEES

Much of the Utilities and Engineering Department is supported by User Fees with the objective to be fully self-supporting with little or no ad valorem tax contributions.

Building Services and Plan Review user fees are derived from permit issuance, other inspection charges, plan review charges, and Contracted Plan Review Services.

Erosion Control fees are charged for plan review services based on disturbed acreage, and include site inspections.

Water & Sewer user fees are obtained through the collection of capital fees for water and sewer connections, sludge hauler charges for waste disposal, and revenue sharing contracts with municipalities. Monies received in excess of operating expenses are held in the Water and Sewer Reserve Fund to allow for future water and sewer expansions.



Utilities and Engineering employs only 7% general fund monies.

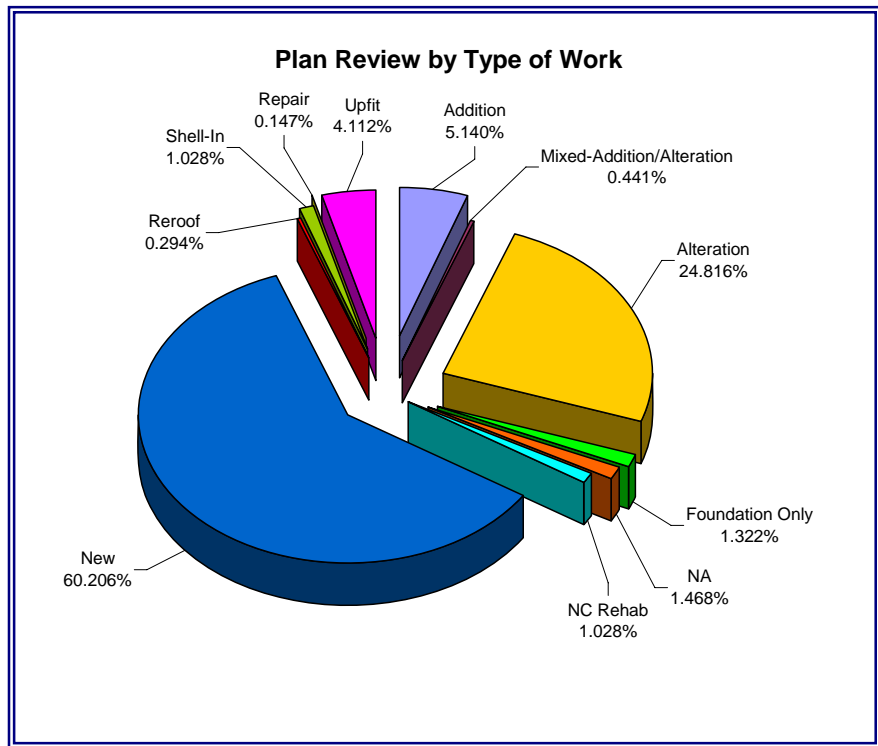
Solid Waste Management is not included in the above analysis because it operates under an enterprise fund, self-supported solely through user fees.

BUILDING SERVICES

The Building Services Division inspects all residential and commercial buildings in Catawba County, and provides information and services to citizens as they obtain the proper permits for construction. The operations of the Building Services Division have as its foundation four guiding principles: protecting the public; providing the best possible customer service; promoting economic development; and ensuring consistency in the application of Codes and treatment of customers. The Building Services Division is responsible for the functions of Plan Review, Permit Issuance and Inspections. For customer convenience, two office locations are available: in the County Government Center in Newton and in Hickory City Hall at 75 North Center Street. Both locations are open from 8:00 AM to 5:00 PM, Monday through Friday.

- ◆ 969 plans were reviewed
- ◆ 10,247 permits were issued
- ◆ 40,850 inspections performed

Building Services is a self-sufficient program; thus, permit and inspection fees are designed to recover 100% of the costs of operations. A mechanism for adjusting building permit fees specifically for Catawba County based on actual building construction values during the fiscal year is built into the Permit Fee Schedule. Actual construction valuation of permits issued during fiscal year 2005-06 for commercial, church, government, industrial, and residential construction is \$275,622,625.



PLAN REVIEW

The Plan Review section of Building Services is responsible for working closely with citizens during the pre-construction phase through a team-oriented approach. Plan Review offers Express Plan Review, Local Option Plan Review, North Carolina Rehab Code assistance, and Safety Inspections for Alcoholic Beverage Control, Day Care and Occupancy permits as well as special events.

- ◆ 969 plans were reviewed averaging 3 working days
- ◆ 49% were approved during the first review
- ◆ 2,718 inspections were performed by Plan Review Staff

EXPRESS PLAN REVIEW

The Building Services Division implemented a development review process to provide customers the opportunity to have their design professionals meet with local government officials to accelerate plan approvals and permit issuance. This optional service allows projects to be reviewed and permitted in the same day, thus allowing construction to begin much sooner.

LOCAL OPTION PLAN REVIEW

Catawba County was granted the authority by the North Carolina Building Code Council to perform most plan specification and document approval for various building classifications that previously would have required submittal to Raleigh for approval. This local authority allows property owners and design professionals to seek document approval for most structures built in Catawba County, which has significantly shortened the approval process.

NC REHAB CODE

Catawba County adopted the North Carolina Rehab Code in November 2003 as a pilot program. This program, adopted by the State in January 2006, allows for the renovation of older buildings. The program modifies the Building Code on all levels to relax certain requirements for modern buildings that are not practical for the renovation of older buildings. This program encourages the use of existing buildings.

- ♦ 421 inspections were made under the Rehab Code

SAFETY INSPECTIONS

The Plan Review staff performs many safety inspections annually for Alcoholic Beverage Control; day care and general occupancy permits.

- ♦ 1,787 safety inspections were performed
- ♦ 385 alcoholic beverage control inspections for new or existing businesses
- ♦ 115 general occupancy inspections

PERMIT CENTER

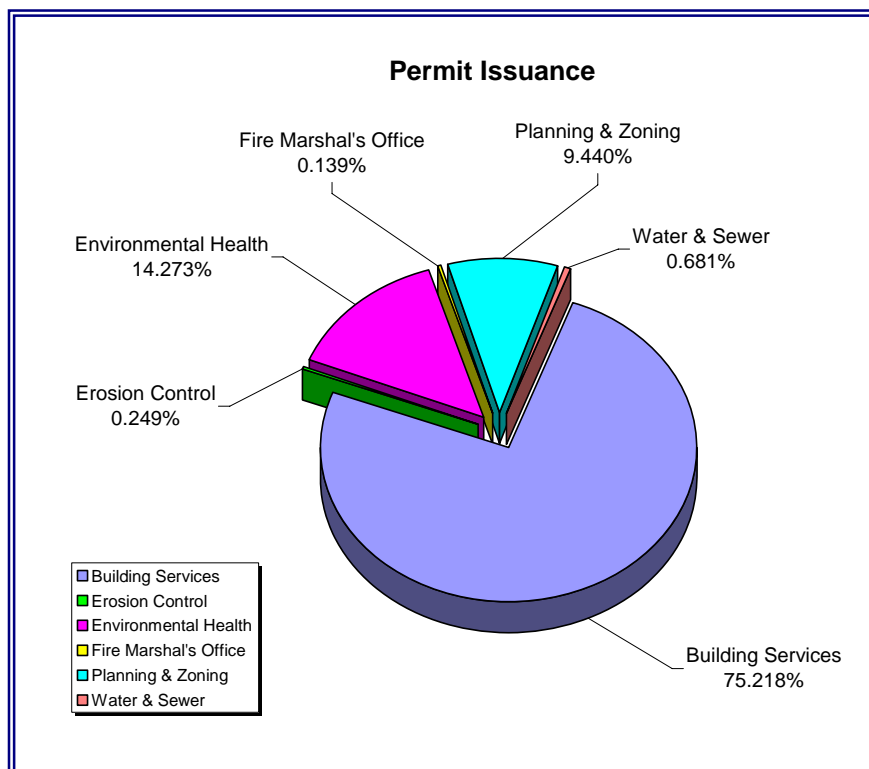
The Permit Centers, through quality customer service, partner with the building community to facilitate economic development while protecting the public safety, health, and general welfare of the citizens of Catawba County and provide assistance to customers, contractors, businesses, homeowners and the general public in obtaining all types of permits pertaining to, but not limited to, the State Building Code.

The staff issues permits and assesses fees for a variety of other departments as well as Building Services, including Planning and Zoning, Environmental Health, Fire Marshal's Office, and Utilities and Engineering Water and Sewer.

- ♦ 13,621 permits were issued by Permit Center Specialists

AUTOMATED INSPECTION SCHEDULING SYSTEM

Customers and clients of Building Services may take advantage of an integrated voice response system, or IVR, via telephone through touch-tone or voice response that allows inspections to be



scheduled or cancelled anytime, day or night. By simply having the permit number associated with the project, over 110 different types of inspections may be processed through the system. The IVR system also allows users to request permit applications and fee schedules by facsimile.

MOBILE INSPECTION SYSTEM

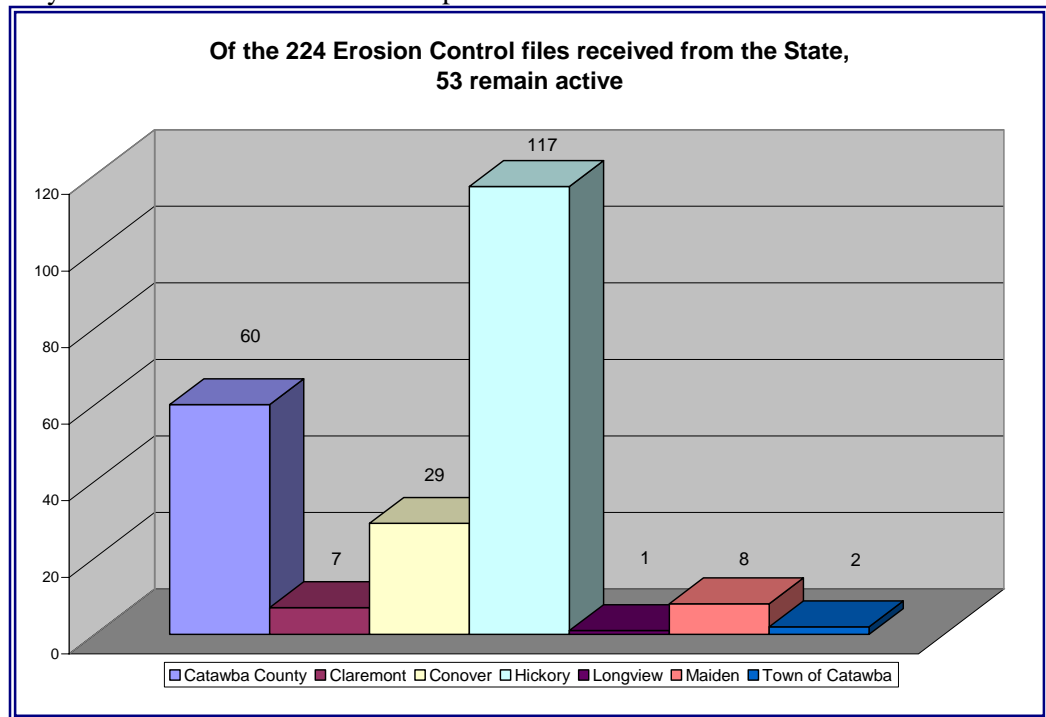
After much research, Building Services and Information Technology staff determined that the *MobileHwy* Program is best suited to meet the needs of Building Services. Improvements to customer service include: increased productivity, remote assignment of workloads, real-time inspection results updating of the Tidemark system and access to it by the contractor/owner, and the ability to perform field scheduled inspections. Currently, all code officials have been trained, have implemented the mobile inspection system in their County vehicles, and are operating the system successfully. 100% implementation has occurred. Inspection requests and results are being wirelessly transmitted successfully to the County Permitting and Inspection System via vehicle mounted laptop computers.

E-CONNECT (COMING SOON)

E-Connect is an Internet based technology that will allow permit application, issuance, and payment online. A contractor that utilizes this feature will apply for a login and password to access this option via the Internet from their office, home, or on the go with wireless technology. Permit Center and Information Technology staff are working diligently in the development stage scheduled for release in December 2006. Public demonstrations will be scheduled at various locations to familiarize users with the technology. Initially, only specific types of permits will be featured in the system, but the development of more intricate applications and processes for other types of permits will continue. The pay online feature, by using a credit card, will allow payment of the permit fee immediately. The County Billing System will be avoided for those that take advantage of the online pay feature. These proposed features, along with the current features of the Online Permit Center will bring the online application; payments of permits, and permit research process full circle.

SOIL EROSION AND SEDIMENTATION CONTROL

The Catawba County Board of Commissioners adopted a soil erosion and sedimentation ordinance (Chapter 16 Article V) on May 19, 2005. The Towns of Catawba, Long View and Maiden, and the Cities of Claremont, Conover and Hickory have contracted with the County for erosion control administration and enforcement. The local program began on July 1, 2005, with the transfer of 224



open projects from the North Carolina Department of Environmental and Natural Resources (NC-DENR), Mooresville office.

On July 1, 2005, Catawba County received 224 files from the DENR Mooresville office. Due to State staffing difficulties, 17% of active sites in Catawba County had never been inspected and 21% had not been inspected since 2003. County personnel inspected all projects immediately after receiving the files. (Note: The City of Newton provides their own erosion control enforcement to the citizens within the municipalities' jurisdiction.)

NEW PROJECTS

New Erosion Control projects range from small church parking lots to commercial development to large subdivisions.

- ◆ 34 new projects approved with plan review averaging 2.38 days
- ◆ 302 acres disturbed
- ◆ 427 inspections on active permits

CODE ENFORCEMENT

Code Enforcement staff ensures protection of the County's water resources through compliance of permitted and non-permitted sites. During fiscal year 2005-06, 95 "violation" cases were opened. These types of cases are complaint driven, usually on non-permitted sites. 67 of those complaints were closed, either due to the fact that the complaint was not truly an erosion control matter or because the site was stabilized. Staff works closely with DENR Division of Water Quality on violation cases where lake or streams may be affected.

- ◆ 236 inspections were performed on violation cases

SOLID WASTE MANAGEMENT

The Solid Waste Management Division of the Utilities and Engineering Department is responsible for the disposal of municipal solid waste generated in the County and to provide efficient and convenient service for Landfill users. The Division ensures long-term Landfill capacity and environmentally friendly waste disposal solutions for County citizens, and is responsible for the functions of the Municipal Solid Waste (MSW) and Construction and Demolition (C&D) Landfills, Waste Reduction and Recycling Methods, Methane-to-Energy Recovery Facility, Convenience Centers, Household Hazardous Waste, the Waste Education Center, and the future development of the EcoComplex and Resource Recovery Facility.

The viability of the Solid Waste Management Fund must be held to ensure future long-term landfill development for capacity and to provide environmentally sound waste disposal solutions, including closure and post closure costs. In accordance with North Carolina Administrative Code, Title 15, Chapter 13, a financial assurance mechanism must be filed annually to ensure the viability of closure and post closure costs, currently estimated to be \$9,985,058.

FRANCHISE AGREEMENT

The County provides curbside solid waste and recycling collection through its franchise agreement with Garbage Disposal Service. This gives the citizens in the unincorporated areas of the County the opportunity to have garbage pick up with the convenience of the collection at curbside.

MUNICIPAL SOLID WASTE (MSW) LANDFILL

The Blackburn MSW Landfill is a state of the art lined cell, which ensures the safety of the groundwater in the surrounding community. The MSW Landfill received and processed approximately 167,988 tons of commercial, industrial, and residential waste during fiscal year 2005-06. The County prides itself on a stable solid waste disposal "tipping fee" of \$30 per ton for the past 13 years.

CONSTRUCTION AND DEMOLITION (C&D) LANDFILL

The C&D Landfill receives and processes land clearing debris, shingles, sheetrock, and all other construction materials. Much of this material is diverted for reuse such as asphalt; concrete, brick and block are crushed and used on landfill work areas and for erosion control. Some of the wood products are ground and used for daily cover and to put on landfill roads during snow and rain.

- ♦ 40,246 tons of waste were disposed at the C&D Landfill

METHANE-TO-ENERGY RECOVERY FACILITY

The Methane-to-Energy Recovery Facility began producing electricity in November 1999. This project was North Carolina’s first county-owned electricity generating facility that was fueled by landfill methane gas. To date, the three energy producing generators have produced 79,656 mega-watts (MW) of electricity, which provides electricity to approximately 600 homes annually.

CONVENIENCE CENTERS

The County operates five Solid Waste Convenience Centers located throughout the County to provide citizens with an alternative to curbside collection for waste disposal and recycling opportunities. The County owned Centers are operated by Garbage Disposal Services as part of the solid waste franchise agreement.

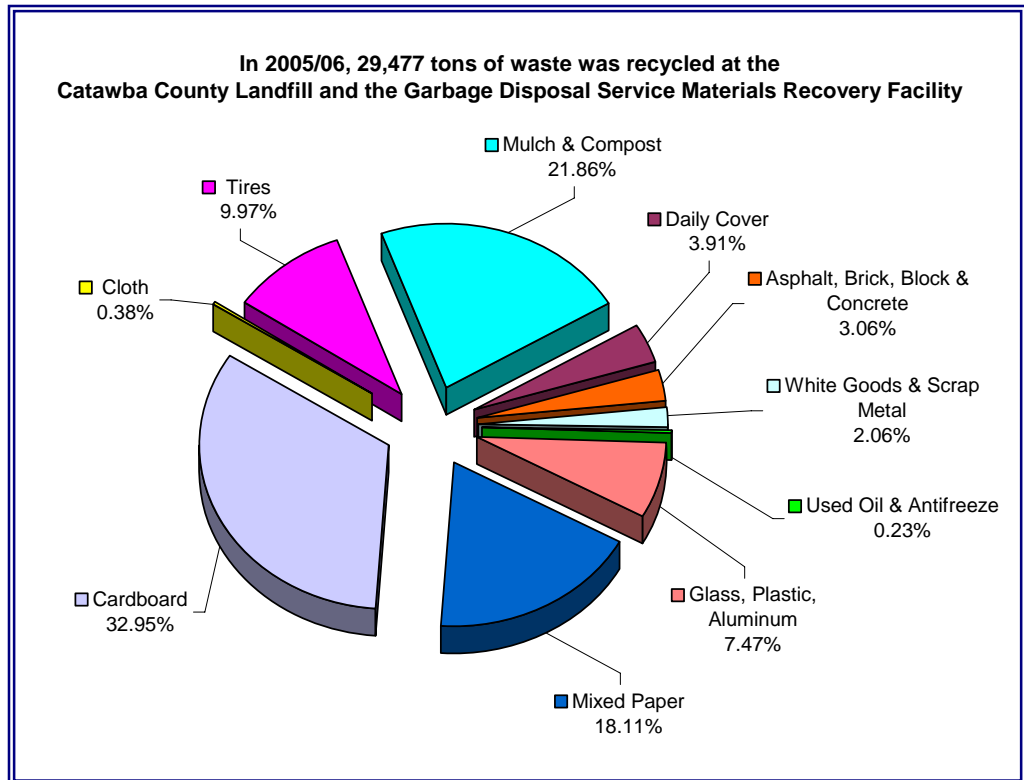
- ♦ 7,065 tons of solid waste were collected at the Convenience Centers
- ♦ 820 tons of recyclable materials were diverted from the waste stream through the Convenience Centers alone

WASTE REDUCTION AND RECYCLING

The County provides many waste reduction and recycling opportunities through programs such as Curbside Recycling, Convenience Center Drop-Off Sites, Household Hazardous Waste Collections, Electronic Collections, Litter Sweep Events, Community Service Litter Work Program, and Keep Catawba County Beautiful.

Due to its heavy industrial base

Catawba County recycles more corrugated cardboard than any other recyclable material.



WASTE EDUCATION CENTER

The Waste Education Center located at the Blackburn Landfill focuses on waste reduction, and household hazardous waste activities. The Center features:

- ♦ "hands on" section with games and mazes, "create your own trash" art, a "quizzzer" about non-point source pollution, and a water model challenging all ages to learn where hazardous household wastes go when they are improperly disposed
- ♦ posters demonstrating effects of waste on ground water
- ♦ a special audio-visual area with a VCR and television screen where guests may watch videos on household hazardous wastes and other waste related topics
- ♦ brochures and booklets

HOUSEHOLD HAZARDOUS WASTE & ELECTRONICS COLLECTION EVENTS

These collection events, now in their 7th year, are held bi-annually the first Saturdays in May and November in Newton and Hickory, respectively.

- ♦ 531 vehicles representing 616 households participated in the 2005 fall event
- ♦ 70,996 pounds of hazardous waste and electronics were collected during the 2005 fall event
- ♦ 454 vehicles representing 529 households participated in the 2006 spring event
- ♦ 58,828 pounds of hazardous waste and electronics were collected during the 2006 spring event

NEW RECYCLING PROGRAMS

Catawba County constantly seeks to identify new recycling programs to divert waste from the County Landfill, thus prolonging its lifespan and valuable airspace. New programs include:

- ♦ Cell Phones
- ♦ Household Batteries
- ♦ Ink Cartridges
- ♦ County School Kitchen Cafeterias, with 100% participation, recovers recyclable materials from school kitchens. This new program has shown a 22.25% increase in school recycling.

CATAWBA COUNTY LITTER TASK FORCE/KEEP CATAWBA COUNTY BEAUTIFUL (KCCB)

The Litter Task Force held its first meeting in 2004 to address roadside litter issues as well as improve school litter educational and adopt-a-highway programs, and focus on general public outreach in Catawba County. Since July 2005, the Task Force has focused on becoming an affiliate member of Keep America Beautiful creating a local chapter named Keep Catawba County Beautiful (KCCB). The pre-certification process began with fundraising efforts through corporate donations, which exceed \$10,000. It is anticipated that KCCB will be established as a non-profit organization by December 2006, and will become self-supporting within three years through partnering with local governments, businesses, civic groups, and dedicated individuals.

EDUCATIONAL OUTREACH

Recycling, Reuse, Waste Reduction, Litter, KCCB and Household Hazardous Waste educational outreach includes Earth Day Contest and Banquet with County Schools, Environmental Awareness Hands-On Field Day, Boy and Cub Scout Day Camps, Landfill Tours, the presentation of "Trash", an environmental awareness theatrical production to City and County Schools, and much more.

- ♦ 50 presentations and 14 tours effectively reached an estimated 12,000 people

WATER AND SEWER

The Water and Sewer Division strives to provide a source of clean drinking water and environmentally responsible sewage disposal in the unincorporated areas of the county working in cooperation with the municipalities.

SHERRILLS FORD FIRE DEPARTMENT WATER PROJECT, an extension from the Highway 150 waterline, consists of approximately 900 linear feet of 12-inch waterline to serve the new Sherrills Ford-Terrell Fire Department under construction on Slanting Bridge Road. This project is anticipated to complete before the end of 2006.

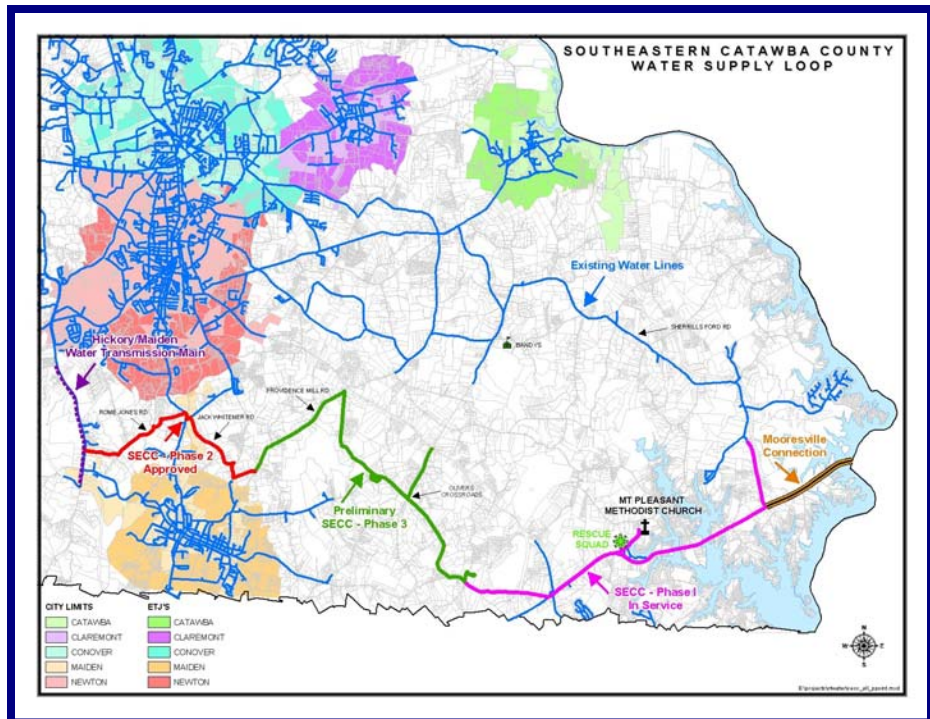
BALLS CREEK SEWER PROJECT, partially funded through the Clean Water Bond Grant of \$1.4 million from Public Water Supply, Construction Grants and Loans will provide much needed public sewer to Balls Creek Elementary School and the surrounding area. Sewer service will be provided by the City of Newton. In addition to the County Schools, 55 property owners have the opportunity to connect to the line. This project is anticipated to complete during the summer of 2007.

BUNKER HILL/OXFORD SEWER PROJECT, partially funded through the Clean Water Bond Grant of \$1.6 million from Public Water Supply, Construction Grants and Loans will provide sewer service to Bunker Hill High, Riverbend Middle and Oxford Elementary Schools in order to address the aging sewage disposal systems at these schools, which have increasing operating and maintenance costs. Sewer service will be provided by the City of Conover. This project is anticipated to complete in the winter 2007.

SOUTHEASTERN CATAWBA COUNTY (SECC) WATER SUPPLY LOOP, PHASE II AND III, benefiting all citizens of Catawba County, the looped distribution system will provide uninterrupted service during system maintenance, repairs, and emergencies. The number of citizens impacted magnifies the importance of this loop.

GREGORY WOOD PRODUCTS ECONOMIC DEVELOPMENT PROJECT Water service to Gregory Wood Products, partially funded with Community Development Block Grant (CDBG) Funds is complete and operational.

Construction has begun on the waste water project to serve Gregory Wood Products. This project is partially funded through the Department of Commerce, Economic Development Assistance (EDA) in the amount of \$348,600, and Community Development Block Grant (CDBG) Funds in the amount of \$166,217. Total project costs are \$1,333,276. It is anticipated that the project will be complete by March 15, 2008.



ECO-COMPLEX & RESOURCE RECOVERY FACILITY

Catawba County’s Eco Complex is a composite system of ecology and economy. The Resource Recovery Facility is a system designed to recover potential energy from, or establish reuse of by-products.

The Eco-Complex and Resource Recovery Facility will promote economic development and create new jobs in the green energy and business, agricultural, and environmental sectors of Catawba County as well as promotes Western North Carolina as a center for green energy, agricultural, and environmental innovation and enterprises.

Components of the Eco-Complex and Resource Recovery Facility include Partnerships, Entities, Elements and Collaboration through

- ♦ Municipalities/County
- ♦ Blackburn Landfill
- ♦ Landfill Gas-to-Energy Plant
- ♦ G&G Lumber, Inc.
- ♦ Pallet One, Inc.
- ♦ County Energy Facility
- ♦ Greenhouses
- ♦ Brick Manufacturer
- ♦ Sludge Processing Facility (Waste Water Biosolids)
- ♦ Organics Processing Facility (Compost)
- ♦ University Research Center

Currently, the County has contractual agreements with G&G Lumber, Inc. and Pallet One, Inc, which in part will provide wood waste to produce heat-steam energy that will flow to greenhouses, and sludge and organics processing facilities. To date there are private taxable investments of \$35 million and negotiations continue with other companies to guarantee a successful Eco-Complex and Resource Recovery Facility.



CATAWBA COUNTY UTILITIES AND ENGINEERING

Barry B. Edwards, PE, Director
Jack I. Chandler, Public Services Administrator
Cindy Meadows, Administrative Assistant III

Armin J. Wallner, Chief Building Services Official

Toni Norton, PE, Erosion Control Program

Tommy London, Landfill Project Manager
Rodney Hamby, Landfill Superintendent
Amanda Kain, Waste Reduction Coordinator/Educator



Government Center

100 A South West Blvd
Newton, NC 28658
828-465-8261

www.catawbacountync.gov



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