

# North Carolina Solid Waste and Materials Management Annual Report

# FY 2009- 2010



A comprehensive report outlining the state's efforts regarding solid waste and materials management, recycling and the status of waste management facilities, with additional report contributions from the state departments of Administration and Transportation.



**NORTH CAROLINA SOLID WASTE AND MATERIALS MANAGEMENT**  
**ANNUAL REPORT FY 2009-2010**

**State of North Carolina**  
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**N.C. Department of Administration – Moses Carey, Jr., Secretary**

**N.C. Department of Transportation – Eugene Conti, Secretary**

**ACKNOWLEDGMENTS**

The North Carolina Department of Environment and Natural Resources' (NCDENR) Divisions of Waste Management (DWM) and Environmental Assistance and Outreach (DEAO) would like to thank the county managers, solid waste directors and recycling coordinators who provided much of this information.

DEAO would also like to thank the North Carolina state agencies that diligently submit their reports to their office each year. Their hard work and dedication are much appreciated.

Special thanks to the following staff of DENR, the Department of Administration (DOA) and the Department of Transportation (DOT) for providing data and information for this annual report.

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*On the Cover: In 2010, DEAO embarked on a new campaign called Recycle More NC for the 35-year-old and older demographic. The goal is to not only increase the amount of curbside recycling, but also increase recycling participation at work and while out-and-about. More information at <http://www.recyclemorenc.org>*

## **North Carolina Solid Waste and Materials Management Annual Report**

This consolidated annual report is required by the North Carolina General Assembly.<sup>1</sup> This report combines several annual reports that were once issued separately by the N.C. Department of Environment and Natural Resources. The reports were the Comprehensive Solid Waste Management Report, the Scrap Tire Disposal Account Report, the White Goods Management Report and the Solid Waste Management Trust Fund Report. This report also includes information from the N.C. Department of Transportation regarding its use of recycled materials in contracts and data from the N.C. Department of Administration on bid procedures and purchases.

Solid waste management information presented comes from 631 (100 county and 531 municipal) local government annual reports and 378 (including 20 out-of-state) solid waste management facilities. These reports represent activities related to the management of solid waste for the period July 1, 2009 through June 30, 2010.

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<sup>1</sup> N.C.G.S. 130A-309.06, as amended in 2001

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## EXECUTIVE SUMMARY

### Key Findings

- Both the private and public sectors made significant investments in infrastructure to recover, process, and convert recyclable materials into goods, helping build a sustainable materials economy in North Carolina and creating jobs in the process.
- 9,395,457 tons of municipal and construction/demolition waste was generated and disposed of by North Carolina counties. This represents the third year of a decrease in solid waste disposal. Analysis suggests the drop to be a result of the continued economic recession that began in the fall of 2008, notably for waste previously created by the housing market boom.
- The state per capita disposal rate is approximately one ton per person per year, which represents a reduction of six percent from fiscal 1991-92.
- The N.C. Department of Revenue reported Solid Waste Tax collection of \$18,089,000.58, which would equate to 9,044,500.29 tons of taxable waste going into North Carolina landfills and exported out-of-state through North Carolina transfer stations. This number is less than the amount of waste reported to the Solid Waste Section by 350,957 tons of waste.
- North Carolina-permitted solid waste management landfills received a total of 8,727,947 tons of solid waste for fiscal 2009-10. 213,323 tons of waste were imported from other states. South Carolina and Virginia accounted for all imported waste.
- North Carolina exported 788,834 tons for fiscal 2009-10. Exported waste was sent to South Carolina, Virginia, Tennessee and Georgia.
- The recovery of traditional recyclable materials increased and the proportion of materials recovered and returned to the economy compared to disposal was the highest on record.
- The disposal bans on plastic bottles, oil filters, and wooden pallets that became effective on October 1, 2009 contributed significantly to the implementation of recovery programs and led to the highest recovery of oil filters and plastic bottles on record.
- The number of curbside recycling programs jumped from 214 to 259 and the number of households served by those programs increased to the highest level ever, at 1.62 million.
- Market prices for recycled materials rebounded from the dramatic drop experienced in 2008 and remained high throughout FY 2009-10.

### Recommendations

1. The state should continue to educate the public and industry in ways that ensure the effectiveness of the state's disposal bans.
2. The state should change requirements for notified sites and Land Clearing and Inert Debris Landfills (LCID) as a consequence of numerous egregious compliance issues, such as fires, waste outside landfills and unlawful waste disposal, as revealed in the 2010 review of sites.
3. The state should continue to study coal combustion byproduct (CCB) structural fills and develop any necessary means to effectively protect the environment from groundwater contamination by regulation or by statute.
4. The state should continue to promote and invest resources for gas collection equipment at landfills and white goods collection facilities in order to reduce the amount of air quality degradation in the state.
5. The state should consider and/or provide incentives or mandates to private waste haulers to offer recycling services to all of their customers.
6. The state should institute incentives to encourage the diversion of identified large waste streams, (such as food and wood wastes) from large generators of these wastes to recovery or reuse operations.
7. In an effort to meet the goal of having local governments recover two million tons of materials from the waste stream, the state should continue to seek new opportunities to increase recycling.

N.C. Solid Waste and Materials Management Annual Report  
Fiscal Year 2009-2010

# Chapter 1

Solid Waste Management



## DIVISION OF WASTE MANAGEMENT

### SOLID WASTE MANAGEMENT

#### Disposal in North Carolina

##### **Current year disposal**

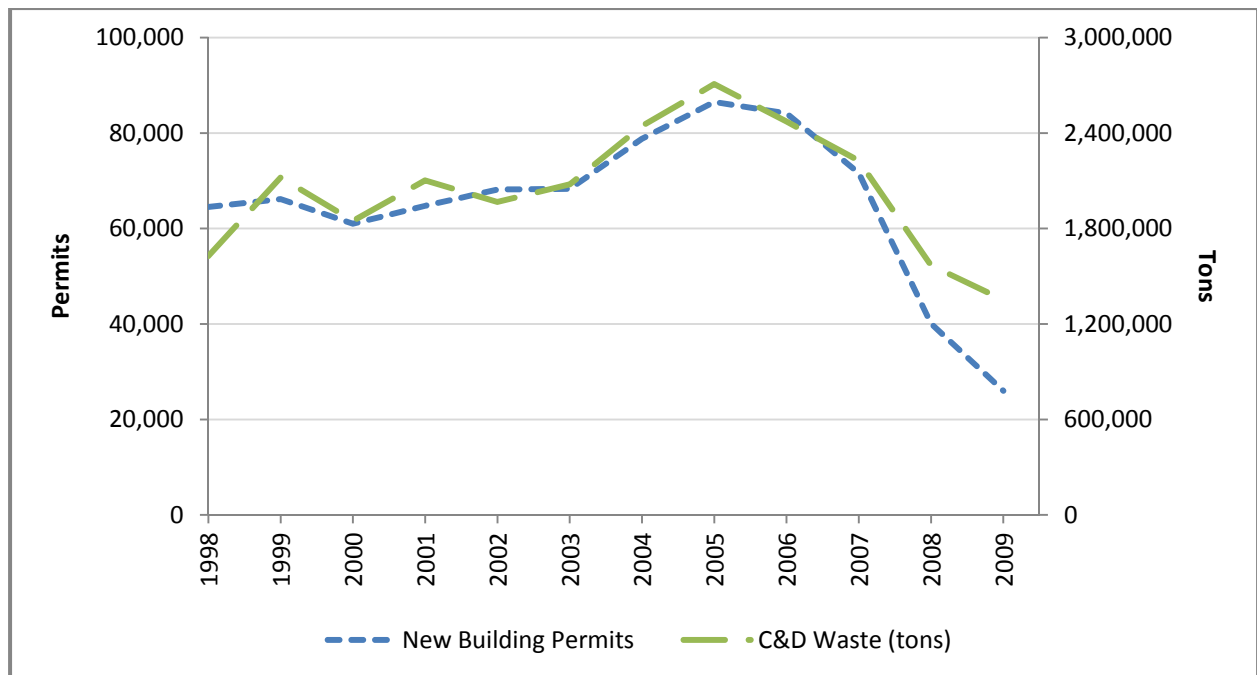
North Carolina communities disposed of a total of 9,395,457 tons of municipal solid waste [MSW] and construction and demolition [C&D] waste in waste management facilities located within North Carolina and out-of-state. The majority of this waste went into the 41 MSW landfills which were active in North Carolina during fiscal 2009-10. North Carolina saw a seven percent per capita decrease in waste disposal by North Carolina counties from the previous year. The state measures changes in waste disposal rates by comparing the current year's per capita waste disposal rate to the base year per capita rate for fiscal 1991-92. (Formula: Total Tons Disposed divided by Population = Per Capita Disposal Rate).

| Fiscal Year | Tons of waste disposed | NC population | Tons of waste per person in a year | Per capita waste change from Base Year 91-92 | Per capita waste change from previous year |
|-------------|------------------------|---------------|------------------------------------|--|--|
| 2009-2010   | 9,395,457              | 9,382,609     | 1.00                               | -6.4%  | -6.8%                                      |
| 2008-2009   | 9,910,031              | 9,227,016     | 1.07                               | 0.4%   | -13.7%                                     |
| 2007-2008   | 11,284,712             | 9,069,398     | 1.24                               | 16.3%  | -6.9%                                      |
| 2006-2007   | 11,837,104             | 8,860,341     | 1.34                               | 24.8%  | -1.4%                                      |
| 2005-2006   | 11,765,183             | 8,682,066     | 1.36                               | 26.6%  | 4.9%                                       |
| 2004-2005   | 11,029,485             | 8,541,263     | 1.29                               | 20.7%  | 1.5%                                       |
| 2003-2004   | 10,713,444             | 8,418,090     | 1.27                               | 18.9%  | 3.5%                                       |
| 2002-2003   | 10,236,960             | 8,323,375     | 1.23                               | 14.9%  | 0.7%                                       |
| 2001-2002   | 9,999,284              | 8,188,008     | 1.22                               | 14.1%  | 0.8%                                       |
| 2000-2001   | 9,752,510              | 8,049,313     | 1.21                               | 13.2%  | -6.3%                                      |
| 1999-2000   | 10,267,137             | 7,938,062     | 1.29                               | 20.9%  | 9.5%                                       |
| 1998-1999   | 9,214,323              | 7,797,501     | 1.18                               | 10.4%  | 5.0%                                       |
| 1997-1998   | 8,607,578              | 7,645,512     | 1.13                               | 5.2%   | -3.5%                                      |
| 1996-1997   | 8,741,727              | 7,490,812     | 1.17                               | 9.0%   | 10.9%                                      |
| 1995-1996   | 7,722,795              | 7,336,228     | 1.05                               | -1.6%  | -0.9%                                      |
| 1994-1995   | 7,624,144              | 7,180,525     | 1.06                               | -0.8%  | 6.2%                                       |
| 1993-1994   | 7,038,505              | 7,036,927     | 1.00                               | -6.5%  | 0.0%                                       |
| 1992-1993   | 6,890,818              | 6,892,673     | 1.00                               | -6.6%  | -6.6%                                      |
| 1991-1992*  | 7,257,428              | 6,781,321     | 1.07                               |  |  |
| 1990-1991   | 7,161,455              | 6,632,448     | 1.08                               |  |  |

\* Baseline Year

##### **Analysis of Waste into MSW and C&D Landfills**

Disposal of municipal solid waste by North Carolina counties totaled 7,861,470 tons for FY 2009-10. Disposal of C&D waste by counties for FY 2009-10 totaled 1,350,859 tons. The difference between the Appendix A1a and A1b totals is accounted for by imported totals 213,197 and 126 tons, respectively. Analysis of the 10 largest MSW landfills indicates a small (1%) increase in disposal when compared to last year's figures. The increase correlates to an increase in population. Analysis of the 10 largest C&D landfills shows a dramatic decrease of 27%. This overall decrease is most likely the result of the recession and corresponding decrease in the construction that has been observed statewide since 2008.

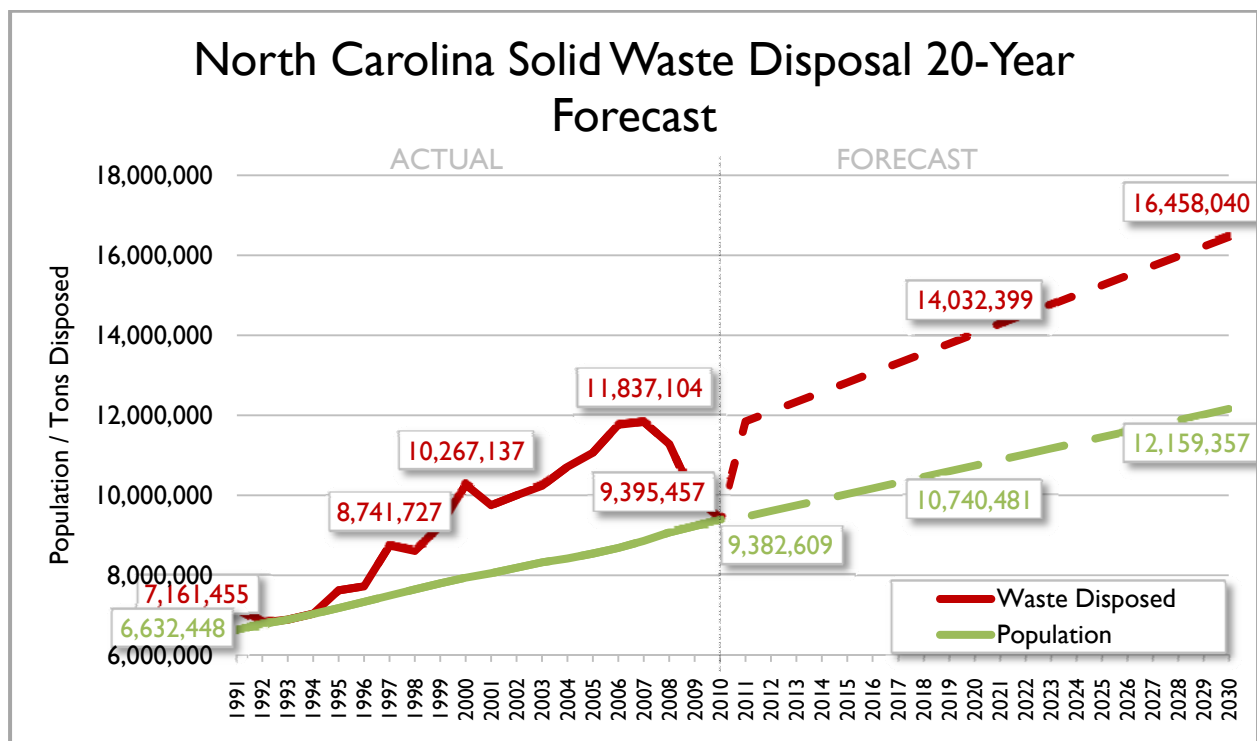


Data for graph of new building permits above provided by U.S. Census Bureau

An analysis of waste disposal tonnage and home building permits, as an indicator of economic trends, showed a strong correlation between waste and the economy. As the economy suffered in the last few years, building construction suffered, resulting in a decline of waste generation and disposal.

### Forecast

Using all previous data for disposal, a linear model suggests that the state will continue to see an increase in waste disposed. However, as has been seen in the last three years, this growth was mainly fueled by construction and demolition, which is tied to the economy. There are indications that the economy is beginning to grow again slowly. This growth may cause an increase in waste disposal, but it will not likely be as big as the model suggests. New landfill bans, such as those for electronics, and an increase in recycling program participation may also keep future waste disposal increases to a minimum.



Linear forecast chart for waste disposal in North Carolina

## Landfill Capacity

Landfill capacity is a measure of the amount of waste disposed in a permitted volume. Capacity can be shown in tons of waste, cubic yards of permitted volume, or years it would take to fill up the permitted volume based on rate of waste received. Capacity in North Carolina is mainly influenced by three factors: amount of waste disposed, permitted volume and compaction density.

1. The amount of waste disposed is measured in tons. The largest landfill in North Carolina regularly accepts more than one million tons annually. Other landfills may only receive 10,000 tons annually. The average for FY2009-10 was 180,000 tons. The amount of waste disposed influences landfill capacity by determining how fast the permitted volume is filled. A factor governing the amount of waste received is "service area". Service area is a geographically designated area from which a facility may receive waste. Few landfills in North Carolina can receive waste from all counties.
2. Permitted volume is the three-dimensional space (depth x area), as defined in the permit, into which waste can be placed. Permitted volume is measured in cubic yards. When a landfill applies for a permit, permitted volume is determined based on engineering calculations and environmental factors, such as how much volume or "airspace" is available. The airspace can be broken down into two categories: permitted volume and overall volume. Permitted volume is what is allowed under the current permit, whereas overall volume would include the permitted volume plus future envisioned permitted volumes. Permits are issued in five-year increments. When a landfill reaches the defined permitted volume or five years have passed, the landfill will need to request use of more of the overall volume by renewing their permit.
3. Compaction density is a measure of how many tons are placed in a cubic yard of volume. This is determined by dividing the total tons a facility has received by the volume filled. The average is around 0.61 tons/cubic yard. Waste type, cover, and operations are some of the variables for this factor.

Consider the follow examples:

Capacity in Years influenced by tons of waste disposed

| Permitted Volume | Avg Annual Tons | Compaction Density | Capacity in Tons | Capacity in Years |
|------------------|-----------------|--------------------|------------------|-------------------|
| 100,000          | 10,000          | 0.60               | 60,000           | 6                 |
| 100,000          | 1,000           | 0.60               | 60,000           | 60                |
| 100,000          | 100             | 0.60               | 60,000           | 600               |

Capacity in Tons and Years influenced by Compaction Density

| Permitted Volume | Avg Annual Tons | Compaction Density | Capacity in Tons | Capacity in Years |
|------------------|-----------------|--------------------|------------------|-------------------|
| 100,000          | 10,000          | 0.60               | 60,000           | 6                 |
| 100,000          | 10,000          | 0.50               | 50,000           | 5                 |
| 100,000          | 10,000          | 0.40               | 40,000           | 4                 |

Capacity in Tons and Years influenced by Permitted Volume

| Permitted Volume | Avg Annual Tons | Compaction Density | Capacity in Tons | Capacity in Years |
|------------------|-----------------|--------------------|------------------|-------------------|
| 100,000          | 10,000          | 0.60               | 60,000           | 6                 |
| 500,000          | 10,000          | 0.60               | 300,000          | 30                |
| 1,000,000        | 10,000          | 0.60               | 600,000          | 60                |

### Current Status

North Carolina has 41 operational municipal solid waste landfills and one municipal solid waste incinerator. The total remaining capacity of all North Carolina MSW landfills measures approximately 374 million cubic yards, equating to approximately 228 million tons of MSW waste. The estimate was obtained using the state's average utilization factor (average rate of tons of waste per cubic yard) of 0.61 tons of waste per cubic yard of air space and does not include waste exported to out-of-state landfills. If North

Carolina's rate of landfill use remains steady at approximately 7.4 million tons annually, the state would have 30 years of landfill capacity remaining.

Overall statewide capacity is sufficient, although some regions of the state have limited capacity. Regions may experience disruptions and additional costs as facilities close, open, change jurisdictions or alter the average distance waste is transferred. Much of the state's capacity is not widely available due to permit conditions, franchise arrangements, service areas and distance.

In North Carolina, large quantities of waste normally travel less than 100 miles one-way. Many landfills' franchise agreements only allow them to accept waste from a particular distance around the landfill. Examples of other limiting factors affecting capacity are illustrated by the Camp Lejeune landfill, which is exclusively used for waste from the Marine Corps base; the Alamance County landfill, which is permitted to accept only Alamance County waste; and the Upper Piedmont landfill, which is permitted for a maximum of 600 tons per day. Additionally, some landfill owners/operators choose not to accept waste from other jurisdictions, although their permit and franchise allow it. Also, landfill owner/operators may elect not to construct or use all of the permitted space.

### Industrial Landfills, including Coal Combustion Power Plants

In North Carolina, there are 15 active landfills serving industry. Seven of the landfills serve the electric power industry; four of the landfills serve the pulp and paper industry, and two of the landfills serve automotive and battery industries. The remaining landfill originally served the automotive industry, but no longer takes waste. This landfill has an active permit because the "waste" involved was automotive metals. These metals, such as steel, aluminum and some precious metals, are of significant value. The waste is being mined from the landfill and processed to recover resources. See Appendix A2 for a listing of all active industrial landfills and corresponding disposal figures.

In the last year, landfills which serve the electric power industry have received attention from the media, environmental groups and the EPA. The main reason for the attention is the December 22, 2008 Tennessee Valley Authority Power Plant disaster, involving a failure of the landfill and surface impoundment system in Kingston, Tennessee. Several square miles of land and homes were impacted with liquefied coal ash. In North Carolina, there are six landfills serving the electric power industry. They are proximal to the power plants and on their property. Duke Power and Progress Energy landfills are in Catawba, Gaston, Rutherford, Stokes (two landfills) and Person Counties. There is an additional landfill under construction in Catawba County which will come on-line this year. Halifax County owns and operates a stand-alone landfill which serves the power industry.

These landfills are designed with liners and leachate control, and all have monitoring systems in place in order to monitor groundwater protection. In addition to coal ash, the landfills are designed to receive flue gas desulfurization (FGD) material, the material which results from air quality control devices at the power plants. A large portion of the ash and FGD (often called coal combustion residuals CCR) is utilized by industry in the production of products such as cement, road beds and sheetrock and is thus diverted from the landfills. Coal fired power plants also dispose of CCR in surface impoundments, which are regulated by DENR's Division of Water Quality and by Division of Land Resources (Dam Safety).

The EPA has generated proposed regulations for the disposal of CCR in response to the TVA disaster. These regulations propose two options for the handling of this waste, one as a solid waste and the other as a hazardous waste. If it is determined that the waste will be managed as solid waste, waste going into a landfill will be handled in a similar fashion as presently, in lined landfills with groundwater controls and monitoring. The Division of Waste Management has commented to the EPA suggesting enhanced regulation under Subtitle D, including adding financial assurance for closure, post-closure, and corrective action.

### Household Hazardous Wastes

Household hazardous wastes (HHW) are hazardous household chemicals which are poisonous and/or toxic, ignitable, corrosive or reactive with other chemicals. HHW includes items such as pharmaceuticals, household cleaners, pesticides, herbicides, fertilizers, pool chemicals, paints, automotive fluids and batteries, among others. These chemicals are dangerous to human health and the environment. The Solid Waste Section recommends that HHW be properly disposed by citizens at a HHW collection site. Local HHW collections sites may be temporary one day events or permanent ongoing collections sites.

To date, of the 100 counties in North Carolina, only 13 have 17 permanent household hazardous waste collection sites. These thirteen counties alone collected 1,930,141 pounds of flammable liquids; 160,164 pounds of flammable solids; 107,000 pounds of poisonous materials; 73,780 pounds of oxidizing substances; 78,082 pounds of various lead-acid, cadmium, lithium, and alkaline batteries and 1,534,624 pounds of electronics containing heavy metals.

County and city governments, as well as local industries such as Cree Inc. in Wake County, hold one-day HHW events which benefit the community. In FY 08, 26 communities held 30 one-day collection events. In FY 09, 28 communities in North Carolina held 37 one-day collection events. In FY 10, 28 communities held 48 temporary collection events.

These one-day events cost an average of \$25,468.91, with an average citizen participation rate of 727 citizens. This represents roughly 605 households per event. A complete listing of locations of permanent HHW sites as well as one-day events can be found in Appendix E – Household Hazardous Waste in this report.

Reporting of amounts of household hazardous wastes collected at temporary events is incomplete. Of 48 events held in 28 counties, only 13 events were reported with amounts and types of HHW collected. However, totals among reporting counties lists' of commonly collected hazardous substances include 156,120 pounds of flammable liquids; 142,525 pounds of electronics waste (which contain large amounts of heavy metals known to be harmful to human and animal health); 5,743 pounds of pesticides, herbicides and other poisonous materials and 3,613 pounds of batteries containing acid, lead, cadmium, lithium and alkaline materials.

These are toxic and poisonous materials that were kept out of North Carolina's landfills and waterways. HHW continues to be an area of growing concern by citizens as is demonstrated by the continually growing numbers of events and counties initiating household hazardous waste collection programs.

## Medical Waste

Medical waste is defined in statute G.S.130A-290(18) as waste generated in the diagnosis, treatment, or immunization of humans or animals. Radioactive, chemical, pharmaceutical, chemotherapeutic and biohazardous wastes generated at hospitals and other health care facilities fit the statutory definition of medical waste.

The Solid Waste Section is charged with overseeing the segment of the solid waste administrative code (15A NCAC 13B .1200) which addresses the rules for disposal of biohazardous medical waste from commercial healthcare facilities. Health care facilities can include, but are not limited to, hospitals, out-patient clinics, doctor's offices, dentists' offices, veterinarians, and long-term care facilities.

The proper disposal and regulation of potentially infectious hazardous material has important implications for public health. Cosmopolitan travel and North Carolina's hub of medical and research facilities make the proper disposal of infectious material crucial to protecting public health. The manner of disposal of, pathological waste (human tissues, organs, and body parts and carcasses of infected animals), microbiological waste (cultures and stocks of infectious organisms), and blood and body fluids in amounts in excess of 20mls (excluding urine and feces) which are defined as *regulated* medical wastes, is specified by law and regulation. Wastes outside this definition are considered to be *non-regulated* (this includes needles, lancets, and other wastes known as sharps) solid waste only, and for the purposes of this discussion may be classified as municipal solid waste, although some wastes may come under the authority of local government agencies.

Regulation 15A NCAC 13B .1203 requires that pathological and microbiological waste and blood and body fluids receive treatment before disposal to the environment to reduce the risk of infection to the public. Blood and body fluids are usually treated by disposal in a sanitary sewer, which is connected to a waste water treatment facility. Microbiological waste may be treated with steam sterilization, chemical sterilants, or microwave radiation. The only treatment available, by rule, for pathological waste is incineration. It is generally accepted that treatments for pathological waste must render the waste unrecognizable and biologically noninfectious.

Fortunately, less than 10 percent of the infectious waste generated at hospitals and other health care facilities can be considered to be pathological waste. Health care facilities which choose to incinerate non-regulated waste outside the definition of pathological waste do so at their own discretion.

Recently, private firms have innovated and devised alternative methods of treatment for regulated medical waste and for pathological waste in particular. Companies have designed treatment technologies which use shredding to make the waste unrecognizable and uniform in size and shape, which makes it easier to treat and reduces its bulk.

Two firms have applied for and have been given approval to market their treatment technologies in North Carolina. The first, approved in 2006, shreds the waste and then uses a high concentration of ozone as a final treatment, to reduce the potential risk of infection. The second was approved this past year. It, too, uses shredding to reduce the size of the waste and then treatment with a proprietary calcium oxide solution to reduce the risk of infection. These new medical waste treatment systems offer optional methods of treating regulated medical waste.

### Solid Waste Management Account

The Solid Waste Management Account was established by the N.C. General Assembly's Solid Waste Management Act. Effective July 1, 2007, all applications for a solid waste management facility permit were assessed a fee. In addition, the act allows an annual permit fee to be charged for facilities. Deadlines, 90-day completion review and one-year final permit actions were also requirements of the new law. The fees collected are used to support the solid waste management program, especially for permitting and compliance of solid waste facilities. Fees are used for the management of solid waste, including permitting costs, compliance and inspection costs, financial assurance investigations, and collection of fees.

In the first year, application fees were collected on all permit applications which were "pending" as specified by the statute. This included numerous applications for permits which were under review on as of that date, or were in the queue. A number of these applications were for new landfills, and because of a moratorium on new landfills between Aug. 1, 2006 and Aug. 1, 2007, these applications were, by law, not processed.

The number of permits issued does not necessarily coincide with the number of permit fees paid. The permit fee is normally paid at the time the application is received, not when it is issued. The fee usually pays for more than one permit decision, such as a permit to construct as well as a permit to operate. The permit decisions may also not always be made within the same fiscal year as the year the fee is paid. Permits issued primarily include permits to continue to operate existing facilities.

| Permits Issued<br>and Permit<br>Application<br>Fees Paid | FY07-08           |                     |              | FY08-09           |                     |              | FY09-10           |                     |              |
|--|-------------------|---------------------|--------------|-------------------|---------------------|--------------|-------------------|---------------------|--------------|
|  | Permits<br>Issued | Permit<br>Fees Paid | Fees<br>Paid | Permits<br>Issued | Permit<br>Fees Paid | Fees<br>Paid | Permits<br>Issued | Permit<br>Fees Paid | Fees<br>Paid |
| Construction and Demolition Landfill                     | 14                | \$214,500           | 21           | 13                | \$240,000           | 49           | 16                | \$86,000            | 10           |
| Compost Facility   | 0                 | \$1,250             | 1            | 1                 | \$1,000             | 2            | 3                 | \$16,000            | 12           |
| Household Hazardous Waste                                | 20                | \$0                 | 0            | 0                 | \$0                 | 0            | 31                | \$8,000             | 6            |
| Incinerators   | 0                 | \$1,750             | 2            | 0                 | \$1,500             | 1            | 1                 | \$1,000             | 2            |
| Industrial Landfills                                     | 12                | \$118,500           | 10           | 1                 | \$8,750             | 5            | 14                | \$52,500            | 6            |
| Land Clearing and Inert Debris Landfill                  | 2                 | \$2,500             | 5            | 6                 | \$76,000            | 12           | 25                | \$8,750             | 16           |
| Medical  | 0                 | \$0                 | 0            | 0                 | \$0                 | 0            | 1                 | \$0                 | 0            |
| Mixed Waste Processing                                   | 0                 | \$1,750             | 1            | 1                 | \$0                 | 0            | 0                 | \$0                 | 0            |
| Municipal Solid Waste Landfill                           | 34                | \$569,000           | 33           | 19                | \$92,250            | 17           | 32                | \$229,000           | 27           |
| Structural Fill  | 0                 | \$0                 | 0            | 0                 | \$0                 | 0            | 1                 | \$0                 | 0            |
| Scrap Tire   | 0                 | \$0                 | 0            | 0                 | \$0                 | 0            | 2                 | \$750               | 5            |
| Tire Recovery and Processing                             | 0                 | \$1,750             | 1            | 0                 | \$0                 | 0            | 0                 | \$0                 | 0            |
| Tire Landfill  | 0                 | \$500               | 1            | 0                 | \$0                 | 0            | 0                 | \$0                 | 0            |
| Recovery Processing and Storage Facility                 | 2                 | \$2,500             | 2            | 4                 | \$10,750            | 5            | 0                 | \$8,500             | 6            |
| Transfer Stations  | 18                | \$56,000            | 17           | 21                | \$163,500           | 35           | 23                | \$72,000            | 23           |
| <b>TOTALS</b>  | <b>102</b>        | <b>*\$970,000</b>   | <b>94</b>    | <b>66</b>         | <b>\$593,750</b>    | <b>126</b>   | <b>149</b>        | <b>\$482,500</b>    | <b>113</b>   |

\* Includes backlog of permits at the passage of Senate Bill 1492

#### Annual Permit Fee Collections for Fiscal 2009-2010

| Facility Types                                  | Annual Permit Collections | Fee Amount | TOTAL            |
|---|---------------------------|------------|------------------|
| Large Compost                                   | 31                        | \$500      | \$15,500         |
| Industrial Landfills                            | 12                        | \$2,750    | \$33,000         |
| Incinerators                                    | 4                         | \$500      | \$2,000          |
| Land Clearing and Inert Debris Landfills (LCID) | 67                        | \$500      | \$33,500         |
| Municipal Solid Waste Landfills (MSWLF)         | 41                        | \$3,500    | \$143,500        |
| Mixed Waste Processor                           | 9                         | \$500      | \$4,500          |
| Tire Landfill                                   | 2                         | \$500      | \$1,000          |
| Recovery, Processing and Storage                | 22                        | \$500      | \$11,000         |
| Tire Recovery and Processing                    | 2                         | \$500      | \$1,000          |
| Transfer Stations                               | 82                        | \$750      | \$60,750         |
| Construction & Demolition Landfills (CRLF)      | 52                        | \$2,750    | \$143,000        |
| MSW Incinerator                                 | 1                         | \$500      | \$500            |
| Post Closure Industrial Landfill                | 16                        | \$500      | \$8,000          |
| Post Closure MSWLF                              | 119                       | \$1,000    | \$119,000        |
| Post Closure CRLF                               | 13                        | \$500      | \$6,500          |
| <b>TOTAL COLLECTED</b>                          | <b>473</b>                |            | <b>\$582,750</b> |

## Facility Fee Collection

| Waste Facilities FY 2009-10  | Annual Fee Charged | Number in North Carolina |
|--|--------------------|--------------------------|
| Closed Landfills which require inspection  | Yes, but not all   | 487                      |
| Coal Ash Structural Fills  | No                 | 71                       |
| Construction & Demolition Landfills  | Yes                | 36                       |
| Construction & Demolition Landfills over Municipal Solid Waste                     | Yes                | 17                       |
| Household Hazardous Waste Collection Sites   | No                 | 17                       |
| Incinerator - Industrial Waste   | Yes                | 1                        |
| Incinerator - Medical Waste  | Yes                | 2                        |
| Industrial Landfills   | Yes                | 15                       |
| Land Clearing and Inert Debris Landfills   | Yes                | 65                       |
| Material Recovery Facilities   | Yes                | 11                       |
| Municipal Solid Waste - Waste To Energy Facilities                                 | Yes                | 1                        |
| Municipal Solid Waste Landfills  | Yes                | 43                       |
| Notified - Land Clearing and Inert Debris Landfills                                | No                 | 659                      |
| Notified - Treatment and Processing Facilities                                     | No                 | 71                       |
| Notified - Yard Waste  | No                 | 267                      |
| Septage Detention and Treatment Facilities   | No                 | 176                      |
| Septage Firms  | No                 | 519                      |
| Septage Land Application Sites   | No                 | 148                      |
| Solid Waste Compost Facilities (4 different types)                                 | Yes, but not all   | 45                       |
| Tire Monofills   | Yes                | 2                        |
| Tire Treatment and Processing/Collection Facilities                                | Yes                | 5                        |
| Transfer Stations  | Yes                | 88                       |
| Treatment and Processing Facilities - Construction & Demolition Waste              | Yes                | 1                        |
| Treatment and Processing Facilities - Medical Waste                                | Yes                | 3                        |
| Treatment and Processing Facilities - Yard Waste or Land Clearing and Inert Debris | Yes                | 20                       |
| <b>TOTAL</b>   |                    | <b>2,770</b>             |

## State Regulatory Programs

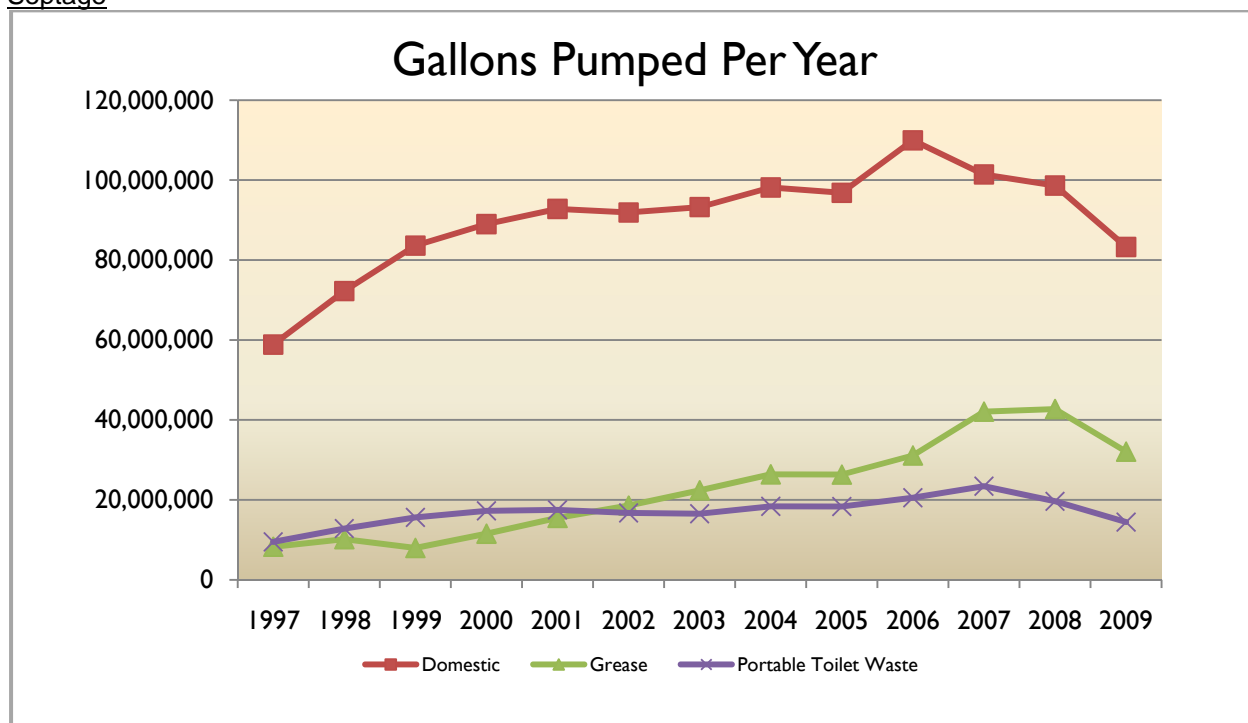
### **Solid Waste Section – Composting and Land Application Branch**

The Composting and Land Application Branch is responsible for assuring that solid wastes are managed in a responsible, consistent manner that will protect public health and the environment across North Carolina. The major areas of emphasis in the program are permitting septage land application sites, septage detention and treatment facilities, septage management firms, solid waste compost facilities, and treatment and processing facilities. The branch is also responsible for determining wastes and by-products that can be land-applied for beneficial uses and the best management practices to be followed for each by-product to assure protection of public health and the environment.



In FY 2009-10, the branch managed 40 Solid Waste Compost Facilities, 123 Yard Waste Notifications (small Type I compost facilities), 11 Treatment & Processing Facilities, and 77 Treatment & Processing Notifications (small T&P facilities).

## Septage



The volumes of septage pumped in 2009 (134,000,000 gallons total) continue to show an overall decline in septage managed compared to the industry high figures from 2006. The decline in volume of septage managed is a direct result of the recent recession. Portable toilet waste volumes are directly tied to the building market while domestic septage volumes are influenced by a variety of factors including postponement of preventative maintenance of onsite systems. Grease septage volumes continue to require the industry to look at alternative management options other than discharge at municipal wastewater treatment plants and land application. Grease treatment facilities have been built and permitted to manage this difficult wastestream across the state. Municipalities continue to implement local ordinances to require the pumping of restaurant grease traps on set intervals to prevent sewer system overflows caused by fats, oil and grease discharged into sewers. Dewatering of grease trap waste produces an effluent that can be discharged to the municipal sewer system or land applied and a dewatered cake that can be landfilled or composted. There are currently eight septage dewatering facilities permitted within the state with five additional applications pending.



Septage Dewatering Facility



Septage Training Event

Training of septage management firms and septage land application site operators continues to be a core component of the Composting and Land Application Branch. Branch staff participate in ten training events each year across the state where staff from 510 septage firms and 136 land application site operators are trained. Annual training events are coupled with new operator training for individuals who are new to the pumping industry in North Carolina. Advancements in the onsite wastewater sector have

introduced new wastestreams to be managed, such as peat and other media types. These new wastestreams have required specific training on the replacement and disposal of these materials.

### Compost Facilities



In Vessel Compost System



Compost Stakeholder Process

In FY 2009-10 there was significant interest in the diversion of organics from the municipal solid waste wastestream. Thirteen solid waste compost facilities accepted food waste in FY 2009-10 for a total reported tonnage of 23,869. An additional 29,000 tons of food processing residuals were accepted by solid waste compost facilities. A compost stakeholder process was concluded in September of 2010. The stakeholder group was comprised of DENR staff, consultants and compost facility operators from throughout the state. This successful collaborative process allowed the industry to comment on stormwater and process wastewater permitting requirements that will be implemented for compost facilities in 2011. The number of permitted facility types in FY 2009-10 did not change significantly from the previous year. 18 additional applications have been filed for small Type I facilities (YWN) to process yard waste.

### **Solid Waste Section - Field Operations Branch**

The Solid Waste Section's Field Operations Branch staff have varying job responsibilities and perform a wide range of duties. The nature of the work involved with regulating solid waste requires that the staff tasked with these duties have a wide range of experience, participate in regular training exercises and stay familiar with new and innovative technologies. All staff members of the branch are required to have a four-year college science degree and undertake an extensive training schedule that includes Hazardous Waste Operations and Emergency Response (HAZWOPER) and Federal Emergency Management Agency (FEMA) National Incident Management System (NIMS) and other training more specific to the individual positions of Hydrogeologist, Environmental Senior Specialist and Environmental Program Supervisor. Branch staff responsibilities include providing technical assistance and oversight to the regulated community and private citizens and, if necessary, initiating enforcement action, and disaster and emergency response. There are more than 22 different types of regulated solid waste management facilities (Table 1).

## Solid Waste Management Facilities Inspected by the Field Operations Branch

| Facility Type  | Number of Facilities |
|--|----------------------|
| Closed Landfills which require inspection  | 487                  |
| Coal Ash Structural Fills  | 71                   |
| Construction & Demolition Landfills  | 36                   |
| Construction & Demolition Landfills over Municipal Solid Waste                     | 17                   |
| Household Hazardous Waste Collection Sites   | 17                   |
| Incinerator - Industrial Waste   | 1                    |
| Incinerator - Medical Waste  | 2                    |
| Industrial Landfills   | 15                   |
| Land Clearing and Inert Debris Landfills   | 65                   |
| Material Recovery Facilities   | 11                   |
| Municipal Solid Waste - Waste To Energy Facilities                                 | 1                    |
| Municipal Solid Waste Landfills  | 43                   |
| Notified - Land Clearing and Inert Debris Landfills                                | 659                  |
| Notified - Treatment and Processing Facilities                                     | 71                   |
| Notified - Yard Waste  | 267                  |
| Solid Waste Compost Facilities (4 different types)                                 | 45                   |
| Tire Monofills   | 2                    |
| Tire Treatment and Processing/Collection Facilities                                | 5                    |
| Transfer Stations  | 88                   |
| Treatment and Processing Facilities - Construction & Demolition Waste              | 1                    |
| Treatment and Processing Facilities - Medical Waste                                | 3                    |
| Treatment and Processing Facilities - Yard Waste or Land Clearing and Inert Debris | 20                   |
| <b>TOTAL</b>   | <b>1,927</b>         |

Staff responsibilities at these facilities include: inspecting explosive gas and groundwater monitoring systems, inspecting leachate collection systems, investigating leachate releases, overseeing construction and closure of landfills and ensuring that proper engineering and operational measures are employed at landfills. At an active facility, a routine audit may take as little time as half a day at a transfer facility to multiple days for a full inspection of a Subtitle D landfill and other solid waste units within the facility. Field staff is also responsible for dealing with complaints involving illegal dumps across the state because of the public health and environmental threat these sites can pose for many years.

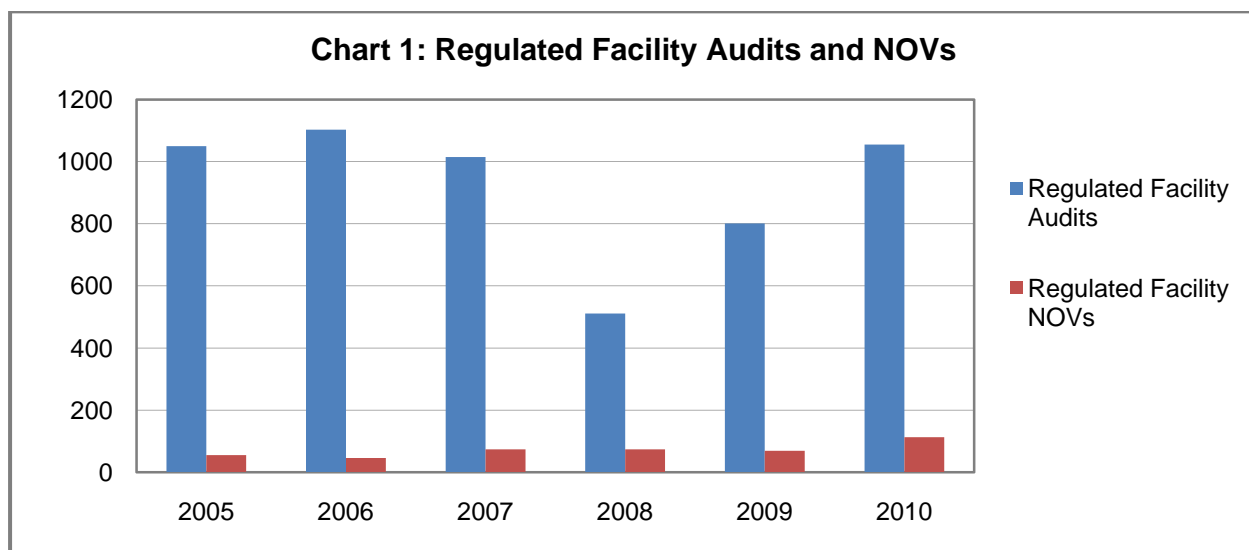


### Regulated Facilities

The largest portion of Environmental Senior Specialist time was spent conducting audits and providing technical assistance at regulated facilities during 2010. During 2010, 1055 audits were performed at regulated facilities (Chart 1). Of these audits, only 113 resulted in the issuance of a Notice of Violation (NOV).

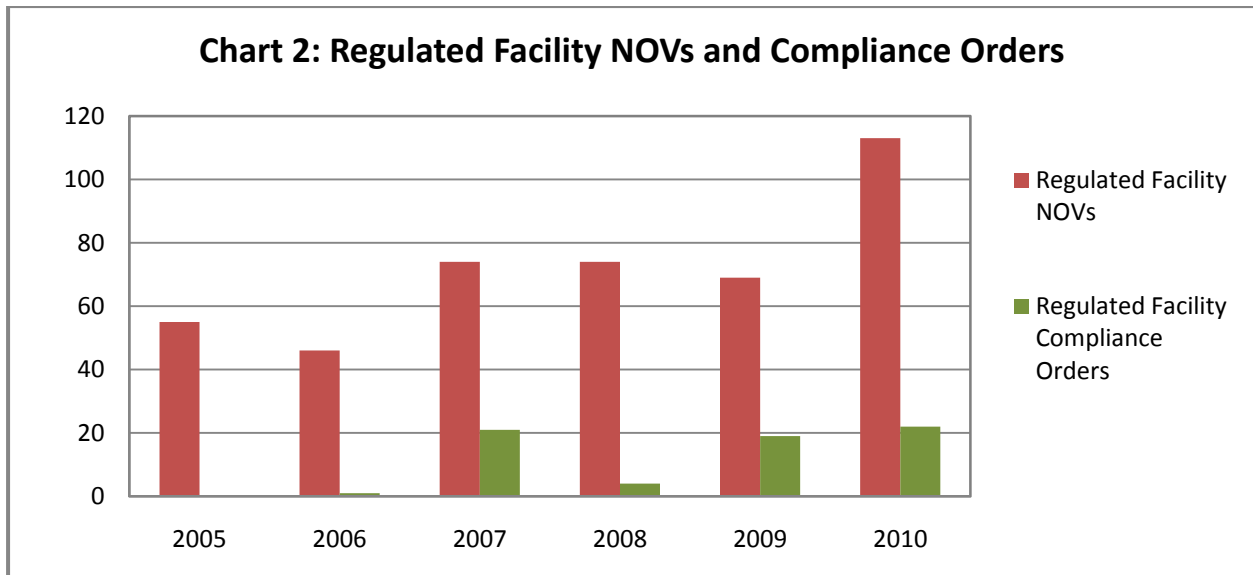


Of the 113 NOVs issued, the violations either remained unresolved after a deadline or the severity of the violation necessitated the issuance of 22 compliance orders during 2010 (Chart 2). The number of facility audits showed a downward trend between 2005 and 2008 (Chart 1). The major factors that contributed to the lower number of audits performed during 2007 and 2008 were a high turnover of field staff and special assignments during that period.



During 2007, 2009 and 2010, there was an increase in the number of compliance orders (COs) issued to regulated facilities, mainly for mismanagement of leachate, receiving waste the facility was not permitted to receive, and failure to follow approved disposal processes (Chart 2). There were a lower number of compliance orders issued in 2008 to regulated facilities. Additionally, during 2008, compliance actions were initiated against an increased number of illegal sites (Chart 3). The increased time that was required to deal with compliance action at illegal sites also contributed to the reduction in the number of audits performed at regulated facilities.

**Chart 2: Regulated Facility NOVs and Compliance Orders**



Since 2007, there has been an increased effort to inspect types of solid waste facilities that have had minimal regulatory oversight in previous years. For example, an increased focus on Land Clearing and Inert Debris (LCID) “Notified” sites and structural fills constructed using coal-combustion byproducts has contributed to an increase in the notice of violations (NOVs) issued to these facilities in the past four years (Chart 2). In 2010, 33% of the regularly scheduled audits performed at notified LCIDs resulted in NOVs being issued as compared to all regulated facility audits in 2010, where only 11% resulted in the issuance of an NOV. Due to the high incidence of compliance issues at notified sites, the branch is developing a strategy to change the way in which notified sites are regulated, including proposing rule revisions. A significant amount of time has also been used to provide educational and technical assistance to the owners and operators of these sites. The field staff conducted a total of 23 training events and presentations.

#### Illegal Dumping

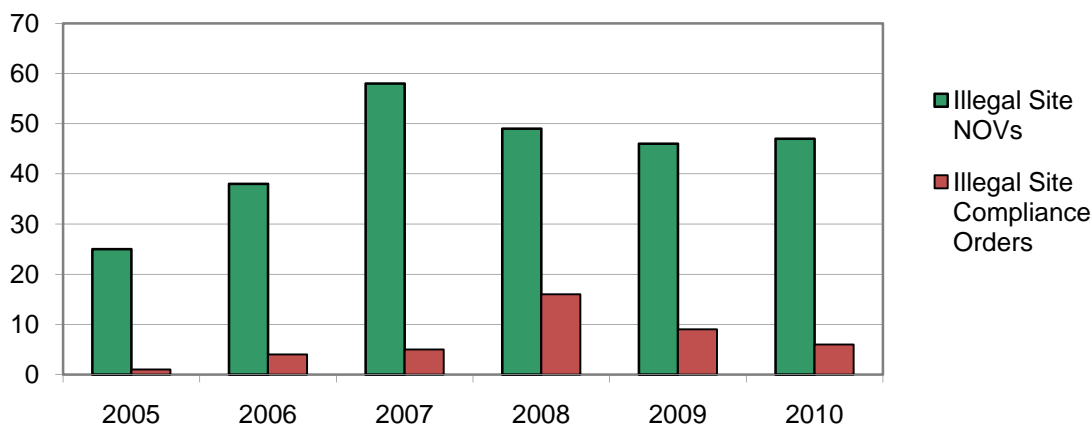


Illegal dumps are an important compliance issue because these sites have the potential to pose a significant threat to surface and groundwater, cause health-related impacts to drinking water, generate explosive gases and pose fire hazards. Enforcement action against an illegal dumper is designed to deter illegal dumping, achieve complete removal of illegally dumped waste and restore the dump area to its original condition. Some dumpsites contain physical and chemical hazards, such as batteries, resins, epoxies, waterproofing agents, asbestos and oil. Because asbestos is used in more than 4,000 building products, including cementitious roofing shingles, ceiling tile, insulation, and vinyl floor coverings, asbestos is frequently found in illegal dumps. The illegal disposal of gypsum drywall, another common material found in illegal dumps, can produce hydrogen sulfide gas, which is offensive in odor, toxic and explosive in high concentrations. Lead-based paint (LBP) is yet another area of concern for illegal dumpsites. Illegal dumps can create other human health risks by providing breeding places for insects, rodents and other vectors and pests. In addition, illegal disposal of waste results in numerous financial losses. The cost imposed by illegal dumping extends to the lost profits of permitted solid waste disposal

facilities and lost county tax revenues, as well as a decline in surrounding property values. For more information about the Field Operations illegal dumping prevention initiative see:

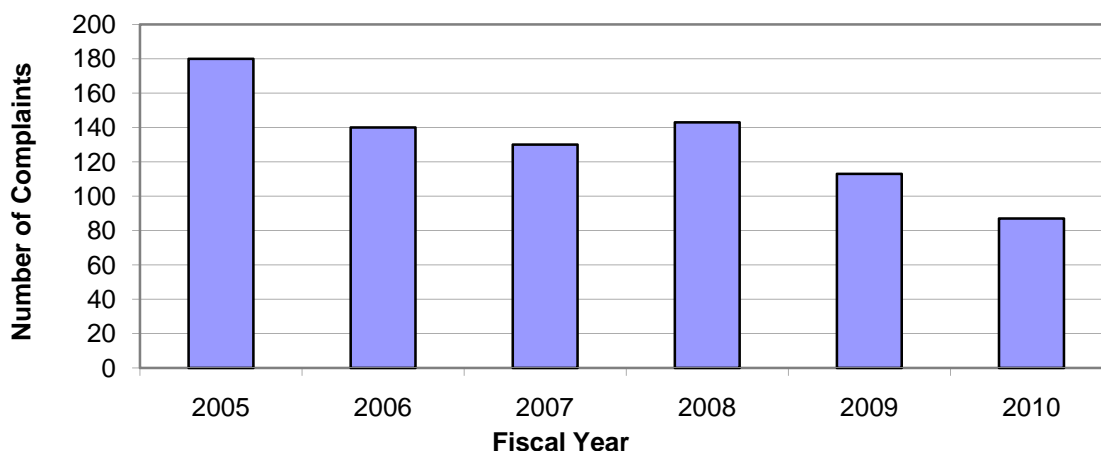
<http://portal.ncdenr.org/web/wm/sw/illegaldumping>

**Chart 3: Illegal Site NOVs and Compliance Orders**



The Field Operations Branch typically approaches illegal dumping compliance actions by issuing the violator a notice of violation requiring cleanup of an illegal dump. If the violator responds and complies with the NOV, further enforcement proceedings may be avoided, depending on several factors, including the waste type(s) present, size and location of the dump, financial gain by the violator, impact to the property by the activity, etc. Most NOVs involving land-clearing debris are resolved and therefore do not result in the issuance of a CO. The decline in COs issued to illegal sites in 2009 and 2010 can be explained, in part, as a result of the increased focus on illegal sites enforcement action by compliance staff in recent years (Chart 3). For similar reasons, there has been a decreasing trend in illegal site complaints received by the Field Operations Branch during the past five years (Chart 4).

**Chart 4: Complaints Received for Illegal Sites**



#### Coal Ash Combustion By-product Structural Fills

During 2010, branch staff continued efforts to verify compliance for new and existing coal combustion by-products structural fills. Structural fills are defined by 15A N.C. Administrative Code 13B .1701 as “an engineered fill with a projected beneficial end use constructed using coal combustion by-products (CCB) properly placed and compacted.” There are more than 75 properties throughout North Carolina with CCB structural fills. Compliance at CCB structural fills is important because improperly constructed or maintained structural fills have the potential to contaminate groundwater and surface water. Although not required by rule, groundwater monitoring data have been obtained from two structural fills. In both cases,

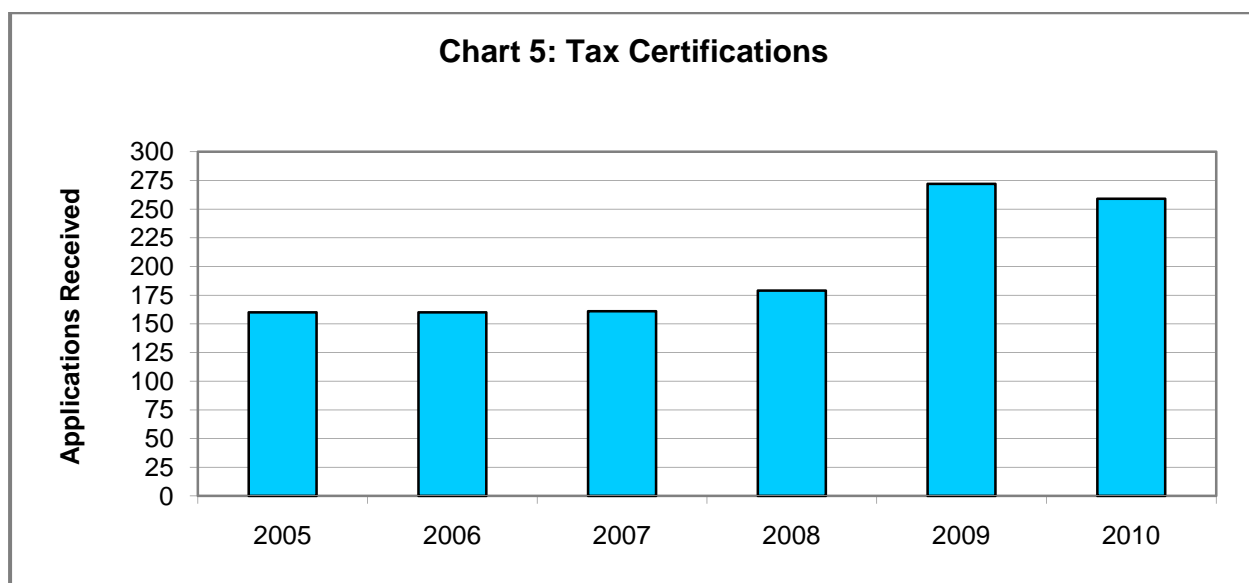
the coal ash used in the structural fills impacted groundwater. One Compliance Order and 15 NOV's were issued in 2010 for structural fills with violations of the rules, which resulted in the responsible parties working to bring the site back into compliance.

#### Educational and Training Assistance

Educational and training assistance conducted by branch staff are provided to the general public, businesses, consultants, solid waste facility staff, attorneys, the media, and other state, local and federal agencies. A few examples of educational and training assistance provided by staff in 2010 include working with local governments to develop and enhance their environmental enforcement programs, recycling landfill-banned wastes, management of solid waste relating to management of unique waste, stream, disaster debris management training, solid waste management facility operator training, public meetings, and providing technical assistance through telephone calls and emails.

#### Tax Certification Program

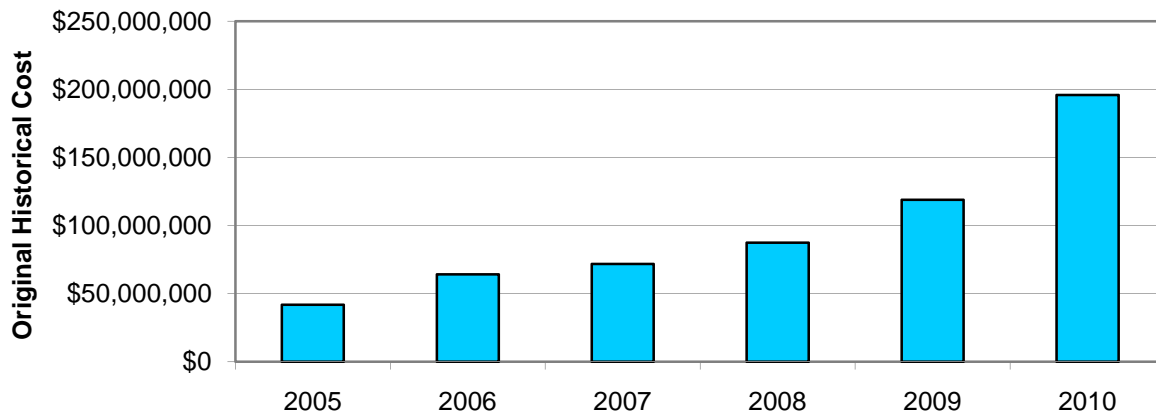
The purpose of the tax certification program is to encourage resource recovery and recycling by making reuse of waste materials more economically desirable for businesses. Equipment and facilities may be approved for an exemption from ad valorem taxes if they are used entirely for recycling purposes or resource recovery. More information about the Tax Certification Program can be found on our Web page, <http://portal.ncdenr.org/web/wm/sw/taxcert>.



Field Operations Branch field staff received 259 tax certification applications in 2010, which appears to reflect leveling of the trend in the number of applications received after a significant increase in 2009 (see Chart 5). Nearly all applications require site inspections/audits, which frequently include facilities with complex industrial processes including: steel production, craft paper production, glass products production, or meat rendering facilities. Field Operations Branch staff must acquire a basic understanding of a wide array of complicated industrial processes before approval of facilities and equipment is granted.

Consistent with the increase in the number of applications received, there has been an increase in the original historical cost of the equipment for which certification is being requested. Although the number of applications received fell slightly during 2010 as compared to 2009, the original historical cost of the equipment which met the criteria for tax certification has continued to steadily climb. During the past six years, the reported value of certified equipment has more than quadrupled (See Chart 6).

**Chart 6: Tax Certifications - Original Historical Cost for Equipment**



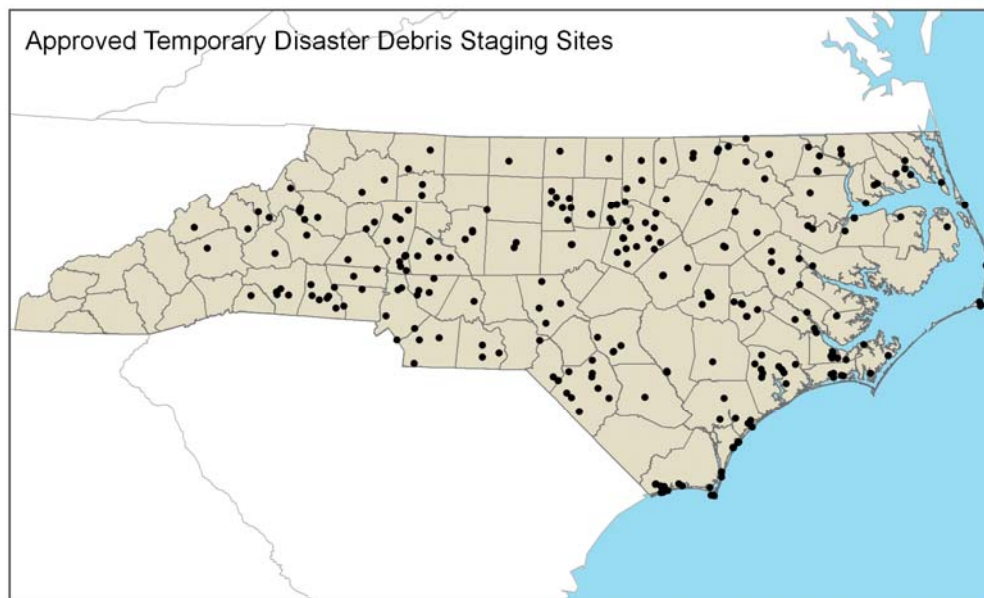
Disaster Response and Emergency Site Selection Evaluations

Field Operations Branch staff is tasked with responding to and assisting local governments in the planning and response to natural and man-made disasters such as tornados, hurricanes, ice storms, floods, landfill fires, etc. Branch staff serves in the N.C. Emergency Management Emergency Operations Center during and after disasters and participates in routine training exercises. Staff has also received training in the National Incident Management System and is qualified to assist in a FEMA response to natural and man-made emergencies. For emergency response situations, branch staff is on call 24 hours a day.

Field Operations Branch staff members assist in the evaluation of staging sites used for disaster debris. These sites must meet requirements depending on the types of waste to be staged, including appropriate distance from residences, wells, surface water, businesses and roadways. The sites must also be evaluated for safety issues (power lines, traffic, etc.) as well as access and potential need for flood or erosion control. For information about disaster debris staging sites, please visit our website at:

<http://portal.ncdenr.org/web/wm/sw/dds>

Thirty-three sites were evaluated during 2010, bringing the total of approved disaster debris staging sites to 311 (see map below). After a disaster debris site has been approved, counties or communities can request a six-month activation of the site to aid in the cleanup after the occurrence of a natural or man-made disaster. The approval process is required for FEMA reimbursement eligibility.

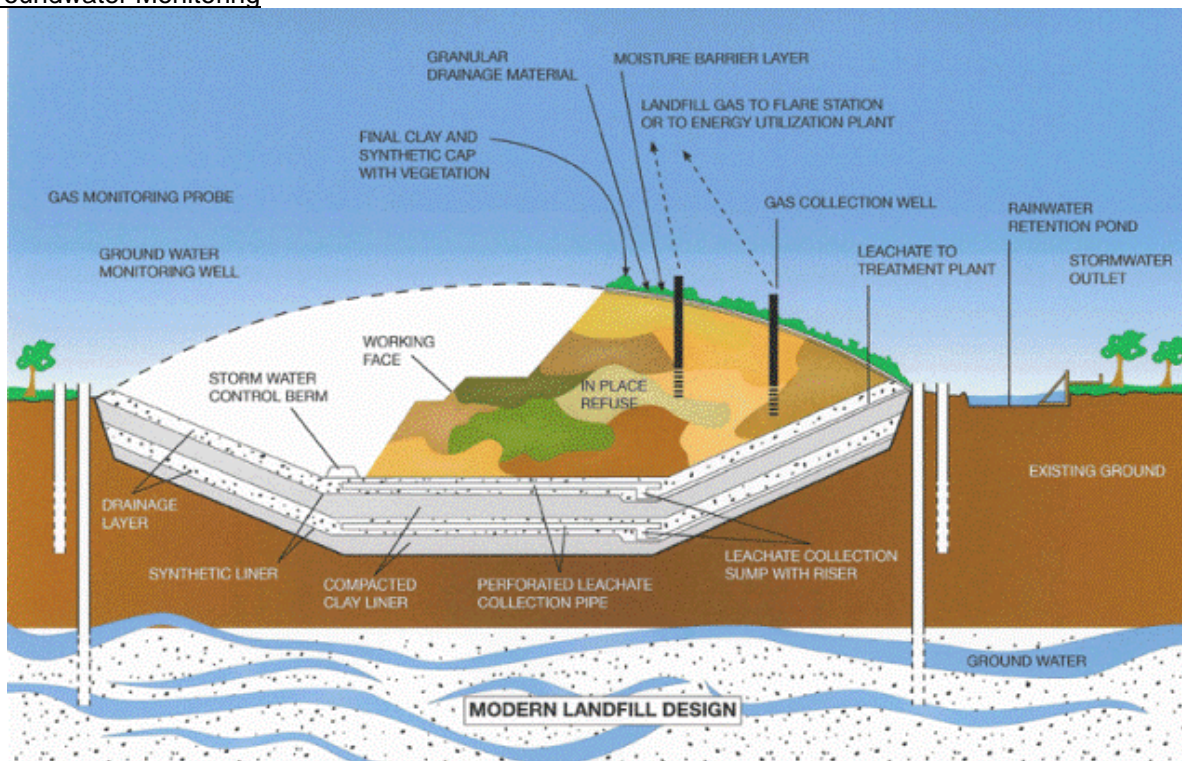


### Facility Compliance History and Financial Assurance

Compliance history reviews are required for all solid waste management facilities that apply for a new permit or permit amendment with the Solid Waste Section. Compliance history reviews determine the extent to which the applicant has substantially complied with federal and state laws, regulations and rules for the protection of the environment and may include a review of parents, subsidiaries or other affiliates of the applicant. During 2010, 76 compliance history reviews were performed by the section.

Solid waste management facilities must establish and maintain the appropriate amount of financial assurance. Financial assurance is required by the state to insure that funds are available to cover costs associated with closure, post-closure and corrective action, should a facility be abandoned by the permit holder. The state accepts the following financial assurance mechanisms: Trust Fund, Surety Bond Guaranteeing Payment of Performance, Letter of Credit, Insurance, Local Government Financial Test and Capital Reserve Fund. During 2010, compliance officers reviewed financial assurance for over 200 solid waste management facilities. The number of financial assurance reviews that must be performed by the Section will increase with each new permit that is issued.

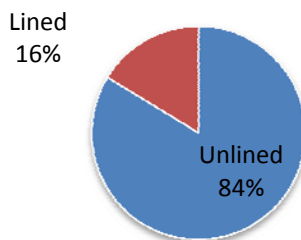
### Groundwater Monitoring



Landfills contain numerous substances which, if released, could pose a significant threat to human health and the environment. These substances leaking from landfills can migrate, presenting a threat to the environment and to the public. Primary threats are the collection of explosive gases in surrounding buildings and exposure to contaminants via groundwater (e.g. potable wells).

Modern landfill designs include liners and leachate collection systems to contain waste and prevent the release of these dangerous substances. Almost all landfills that opened in North Carolina prior to 1993 were not constructed with liners and leachate collection systems, so groundwater contamination and landfill gas is being detected at a growing number of closed, unlined landfill sites. The following chart outlines the percentages of facilities with groundwater monitoring systems that are lined and unlined.

## Percentages of Facility Types with Groundwater Monitoring Systems

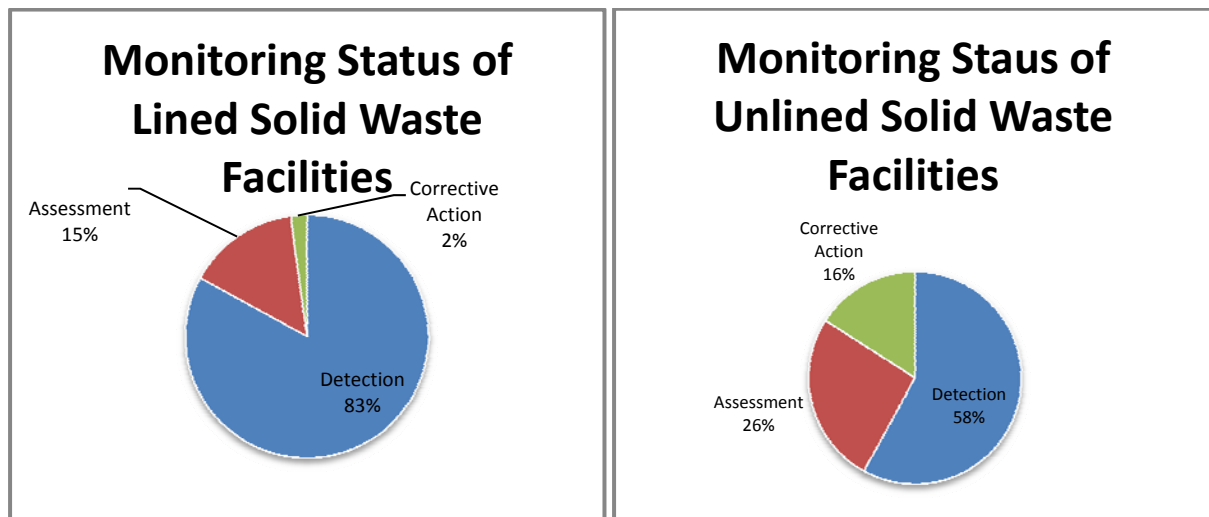


Environmental monitoring is being conducted at 273 solid waste management facilities. The Field Operations and Compliance Branch databases have been developed to enable staff to store, retrieve, and analyze a large amount of environmental data received each year and provide public access to more data via the Internet. To make this possible, the Field Operations Branch is requiring facility owners/operators to submit environmental data reports in electronic format.

Presently, the environmental database has data from approximately 90 percent of the landfills that perform environmental monitoring in North Carolina. Some of the benefits of creating, populating and maintaining the database are 1) the ability to more quickly analyze and respond to contaminant releases, 2) paper and space reductions in report preparation, mailing and filing, 3) increased efficiency in the data submission process, 4) improved long-term data formatting organization and management, and 5) less time and financial expenditures involved in data reporting.

The two Field Operations Branch hydrogeologists assigned to address environmental compliance issues at solid waste management facilities across the state oversee the environmental monitoring, and if required, assessment and remediation of nearly 300 permitted facilities and large illegal dumps each year.

Groundwater monitoring is conducted in three phases at solid waste facilities: detection monitoring, assessment monitoring, and corrective action. Detection monitoring is the initial phase of monitoring, where groundwater is analyzed for a list of contaminants commonly associated with solid waste. Assessment monitoring occurs after groundwater contamination is discovered during detection monitoring, and the nature and extent of contamination is determined in addition to analyzing groundwater for an expanded list of contaminants that are associated with solid waste. Once the nature and extent of contamination has been defined, corrective action is implemented to remedy the contamination, and groundwater is continually monitored to track the progress of the corrective action. The following charts illustrate the percentages of lined and unlined solid waste facilities implementing each monitoring phase.



Based on groundwater monitoring data in the Solid Waste Section's database, 208 out of 237 solid waste facilities have reported volatile organic and/or inorganic compound 2L violations. In addition, eight lined solid waste management facilities, an unlined construction and demolition facility, and one transfer station had leachate releases where untreated leachate was discharged. In accordance with solid waste rules, leachate is required to be contained on-site or properly treated prior to discharge. All facilities are either in the process of assessing the leachate release or have completed the leachate release assessment.

Field operations hydrogeologists are also responsible for protecting human health and are currently evaluating the impact caused by contaminated groundwater that migrated beyond a solid waste management facility's compliance boundary at 12 residential water supply wells. In each of these cases, an alternate source of water has been supplied by the county or the responsible party to the affected residences. Finally, groundwater corrective action is ongoing at 37 solid waste management facilities this year.

N.C. Solid Waste and Materials Management Annual Report  
Fiscal Year 2009-2010

# Chapter 2

Solid Waste Management Trust Fund



North Carolina Department of Environment and Natural Resources, Division of Environmental Assistance and Outreach

## DIVISION OF ENVIRONMENTAL ASSISTANCE AND OUTREACH

### FISCAL YEAR 2009-10 SOLID WASTE MANAGEMENT TRUST FUND ANNUAL REPORT

This report details the activities and expenditures of the Solid Waste Management Trust Fund for FY 10 (July 1, 2009 - June 30, 2010). The Trust Fund is administered by the N.C. Division of Environmental Assistance and Outreach (formerly the Division of Pollution Prevention and Environmental Assistance) in the Department of Environment and Natural Resources. The Trust Fund was created by the Solid Waste Management Act of 1989 (SB 111). It is funded primarily by a portion of the revenues from advanced disposal fees on the sale of new tires and white goods (appliances), the tax on solid waste disposal and a tax on virgin newsprint. Additional revenues can come from appropriations and contributions. The purpose of the Trust Fund, as detailed in G.S. 130A-309.12, is to support a range of solid waste management activities including: technical assistance to local governments, businesses, and other entities on solid waste issues; public educational programs; research and demonstration projects; recycling market development, and support of the operational costs of the Division of Environmental Assistance and Outreach (DEAO).

As noted in the table below, the Solid Waste Management Trust Fund received \$3,794,072 in revenues in FY 10. When added to the beginning balance on July 1, 2009 of \$2,450,297, a total of \$6,244,369 was managed in the Trust Fund for FY 10. Actual expenditures were \$2,235,677, leaving a fund balance at the end of FY 10 of \$4,008,692. However, a total of \$2,794,733 of that balance was encumbered to cover disbursements for existing grants (grant contracts are paid on a reimbursement basis). The unencumbered balance at the end of FY 10 was \$1,213,959. An additional set of grant contracts was awarded and in the process of being encumbered at the end FY10, further reducing the available balance entering FY 11.

#### FY 10 Trust Fund Expenditures and Revenues

|                               |              |
|-------------------------------|--------------|
| Beginning Balance             | \$ 2,450,297 |
| + Revenue                     | \$ 3,794,072 |
| - Expenditures                | \$ 2,235,677 |
| Ending Balance                | \$ 4,008,692 |
| Encumbrances                  | \$ 2,794,733 |
| Unencumbered funds on 6/30/09 | \$ 1,213,959 |

#### Breakdown of FY 10 Revenue Sources

|                          |              |
|--------------------------|--------------|
| Tire Tax                 | \$ 1,144,509 |
| White Goods ADF          | \$ 303,665   |
| Newsprint Tax            | \$ 0         |
| Solid Waste Disposal Tax | \$ 2,304,650 |
| Appropriations           | \$ 0         |
| Contributions and Misc.  | \$ 41,248    |
| Total Revenues           | \$ 3,794,072 |

#### TRUST FUND REVENUE SOURCES - FY 10

As noted in the table above, Trust Fund revenues in FY 10 came from four of the six possible sources identified in the General Statutes. Activity from each revenue source is described below and additional details on the funding sources are available in Attachment A.

**2% Tire tax** – Trust Fund revenues from the tax on the sale of new tires accounted for \$1,144,509 in FY 10, an increase of 2.5 percent from FY 09. Tire revenue accounted for 30 percent of total Trust Fund revenues for FY 10.

**White Goods Tax** – Proceeds from the advanced disposal fee on white goods accounted for \$303,665 or just 8 percent of total revenues for FY 10. White goods proceeds continued a three year downward trend, falling 8 percent from FY 09, reflecting in part the slow recovery of the overall economy.

**Virgin Newsprint Tax** – North Carolina newspaper publishers who fail to meet state-required purchasing goals for recycled content newsprint must pay a \$15 per ton tax on the virgin newsprint they consume. The law allows wide exemptions for companies who are unable to purchase recycled content newsprint due to availability or pricing constraints, or who are actively involved in the recovery of newspaper for recycling. During FY 10, no revenue was received from the virgin newsprint tax. In thirteen years, the annual revenue from the newsprint tax has never been higher than \$3,000.

**Solid Waste Disposal Tax** – The solid waste disposal tax generated \$2,304,650 in revenues to the Solid Waste Trust Fund in FY 10, which was the first full fiscal year in which the tax was in place. The disposal tax revenues accounted for 61 percent of all Trust Fund income for FY 10.

**General Appropriations** - When the Trust Fund was first established in 1989, a one-time appropriation of \$300,000 was allocated to provide an initial fund balance. Since that time there have been no further appropriations to the Trust Fund.

**Contributions to the Trust Fund and Miscellaneous Revenues** – In FY 10, the Division continued its partnerships and cost-sharing arrangements with local governments and the private sector on recycling education and promotion, with a total of \$41,248 received in the Trust Fund toward outreach efforts in FY 10. The list of donation and cost-sharing partners is provided in Attachment A to this report. More information on the recycling education campaigns is provided below.

#### **TRUST FUND EXPENDITURES - FY 10**

The majority of Trust Fund expenditures in FY 10 went to grants and to the state's recycling outreach efforts. Trust Fund resources were also used to continue delivery of technical assistance to North Carolina communities, recycling businesses and waste generators. For the first time, the Trust Fund was also used to cover operational expenses of the Division. These activities are among the explicit purposes noted for the Trust Fund in G.S. 130A- 309.12, and are described in more detail below.

#### **FY 10 Community Waste Reduction and Recycling Grants**

As directed by statute and in particular by provisions of the solid waste disposal tax, the Division offers local governments an annual general grant cycle to fund recycling initiatives and program expansions. The Community Waste Reduction and Recycling Grants for FY10 were initiated by a Request for Proposals released in December 2009 with a due date for proposals in March of 2010.

DEAO received and evaluated a total of 53 proposals requesting \$1,278,289 in funding, and selected 51 proposals for a total of \$897,697 in grant awards. One community subsequently declined funding after reconsidering its project. Details on the grantees and their projects are provided under Attachment B to this report.

#### **FY 10 Curbside Rollout Cart Grants**

From its inception in North Carolina, curbside recycling has been predominantly conducted through the use of open-top bins (generally 18 gallons in size). With the advent of more sophisticated material processing techniques, it has become increasingly possible in North Carolina for communities to switch to the use of larger roll-out carts to enhance or, in some cases, initiate curbside recycling services. The switch to carts typically produces a 30 percent or greater increase in public participation and collected tonnage.

To encourage this trend, DEAO offered a first-come, first-serve grant program for conversion to carts or start-up of new cart-based curbside collection in FY 10. Over the course of the fiscal year, eleven municipalities submitted proposals and ten were funded for a total of \$801,265 in grant awards. In many cases, the grants supported the start-up of new recycling programs in small towns. The recipients, funding amounts, and project descriptions are detailed in Attachment C to this report.

#### **FY10 Abandoned Manufactured Home Grants**

As directed in statute, DEAO provides grants from the Solid Waste Management Trust Fund toward the clean-up of abandoned manufactured homes. FY 10 marked the first year of this program, which the division initiated through the release of a first-come, first-serve Request for Proposal in the summer of 2009. A total of ten abandoned manufactured home grant projects were funded in FY 10, which are listed in Attachment D to this report. More information about this program can be found in the Abandoned Manufactured Home Program Chapter.

#### **FY 10 Business Recycling Grants**

DEAO conducts an annual grant cycle open to for-profit and non-profit recycling businesses to help expand the state's available collection, processing and end-use capacity. The Business Recycling Grant cycle for FY 10 was initiated by the November 2009 release of a Request for Proposal, with proposals due by February 2010. The grant cycle attracted 65 proposals requesting a total of \$2,552,180 in funding. Thirty-one of these proposals were awarded grants for \$748,675 in overall funding. Details on the grantees and their projects are provided in Attachment E to this report.

#### **Recycling Guys, RE3, and RecycleMore Outreach Campaigns**



To implement the Trust Fund statutory provisions aimed at public recycling education, the Division conducted a wide range of education and outreach activities statewide during FY 10. Three campaigns

intended for different demographic ages groups - Recycle Guys, RE3.org, and RecycleMore – were used to boost public recycling participation and to support local government recycling education efforts. Outreach activities covered by the Trust Fund in FY 10 included:

- Development of materials and resources to support the disposal bans on wooden pallets, used oil filters, and plastic bottles, including the production of 595,000 stickers for placement on disposal containers reminding users to recycle the banned materials. These stickers were produced in partnership and through cost-sharing with local governments around the state.
- Creation and launching of the RecycleMore campaign aimed at the 35 and older demographic and designed to increase participation in curbside, drop-off, and away-from-home recycling.
- Continuation of the contract with Time Warner Cable to broadcast RE3.org and Recycle Guys television commercials. Time Warner's system covers the most populous areas of the state and using cable allows demographic targeting through specific channels.
- Coordination of an operational and educational recycling program for the N.C. State Fair.
- Usage of new media outlets such as Blogspot, Facebook, Twitter, Flickr and LinkedIn for the RE3.org campaign.
- Production of other miscellaneous promotion materials, distributed directly to the public or through local government recycling programs.
- Workshops for teachers on how to create a school recycling program at the National Science Teachers Association Conference and the Project Learning Tree MSW and Recycling Workshop.

#### Technical Assistance Activities

The General Statutes direct the Trust Fund to be used to promote waste reduction and recycling generally, and specifically to provide technical assistance to local governments and to build recycling markets. The following section lists a number of activities that DPPEA pursued in FY 10 to accomplish these requirements.

#### ***Waste Reduction Partners Program***

The Waste Reduction Partners (WRP) is a highly successful program using retired engineers and business professionals to provide environmental technical assistance to companies and local governments in North Carolina. Through two ongoing grant contracts, the Solid Waste Trust Fund continued to support WRP in FY10, including helping to launch a second branch of the program housed at the Triangle J Council of Governments. With this funding and other matching money, WRP helped North Carolina businesses and other entities reduce or recycle 16,755 tons of solid waste in FY10 with an estimated savings to the waste generators of \$988,500.

#### ***Staff Support***

To accomplish the technical assistance, public education and recycling market development requirements in the General Statutes, the Trust Fund was used in FY 10 to support staff positions in the Division of Environmental Assistance and Outreach. A total of \$624,669 was expended to pay for salaries, benefits and some limited operational support. These positions are described below:

Community Development Specialist – This position is the team leader of the Recycling Business Assistance Center. It organizes and oversees the Center's activities to develop recycling markets, acts as the chief liaison with financing partners such as the Community Center for Self Help (which operates a state-initiated recycling revolving loan program), and focuses on such material streams as carpet and construction and demolition debris.

Recycling Market Development Specialist - As a part of DEAO's Recycling Business Assistance Center, this position is responsible for strengthening recycling capacity for secondary materials collected throughout the state. Among other duties, it manages the recycling markets directory required by state statute. It also works extensively with small recycling collection companies and electronics recyclers.

Recycling Market Development Specialist - This position is shared part-time with the N.C. Department of Commerce and is responsible for working with local and state economic developers to recruit recycling businesses to North Carolina.

Recycling Market Development Specialist - This position focuses on building the recycling infrastructure for the diversion of construction and demolition debris and wood waste, which together constitute one-third of the state's entire waste stream. In addition to managing grants and conducting other technical assistance, this position also produces the *Recycling Works* newsletter, which keeps recycling companies

and community recycling programs abreast of market developments, material prices and news about grants and available assistance.

Environmental Senior Specialist - This position is responsible for leading activities to provide technical assistance to local governments on their waste reduction programs, including solid waste planning and full cost accounting (both statutory requirements for local governments), and for managing the local government general recycling grant cycle. The position also manages recycling program data from state-mandated local waste reduction reports, which in turn allows completion of the State Solid Waste Management Annual Report.

Environmental Specialist - In addition to working with local recycling coordinators, this position is responsible for developing educational materials and programs on solid waste issues for audiences ranging from school children to adult populations. In particular, this position implements the multi-media statewide Recycle Guy, RE3, and RecycleMore campaigns designed to boost recycling participation rates in North Carolina and to make community recycling efforts more efficient.

Environmental Specialist – This position manages the WasteTrader and BiomassTrader waste exchange services, provides direct assistance to commercial and industrial waste generators, helps to manage grants and the local reporting process, and is responsible for many training and outreach activities to local recycling programs.

Environmental Specialist – this position was provided for by the advent of the state disposal tax and is responsible for providing technical assistance to local government recycling programs, administering community recycling grants, assisting with the solid waste annual report process, and conducting the curbside recycling rollout cart grant cycle.

Environmental Specialist – this position is responsible for technical assistance to local government recycling programs, administration of general recycling grants, helping with the annual solid waste report process, and is the staff lead for the Abandoned Manufactured Home program.

Environmental Specialist – this position is the staff lead on recycled content and other environmental purchasing and is also the lead in providing recycling technical assistance to state agencies, community colleges, universities and schools. It also participates on the local government assistance team, with a focus on helping communities with their commercial recycling efforts, including implementation of programs addressing banned materials and the requirements for bars and restaurants to recycle beverage containers.

Organics Recycling Specialist -This position provides technical assistance to local governments, recycling businesses, waste generators and the general public on the reduction and composting of organic waste streams, including yard wastes, which are banned from disposal by state statute.

#### Graduate Interns

To encourage professional development and to complete technical assistance projects, the Solid Waste Trust Fund supports student interns. Student projects in FY 10 focused on developing the RecycleMore outreach campaign, assisting with the extensive efforts to educate the public about the new disposal bans, conducting research and producing data for the state's new electronics recycling legislation, and providing general assistance to local government recycling programs.

#### ***Product Stewardship Initiatives***

"Product Stewardship" is a growing movement by state and local governments to increase manufacturer and retailer responsibility for the environmental impacts of products, including the diversion of those products from disposal. Expanding responsibility for end-of-life products is expected to reduce cost and tax burdens on state and local governments. In FY 10, North Carolina participated in product stewardship initiatives by supporting the activities of the Product Stewardship Institute, including continued development of a national agreement with the paint industry on paint disposal and an ongoing PSI project addressing excess phone books. DEAO also continued its participation with the Carpet America Recovery Effort, a national product stewardship program for the carpet industry.

#### ***Workshops and Training***

To encourage the professional development of local recycling coordinators and solid waste staff, Trust Fund resources supported county and municipal scholarships to the 2010 Carolina Recycling Association conference.

### **Operational Support for the Division of Environmental Assistance and Outreach**

For the first time, in FY 10, the General Assembly assigned the general operating costs of the Division of Environmental Assistance and Outreach to the Solid Waste Trust Fund, including payment of office rent, cost of vehicle use and other travel, computer and printing equipment purchase and use, and other miscellaneous costs.

### **PLANNED EXPENDITURES AND CHANGES TO TRUST FUND REVENUES FOR FY 11**

In FY 11, the Solid Waste Management Trust Fund will focus grant attention in four main areas: 1) general support for expansion of local recycling programs, 2) cart grants to encourage modernization of curbside recycling programs, 3) local clean-up programs for abandoned manufactured homes, and 4) recycling business grants to grow private sector collection, processing and end-use capacity across the state.

In addition, the Trust Fund will be used to continue to promote widespread public participation in recycling through the Recycle Guys, RE3, and RecycleMore campaigns. The Trust Fund will also be used to support the Waste Reduction Partners program and to support general recycling technical assistance efforts. Technical assistance activities will include helping communities, disposal facilities and waste generators prepare for new legislation restricting the disposal of electronics and fluorescent lights. In addition, North Carolina will continue to participate in national coalitions seeking to promote product stewardship and will work to expand training opportunities for local solid waste and recycling staff. Finally, a portion of the Trust Fund will support the operations of the Division of Environmental Assistance and Outreach.

Questions regarding the North Carolina Solid Waste Management Trust Fund may be directed to Scott Mouw, Chief, Community and Business Assistance Section, N.C. Division of Environmental Assistance and Outreach, at 919-715-6512.

## **ATTACHMENT A: TRUST FUND REVENUE SOURCES**

The North Carolina Solid Waste Trust Fund receives the bulk of its revenues from four main sources. Details on these sources are provided below.

**Scrap Tire Tax** – a two percent fee is levied on the purchase of new tires in North Carolina, with revenues distributed to three main purposes. The tire tax allocation is as follows:

- 72% of revenues are distributed to the counties on a per capita basis to pay for the proper management of discarded tires.
- 20% of revenues are credited to the Scrap Tire Disposal Account (administered by the Solid Waste Section) for local government grants and nuisance tire site cleanup.
- 8% of revenues are credited to the Solid Waste Management Trust Fund.

**White Goods Tax** - a \$3 fee is levied on the purchase of major appliance in North Carolina, with revenues distributed to three main purposes. The white goods tax allocation is as follows:

- 72% of revenues are distributed to the counties on a per capita basis to pay for the proper management of discarded white goods.
- 20% of revenues are credited to the White Goods Management Account (administered by the Solid Waste Section) for grants to local governments for managing discarded white goods.
- 8% of revenues are credited to the Solid Waste Management Trust Fund.

**Solid Waste Disposal Tax** - a \$2 per ton fee is levied on disposed solid waste at North Carolina landfills and at transfer stations that send solid waste out-of-state for disposal. The disposal tax revenues are distributed to three main purposes:

- 50% is distributed to the Inactive Hazardous Waste Sites clean-up program.
- 37.5% is distributed directly to municipalities and counties for operation of solid waste and recycling programs.
- 12.5% is distributed to the Solid Waste Trust Fund for local government recycling grants.

**Contributions from Funding Partners for the State Recycling Outreach Campaigns** – Local governments and private sector partners contribute funds to increase the breadth and reach of the statewide recycling campaigns. In addition, local governments also cost-shared the production of outreach materials for the state plastic bottle and aluminum can bans in FY10. The two tables below provide details on the contributions and the cost sharing.

### **Campaign Contributing Partners**

| <b>Partner Name</b>                             | <b>Amount Given</b> |
|---|---------------------|
| Alcoa   | \$4,500             |
| Asheboro Recycling                              | \$60                |
| Brunswick County                                | \$1,000             |
| City of Asheville                               | \$850               |
| Association of Post Consumer Plastics Recyclers | \$5,000             |
| Town of Cary                                    | \$2,500             |
| Catawba County                                  | \$1,000             |
| Chatham County                                  | \$1,000             |
| Duke Energy                                     | \$4,500             |
| Eastern Carolina Vocational Center              | \$270               |
| City of Greensboro                              | \$250               |
| Green Pieces Recycling                          | \$125               |
| Johnston County                                 | \$5,000             |
| Keep America Beautiful                          | \$1,000             |
| Lee County                                      | \$500               |
| Orange County                                   | \$1,000             |
| <b>TOTAL</b>                                    | <b>\$28,555</b>     |

# Materials Cost-Sharing Partners

| Partner Name  | Amount of Cost-Share |
|---|----------------------|
| Albemarle Regional Solid Waste Management Authority | \$160                |
| Alexander County                                    | \$20                 |
| Bladen County                                       | \$80                 |
| Caswell County                                      | \$1.98               |
| Catawba County                                      | \$32                 |
| Chatham County                                      | \$16                 |
| Cherokee County                                     | \$40                 |
| City of Charlotte                                   | \$800                |
| City of Fayetteville                                | \$4400               |
| City of Jacksonville                                | \$160                |
| City of Mount Holly                                 | \$80                 |
| City of Wilmington                                  | \$1600               |
| Currituck County                                    | \$400                |
| Davidson County                                     | \$40                 |
| Edgecombe County                                    | \$4                  |
| Guilford County                                     | \$40                 |
| Henderson County                                    | \$40                 |
| Henderson County                                    | \$40                 |
| Jackson County                                      | \$20                 |
| Keep Durham Beautiful                               | \$80                 |
| Macon County  | \$8                  |
| Madison County                                      | \$200                |
| Nash County   | \$80                 |
| Orange County                                       | \$400                |
| Pender County                                       | \$20                 |
| Stokes County                                       | \$860                |
| Town of Boone                                       | \$80                 |
| Town of Chapel Hill                                 | \$400                |
| Town of Elkin                                       | \$160                |
| Town of Matthews                                    | \$80                 |
| Town of Middlesex                                   | \$40                 |
| Town of Morehead City                               | \$320                |
| Town of North Topsail Beach                         | \$20                 |
| Warren County                                       | \$16                 |
| Watauga County                                      | \$40                 |
| West Central Missouri SW Authority                  | \$140                |
| Yadkin County                                       | \$40                 |
| TOTAL   | \$10,957.98          |

**ATTACHMENT B: 2010 COMMUNITY WASTE REDUCTION AND RECYCLING GRANTS**

| GRANTEE            | AMOUNT      | GRANT DESCRIPTION   |
|--------------------|-------------|---|
| Alamance County    | \$22,000.00 | Alamance County will purchase and install a horizontal baler to expand its ability to process recyclables and to increase the efficiency of its public recycling effort.  |
| Alexander County   | \$6,354.99  | Alexander County will purchase and put into service, 12 permanent recycling bins and two mobile recycling containers for special event recycling at recreational facilities.  |
| Brunswick County   | \$15,000.00 | Brunswick County will purchase 200 recycling containers and put them into service at the county's parks.  |
| Cabarrus County    | \$14,000.00 | Cabarrus County will purchase and put into service 63 permanent recycling bins at county parks and recreational facilities.   |
| Cherokee County    | \$40,000.00 | Cherokee County will purchase trailers to initiate recycling collection at eleven public school facilities.   |
| City of Asheville  | \$10,000.00 | The City of Asheville will create an interactive recycling station, purchase recycling containers and print some recycling educational material.  |
| City of Greensboro | \$35,000.00 | The City of Greensboro will purchase 500 96-gallon carts for commercial recycling and a truck scale for measuring collected commercial and institutional tonnage, and will hold a collection event for leftover pharmaceuticals.                            |
| City of Hickory    | \$11,119.00 | The City of Hickory will purchase one 23-yard hook lift container and two 23-yard closed hook lift containers to enhance the efficiency of its drop-off recycling service.  |
| City of Sanford    | \$20,000.00 | The City of Sanford will purchase a one-ton truck with lift gate to conduct curbside collection of electronics and other recyclable materials.  |
| Clay County        | \$40,000.00 | Clay County will enclose and extend its current recycling area to increase its capacity to collect, store, and process recyclables.   |
| Cleveland County   | \$30,000.00 | Cleveland County will purchase nine trailers for the collection of electronics at convenience centers and post instructional signs at each facility.  |
| Cumberland County  | \$20,000.00 | Cumberland County will purchase cardboard recycling dumpsters for its school recycling program.   |
| Currituck County   | \$13,368.00 | Currituck County will purchase and install public recycling stations at fourteen public beach accesses to recover recyclable beverage containers.   |
| Edgecombe County   | \$20,000.00 | Edgecombe County will expand a concrete pad to increase recycling capacity for wooden pallets.  |
| Franklin County    | \$20,000.00 | Franklin County will expand access to and awareness of oil, oil filter and plastic bottle recycling by purchasing two 40-yard roll off containers, seven oil recycling containers and sheds, and by installing signs and conducting publicity to advertise. |
| Gaston County      | \$28,992.00 | Gaston County will purchase containers for plastics collection, boxes for pharmaceutical waste and swap shops.  |
| Haywood County     | \$17,242.00 | Haywood County will purchase and install recycling bins and bulk collection containers to facilitate away-from-home recycling at select commercial locations and to create shared recycling sites serving businesses and multifamily developments.          |
| Henderson County   | \$40,000.00 | Henderson County will purchase one forklift and one skid steer to be used in the processing of recyclable materials at the Henderson County MRF to be built in 2010.  |
| Hyde County        | \$20,958.00 | Hyde County will purchase signs, promotional materials, roll-off containers and bins to collect glass, electronics and mercury thermostats for recycling at convenience sites.  |

| GRANTEE                      | AMOUNT      | GRANT DESCRIPTION  |
|------------------------------|-------------|--|
| Jackson County               | \$11,120.00 | Jackson County will construct a cover over a previously existing concrete pad to create a depot to initiate an electronics recycling program.  |
| Land of Sky Regional Council | \$15,000.00 | Land of Sky will purchase and distribute school recycling bins.  |
| Lee County                   | \$6,200.00  | Lee County will purchase recycling containers and educational materials to expand their school recycling program and comply with the new plastic bottle landfill ban.  |
| Macon County                 | \$20,800.00 | Macon County will purchase recycling carts, two trailers, and one oil filter crusher to collect recyclables at its parks and recreation facilities, to improve recycling service at two public schools, and to implement efficient oil filter recycling. |
| Madison County               | \$12,585.00 | Madison County will purchase recycling containers, trailers, decals and brochures.   |
| Mitchell County              | \$6,600.00  | Mitchell County will purchase roll-off containers to initiate plastic bottle recycling at two correctional facilities.   |
| Montgomery County            | \$20,000.00 | Montgomery County will upgrade two convenience centers to initiate separated collection of recyclable materials.   |
| Moore County                 | \$10,000.00 | Moore County will purchase a compactor to increase efficiency of recycling plastic bottles.  |
| Onslow County                | \$7,183.00  | Onslow County will purchase two food-oil and grease collection systems and build two oyster shell bunkers to expand drop-off recycling and will purchase bins, carts and container dollies to expand public school recycling efforts.                    |
| Pamlico County               | \$22,576.00 | Pamlico County Recycling will purchase three 20-yard open containers and two 40-yard closed containers to increase the efficiency and accessibility of its drop-off recycling program.   |
| Paquotank County             | \$14,800.00 | Pasquotank County will construct a loading dock, repair a collection vehicle, purchase trailers and signs to promote and initiate electronics recycling at various drop-off sites.   |
| PCG Landfill Commission      | \$19,720.00 | Perquimans-Chowan-Gates Landfill Commission will purchase signs, promotional materials, enclosed trailers and fiberglass igloo drum covers to improve oil filter and electronics recycling programs throughout the three counties.                       |
| Person County                | \$16,330.00 | Person County will purchase and install a metering drum on the in-feed system at the Person Industries recycling facility to increase the efficiency of their public recycling system.   |
| Pitt County                  | \$38,500.00 | Pitt County will purchase a truck, 95 gallon containers, and classroom bins to expand recycling to all Pitt County schools.  |
| Polk County                  | \$6,333.00  | Polk County will construct a trailer and eight hoppers to expand recycling drop-off at an elementary school.   |
| Rockingham County            | \$23,000.00 | Rockingham County will purchase two 14-bin recycling trailers for a county-wide mobile recycling program.  |
| Rutherford County            | \$14,720.00 | Rutherford County will purchase carts, bins, and a used box truck to increase the material recycled by the Rutherford County schools.  |
| Town of Beaufort             | \$13,849.00 | The Town of Beaufort will secure and install pedestrian recycling stations and five monofilament fishing line recycling containers, and will purchase and install signs promoting recycling at key locations including the Town Recycling Center.        |
| Town of Glen Alpine          | \$6,270.00  | The Town of Glen Alpine will purchase and put into service a recycling trailer for a mobile household recycling program and recycling roll-out carts for use at special events.  |
| Town of Hayesville           | \$3,500.00  | The Town of Hayesville will purchase a trailer to collect recyclable cardboard at the public school campus in Hayesville and will purchase education and outreach materials for a public outreach campaign to encourage recycling program participation. |

| GRANTEE                           | AMOUNT      | GRANT DESCRIPTION  |
|-----------------------------------|-------------|--|
| Town of Kernersville              | \$25,000.00 | The Town of Kernersville will purchase and put into service 400 recycling rollout containers for commercial recycling and 10 large recycling containers for pedestrian recycling.                      |
| Town of Kill Devil Hills          | \$14,984.00 | The Town of Kill Devils Hills will purchase roll-off containers to expand and improve the efficiency of its public recycling operations.   |
| Town of Morehead City             | \$2,000.00  | The Town of Morehead City will purchase and install public recycling stations and signs promoting recycling at six public park facilities.   |
| Town of Ranlo                     | \$13,800.00 | The Town of Ranlo will purchase six recycling trailers and conduct public outreach to expand its drop-off recycling program.   |
| Town of Wilkesboro                | \$40,000.00 | The Town of Wilkesboro will purchase a truck and 1,000 recycling containers to implement a curbside recycling program.   |
| Triangle J Council of Governments | \$15,000.00 | Triangle J Council of Governments will create a website allowing community residents to opt-out of receiving catalogs.   |
| Tyrrell County                    | \$6,208.00  | Tyrrell County will purchase promotional materials, equipment and supplies and will move, repair and refurbish an existing storage building to initiate an electronics recycling program.              |
| Vance County                      | \$13,416.00 | Vance County will purchase 227 95-gallon carts and, 60 18-gallon bins to initiate a school recycling program and will purchase two storage containers to implement an electronics recycling program.   |
| Wake County                       | \$7,800.00  | Wake County will purchase recycling containers to expand plastic bottle recycling capabilities at K-12 schools in order to comply with the new legislation.  |
| Watauga County                    | \$20,980.00 | Watauga County will purchase school recycling bins and educational material.   |
| Wilkes County                     | \$1,817.00  | Wilkes County will purchase an oil filter crusher for the county landfill in order to process oil filters for recycling and to keep them out of the landfill   |
| Yancey County                     | \$30,000.00 | Yancey County will purchase a horizontal baler, oil tanks with constructed secondary containment, drums, and trailers to improve recycling operations at its transfer station and convenience centers. |

**ATTACHMENT C: 2010 CURBSIDE ROLLOUT CART GRANTS**

| GRANTEE               | AMOUNT       | GRANT DESCRIPTION   |
|-----------------------|--------------|---|
| City of Laurinburg    | \$100,000.00 | The City of Laurinburg will purchase 5,800 95-gallon recycling rollout carts to transition its curbside program to a cart-based service.                    |
| City of Mt. Holly     | \$100,000.00 | The City of Mt. Holly will purchase and put into use 4,350 95-gallon roll-out carts to implement curbside recycling collection.                             |
| City of Rocky Mount   | \$100,000.00 | Rocky Mount will purchase 4,000 carts to initiate single stream curbside recycling collection in the city.  |
| City of Washington    | \$100,000.00 | The City of Washington will purchase 4,000 65-gallon carts to improve its curbside recycling service.   |
| City of Winston-Salem | \$100,000.00 | The City of Winston-Salem will lease purchase 2,142 95-gallon recycling rollout carts to conduct a single stream pilot collection project.                  |
| Town of Aberdeen      | \$100,000.00 | The Town of Aberdeen will initiate a new curbside recycling program for residences and small businesses with the purchase of 2,546 95-gallon rollout carts. |
| Town of Fuquay-Varina | \$32,025.00  | The Town of Fuquay-Varina will purchase 854 96-gallon recycling carts to upgrade its curbside collection services.  |
| Town of Mooresville   | \$100,000    | The Town of Mooresville will purchase 4,800 96-gallon recycling carts to expand its pilot curbside recycling program city-wide.                             |
| Town of St. Pauls     | \$35,280.00  | The Town of St. Pauls will purchase 1,008 95-gallon roll-out carts to initiate a curbside program for households and businesses.                            |
| Town of Troutman      | \$33,960.00  | The Town of Troutman will rent 1,415 96-gallon roll-out carts to initiate a curbside program.   |

**ATTACHMENT D: 2010 ABANDONED MANUFACTURED HOME GRANTS**

| <b>GRANTEE</b>   | <b>AMOUNT</b> | <b>GRANT DESCRIPTION</b>   |
|------------------|---------------|--|
| Bertie County    | \$40,000.00   | Bertie County will implement an Abandoned Manufactured Homes program.    |
| Burke County     | \$40,000.00   | Burke County will implement an Abandoned Manufactured Homes program.     |
| Franklin County  | \$40,000.00   | Franklin County will implement an Abandoned Manufactured Homes program.  |
| Harnett County   | \$40,000.00   | Harnett County will implement an Abandoned Manufactured Homes program.   |
| Henderson County | \$40,000.00   | Henderson County will implement an Abandoned Manufactured Homes program. |
| Nash County      | \$40,000.00   | Nash County will implement an Abandoned Manufactured Homes program.      |
| Onslow County    | \$40,000.00   | Onslow County will implement an Abandoned Manufactured Homes program.    |
| Stanly County    | \$40,000.00   | Stanly County will implement an Abandoned Manufactured Homes program.    |
| Vance County     | \$40,000.00   | Vance County will implement an Abandoned Manufactured Homes program.     |
| Warren County    | \$40,000.00   | Warren County will implement an Abandoned Manufactured Homes program.    |

**ATTACHMENT E: 2010 RECYCLING BUSINESS GRANT PROJECTS**

| <b>GRANTEE</b>                          | <b>AMOUNT</b> | <b>GRANT DESCRIPTION</b>  |
|---|---------------|---|
| A-1 Sandrock, Inc.                      | \$35,000.00   | A-1 Sandrock will purchase a loader to increase processing capacity for construction and demolition waste recycling.  |
| Absolute Recycling Contractors, LLC     | \$17,500.00   | Absolute Recycling Contractors will purchase ten 40-cubic yard containers to increase recycling capacity for wood and wooden pallets.   |
| Antique Reclaimed Lumber, LLC           | \$15,000.00   | Antique Reclaimed Lumber will increase their capacity for material handling through the retrofit of an existing building for their processing operation, and construction of additional storage space.  |
| Benfield Sanitation Services, Inc.      | \$25,000.00   | Benfield Sanitation Services will purchase and put into use an automated recycling truck and 95-gallon recycling carts to provide residents of Troutman with a curbside single-stream recycling program.  |
| Boggs Paving, Inc.                      | \$50,000.00   | Boggs Paving will purchase and install a Sorting Station Conveyor to separate the non-desirable material from the recyclable asphalt shingles.  |
| Carpenter Design, Inc.                  | \$38,000.00   | Carpenter Design will purchase and construct a 70' x 100' metal building for the unloading, sorting, and processing of pallets and wood waste.  |
| Clayton & Hurdle Disposal Service, inc. | \$30,000.00   | Clayton & Hurdle Disposal Service Inc. will purchase a new collection truck and additional rollcars.  |
| Clear Path Recycling                    | \$50,000.00   | Clear Path will install a bale transport, bale de-wiring system and bale breaker to assist in the processing of recyclable bales of PET bottles.  |
| Crowell Farms Composting, Inc.          | \$13,300.00   | Crowell Farms will purchase a used Caterpillar 924G wheeled front end loader .  |
| Curbside Management, Inc.               | \$20,000.00   | Curbside Management will purchase and put into use 8 20-cu. yd. Containers to expand their drop off services to additional locations in Buncombe County and increase efficiencies in collection.  |
| Danny's Dumpster, Inc.                  | \$12,000.00   | Danny's Dumpsters to purchase a 20x8x6-foot trailer and a candy cane lift.  |
| Earth Farms, LLC                        | \$30,000.00   | Earth Farms LLC, will purchase a front end wheel loader to increase their composting production.  |
| Envision Plastics                       | \$50,000.00   | Envision Plastics will install an additional grind and wash line to increase their capacity to recycle HDPE bottles by 15 million lbs/year.   |
| Etowah Lions Services, Inc.             | \$10,000.00   | Etowah Lions Club to purchase a collection body for recycling truck to enhance their recycling capabilities.  |
| Green Coast Recycling, LLC              | \$25,000.00   | Green Coast will purchase a baler and other material handling equipment to improve their efficiency and processing ability in an effort to increase profits   |
| Green Pieces Recycling                  | \$15,000.00   | Green Pieces Recycling will purchase and put into use roll-cart containers to expand and improve residential recycling collection in Stanly, Montgomery and Rowan Counties.   |
| Greenway Recycling                      | \$20,000.00   | Greenway Recycling will purchase and put into use a roller mill and trammel screen to increase the quality of their recycled gypsum product, enabling them to customize the end product to meet a variety of customer specifications.               |
| Hampstead Trash Service, Inc.           | \$13,300.00   | Hampstead Trash Service will purchase a truck and recycling collection carts to increase recycling collection from local schools, commercial businesses, and residential homes in the Pender County area.   |
| Handle Safe Systems, LLC                | \$15,000.00   | Handle Safe Systems will purchase and install an auger and screening system to assist in the processing of tear-off shingles at their C&D recycling facility in Asheville.  |
| Johnson Bros. Utility & Paving Co. Inc. | \$10,000.00   | Johnson Brothers Paving will purchase specialized equipment including a polarizing light microscope, a stereoscope, a fume hood, and laboratory items needed to identify asbestos in shingles that will be recycled and used in asphalt production. |

| GRANTEE                            | AMOUNT      | GRANT DESCRIPTION  |
|------------------------------------|-------------|--|
| Matangira Curbside Recycling, Inc. | \$30,000.00 | Matangira Curbside is expanding their operations through the development of a processing operation. This grant will help cover building construction costs for a 10,000 sq ft facility.          |
| McMinn Waste Removal               | \$20,000.00 | McMinn will expand its recycling program through the purchase of a new packer-truck with a recycling cage to increase the collection efficiency for their customers.                             |
| NC Wasteless Recycling             | \$6,275.00  | NC Wasteless will purchase a commercial truck and recycling containers to increase residential and commercial recycling collection.  |
| PalletOne of NC - Newton Facility  | \$15,000.00 | PalletOne will expand its recycling operations by re-opening its existing Newton facility as a pallet recycling site.  |
| Planet Recycling, Inc.             | \$13,300.00 | Planet Recycling will purchase and put into use an incline conveyor, 95-gallon roll cart containers and 30-yard roll-off containers to increase their recycling collection efficiency.           |
| Recycle Genie, LLC                 | \$10,000.00 | Recycle Genie will purchase a collection truck to assist with the growth of their recycling company in the Greensboro area of NC.  |
| Reflective Recycling               | \$50,000.00 | Reflective Recycling Inc. will purchase high technology sorting equipment to process commingled beverage containers.   |
| Resource Reformers, LLC            | \$20,000.00 | Resource Reformers will purchase land and construct a new facility to expand oil filter recycling.   |
| Shimar Recycling, Inc.             | \$30,000.00 | Shimar will purchase an EPS densifier and automation equipment to help sort commingled items more efficiently and increase recycling capacity.   |
| Sonoco Recycling - Charlotte       | \$50,000.00 | Sonoco Recycling will purchase and install a News Sorting Screen that will aid in the processing of materials from their single-stream MRF.  |
| The Recycling Group, LLC           | \$10,000.00 | The Recycling Group will purchase wheeled collection trailers for plastic, and a dump trailer for glass to assist in the expansion and efficiency of their recycling facility developed in 2009. |

N.C. Solid Waste and Materials Management Annual Report  
Fiscal Year 2009-2010

# Chapter 3

Government Waste Reduction Activities



North Carolina Department of Environment and Natural Resources, Division of Environmental Assistance and Outreach

## DIVISION OF ENVIRONMENTAL ASSISTANCE AND OUTREACH

### GOVERNMENT WASTE REDUCTION ACTIVITIES

Annual reports received from local governments provide data on source reduction, reuse, recycling and composting activities statewide as well as other aspects of solid waste management. Data from these reports helps to produce a picture of waste reduction efforts in North Carolina, helps to gauge the relative effectiveness of these programs in diverting materials from disposal and delivering them to industry for reprocessing, and documents the trends in recycling and reuse program implementation.

#### **Source Reduction and Reuse Programs**

The number of local governments with source reduction and/or reuse programs grew slightly during FY 09-10, with notable increases in the number of pallet exchange programs and the number of local governments promoting the use of non-toxic alternative products. The growth in pallet exchange programs can be attributed to the wooden pallet disposal ban that became effective on October 1, 2009. Source reduction and reuse programs often involve minimal expense and are easy to promote and popular with citizens. Despite this, these programs remain generally underutilized in North Carolina.

A core group of local governments has shown continued interest in operating swap shop programs which allow for very cost-effective diversion of reusable products from disposal. During FY 09-10, the 78 individual swap shops in place across the state likely resulted in the reuse of more than 2,000 tons of usable items.

#### **Local Reduction/Reuse Programs**

| Program Type                           | FY 03-04   | FY 04-05   | FY 05-06   | FY 06-07  | FY 07-08  | FY 08-09  | FY 09-10   |
|--|------------|------------|------------|-----------|-----------|-----------|------------|
| <b>Source Reduction Programs</b>       |            |            |            |           |           |           |            |
| Backyard Composting                    | 68         | 59         | 55         | 53        | 48        | 53        | 54         |
| Grass Cycling                          | 38         | 33         | 33         | 32        | 34        | 33        | 33         |
| Xeriscaping                            | 14         | 13         | 14         | 12        | 15        | 19        | 21         |
| Junk Mail Reduction                    | 63         | 59         | 59         | 55        | 59        | 57        | 60         |
| Enviroshopping                         | 31         | 29         | 25         | 26        | 21        | 23        | 29         |
| Promotion of Non-toxics                | 28         | 30         | 23         | 22        | 17        | 18        | 26         |
| Other                                  | 1          | 2          | 1          | 3         | 1         | 9         | 14         |
| <b>Reuse Programs</b>                  |            |            |            |           |           |           |            |
| Swap Shop Programs                     | 31         | 33         | 37         | 32        | 31        | 32        | 29         |
| Paint Exchange                         | 18         | 18         | 18         | 19        | 18        | 18        | 17         |
| Waste Exchange                         | 6          | 8          | 3          | 3         | 2         | 2         | 2          |
| Pallet Exchange                        | 9          | 9          | 4          | 5         | 3         | 6         | 10         |
| Other                                  | 7          | 11         | 5          | 4         | 8         | 8         | 6          |
| <b>Local Governments with Programs</b> | <b>109</b> | <b>104</b> | <b>102</b> | <b>95</b> | <b>97</b> | <b>96</b> | <b>105</b> |

#### **Local Government Recovery**

Materials recovery operations by local governments remained strong during FY 10. Most notably, when compared to the amount of materials disposed, the portion of materials recovered and returned to the economy was the highest since this metric has been measured. While net local government recovery, as demonstrated in the table below, shows a slight decrease in the total number of tons captured in FY 09-10 versus FY 08-09, this reduction is exclusively the result of a change in the way that tire recovery has been reported this year. In past years tire recovery has included all tires recovered at the privately operated tire facilities in the state, whereas tire recovery reported for FY 09-10 includes only that portion of tires generated by North Carolina local governments that were recovered. With this exception, most categories of materials grew in FY 09-10 when compared to the previous year.

### Local Government Recovery (Tons) and Performance Measures

| Material                                   | FY 00-01       | FY 01-02       | FY 02-03         | FY 03-04         | FY 04-05         |
|--|----------------|----------------|------------------|------------------|------------------|
| Total Paper                                | 263,365        | 267,840        | 275,538          | 267,371          | 303,514          |
| Total Glass                                | 46,936         | 49,891         | 51,433           | 52,117           | 44,003           |
| Total Plastics                             | 15,062         | 17,269         | 16,807           | 18,679           | 18,320           |
| Total Metal*                               | 92,634         | 114,786        | 109,723          | 114,097          | 109,612          |
| Total Organics**                           | 540,582        | 468,901        | 689,027          | 589,124          | 583,101          |
| Special Wastes***                          | 4,947          | 5,426          | 5,926            | 6,271            | 6,690            |
| Construction and Demolition Debris         | 15,406         | 17,648         | 20,002           | 24,084           | 20,292           |
| Tires                                      | N/A            | N/A            | N/A              | N/A              | 113,670          |
| Other                                      | 6,120          | 5,896          | 4,626            | 4,773            | 5,677            |
| <b>Totals</b>                              | <b>985,052</b> | <b>947,657</b> | <b>1,173,082</b> | <b>1,076,516</b> | <b>1,204,879</b> |
| <b>Per Capita Recovery (lbs.)</b>          | <b>243.66</b>  | <b>231.47</b>  | <b>281.88</b>    | <b>255.76</b>    | <b>282.13</b>    |
| <b>Recovery Ratio (Recycling:Disposal)</b> | <b>0.10</b>    | <b>0.10</b>    | <b>0.11</b>      | <b>0.10</b>      | <b>0.11</b>      |

| Material                                   | FY 05-06         | FY 06-07         | FY 07-08         | FY 08-09         | FY 09-10         |
|--|------------------|------------------|------------------|------------------|------------------|
| Total Paper                                | 292,641          | 305,615          | 321,019          | 342,008          | 343,031          |
| Total Glass                                | 45,421           | 51,883           | 56,837           | 69,446           | 75,124           |
| Total Plastics                             | 18,177           | 19,373           | 22,298           | 23,947           | 29,206           |
| Total Metal*                               | 108,488          | 96,884           | 84,740           | 69,242           | 61,251           |
| Total Organics**                           | 619,494          | 631,393          | 554,576          | 593,323          | 589,482          |
| Special Wastes***                          | 6,955            | 8,304            | 7,195            | 8,433            | 7,225            |
| Electronics and Televisions                | N/A              | N/A              | N/A              | N/A              | 4,574            |
| Construction and Demolition Debris         | 24,001           | 40,352           | 59,501           | 33,209           | 41,400           |
| Tires****                                  | 146,177          | 187,273          | 142,160          | 147,055          | 119,177          |
| Other                                      | 7,743            | 5,558            | 6,753            | 8,474            | 1,948            |
| <b>Totals</b>                              | <b>1,269,097</b> | <b>1,346,635</b> | <b>1,255,079</b> | <b>1,295,173</b> | <b>1,272,416</b> |
| <b>Per Capita Recovery (lbs.)</b>          | <b>292.35</b>    | <b>303.97</b>    | <b>276.77</b>    | <b>280.73</b>    | <b>271.23</b>    |
| <b>Recovery Ratio (Recycling:Disposal)</b> | <b>0.11</b>      | <b>0.11</b>      | <b>0.11</b>      | <b>0.13</b>      | <b>0.14</b>      |

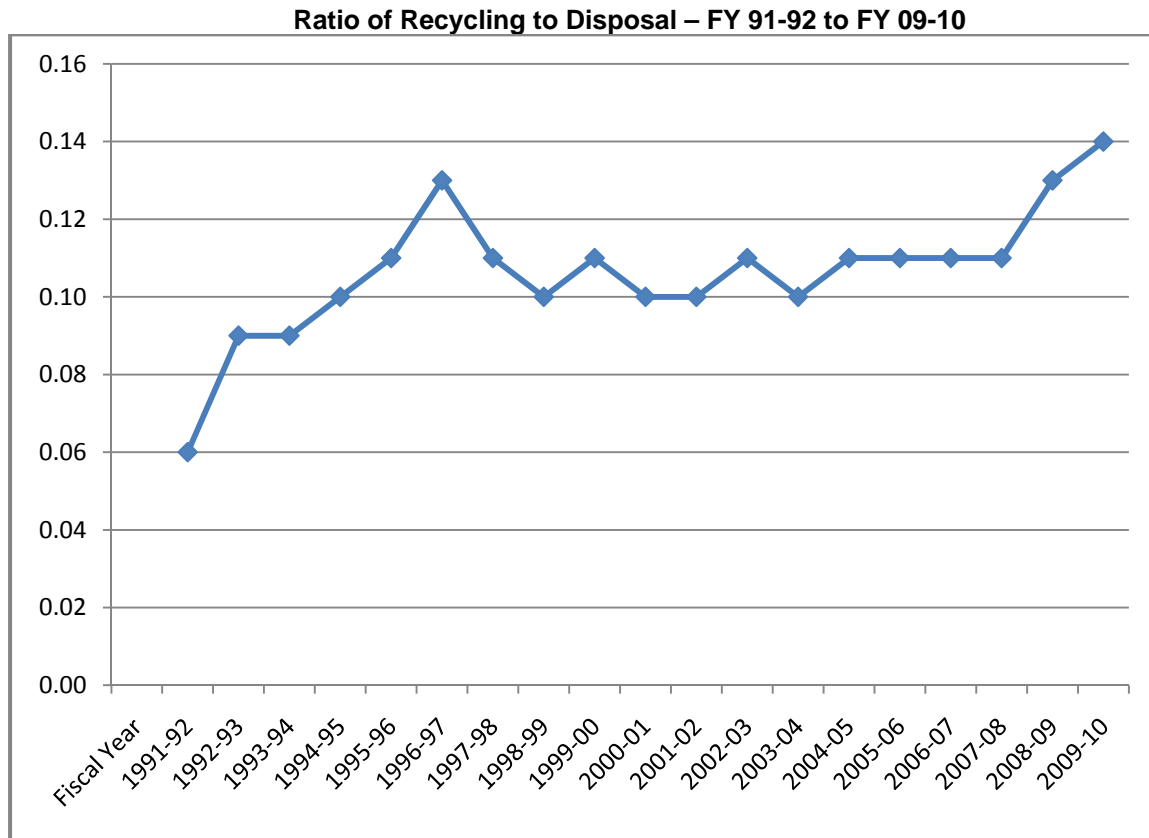
\* Includes white goods, aluminum cans, steel cans and other metals.

\*\* Includes yard waste, pallets, wood waste, and food waste.

\*\*\* For FY 00-01 through FY 0809 Special Wastes includes electronics, used oil, oil filters, antifreeze, paint and batteries. Beginning in FY 09-10 Special Wastes includes recovery from household hazardous waste programs and excludes Electronics which are now are reported separately.

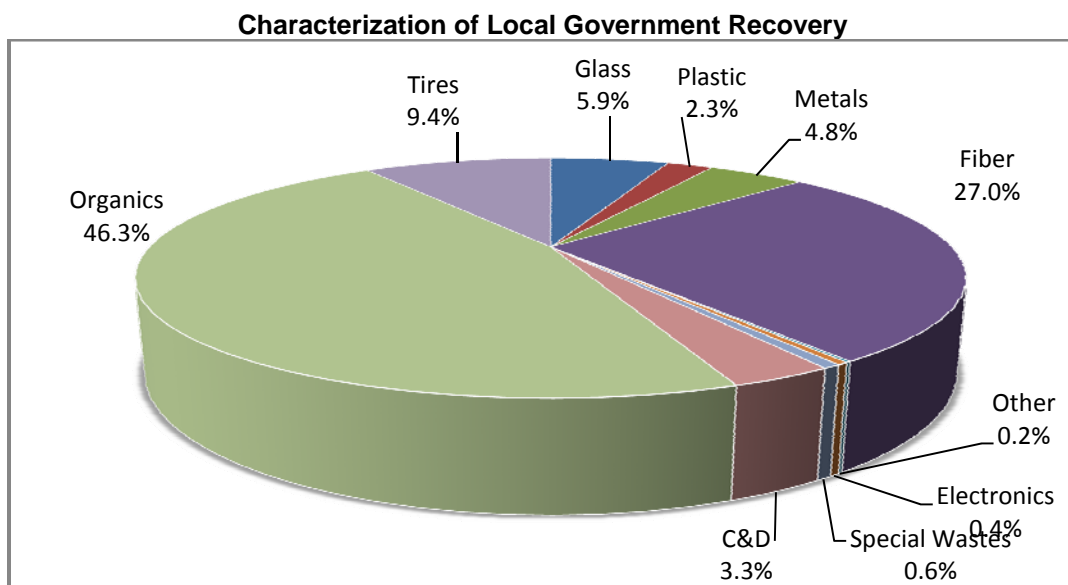
\*\*\*\* For FY 09-10 the tons of tires recovered includes only those tires generated by NC local governments. In prior years the figure has included all tires recovered at the private tire facilities in NC including those tires received from outside of North Carolina.

As mentioned earlier, the ratio of recycling to disposal jumped to an all-time high of 0.14 during FY 09-10. This ratio is used to examine the success of materials recovery from year to year when compared to disposal, and is determined by comparing the amount of materials recovered by local governments to the amount of total waste disposal during any one year. The following chart demonstrates the increasing success of materials recovery programs in North Carolina over the past several years.



### **Recovery of Particular Materials**

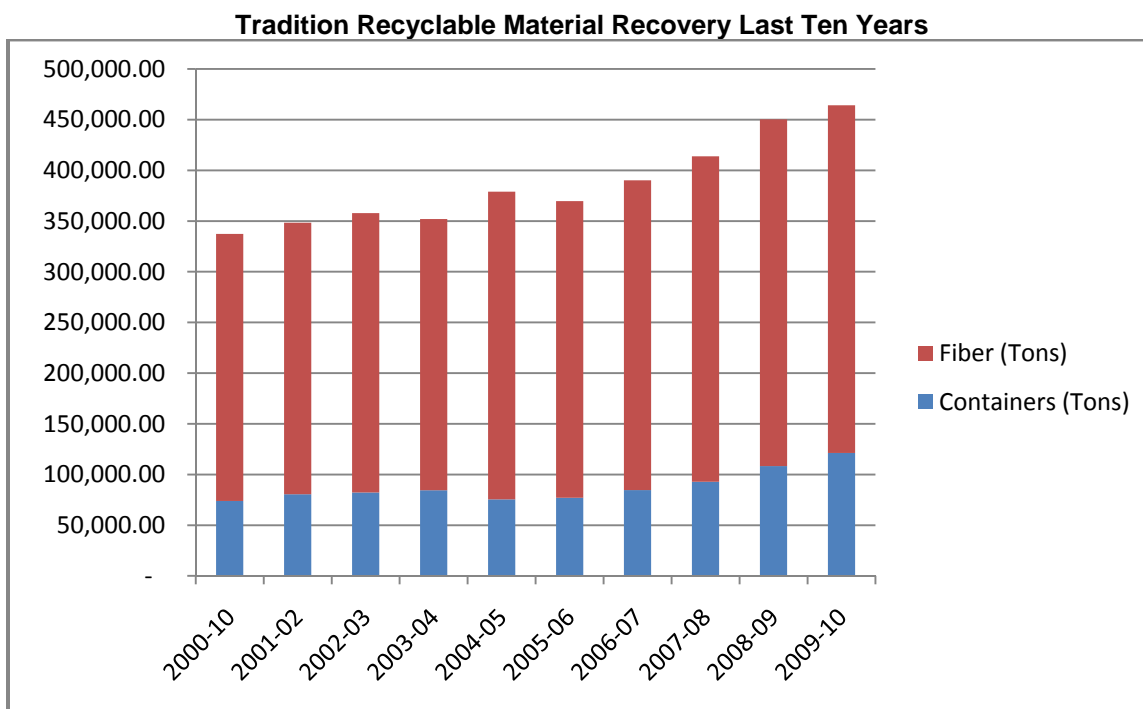
There is significant demand in North Carolina and beyond for recovered materials as feed-stock for a wide variety of industries. Although the recovery of organic materials is erratic due to annual weather conditions, the recovery of organics (primarily through mulching and composting, though also from the recovery of food waste and food-based oils) remains the single largest component of local government recycling programs. During FY 09-10 the recovery of organics constituted 46.3 percent of total local government recovery. Fiber and tires were the next two largest categories recovered contributing 27.0 percent and 9.4 percent respectively. Electronics are displayed separately from other special wastes for the first time as a result of the impending disposal ban on these materials that will become effective on July 1, 2011. The following chart provides a material-specific look at local government recovery operations in FY 09-10.



### **Recovery of Traditional Materials**

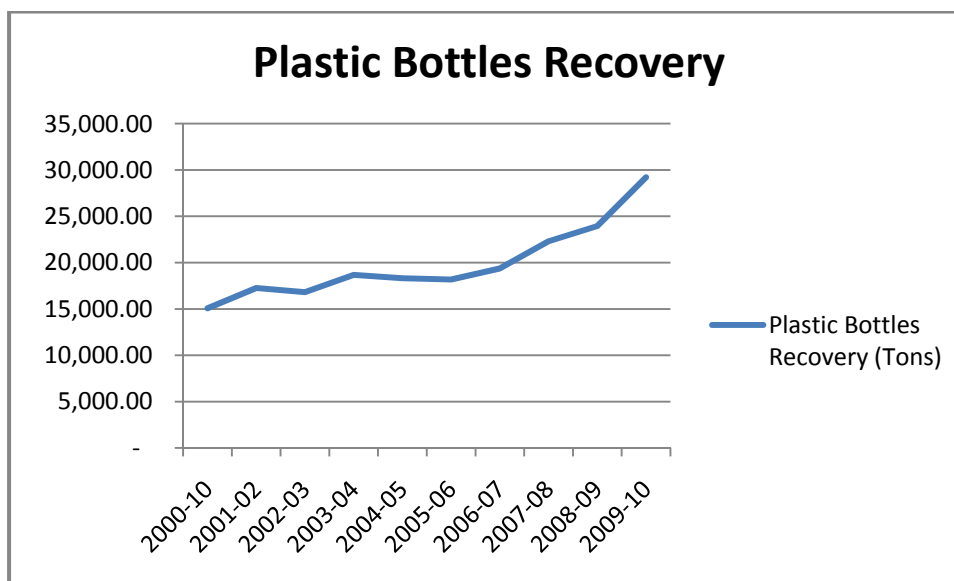
Traditional recyclable materials include fiber (corrugated cardboard, magazines, newspapers, office fiber and residential mixed paper) and containers (aluminum beverage cans, glass bottles and jars, plastic bottles, and steel food containers).

FY 09-10 continued the steady growth in the successful capture of traditional materials despite the trend towards decreased weight of packaging like plastic bottles and metal cans, and despite the continued decrease in the circulation of printed newspapers and the downsizing of those papers still in circulation.



### **Plastic Bottles - A Success Story**

North Carolina's disposal ban on plastic bottles became effective last fiscal year on October 1st, 2009. Plastic bottle recovery increased 22% in FY 09-10 when compared to FY 08-09, and this is the sharpest gain on record during the last ten years. The increased capture of plastic bottles helped to deliver more HDPE and PET resin to the growing plastics recovery industry in North Carolina and beyond. The following chart illustrates the increased recovery in plastic bottles over the past ten fiscal years.

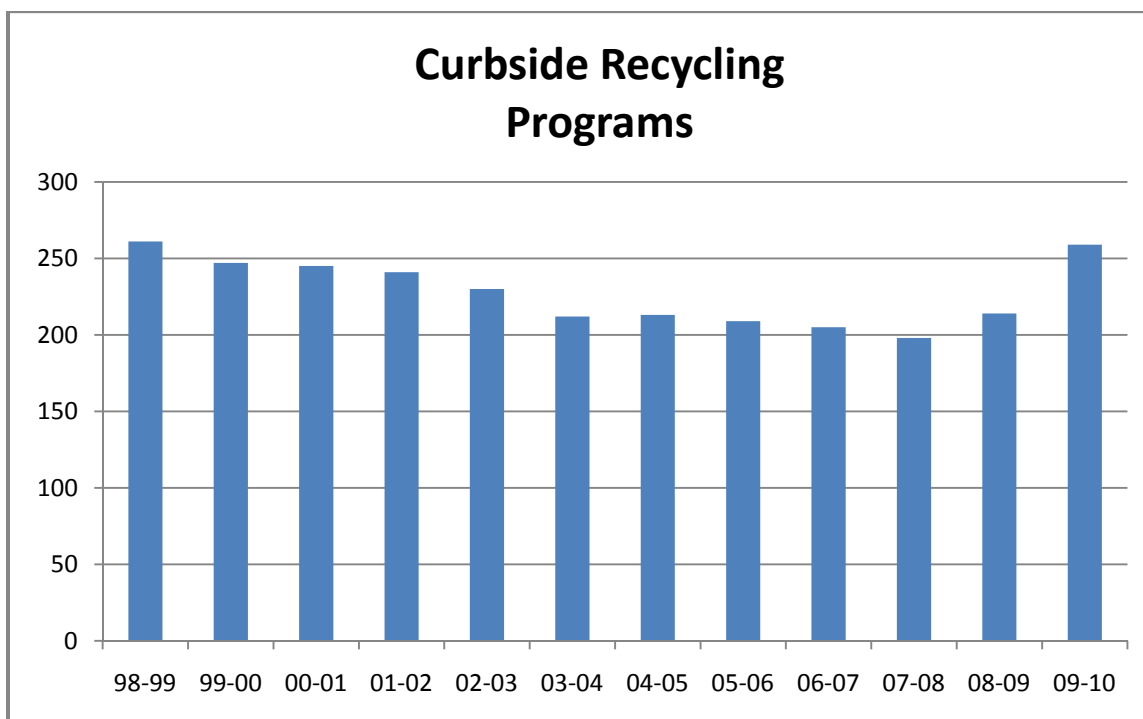


### **Local Government Recycling Program Management**

Publicly operated curbside recycling programs continued to see significant growth for the second year in a row during fiscal year 09-10, climbing to 259 programs from 214 the previous year. This continues last year's reversal of a decreasing trend in the number of units served that ran from 1998 to 2007. Given new renewed public attention to environmental issues, strong market values for recyclable materials, and a series of new disposal bans in the state, this trend is expected to continue in the future.

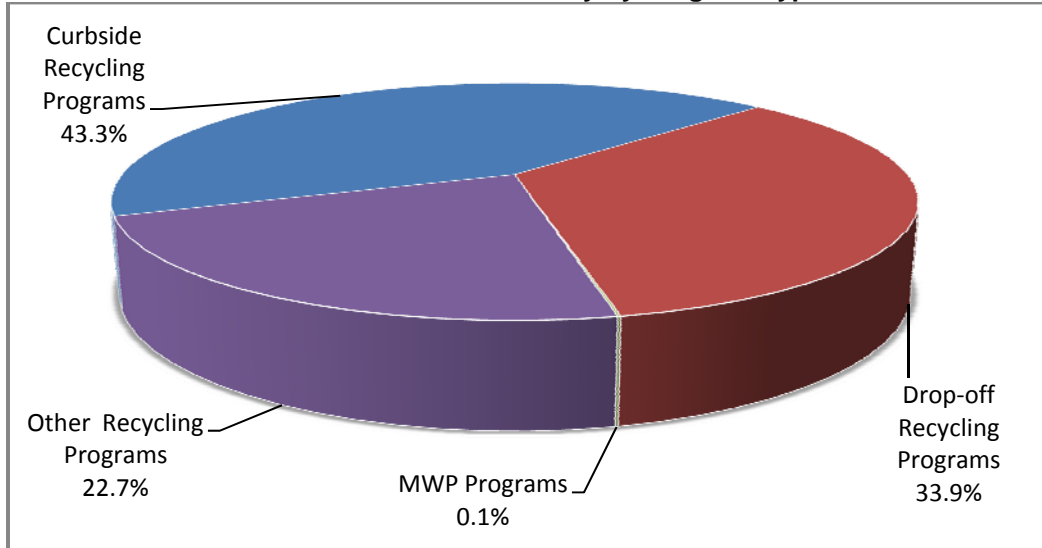
The number of households served by curbside recycling in North Carolina grew to 1.62 million, up from 1.52 million during FY 08-09. According to the US Census 2009 population estimate, there were 4.26 million households in North Carolina, thus over a third or 37.9% of households in the state have access to curbside recycling service. The continued growth in the number of households served by curbside recycling has been an ongoing trend, even during years when the state has experienced a decrease in the number of curbside recycling programs operated by local governments.

New curbside programs implemented in FY 09-10 contributed to the overall growth in the number of households with access to curbside recycling service. Many of the new programs in FY 09-10 were in small communities, though a portion of the growth in the number of households served by curbside recycling is still occurring at least in part due to annexations and growth in communities with existing curbside recycling programs. Seven of the new curbside recycling programs established in FY 09-10 were implemented with the assistance of the Cart Grant Program operated by the Division of Environmental Assistance and Outreach.



For the second year in a row curbside recycling programs contributed more towards the recovery of traditional recyclable materials in North Carolina than any other type of recycling effort. Drop-off recycling programs remain a critical component of waste reduction in the state, but the steady expansion of the number of households with curbside recycling services has again contributed to the decreased reliance on drop-off programs for recycling of traditional materials. During FY 09-10, 43.3 percent of the traditional recyclable materials recovered by local governments were collected through curbside programs. This compares to 33.9 percent from drop-off recycling programs, 22.7 percent from "other" recycling programs such as multifamily, commercial, and school recycling efforts, and 0.1 percent of recyclables were recovered by Mixed Waste Processing (MWP) programs where recyclables are sorted from municipal solid waste. The following chart illustrates local government recovery efforts by program sector for FY 09-10:

**Local Government Recovery by Program Type**



### **Special Waste Management**

For North Carolina local governments, FY 10 saw some general improvement in the collection of special wastes from the previous year. Most dramatic was the jump in the number of oil filter collection programs and the associated tonnage of filters recovered. This increase is attributable directly to the implementation of the state oil filter disposal ban, which engendered a 65 percent rise in local government programs and 160 percent increase in tonnage collected.

Oil collection also rose slightly, perhaps buoyed by the programmatic push on oil filters. By contrast, lead acid battery tonnage dropped by 35 percent as part of a long term trend in fewer and fewer batteries coming through local recycling programs. One explanation may be that the higher recycling value of batteries is leading citizens to recycle them directly with scrap yards rather than community drop-off locations.

The number of household hazardous waste programs went up in FY10, with an accompanying increase in tonnage collected. HHW programs saw the lowest aggregate cost per ton in the past five fiscal years.

**Local Government Special Waste Management, FY06 to FY10**

|                             | FY06        | FY07        | FY08        | FY09        | FY10        |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|
| <b>Used Motor Oil</b>       |             |             |             |             |             |
| Number of programs          | 122         | 126         | 124         | 125         | 131         |
| Gallons collected           | 933,618     | 872,399     | 901,565     | 822,748     | 851,136     |
| <b>Oil Filters</b>          |             |             |             |             |             |
| Number of programs          | 20          | 32          | 32          | 62          | 102         |
| Tons collected              | 28.21       | 35.84       | 37.94       | 56.29       | 146.5       |
| <b>Antifreeze</b>           |             |             |             |             |             |
| Number of programs          | 58          | 61          | 62          | 68          | 74          |
| Gallons collected           | 32,415      | 35,492      | 33,393      | 26,482      | 28,054      |
| <b>Lead Acid Batteries</b>  |             |             |             |             |             |
| Number of programs          | 95          | 93          | 90          | 91          | 98          |
| Number collected            | 91,947      | 83,853      | 67,662      | 66,880      | 43,619      |
| <b>Household Haz. Waste</b> |             |             |             |             |             |
| Number of programs          | 34          | 40          | 34          | 40          | 52          |
| Number of permanent sites   | 16          | 17          | 20          | 21          | 24          |
| HHW tons collected          | 2,066.91    | 2,227.24    | 2,281.75    | 2,733.68    | 3,382.74    |
| Total cost reported         | \$2,718,980 | \$2,729,511 | \$2,849,781 | \$3,123,480 | \$3,787,369 |
|                             | \$1,315/ton | \$1,226/ton | \$1,249/ton | \$1,143/ton | \$1,120/ton |

Conversions: Oil, 1 gal = 7.4 lbs; Antifreeze, 1 gal = 8.42 lbs; Lead Acid Battery, 1 battery = 35.9 lbs

### Yard Waste Management

Local government yard waste tonnage changed little from FY09 to FY10, with total diverted tons falling by a small fraction. As seen in the figure below, local government yard waste management has been remarkably steady since 1996, with a few anomalies during disaster or drought years. The state's yard waste disposal ban has now kept a cumulative 8.3 million tons out of landfills over the past 15 years.

To stay consistent in counting yard waste diversion over the years, local government collected organic materials going to the destination "Private Facility" are not included in the disposal diversion total. However, there is a small growing trend for some jurisdictions to send their collected yard waste materials to commercial composting and mulching facilities – this material is diverted from disposal but not counted in the directly managed diversion total reported in the table below. But some of the total tonnage is very substantial, including Cary's 20,395 tons, Asheville's 12,409 tons, Wilmington's 11,822 tons, and Concord's 8,005 tons. Just the total from these four municipalities alone would increase the amount of successfully disposal-diverted yard waste in FY10 by 10 percent.

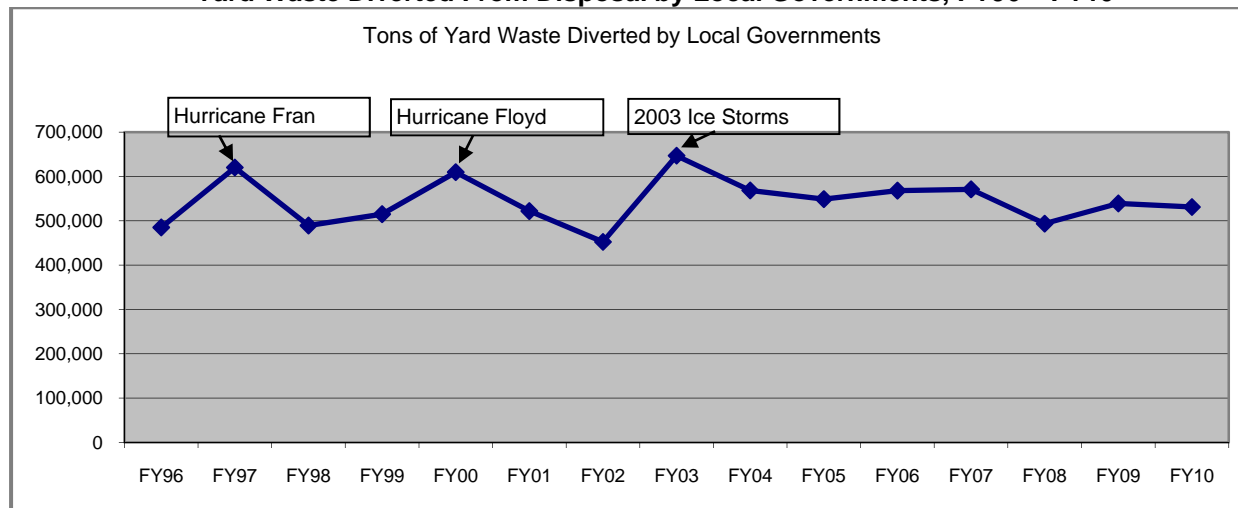
**Local Government Yard Waste Management FY09 and FY10**

| Destination of Materials         | FY09 Tons Managed | FY10 Tons Managed | Percentage Change |
|----------------------------------|-------------------|-------------------|-------------------|
| End Users (direct delivery)      | 61,423            | 55,768            | -9.2%             |
| Local Mulch/Compost Facility     | 478,339           | 475,284           | -1.1%             |
| <b>TOTAL DISPOSAL DIVERSION*</b> | <b>539,762</b>    | <b>531,052</b>    | <b>-1.6%</b>      |
| Other Public Facility**          | 136,225           | 147,390           | +8.2%             |
| Private Facility                 | 88,466            | 95,270            | +7.7%             |
| LCID Landfill                    | 94,367            | 97,482            | +3.3%             |
| <b>YARD WASTE TOTALS</b>         | <b>722,596</b>    | <b>723,805</b>    | <b>+0.2%</b>      |

\* Tonnages under the row for "Total Disposal Diversion" are not included in diversion because of data redundancy, uncertainty about actual disposition of the waste, and actual disposal of noted tonnages.

\*\* Yard Waste Totals exclude tons for "other public facilities" - it is assumed these tons were captured under other categories.

**Yard Waste Diverted From Disposal by Local Governments, FY96 – FY10**



### Recycling Markets and Prices

Market demand for recyclable materials was strong through FY10, as demonstrated by commodity pricing detailed below. Recycling prices have thoroughly rebounded from the dramatic drop experienced in late 2008 brought on by onset of the economic recession. North Carolina also enjoyed critical infrastructure developments addressing a range of materials, further increasing collection, processing, and end-use capacity in the state.

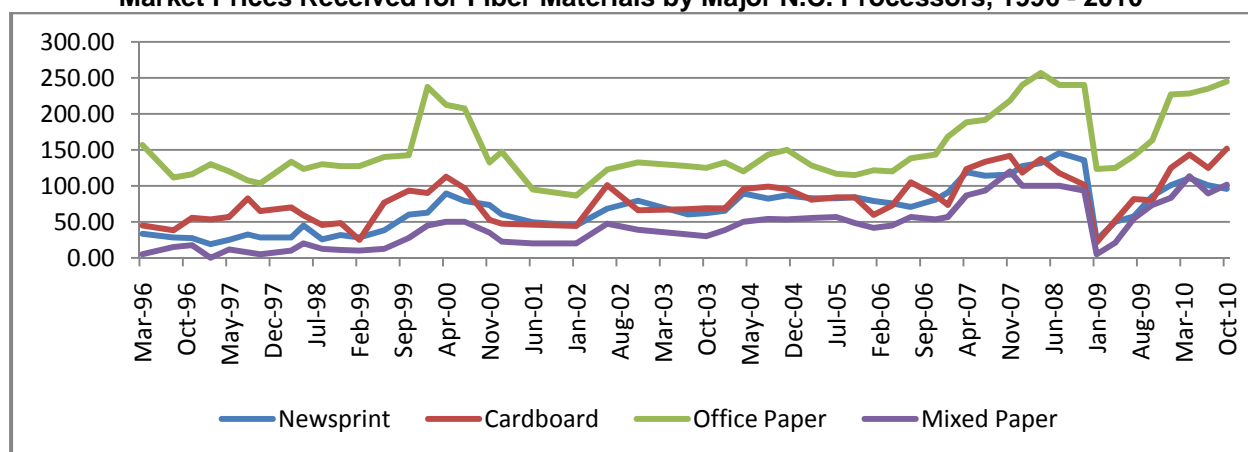
The table below, which reports the results of quarterly surveys of material recovery facilities in three regions in North Carolina, shows that prices rose for most commodities through the course of FY 10 before declining slightly toward the end of the fiscal year. Spring 2010 was a high water mark for the whole range of materials with a doubling or greater of prices for steel cans, PET, newsprint, and mixed paper from the beginning of the year. Glass remained flat in value, which has been the case for many years.

### Recycling Market Prices Received by Major N.C. Processors, FY 10

| Material                      | Summer 2009 | Fall 2009 | Winter 2009/10 | Spring 2010 | Summer 2010 |
|-------------------------------|-------------|-----------|----------------|-------------|-------------|
| Aluminum Cans, lbs., loose    | \$.57       | .61       | .76            | .79         | .70         |
| Steel Cans, gross tons, baled | \$79        | \$108     | \$164          | \$233       | \$188       |
| PET, lbs. baled               | \$.11       | \$.11     | \$.13          | \$.22       | \$.17       |
| HDPE Natural, lbs., baled     | \$.22       | \$.24     | \$.25          | \$.30       | \$.22       |
| Newsprint, ton, baled         | \$58        | \$80      | \$101          | \$111       | \$101       |
| Corrugated, ton, baled        | \$82        | \$80      | \$125          | \$143       | \$125       |
| Office paper, ton, baled      | \$141       | \$163     | \$227          | \$228       | \$235       |
| Mixed paper, ton, baled       | \$54        | \$73      | \$83           | \$113       | \$89        |
| Clear glass, ton              | \$25        | \$25      | \$25           | \$25        | \$25        |
| Brown glass, ton              | \$18        | \$18      | \$18           | \$18        | \$18        |
| Green glass, ton              | -\$1        | -\$1      | -\$1           | -\$1        | -\$1        |

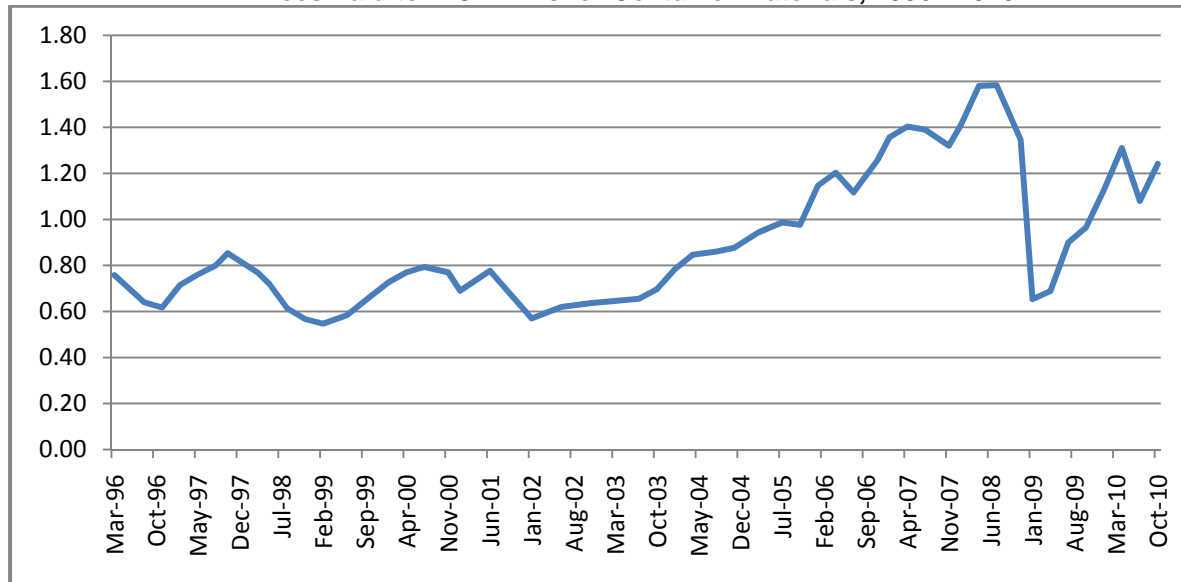
As demonstrated in the graph below, pricing for four major fiber grades (office paper, newsprint, cardboard, and mixed paper) since 1996 has naturally fluctuated over time, largely due to supply/demand issues, the effects of export markets, and the general impacts of economic activity. The 2008-09 recession caused a precipitous fall in pricing, in many ways unprecedented. But the recovery in just two years has been equally astonishing, especially given the lingering effects of the economic downturn. The global appetite for secondary fiber appears to be very strong as pricing reached near historic levels for paper grades in FY 10.

Market Prices Received for Fiber Materials by Major N.C. Processors, 1996 - 2010



The following figure shows composite price per pound received by material recovery facilities in North Carolina for some key container materials (aluminum cans, PET bottles and HDPE Natural) since 1996. In parallel with the experience with fiber, prices for these materials have fluctuated over 14 years, but the dramatic 2008 decline followed by the robust recovery in 2009 and 2010 is perhaps more marked for containers than fiber. FY10 pricing for these container materials again reflected the impact of a rising demand worldwide for recycled resins and metals.

**Prices Paid to N.C. MRFs for Container Materials, 1996 - 2010**



### **Recycling Market Developments in FY10**

In general, FY10 saw a resurgence of recycling material demand and pricing. As the global and domestic economy slowly emerged from the deep recession, demand for secondary materials resumed the steady growth it had experienced before the downturn. In fact, given the depth of the recession, it is remarkable how fast material demand and pricing got back on track, pushing almost immediately back to historic levels.

Developments within the state's recycling infrastructure reflected the relatively bullish aspects of the recycling industry and again demonstrated the inroads recovered materials have made as core industrial feedstocks. As one significant part of that infrastructure, material recovery facilities (MRFs) provide a critical link between recycling collection efforts and commodity consumption; investments in MRF capacity can be an indicator of the trend-lines of recycling demand growth. North Carolina saw continued MRF expansion in FY 10 with significant upgrades at two major facilities in Raleigh and Charlotte and the commitment of a major processor to build a new MRF in Charlotte (which was completed in late 2010). Smaller MRFs in other parts of the state also made investments to streamline material storage and throughput, including in some cases conversion to single stream processing.

North Carolina also experienced new growth in other key recycling capacity. Chief among these developments was the opening of the Clear Path Recycling facility in Fayetteville, a plant designed in its first phase to convert 160 million pounds of PET plastic bottles into polyester for carpet and new plastic bottle resin. Unifi, a major textile producer, also announced in FY10 its intention to increase consumption of PET-based resin for its Repreve textile line. In May 2010, VSA LLC, a recycler of automotive catalytic converters, announced plans to create 98 jobs and invest \$4.5 million in a new plant in Morganton. Also in FY 10, Metech, an electronics firm, opened a new plant focused on CRT glass processing in Creedmoor.

A number of other recycling companies in North Carolina made additional investments in FY 10. These increases in recovery capacity occurred along a broad range of material categories and business types, including composting and organics diversion, construction waste and asphalt shingle recycling, carpet and carpet pad processing, electronics recycling, glass cullet production, plastic processing, small scale commercial and residential collection, and pallet repair. As typically occurs, applications for state recycling grant assistance in FY 10 far outstripped available funding, indicating a consistent appetite among the state's recycling firms to expand and improve their operations.

In general, the state's recycling economy continued a now two decade-long pattern of growth through FY10. The recession provided a dampening effect on pricing but that impact proved temporary. As an indicator of the dynamic nature of the recycling sector and its ability to contribute to the overall growth of the state's economy, recycling employment rose 4.8 percent between 2008 and 2010. The increased diversion of commodities from disposal will only help this trend.

N.C. Solid Waste and Materials Management Annual Report  
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# Chapter 4

Scrap Tire Management



## DIVISION OF WASTE MANAGEMENT

### SCRAP TIRE MANAGEMENT

#### Scrap Tire Disposal Account

The Scrap Tire Disposal Account (STDA) was created by the 1993 General Assembly. For FY 09-10, it received 17 percent of the revenues from the Scrap Tire Disposal Tax.

Starting with the August 1997 distribution, 50 percent of the fund can be used for cost overrun reimbursements to counties, 10 percent for clean-up of nuisance tire sites and 40 percent for processed tire material market development grants.

#### FY 09-10 Balances

|  |                |
|--|----------------|
| Balance of Funds as of July 1, 2009      | \$2,351,034.29 |
| Deposits Received FY 2008-2009           | \$2,608,432.48 |
| Total Funds in Account                   | \$4,959,466.77 |
| Grants to County Scrap Tire Programs     | \$1,143,216.37 |
| Nuisance Tire Site Cleanup Program       | \$404,558.10   |
| Processed Tire Material Grants           | \$0            |
| Balance of Funds as of June 30, 2010     | \$3,411,692.30 |
| Obligated funds as of June 30, 2010*     | \$1,860,500.00 |
| Net Balance of Funds as of June 30, 2009 | \$1,555,192.30 |

\* \$1,860,500 obligated: \$360,500 for tire cleanup, \$1,500,000 for grants to counties

#### Tire Tax Distribution

##### Tire Tax Distribution FY09-10

|                                     |                 |
|-------------------------------------|-----------------|
| Total Collections                   | \$14,566,151.76 |
| Dept. of Revenue Cost of Collecting | \$259,790.40    |
| Scrap Tire Disposal Account         | \$2,608,320.07  |
| Solid Waste Management Trust Fund   | \$1,144,508.91  |
| Distributed to Counties             | \$10,014,452.96 |
| Inactive Haz. Sites Cleanup Fund    | \$269,539.71    |
| B. Allen Mem. Drinking Water Fund   | \$269,539.71    |

Of the state's tire disposal tax revenue, 70 percent is distributed to counties on a per capita basis. In the past year, the total amount distributed was \$10,014,452.96. This subsidized tire disposal costs for the counties, but did not cover the total expenses of some counties. The total distributed to the counties represented 91 percent of the total reported direct disposal costs of \$10,965,852.38.

Counties whose scrap tire disposal costs exceed the amount they receive in their allocation of the tire tax can apply for a grant from the scrap tire disposal account to cover the deficit. Historically, the amount of grant funds requested by counties has surpassed availability. Scrap tire legislation requires the division to consider county efforts to avoid free disposal of out-of-state tires and other ineligible tires and county program efficiency in using their allocated funds when making decisions about grant awards. For the first grant cycle of this fiscal year, 49 counties requested \$873,577 and were awarded \$580,913. In the second grant cycle, 57 counties requested \$844,495 and were awarded \$562,303.

#### Processed Tire Material Market Development Grants

The goal of the Division of Waste Management's processed tire material market development grant program is to make scrap tire recycling sustainable in North Carolina. Since receiving its first allocation of funds in August 1997, the program has spent \$4,475,883 on nine



projects that created new or expanded existing markets for processed tire material. These have included modifications to a boiler system to facilitate the use of tire-derived fuel, expansion of manufacturing capacity of solid rubber wheels, testing for regulatory approval of using tire chips in bed system drain fields, research to increase amount of recycled rubber in manufacture of new tires, expansion of tire-derived fuel production to meet market demand, and assistance in the construction of the first ground-rubber production facility in the state.

The division continues to look at opportunities that promote sustainable scrap tire recycling. Due to the state budget shortfall, some STDA funds have been diverted to the general fund, limiting available funding for potential projects. As the grant program receives future distributions from the scrap tire tax, new projects will be considered.

### Tire Cleanup Program

Improper management of scrap tires can result in illegal dump sites. These sites can breed mosquitoes and other vectors which are a fire hazard and pose a public health threat. A tire fire can result in damage to air quality, surface water and ground water.

A total of 388 nuisance tire sites have been identified in North Carolina: 367 have been cleaned and 21 sites have cleanups underway. Counties are encouraged to locate and help facilitate the cleanup of small tire sites through countywide cleanup activities.



| Status        | Number of Sites | Total Known Tires | Total Tires | Cleared Tires    |
|---------------|-----------------|-------------------|-------------|------------------|
| Cleaned Up    | 367             | 9,106,360         | 96.2%       | 9,106,360        |
| Under Cleanup | 21              | 361,730           | 3.8%        | 101,044          |
| <b>TOTAL</b>  | <b>388</b>      | <b>9,468,090</b>  | <b>100%</b> | <b>9,207,404</b> |

The law requires the division to first address nuisance tire sites that pose the greatest threat to public health and the environment. For this reason, the largest identified sites have been cleaned up. The section has established and implemented a specific cleanup plan for each known nuisance tire site. As new sites are discovered, prompt investigation leads to a cleanup plan for each site within 30 days. The plan is implemented as soon as possible to minimize potential threats to human health and the environment. The section is committed to the N.C. Big Sweep program and other countywide cleanup efforts, with reimbursements going to counties that request funds to dispose of scrap tires collected by these events.

To date, 188 nuisance tire sites were cleaned using STDA funds. Cost recovery enforcement efforts collected \$456,373.30 from responsible parties in 16 of these sites. As a cost-saving measure, minimum-security inmates have been used to help remove tires from numerous nuisance tire sites in 28 counties. A total of 175 nuisance sites have been cleaned up by the responsible person(s) and/or landowner or the county. Four sites burned.

### Scrap Tire Generation

The U.S. EPA standard to estimate scrap tire generation is one tire per person, per year.<sup>1</sup> The 2009 N.C. population was about 9.4 million, so it is estimated an equal number of tires were generated. This includes passenger, truck, and tires for special uses, such as off-road equipment and tractors. Counties report tires collected in either tons (most counties report tons collected) or the number of tires. Tons can be converted to number of tires to be compared to the population to determine the state's scrap tire generation rate. Several methods of converting tons to number of tires have been used over the years in

<sup>1</sup>"Markets for Scrap Tires," 1991. U.S. EPA, Office of Solid Waste. EPA/530-SW-90-074A. Washington, DC

an attempt to be most accurate. An EPA workgroup consisting of state scrap tire regulators, including North Carolina, has developed a conversion method for all states to use that will provide consistency in reporting. This is beneficial by providing greater accuracy in compiling national reports that track trends in scrap tire management and recycling.

During FY 09-10, North Carolina counties reported having disposed of 8,502,165 tires (calculated using the EPA workgroup method). Comparing scrap tire generation using this method to population results in 0.91 scrap tire per person. By comparison, when counties estimated the percent of each type of tire they collected (passenger, heavy truck and off-road), the calculated number of tires disposed was 10,440,215, which is 1.1 tires per person. However, this figure is very heavily weighted towards passenger tires (96% of the total number of tires) with the actual total number likely lower.

### Scrap Tire Collection

All counties are required to provide a facility for scrap tire collection and to report on their management programs. In FY 09-10, North Carolina businesses and individuals disposed of approximately 151,339 tons of tires. These tires were managed by county collection facilities and private processing/disposal facilities as follows:

|                     |  |
|---------------------|--|
| 140,448 tons        | Managed by counties and shipped to two NC processing firms         |
| 265 tons            | Managed by counties and shipped to out-of-state processors         |
| <u>10,626 tons</u>  | Tires taken directly to processing firms (not managed by counties) |
| <b>151,339 tons</b> | <b>Total</b>   |

Counties reported receiving approximately 140,773 tons from N.C. scrap tire generators. The counties shipped about 140,448 tons to two private North Carolina recycling facilities; the remaining tons were shipped to an out-of-state processor.

Two private N.C. tire processing firms received 138,714 tons from county tire programs and an additional 10,626 tons directly from disposers not participating in county tire programs. These may be individuals involved in privately-funded cleanups or tire dealers not participating in a county program. In addition, the two N.C. processors received 33,132 tons of tires from other states.

The tire program's success is proven by the number of tires properly disposed at permitted facilities. When free disposal was implemented in 1994 for scrap tires generated in the normal course of business in N.C., a potential problem emerged: the illegal free disposal of out-of-state tires at county collection sites. Counties should be diligent in screening scrap tires brought for disposal to identify out-of-state tires and other tires not eligible for free disposal. Those that do not are likely spending a portion of their tire tax revenues for disposal of out-of-state tires.

The section assists counties in learning how to avoid fraudulent disposal of out-of-state tires. County efforts to deter disposal of out-of-state tires is an eligibility factor when awarding grants from the STDA to cover cost over-runs.

### County Tire Disposal

There are 98 county programs, including one regional program [Carteret, Craven and Pamlico (CRSWMA)]. Counties reported spending a total of \$11,667,499 for scrap tire management and disposal. Of this total, \$10,965,853 was for direct disposal costs and \$701,646 was for other costs, such as labor or equipment costs. Counties with unusually low costs may be stockpiling tires during the year rather than sending them for processing. Some of the fluctuation is probably due to recordkeeping errors or county reporting errors. Some counties manage tires more efficiently than others. For example, counties that allow citizens to dispose tires at multiple recycling facilities or provide curbside pickup incur increased labor costs to recover and load tires into trailers.

Tire disposal costs charged by processors are very competitive in North Carolina. North Carolina processors report that county contracts typically charge \$70-\$85 per ton, including transportation and trailer rental costs. Counties at a distance from processing facilities may pay as much as \$85-\$100 per ton.

**COUNTY REPORTS OF SCRAP TIRE DISPOSAL**

| <b>County</b> | <b>Total Tons</b> | <b>Total Cost</b> | <b>Tire Tax Rec'd.</b> | <b>Calculated Cost/Ton</b> |
|---------------|-------------------|-------------------|------------------------|----------------------------|
| Alamance      | 1948.09           | \$ 158,390.88     | \$ 158,359.84          | \$ 81.31                   |
| Alexander     | 453.66            | \$ 36,014.96      | \$ 40,197.52           | \$ 79.39                   |
| Alleghany     | 227.23            | \$ 22,104.25      | \$ 12,116.05           | \$ 97.28                   |
| Anson         | 287.51            | \$ 23,436.79      | \$ 27,641.01           | \$ 81.52                   |
| Ashe          | 513.5             | \$ 71,997.90      | \$ 28,601.42           | \$ 140.21                  |
| Avery         | 248.42            | \$ 28,000.00      | \$ 20,049.29           | \$ 112.71                  |
| Beaufort      | 845.15            | \$ 100,318.50     | \$ 50,641.06           | \$ 118.70                  |
| Bertie        | 255.98            | \$ 23,558.44      | \$ 21,852.39           | \$ 92.03                   |
| Bladen        | 532               | \$ 48,223.74      | \$ 35,140.77           | \$ 90.65                   |
| Brunswick     | 1,431.13          | \$ 138,495.03     | \$ 111,183.25          | \$ 96.77                   |
| Buncombe      | 2,477.19          | \$ 265,000.00     | \$ 247,764.46          | \$ 106.98                  |
| Burke         | 1,340.73          | \$ 104,024.96     | \$ 97,068.13           | \$ 77.59                   |
| Cabarrus      | 1,923.32          | \$ 111,702.00     | \$ 184,102.14          | \$ 58.08                   |
| Caldwell*     | 1,185.99          | \$ 90,941.70      | \$ 87,045.61           | \$ 76.68                   |
| Camden        | 60.95             | \$ 17,272.00      | \$ 10,548.17           | \$ 283.38                  |
| Caswell       | 160.57            | \$ 13,309.43      | \$ 25,553.09           | \$ 82.89                   |
| Catawba       | 3,280.62          | \$ 263,574.22     | \$ 168,465.63          | \$ 80.34                   |
| Chatham       | 860.35            | \$ 66,691.92      | \$ 65,893.52           | \$ 77.52                   |
| Cherokee      | 361.47            | \$ 49,687.50      | \$ 29,541.44           | \$ 137.46                  |
| Chowan        | 475.56            | \$ 45,773.00      | \$ 16,001.30           | \$ 96.25                   |
| Clay*         | 269.86            | \$ 24,418.75      | \$ 11,363.18           | \$ 90.49                   |
| Cleveland     | 1,445.72          | \$ 144,925.88     | \$ 106,533.56          | \$ 100.24                  |
| Columbus      | 1,222.41          | \$ 93,416.58      | \$ 59,604.47           | \$ 76.42                   |
| CRSWMA        | 3,015.09          | \$ 295,336.05     | \$ 189,427.96          | \$ 97.95                   |
| Cumberland    | 4,561.32          | \$ 318,071.61     | \$ 344,535.11          | \$ 69.73                   |
| Currituck     | 264.74            | \$ 38,524.90      | \$ 25,900.85           | \$ 145.52                  |
| Dare          | 552.16            | \$ 56,281.00      | \$ 37,096.77           | \$ 101.93                  |
| Davidson      | 2,214.87          | \$ 165,417.14     | \$ 172,491.09          | \$ 74.68                   |
| Davie         | 612               | \$ 44,971.71      | \$ 44,514.51           | \$ 73.48                   |
| Duplin        | 893.53            | \$ 76,781.77      | \$ 58,158.06           | \$ 85.93                   |
| Durham        | 3,076.47          | \$ 288,413.61     | \$ 282,309.32          | \$ 93.75                   |
| Edgecombe     | 966.8             | \$ 75,684.64      | \$ 56,464.90           | \$ 78.28                   |
| Forsyth       | 6,035.00          | \$ 483,080.26     | \$ 373,266.05          | \$ 80.05                   |
| Franklin      | 685.57            | \$ 64,137.70      | \$ 62,736.26           | \$ 93.55                   |
| Gaston        | 3,123.07          | \$ 273,541.09     | \$ 222,327.92          | \$ 87.59                   |
| Gates         | 175.8             | \$ 18,123.00      | \$ 12,896.46           | \$ 103.09                  |
| Graham        | 158.21            | \$ 20,913.28      | \$ 8,830.23            | \$ 132.19                  |
| Granville     | 697.12            | \$ 67,567.46      | \$ 61,153.20           | \$ 96.92                   |
| Greene        | 139.97            | \$ 11,784.03      | \$ 23,087.35           | \$ 84.19                   |
| Guilford      | 7,131.92          | \$ 559,314.69     | \$ 508,431.37          | \$ 78.42                   |
| Halifax       | 899.08            | \$ 93,791.23      | \$ 60,222.58           | \$ 104.32                  |
| Harnett       | 1,204.08          | \$ 76,068.76      | \$ 118,651.18          | \$ 63.18                   |
| Haywood       | 1,137.06          | \$ 164,589.41     | \$ 62,226.07           | \$ 144.75                  |
| Henderson     | 1,219.86          | \$ 119,397.09     | \$ 112,719.10          | \$ 97.88                   |
| Hertford      | 369.99            | \$ 31,012.03      | \$ 25,893.22           | \$ 83.82                   |
| Hoke          | 450.07            | \$ 34,347.61      | \$ 48,022.26           | \$ 76.32                   |
| Hyde          | 81                | \$ 8,020.53       | \$ 5,993.61            | \$ 99.02                   |
| Iredell       | 2,832.19          | \$ 218,965.27     | \$ 166,994.84          | \$ 77.31                   |
| Jackson       | 507.38            | \$ 59,115.83      | \$ 40,271.04           | \$ 116.51                  |
| Johnston      | 2,145.72          | \$ 162,178.12     | \$ 175,908.44          | \$ 75.58                   |
| Jones         | 268.9             | \$ 22,493.69      | \$ 11,224.41           | \$ 83.65                   |

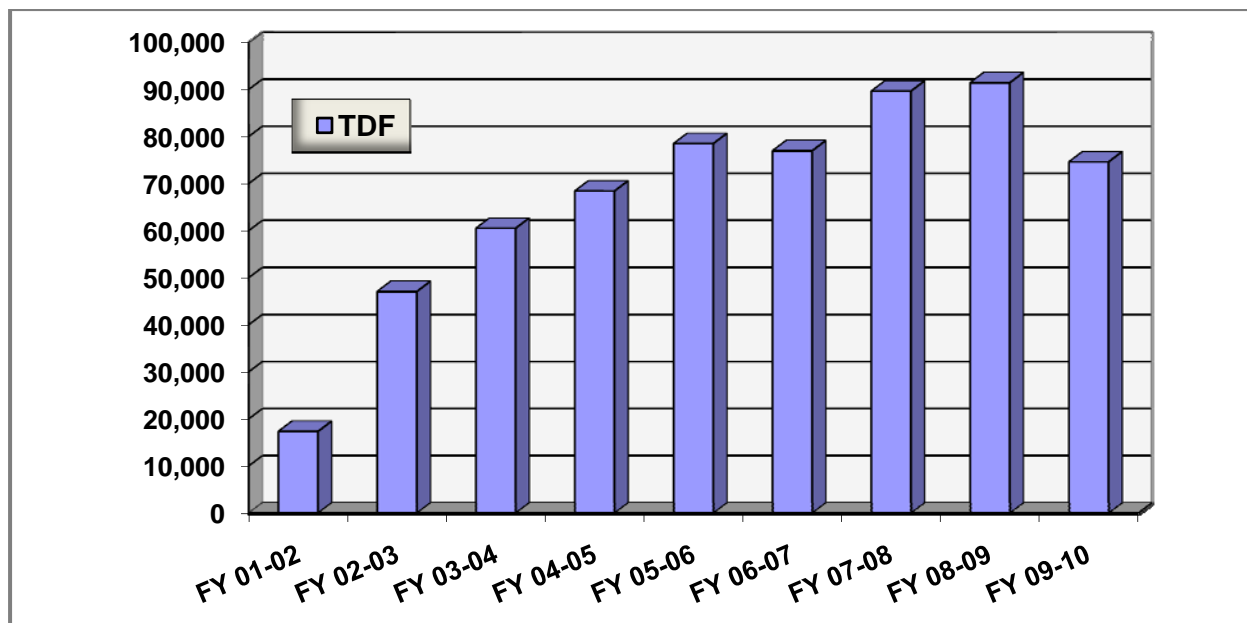
| County        | Total Tons        | Total Cost              | Tire Tax Rec'd.         | Calculated Cost/Ton |
|---------------|-------------------|-------------------------|-------------------------|---------------------|
| Lee           | 822.86            | \$ 43,690.23            | \$ 62,368.50            | \$ 53.10            |
| Lenoir        | 1,206             | \$ 105,543.71           | \$ 62,730.10            | \$ 87.52            |
| Lincoln       | 1,281             | \$ 90,410.24            | \$ 80,766.14            | \$ 70.58            |
| Macon         | 860.71            | \$ 82,729.69            | \$ 37,143.50            | \$ 96.12            |
| Madison       | 132.82            | \$ 32,298.00            | \$ 22,596.95            | \$ 243.17           |
| Martin        | 377.42            | \$ 31,523.31            | \$ 26,027.81            | \$ 83.52            |
| McDowell      | 759.4             | \$ 70,676.00            | \$ 48,436.54            | \$ 93.07            |
| Mecklenburg   | 15,760.64         | \$ 1,165,213.08         | \$ 952,156.12           | \$ 73.93            |
| Mitchell*     | 457.16            | \$ 37,702.60            | \$ 17,454.01            | \$ 82.47            |
| Montgomery    | 552.67            | \$ 38,033.22            | \$ 30,122.10            | \$ 68.82            |
| Moore         | 808.65            | \$ 55,573.58            | \$ 92,587.42            | \$ 68.72            |
| Nash          | 1,250             | \$ 109,550.84           | \$ 102,148.11           | \$ 87.64            |
| New Hanover   | 3,251.81          | \$ 261,401.24           | \$ 208,904.50           | \$ 80.39            |
| Northampton   | 375.1             | \$ 26,327.00            | \$ 23,091.09            | \$ 70.19            |
| Onslow        | 1,931.78          | \$ 159,386.36           | \$ 190,018.90           | \$ 82.51            |
| Orange        | 1,305.94          | \$ 97,441.00            | \$ 140,399.99           | \$ 74.61            |
| Pasquotank    | 785.99            | \$ 45,126.99            | \$ 44,926.77            | \$ 57.41            |
| Pender        | 806               | \$ 77,136.81            | \$ 56,131.99            | \$ 95.70            |
| Perquimans    | 165.1             | \$ 17,195.00            | \$ 14,063.13            | \$ 104.15           |
| Person        | 466.25            | \$ 49,124.20            | \$ 40,920.79            | \$ 105.36           |
| Pitt          | 2,794.70          | \$ 213,344.96           | \$ 168,589.99           | \$ 76.34            |
| Polk          | 235.71            | \$ 23,000.00            | \$ 20,714.12            | \$ 97.58            |
| Randolph      | 2,380             | \$ 125,389.02           | \$ 153,242.61           | \$ 52.68            |
| Richmond      | 1,010.95          | \$ 53,580.35            | \$ 51,010.96            | \$ 53.00            |
| Robeson       | 1,559             | \$ 115,868.00           | \$ 141,800.43           | \$ 74.32            |
| Rockingham    | 1,330.60          | \$ 109,725.38           | \$ 99,929.81            | \$ 82.46            |
| Rowan*        | 1,272.93          | \$ 163,509.55           | \$ 150,425.18           | \$ 128.45           |
| Rutherford*   | 1,150.95          | \$ 99,500.00            | \$ 69,103.03            | \$ 86.45            |
| Sampson       | 944.59            | \$ 85,345.69            | \$ 71,043.06            | \$ 90.35            |
| Scotland      | 474.75            | \$ 35,194.03            | \$ 40,335.64            | \$ 74.13            |
| Stanly        | 835.33            | \$ 76,543.02            | \$ 64,936.26            | \$ 91.63            |
| Stokes        | 541.61            | \$ 50,282.07            | \$ 50,731.20            | \$ 92.84            |
| Surry         | 1,795.13          | \$ 130,399.00           | \$ 79,927.27            | \$ 72.64            |
| Swain*        | 209.23            | \$ 19,475.00            | \$ 15,214.90            | \$ 93.08            |
| Transylvania  | 378.6             | \$ 44,315.00            | \$ 33,716.42            | \$ 117.05           |
| Tyrell        | 53.08             | \$ 4,904.00             | \$ 4,667.87             | \$ 92.39            |
| Union         | 2,425.05          | \$ 174,111.59           | \$ 205,921.09           | \$ 71.80            |
| Vance         | 801.38            | \$ 64,000.00            | \$ 47,438.68            | \$ 79.86            |
| Wake          | 12,045.81         | \$ 1,034,536.04         | \$ 933,555.00           | \$ 85.88            |
| Warren        | 280.48            | \$ 25,630.32            | \$ 21,710.65            | \$ 91.38            |
| Washington    | 383.72            | \$ 33,079.23            | \$ 14,368.75            | \$ 86.21            |
| Watauga       | 630               | \$ 45,905.00            | \$ 49,227.66            | \$ 72.87            |
| Wayne*        | 2,331.13          | \$ 183,528.40           | \$ 125,979.07           | \$ 78.73            |
| Wilkes        | 988.36            | \$ 112,484.10           | \$ 73,321.62            | \$ 113.81           |
| Wilson        | 2,503.80          | \$ 165,168.40           | \$ 85,760.92            | \$ 65.97            |
| Yadkin        | 442.7             | \$ 43,750.75            | \$ 41,511.23            | \$ 98.83            |
| Yancey        | 329.55            | \$ 34,000.00            | \$ 20,253.62            | \$ 103.17           |
| <b>TOTALS</b> | <b>140,712.82</b> | <b>\$ 11,651,853.94</b> | <b>\$ 10,014,452.96</b> | <b>\$ 82.81</b>     |

DNR=Did Not Report

The information in this table was taken from the Dept. of Revenue reports of tire tax distribution and from the Scrap Tire Management Annual Reports submitted by the counties. Calculated cost/ton = total costs / tons collected.

## Tire Recycling

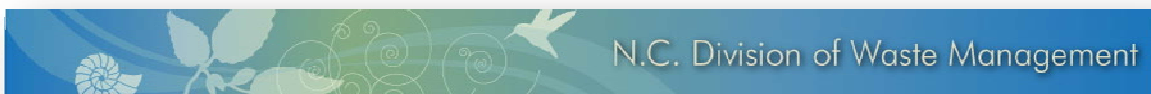
In FY 09-10, 72% of scrap tires received by North Carolina tire recycling companies were recycled. In order of weight recycled, the categories are tire-derived fuel, crumb/ground rubber, civil engineering (including drain field material), recap/resale, and other products. The remaining tires go to the two permitted tire monofills in the state. The market for tire-derived fuel (TDF) has been strong the last few years, but saw an 18% decrease during FY 09/10. Industry sources indicate this was due to a state renewable energy tax credit that favored wood chips, resulting in some businesses replacing TDF with wood chips. However, information from processors indicates the TDF market is coming back strong, due to the higher BTU value in TDF as compared to wood chips. The section continues to pursue new opportunities for sustainable scrap tire recycling.



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# Chapter 5

White Goods



## DIVISION OF WASTE MANAGEMENT

### WHITE GOODS MANAGEMENT

"White goods" are defined in the General Statute as, "refrigerators, ranges, water heaters, freezers, unit air conditioners, washing machines, dishwashers, clothes dryers and other similar domestic and commercial large appliances." In 1993 the North Carolina General Assembly passed the White Goods Management law because white goods were difficult to dispose and contained chlorofluorocarbon refrigerants (CFCs). Counties were mandated to manage them by providing at least one disposal site, at no cost to citizens, and to arrange for the removal of CFCs. To fund this statute, the General Assembly imposed a \$3 tax (Advanced Disposal Fee or ADF) on new white goods purchased.

#### White Goods Management by County Governments

The banning of white goods from landfills in 1989 has encouraged recycling and better management. Comprehensive white goods management laws enacted in 1993 included an ADF. In 1998, Senate Bill 124 extended the fee for three years, but reduced it from \$10 to \$3. In 2000, the sunset on the fee was removed.

The major accomplishment of the program is a drastic reduction in illegal dumping of white goods. The critical factor was requiring local governments to provide collection sites at no cost to citizens. Grant and ADF funding make it possible to clean up illegal dumpsites. Previously, many counties gave white goods a low priority and under-funded their management. The white goods account makes it possible for counties to hire and train personnel, obtain the specialized equipment or develop collection and loading areas needed to improve white goods management.

In FY 09-10, 57 counties reportedly collected 25,977 tons of white goods. In comparison, in FY 91-92, all 100 counties collected 25,749 tons of white goods. Without the program, large numbers of appliances would have likely been illegally dumped or stockpiled.

#### CFC Collection

All counties should continue to implement proper management practices to capture and recycle CFCs. This practice avoids the illegal venting of CFCs into the atmosphere and creates a potential revenue source for counties from the sale of CFCs. The release of CFC's into the atmosphere is illegal under both state and federal law because of the damage it causes to the earth's atmosphere.

The accidental and intentional venting of CFCs due to poor management practices may be more widespread than previously thought. Even though gas venting is prohibited under state and federal law and markets exist for reclaimed CFCs, reports from sources in the field indicate that some counties and metal recyclers contracted by counties, accidentally and intentionally vent CFCs on a routine basis into the atmosphere. Proper extraction of CFCs from appliances is considered to be time-consuming, requires trained personnel, specialized equipment and may be given low priority among solid waste programs.

The white goods program is actively encouraging and promoting counties to reclaim more refrigerant gases from appliances. This is being done by emphasizing that the program can provide funding for the purchase of equipment, the training of personnel and supplying information for private sector sources to help counties find markets for reclaimed CFCs. It is hoped that the net result will be a decrease in the amounts of ozone depleting CFCs released into the environment, while at the same time providing a new revenue source for counties through the sale of reclaimed CFCs.

CFC reclamation involves the use of specialized equipment and trained personnel. The CFC extraction equipment shown here is dedicated to the extraction of one type of CFC, R-22. Reclaimed refrigerants have increased market value when uncontaminated by other refrigerants. A good quality CFC recycling program would have several reclamation units, each unit dedicated to a single type of refrigerant.



Appliances use an average of one half pound of refrigerant per unit. Accurate record keeping by one populous county substantiates that on average 90% (ninety percent) of refrigerant-bearing appliances continue to have CFC's in their coolant systems upon disposal. The number of appliances which did not have CFC's upon disposal ranged from 5% to 22% in any particular month. Without county white goods programs, many appliances with CFCs would have been improperly disposed, contributing to the depletion of the earth's ozone layer.

### Current Trends in White Goods Management

- Scrap metal prices fell precipitously after the economic crisis, continuing for several months. Afterward, prices began to rebound incrementally. At the time of this writing, scrap metal prices have recovered much of their pre-crisis value. Even though general economic conditions in the U.S. have not greatly improved, the demand for scrap metal has not followed the domestic demand. It would appear that scrap metal prices have completely decoupled from domestic demand and are now dependent on overseas demand. As a result, many counties enjoy good returns on their recycled appliances and other scrap metal sold.
- Due to sparse populations and small tax bases, a few rural counties will continue to require support of their white goods programs with grants from the program.
- Counties should only use the white goods tax money for its intended purpose. The money should not be deposited into the county's general fund.

### White Goods Management Costs

Counties can use the white goods ADF proceeds disbursed quarterly by the Department of Revenue for daily expenses incurred to recycle white goods. Expenses for these programs include fuel, labor and the cost of associated items.

Funds can also be used for one-time expenses, such as purchasing specialized equipment and making site improvements for better management. Low or high program costs are not necessarily good indicators of program efficiency. This means that counties with minimal costs are not necessarily more efficient than counties with high costs. Some counties with low program costs are marginally in compliance with the law's intent.

County reporting indicates that 80% of the counties' budgets is spent on daily operations, 15% is for capital improvements, and 5% is spent to clean up illegal disposal sites.

County costs for white goods programs can vary and are dependent on the extent of intra-county collections, the degree of record keeping, the existence of a county cost allocation plan, and the availability of a local market.

Due to the value of scrap metal, some counties have metals recyclers willing to provide free pickup from county collection sites and/or provide CFC recovery in exchange for access to the scrap metal. Despite scrap metal having value, a small number of counties continue to pay private contractors to collect and haul scrap metal with little or no remuneration to the county.

In FY 2009-10, 57 counties said they spent \$2,735,423 on daily operational expenses, \$246,021 on capital improvements, and \$145,317 on illegal white goods dump clean ups.

### White Goods Management Account

The White Goods Management Account was established to help counties whose costs exceed their share of Advanced Disposal Fee (ADF) revenue. Although 72 percent of the net disposal fee collections was allotted for distribution, ineligible counties forfeited some of that money. The white goods management account receives 20 percent of net collections as well as these forfeited funds.

Net white goods ADF collections in FY 10 totaled \$4,088,576.99.

Funds were disbursed from the Department of Revenue as follows:

\$2,732,987.01 Allocated for direct distribution to counties

(\$2,200,532.87 distributed to counties plus \$532,454.14 forfeited by ineligible counties)

\$759,163.06 Allocated for the white goods management account

\$303,665.23 Solid Waste Management Trust Fund

\$292,761.69 NC Revenue Department cost of collections

In early 2009, one million dollars was transferred out of the white goods account to the State General Fund to aid with the state budget shortfall.

#### White Goods Management Account Balance FY 09-10

|   |                  |
|---|------------------|
| Beginning Balance (July 1, 2009)            | \$ 1,421,191.18  |
| Funds Received during FY 09-10*             | \$ 1,291,617.20  |
| Capital Improvement and Cost Overrun Grants | \$ [573,408.00]  |
| Subtotal (June 30, 2010)                    | \$2,139,400.38   |
| Moneys Needed for Future Grant Awards**     | [\$1,000,000.00] |

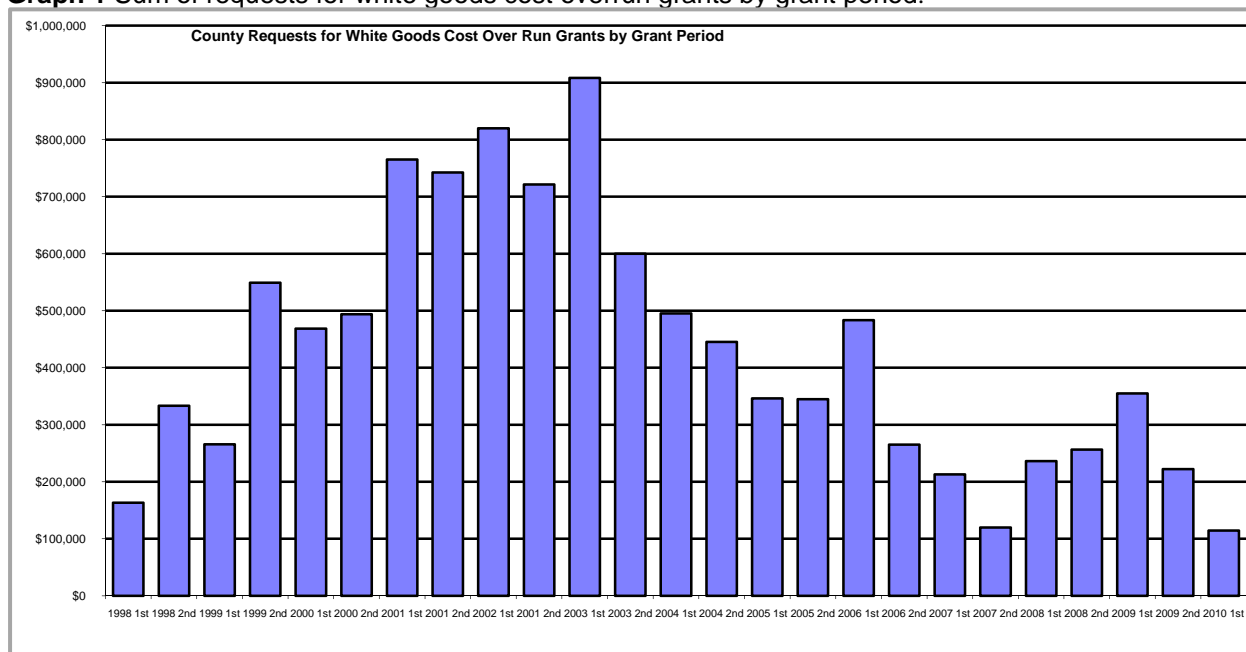
#### Ending Balance

**\$1,139,400.38**

\* \$759,163.06 allocated to White Goods Mgmt Acct plus \$532,454.14 forfeited by ineligible counties

\*\* \$500,000 reserved for capital improvement grants and \$500,000 reserved for overrun grants.

**Graph 1** Sum of requests for white goods cost overrun grants by grant period.



The above graph shows that the amounts requested by counties during FY 10 fiscal year have decreased. There are two grant periods each year. The first grant period is for July through December and the second is for January through June. This is due to the rebound in the price of scrap metal from the previous year. As the price of scrap metal rises, counties use the added revenue to pay for operational expenditures. When scrap prices fall, counties require cost overrun grants to meet expenditures. The increase in the amounts counties are requesting was due to the decrease in prices paid for scrap metal since the previous fiscal year.

A recession in the early part of the decade saw counties applying for cost overrun grants to meet expenditures due to the low value of scrap metal. Efforts to improve efficiency by providing money for counties to invest in infrastructure somewhat offset falling scrap metal prices.

#### Utilization of Funds

Counties who are or will be experiencing moderate to high growth rates in the coming years would benefit greatly from upgrades in their facilities in anticipation of the growth in their populations. Improved infrastructure for white goods means that it costs less for counties to manage their white goods,

decreases the environmental impact of white goods, and improves the returns the counties receive for the value of their white goods as scrap metal. This has the effect of easing constraints on limited local funding.

Though the white goods program has had many accomplishments, some problems remain. Some counties ignore the white goods law by not allocating white goods tax distributions to their white goods programs. This means that some county white goods programs are underfunded.

Many local governments are privatizing their white goods management. Privatization does not necessarily mean that programs are more efficient. In many instances, privatized white goods management is incorporated into a more comprehensive solid waste contract between a local government and a private firm, making it more difficult to measure program efficiency and accountability.

As shown in Tables 1 and 2 below two separate rounds of grants were approved during FY 2009-2010 which totaled \$396,024.49. Grant period 1 - \$262,479.73 to 19 counties and Grant period 2 - \$167,537.87 to 22 counties.

**Table 1** Grant Requests & Awards from the White Goods Disposal Account July - December 2009

| County       | Tax Proceeds Reported | Requested Amount | Award               |
|--------------|-----------------------|------------------|---------------------|
| Brunswick    | \$13,742.87           | \$22,023.97      | \$22,023.97         |
| Camden       | \$1,316.00            | \$7,240.00       | \$7,240.00          |
| Chatham      | \$8,177.17            | \$35,936.70      | \$17,968.35         |
| Chowan       | \$2,026.06            | \$11,417.12      | \$11,417.12         |
| Cleveland    | \$13,425.57           | \$9,655.92       | \$9,655.92          |
| Columbus     | \$7,526.52            | \$11,630.36      | \$11,630.36         |
| Edgecombe    | \$7,160.69            | \$20,790.73      | \$20,790.73         |
| Gates        | \$1,633.42            | \$12,080.71      | \$9,060.53          |
| Haywood      | \$7,881.84            | \$36,928.42      | \$18,464.21         |
| Hyde         | \$752.79              | \$4,781.21       | \$4,781.21          |
| McDowell     | \$6,089.76            | \$11,550.24      | \$11,550.24         |
| Iredell      | \$0.00                | \$20,788.59      | \$20,788.59         |
| Nash         | \$12,841.10           | \$46,993.29      | \$23,496.65         |
| Northampton  | \$2,934.73            | \$3,502.77       | \$3,502.77          |
| Orange       | \$17,599.39           | \$50,071.41      | \$12,517.85         |
| Perquimans   | \$1,758.21            | \$11,832.83      | \$11,832.83         |
| Rutherford   | \$6,697.72            | \$29,467.38      | \$29,467.38         |
| Stokes       | \$6,392.84            | \$9,556.16       | \$4,778.08          |
| Transylvania | \$4,250.84            | \$5,431.84       | \$2,715.92          |
| Tyrrell      | \$592.89              | \$6,769.17       | \$1,692.29          |
| Warren       | \$2,752.86            | \$2,852.61       | \$2,852.61          |
| Washington   | \$1,826.21            | \$4,270.12       | \$4,270.12          |
| <b>Total</b> |                       |                  | <b>\$262,497.73</b> |

**Table 2** Disposal Grant Requests & Awards from the White Goods Account January- June 2010.

| County       | Tax Proceeds Reported | Request     | Award               |
|--------------|-----------------------|-------------|---------------------|
| Brunswick    | \$16,557.64           | \$9,600.84  | \$9,600.84          |
| Camden       | \$1,566.00            | \$6,224.00  | \$6,224.00          |
| Chatham      | \$9,800.00            | \$34,168.46 | \$20,501.08         |
| Cleveland    | \$15,765.47           | \$4,607.74  | \$4,607.74          |
| Columbus     | \$8,814.79            | \$12,524.56 | \$5,009.82          |
| Currituck    | \$3,826.91            | \$9,195.09  | \$7,356.07          |
| Duplin       | \$8,601.18            | \$7,181.30  | \$7,181.30          |
| Graham       | \$1,301.83            | \$2,160.27  | \$2,160.27          |
| Iredell      | \$0.00                | \$13,222.52 | \$13,222.52         |
| McDowell     | \$7,174.00            | \$11,667.00 | \$9,333.60          |
| Mitchell     | \$2,581.11            | \$15,357.24 | \$15,357.24         |
| Nash         | \$15,128.80           | \$6,241.03  | \$6,241.03          |
| Orange       | \$20,088.18           | \$45,461.62 | \$18,184.65         |
| Pasquotank   | \$6,653.19            | \$4,956.84  | \$4,956.84          |
| Rutherford   | \$10,230.91           | \$18,351.59 | \$18,351.59         |
| Stanly       | \$9,612.60            | \$15,219.88 | \$6,087.95          |
| Tyrrell      | \$688.98              | \$10,320.02 | \$4,128.01          |
| Warren       | \$3,206.34            | \$1,099.29  | \$1,099.29          |
| Washington   | \$2,120.39            | \$7,934.03  | \$7,934.03          |
| <b>Total</b> |                       |             | <b>\$167,537.87</b> |

Capital improvement grants totaling \$143,372.40 were awarded to four counties as shown in Table 3.

**Table 3** Capital Improvement Grants Paid to Counties for Fiscal Year 09-10

| County       | Purpose                                       | Amount              |
|--------------|---|---------------------|
| Ashe         | Partial payment of roll off truck             | \$59,788.09         |
| Brunswick    | Repair to white goods pad                     | \$7,873.39          |
| Stanly       | Baler, CFC cylinders, band saw & storage area | \$25,556.95         |
| Wilkes       | 50% cost of track hoe                         | \$50,153.97         |
| <b>Total</b> |   | <b>\$143,372.40</b> |

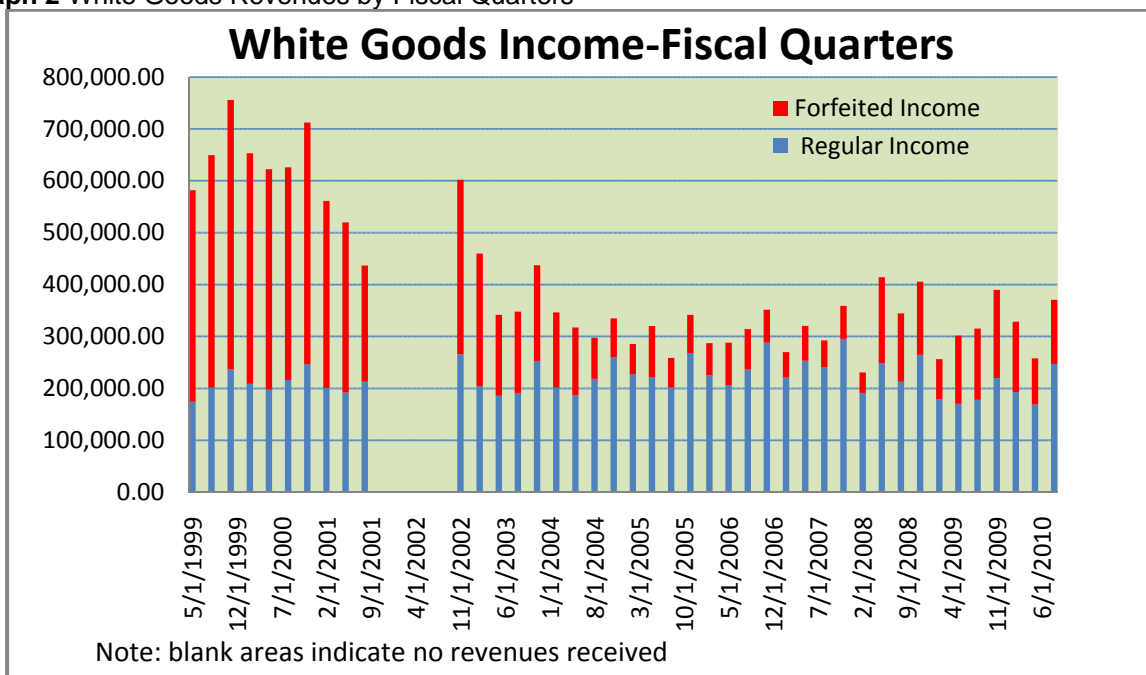
Rough handling of CFC-bearing white goods, before CFCs are extracted, leads to damaged coolant systems, resulting in release of CFCs into the atmosphere. Proper care must be maintained in handling CFC-bearing appliances so as not to rupture coolant system coils before CFCs are reclaimed.

The use of capital improvement grants continues to bring necessary upgrades to the county programs. This will help them save money, save the quality of the air and save the esthetic value of NC roads and natural settings.

As Graph 1 demonstrated, the total of the amounts requested has decreased gradually and steadily over the decade. As Graph 2 depicts, the amount of available funds has also fallen since the early part of the decade.

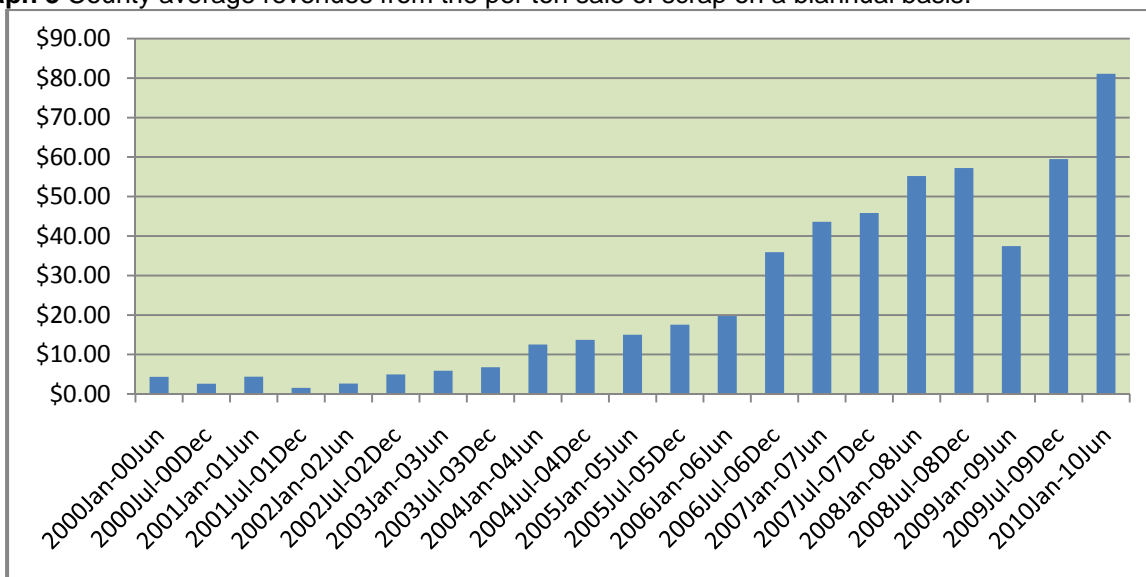


**Graph 2 White Goods Revenues by Fiscal Quarters**



The blue bars indicate the amount of funds the white goods program receives as its share of the advance disposal fee and is a measure of the amount of sales of new white goods in North Carolina. The red bars indicate the revenues the program receives from counties that forfeit their share of the advance disposal fee due to their ineligible status. Counties become ineligible when they fail to submit their Annual Financial Information Reports [AFIR] to the Local Government Commission by March 1<sup>st</sup> or by exceeding the threshold amount in their AFIRs. Forfeited income remains the secondary source of the white goods program's revenues. Funds are received into the white goods account from the Department of Revenue forty-five days after the end of the fiscal quarter.

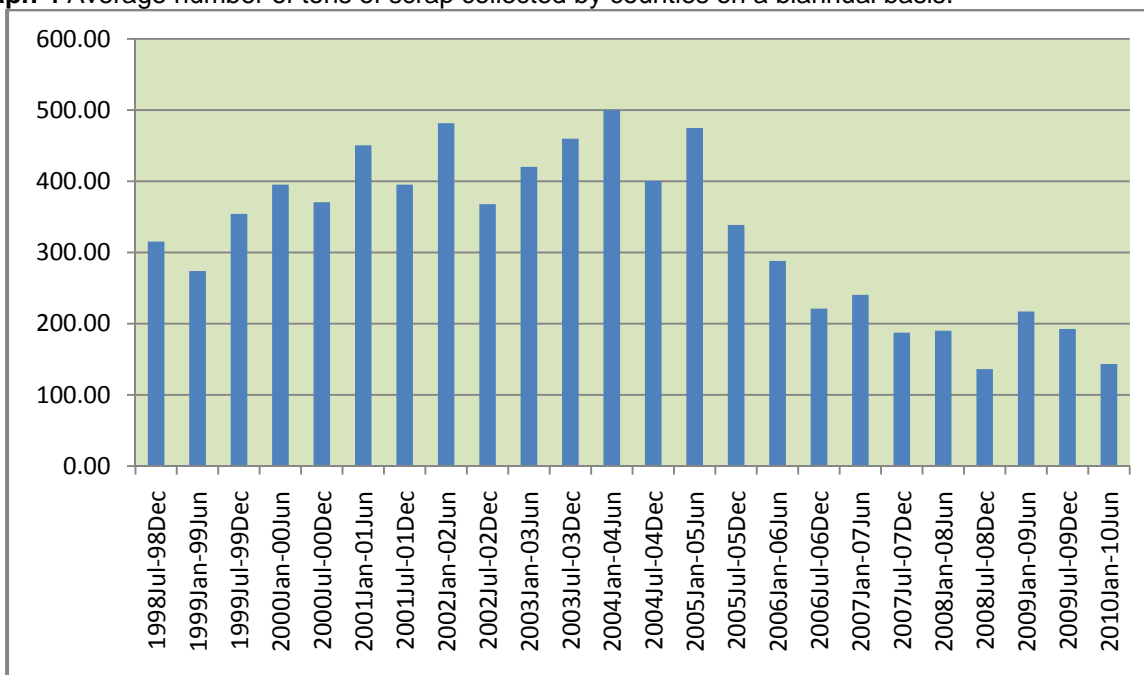
**Graph 3 County average revenues from the per ton sale of scrap on a biannual basis.**



Graph 3 shows the average revenues collected by counties on the sale of a ton of scrap metal biannually from FY2000 to the early part of FY2010. The graph clearly shows a continuous increase in the value of scrap metal through the decade, with dips in FY2001 and FY2009, coinciding with both national recessions, which occurred during that time. Comparing this graph with Graph 1 shows that as counties have increased revenues from scrap sales they have also decreased grant requests from the White Goods Management Program over that time.

Other factors which may have influenced the value of the scrap metal sold by counties include the increase in efficiencies counties have seen from improvements in funding and infrastructure. However, the overriding factor influencing the value of scrap metal lies in the demand from overseas markets. Strong and sustained demand from overseas markets drives scrap metal values almost entirely. The question remains as to how long the demand from those markets will be maintained. If the demand begins to wane, then it can be expected that the value of the scrap metal will also diminish.

**Graph 4** Average number of tons of scrap collected by counties on a biannual basis.



Graph 4 shows that over the decade, the counties' collection of the amount of scrap has changed. Beginning in about FY 2006 counties began to collect roughly 50% less scrap, even as the value of the scrap they did collect, as shown in Graph 3, had increased in value. It is believed that as the value of scrap metal began to increasingly rise, it became more profitable for citizens to bring their scrap metal directly to metal recyclers for cash, bypassing county collection sites.

Economic conditions affect costs related to white goods. When economic conditions are poor, such as in FY 08-09, county solid waste departments collect less white goods and average per ton costs increase because citizens have less to spend and may put off making new white goods purchases. These costs are tied to the general price paid for scrap metals and to the overall amounts of white goods collected. When economic conditions improve more money becomes available and citizens look to replace appliances.

### **Forfeited Funds**

Determination of forfeited funds is based on information supplied by counties' Annual Financial Information Reports (AFIRs). AFIRs are submitted to the Office of the State Treasurer. AFIRs are due by November 1<sup>st</sup>. Counties that did not submit their AFIR last year became ineligible to receive tax proceeds in March 2010. The forfeited funds were submitted to the White Goods Management Account. (Based on FY 08-09 AFIR Reports)

Alexander  
Anson  
Ashe  
Avery  
Bertie  
Burke  
Cherokee

Edgecombe  
Harnett  
Henderson  
Hoke  
Iredell  
Jones  
Lincoln

Macon  
Martin  
Montgomery  
Moore  
Northampton  
Pamlico  
Randolph

Richmond  
Sampson  
Scotland  
Yadkin

Counties that will not receive ADF distributions in March 2011 because undesignated balances exceed their threshold amounts are as follows. (Based on FY 10 AFIR Reports)

Alexander  
Edgecombe  
Forsyth

Henderson  
Iredell  
Lincoln

Martin  
Rutherford

At the time this report was prepared, 57 counties had submitted their AFIRs to the Local Government Commission. Counties that did not report as of January 14, 2011:

Anson  
Avery  
Bertie  
Bladen  
Burke  
Caswell  
Cherokee  
Clay  
Columbus  
Currituck  
Davidson

Davie  
Gates  
Granville  
Greene  
Halifax  
Harnett  
Hertford  
Hoke  
Hyde  
Jackson  
Jones

Madison  
Montgomery  
Moore  
Northampton  
Pender  
Pitt  
Richmond  
Robeson  
Rowan  
Sampson  
Scotland

Stokes  
Transylvania  
Union  
Vance  
Warren  
Wayne  
Wilkes  
Yadkin  
Yancey

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# Chapter 6

Electronics Management Program



## **DIVISION OF WASTE MANAGEMENT**

### **Electronics Management Program**

The General Assembly passed new legislation, Session Law 2010-67 (SB 887), in the summer of 2010. This established the Electronics Management Program. The law established that manufacturers of electronics, as well as retailers, consumers, and the state must all share responsibility for the responsible recycling and reuse of electronic equipment. Computer equipment includes desktop and laptop computers, monitors and video displays for computers, printers, scanners or combination printer-scanner-fax machines, mice, keyboards and other peripherals. The Electronics Management Fund, which is administered by the Division of Waste Management Solid Waste Section Planning and Programs Branch, consists of computer and television manufacturers' registration and annual fees. The majority of the fund will be used to subsidize local governments' electronics recycling programs.

#### **Manufacturers' Responsibilities**

The law established that computer equipment and television manufacturers who sell to consumers must take responsibility for their equipment. A consumer is an occupant of a dwelling who used the equipment for personal or home business use. A nonprofit organization with fewer than 10 employees is also considered to be a consumer. Manufacturer responsibilities under the law include:

- Before selling equipment in North Carolina, a manufacturer must register with the state.
- Equipment manufacturers must pay a fee. Television manufacturers pay an annual fee of \$2500. Computer manufacturers pay an initial fee of \$10,000 to \$15,000 and then an annual fee of \$2,500 - \$15,000, depending on the level of their plan.
- Computer equipment manufacturers must provide a plan which, at a minimum, will allow a mechanism for consumers to recycle their brands of equipment. The recycling and transportation must be accomplished using environmentally sound management practices. Manufacturers must provide a consumer recycling education program and a toll-free phone number. The plans must provide that the recycling is free and reasonably convenient. There are three levels of computer equipment plans.
  - Level I manufacturers must provide one or more means to take back their equipment. This can be through a mail back program, a physical collection site or a one-time collection event. Manufacturers operating at this level will pay a \$15,000 initial registration fee and \$15,000 annually.
  - Level II manufacturers must take back all manufacturers' equipment, not just its own brands. Manufacturers must provide 10 physical collection sites in North Carolina's 10 largest cities and must host at least two collection events annually. Manufacturers operating at this level will pay a \$10,000 initial registration fee and \$7,500 annually.
  - Level III manufacturers must take back all manufacturers' equipment. Manufacturers must provide physical collection sites in 50 North Carolina counties. Ten of the collection sites must be in the 10 largest counties. The manufacturer must host at least two collection events annually. Manufacturers operating at this level will pay a \$10,000 initial fee and \$2,500 annually.
- Equipment must display a label which clearly identifies the manufacturer.
- Manufacturers must report the total weight of equipment which was collected and recycled in the fiscal year to the Department each year by October 1. The Computer equipment manufacturers must also report a summary of the actions taken in compliance with their plans.

#### **Electronics Management Fund**

Fees paid into the electronics management fund will be used to implement the provisions within the new law. The television equipment funds and up to 10 percent of the computer equipment funds may be used to administer the program.

As of publication of this report, there is \$77,500 attributable to 31 television manufacturers' and \$497,500 attributable to 35 computer equipment manufacturers' registration fee generation, for a total of \$575,000 in the fund. The Senate Bill 887 Legislative Fiscal Note forecasted that 20 television manufacturers would register, generating \$50,000 in funds; we currently have 34 registered thus far. The fiscal note also forecasted that 43 computer equipment manufacturers would register at Level I, generating \$645,000 and the total amount of fees generated the first year to be \$695,000. In the first six months of the new law's

enactment, this department has received 30 computer manufacturers Level I, four Level II , one Level III and 31 television registration fees. Revenues received thus far amount to \$120,000 less than forecasted. The division continues to receive registration fees from manufacturers. It is anticipated that funds will reach the forecasted amount by the end of FY 2011. Income generated in future years is forecasted to decline as Level II and Level III annual fees decrease from the initial registration fee listed below.

|                    | Initial<br>Manufacturer<br>Registration<br>Fee | Annual<br>Fee (due<br>6/30/11) | Number of<br>Manufacturers<br>SB887 Fiscal<br>Note | Actual<br>Electronics<br>Manufacturer<br>Registered | Actual<br>Number of<br>Manufacturer<br>Paying | Actual<br>Fees<br>Collected |
|--------------------|--|--------------------------------|--|---|---|-----------------------------|
| Computer Equipment |  |                                | 43   | 44  | 35  | \$497,500                   |
| Exempt             | \$0  | \$0                            |  | 7   | 0   | \$0                         |
| Level I            | \$15,000                                       | \$15,000                       |  | 30  | 30  | \$447,500                   |
| Level II           | \$10,000                                       | \$7,500                        |  | 5   | 4   | \$40,000                    |
| Level III          | \$10,000                                       | \$2,500                        |  | 2   | 1   | \$10,000                    |
| Television         | \$2,500  | \$2,500                        | 20   | 34  | 31  | \$77,500                    |
|                    |  |                                |  |   | <b>Total<br/>Collected</b>                    | <b>\$575,000</b>            |

### **Distributions to Local Governments from the Electronics Management Fund**

Local Governments which have eligible Electronics Recycling Plans will receive per capita distributions from the Electronics Management Fund on or before February 15 of each year. Updated Solid Waste Management Local Government Plans with the specified Electronics Recycling components must have been received by the department by December 31, 2010 in order for the local government to be eligible for funding the following year. The distributions must only be used for the collection and recycling of electronics. In October of 2011, local governments which received funding will report to the Division of Waste Management on how these funds were used and with information on operative inter-local agreements executed in conjunction with the funds received, if any.

### **Retailer's Responsibilities**

Effective July 1, 2011 retailers in North Carolina may only sell televisions, desktop computers, laptop computers, printers, scanners, printer-scanner-fax combinations, mice, keyboards, and other computer peripherals which display the manufacturer label of a registered manufacturer who is in compliance with the new electronics management law.

### **State Agencies and Governmental Entities Responsibilities**

State agencies and governmental entities in North Carolina may only buy televisions, desktop computers, laptop computers, printers, scanners, printer-scanner-fax combinations, mice, keyboards, and other computer peripherals which are produced by manufacturers who have registered and are in compliance with the electronics management law. A list of manufacturers who are in compliance, updated whenever a change occurs, can be viewed on the webpage: <http://portal.ncdenr.org/web/wm/sw/electronics>

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# Chapter 7

Abandoned Manufactured Homes Program



North Carolina Department of Environment and Natural Resources, Division of Environmental Assistance and Outreach

## DIVISION OF ENVIRONMENTAL ASSISTANCE AND OUTREACH

### Report on the 2009-2010 Abandoned Manufactured Homes Program (AMHP)

As established in G.S. 130A-309.111, the Division of Environmental Assistance and Outreach (DEAO) operates a grant program available to North Carolina counties for the purpose of providing local governments with the funding and guidance needed to provide for the efficient and proper identification, deconstruction, recycling and disposal of abandoned manufactured homes within their communities which are deemed unfit, unsafe, and hazardous. The Abandoned Manufactured Homes Grant Program Request for Proposals (RFP) was developed and made available to North Carolina counties in October 2009. Prospective program applicants must update their comprehensive solid waste management plans to include their individual AMH program management intentions. Counties participating in the grant program are required to document the amount of AMH waste landfilled and the amount recycled in their management of the abandoned manufactured homes, and to properly document and recycle any mercury thermostats identified within each of the units. Each grant program participant must submit an annual report about the status of their AMHP to the state every August. Based on required August 2010 reports from AMH grantees, the following table shows total number of AMH units deconstructed and the resulting amount of waste disposed and recycled in FY 10.

|  |                  |
|--|------------------|
| Units Deconstructed                              | 60 Units         |
| Materials Landfilled                             | 632.2 Tons       |
| Materials Recycled (percentage of total tonnage) | 84.41 Tons (12%) |
| Mercury Thermostats                              | 12 Thermostats   |

Funding for the grantees is based on a county's development tier rating. Tier 1 and 2 counties are eligible for a maximum of \$40,000 in funding from the state and Tier 3 counties are eligible for a total of \$25,000 per program year. In total, 10 counties received funding in FY 10. During the early stages of the first year of the Abandoned Manufactured Homes Program, it has taken some of the grantees several months to initiate a fully functioning program and therefore they had no activity or accomplishments to report for the fiscal year ending June 30, 2010. Programs are beginning to share developed documentation and more established programs have begun sharing successful operating procedures. It is hoped that as programs mature, the processes will become more efficient and effective. The following table lists county participation, funding, costs to county programs, and fees attributed to responsible parties for the first fiscal year of the program.

As of June 30, 2010 there were 10 NC counties participating in the AMH program.

| County    | Inception | Completion | Funding for 2009/2010 | County costs as of 6/30/2010 | Responsible Party Fees |
|-----------|-----------|------------|-----------------------|------------------------------|------------------------|
| Vance     | 12/1/2009 | 11/30/2010 | \$40,000.00           | \$18,549.10                  | \$2,560.00             |
| Stanly    | 12/1/2009 | 11/30/2010 | \$40,000.00           | \$25852.71                   | \$2,800.00             |
| Onslow    | 12/1/2009 | 11/30/2010 | \$40,000.00           | \$5,401.00                   | \$858.00               |
| Nash      | 1/30/2010 | 1/29/2011  | \$40,000.00           | \$0                          | n/a                    |
| Harnett   | 2/1/2010  | 1/31/2011  | \$40,000.00           | \$23,189.90                  | \$5,640.40             |
| Henderson | 2/26/2010 | 2/25/2011  | \$25,000.00           | \$14900.64                   | \$923.28               |
| Burke     | 2/26/2010 | 2/25/2011  | \$40,000.00           | \$0                          | n/a                    |
| Franklin  | 2/26/2010 | 2/25/2011  | \$40,000.00           | \$0                          | n/a                    |
| Warren    | 2/26/2010 | 2/25/2011  | \$40,000.00           | \$0                          | n/a                    |
| Bertie    | 5/3/2010  | 5/2/2011   | \$40,000.00           | \$0                          | n/a                    |

#### Additional Information on the AMH program and support from the Solid Waste Trust Fund

In addition to providing funding, DEAO has provided technical assistance to county AMH programs on practical aspects of implementing their efforts, including adoption of new contractor bidding processes and forms, conducting publicity and program promotion, establishing program guidelines and AMH identification processes, and recordkeeping and documentation. During the early stage of the program an email list including all grantees was developed so that they can share developing documentation, discuss challenges, and share ideas. This has been very helpful for counties developing brand new programs. AMH grantees are quickly adapting their county programs and have steadily improved their efficiency and operating procedures. The portion of materials recycled from managed homes exceeds 10% and that percentage is improving as the programs mature.

In total, DEAO expended \$385,000 from the Solid Waste Trust Fund in establishing the ten AMH grants in FY10. The Fund entered the FY 10 with a cash balance of \$2,450,297 and ended the fiscal year with an unencumbered balance of \$1,213,959. In addition to funding the AMH program, the Solid Waste Trust Fund is used for a range of other statutory purposes, including providing grant support to general local government recycling programs, recycling outreach and technical assistance, and development of recycling markets.

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# Chapter 8

Environmentally Preferred Purchasing



## **DEPARTMENT OF ADMINISTRATION**

### **Environmentally Preferred Purchasing**

The Department of Administration continues to promote the purchase and use of sustainable and efficient supplies and products. As the department progresses with this effort, more of these products are being added to statewide term contracts and agency specific term contracts, and are awarded through open market bids. For more information visit the Purchase and Contract Web site: <http://www.ncpandc.gov/>

#### **Solicitations advertised by the Division to Comply with the Session Laws 1993 {G.S. 130A - 309.14(a)}**

Presently, the bids advertised in the Division of Purchase and Contract contain a Recycling and Source Reduction paragraph in item #10 of Instructions to Bidders. When developing bid invitation language, requirements and specifications, purchasers are continuing to look at alternative methods and products that result in waste reduction if their procurement is both practicable and cost-effective.

Recycling and Source Reduction information provided by the contractors on bids received during the 2009 to 2010 fiscal year indicate the sustainable features or criteria of those products. Sustainable attributes include Reduction, More Efficient, More Durable, Longer Lasting, Reusable, Refillable, Repairable, Refurbished, Recyclable, and Less Toxic than their traditional counterparts, and Washable. Efficient resource use includes Energy Star for electric energy demand and reduced water consumption. Refer to the Examples of Sustainable Open Market Awards and the listing of the Statewide Term Contracts with the applicable sustainable features identified.

#### **NC E-Procurement @ Your Service**

NC E-Procurement @ Your Service, now in its eighth year of operation, continues to support the goal of "One North Carolina". As of July 4<sup>th</sup>, 2010, the enterprise-wide system has 69,449 registered vendors, and 15,823 users representing 232 entities across the state. This includes state agencies, hospitals and institutions, community colleges, K-12 public schools, universities and local governments. NC E-Procurement @ Your Service continues to contribute to a sustainable environment through significant reductions in hard copy document reproduction (paper, printers and supplies) through the use of electronic business transactions and electronic documents. NC E-Procurement also continues to support state priorities for environmentally preferable products with over 17,413 catalog items clearly marked as "Recycled."

#### **Purchasing Compliance Reviews**

North Carolina Administrative Code (01 NCAC 05B .1605) mandates that the Division of Purchase and Contract conduct compliance reviews on purchasing practices of all state agencies (institutions, hospitals, community colleges, universities, and state agencies). All compliance reviews, except universities, are conducted utilizing data from the NC E-Procurement System. Electronic data reduces the necessity of conducting most phases of the analysis on-site, thereby increasing efficiency, and reducing travel costs, fuel emissions, and operating expenses.

#### **IPS (Interactive Purchasing System) & Vendor Link NC**

The Division of Purchase and Contract continues to promote opportunities for vendors to do business with the state through electronic advertisement of goods, services and design/construction in IPS. The entities using this system are state agencies, institutions, universities, community colleges, K-12 public schools, and local governments.

Vendor Link allows vendors to register to receive electronic notification of solicitations. Vendor Link had 25,724 registered vendors as of June 30, 2010. The system continues to grow, with users increasing to 224 agencies, schools and institutions with 779 purchasers, posting 5,901 solicitations using the database from July 1, 2009 to June 30, 2010.

## **EXAMPLES OF SUSTAINABLE OPEN MARKET AWARDS**

**Refurbished Forklift** - A used forklift with 3385 hours of use and a 90-day warranty was purchased for Central Carolina Community College at \$14,250. A comparable new unit would cost approximately \$36,000.00. Internet research found comparable used units priced at about \$22,000.00. This is an example of reuse.

**Used Logging Skidder** – Equipment was purchased for the North Carolina Department of Environment and Natural Resources, Division of Forest Services. The used equipment was purchased for \$65,060, while a new model with similar features would cost \$175,000.00. This is an example of reuse.

**Virtual Reality Welding Trainer Unit** - This educational training tool was purchased for Pitt Community College and is designed to accelerate training for various types of welding equipment through the utilization of virtual reality. The trainer reduces material waste (base welding material, welding consumables, electrodes, shielding gas, consumable parts) and saves energy from the welding process. There are no welding fumes or exhaust of environmentally conditioned air during the simulated welding process. This is an example of reduction in materials and energy consumed.

**Vinyl Sheet Piling** - Interlocking adjacent vinyl panels with 92% recycled PVC were purchased for erosion control of the Oyster Creek boating access area located in eastern Carteret County. In addition to providing upfront material cost savings, freight and installation costs reductions, the corrosion resistance of the vinyl sheet piling eliminates maintenance costs by replacing steel sheet piling. The N.C. Wildlife Resources Commission's Oyster Creek boating access area won an Outstanding Project award from the States Organization for Boating Access (SOBA) in the small-access category in 2006 for its quality and innovative design. This is an example illustrating how recycled materials can contribute to other cost reductions.

**Benchtop Gas Chromatograph/Mass Spectrometer** – Equipment purchased for the North Carolina Department of Agriculture and Consumer Services is used to analyze for Volatile Organic Compounds (VOC's) in bottled drinking water for consumer protection. Service provided verifies product is non-toxic.

**Solar Powered Portable Traffic Signal** – This portable unit reduces exposure of flag personnel to dangerous road areas during highway construction. Battery operation with a solar charger eliminates a gasoline-powered generator. The traffic signal attached to an articulated arm provides for high visibility for traffic. Multiple units can be deployed, which communicate signal operation by radio, based upon traffic detection. The solar charger and actuation of signal timing based upon demand reduce hydrocarbon fuel consumption.

**Asphalt Recycler-Mixer** - Equipment purchased for the N.C. Department of Transportation recycles existing pavement for highway repair. Asphalt is produced in batches that can remain usable inside the machine throughout the work day, whereas material transported from other locations may not remain workable upon delivery. The diesel engine meets current EPA Tier requirements. This is an example of material reuse and reduced fuel consumption for aggregate filler transport needed for highway repair.

**Used Aerial Platform-Mounted to a 2008 Freightliner Truck** – Used equipment determined to be in excellent condition was purchased for the North Carolina Department of Transportation. The unit's purchase price was 47% less than the new equipment price and will be shared by Divisions 1, 2, and 3. This is an example of reuse of equipment.

**Refurbished Hill-Rom Medical-Surgical Beds** – Nineteen refurbished beds will be used in the Pitt Community College's Nursing School. The recommended model beds are identical to the beds used in the local Pitt County hospital. This is an example of the use of refurbished equipment.

**Inductive Light Fixtures** – 150 fixtures were purchased as replacements in the Student Parking Deck at Central Piedmont Community College. These lamps are energy efficient and last longer for replacement. This is an example of the use of refurbished equipment.

## **NEW OR SIGNIFICANTLY IMPROVED STATEWIDE TERM CONTRACTS**

The Division of Purchase and Contract has established new or significantly improved statewide term contracts for the following commodities. These vehicles are considered good additions to agency fleets in

helping to meet petroleum reduction goals.

**Neighborhood Electric Vehicles, 070N** – Two new items were added: Columbia MG1-VN and MG1-DN, larger electric vehicles (configured as a drop-side truck and van) for maintenance and grounds-keepers.

**LED Lighting, 285C** – There is a new term contract consisting of PAR 20 Lamps, PAR 30 Lamps, Cove Lighting, Area Lighting, Downlights, Troffers and Wall Packs employing LED illumination for energy savings. Packaging is 60% Recycled. This technology utilizes LED illumination for energy savings.

**Energy Saving Devices, 285D** – There is a new term contract consisting of T8 Retrofit Kits, LED Exit Signs, LED Exit Sign Retrofit Kits, Occupancy/Vacancy Sensors and Electronic Dimmable Ballasts and Controls. This technology utilizes LEDs and dimmable ballasts for energy savings.

**E-85 Tankwagon, 405X** - E-85 blended fuel contains 15% unleaded gasoline and 85% ethanol derived from corn production. Tankwagon loads are now less than 6,000 gallons, down to a minimum of 500 gallons. The use of the E-85 blend reduces crude oil consumption.

**All Trucks and Off-Road Equipment purchased for the Department of Transportation, Individual Agency Specific Contracts** – All equipment offered is required to employ engines meeting the current North Carolina and federal EPA and state regulations indicated by the EPA Clean Air Act for reduced emissions at the time of delivery.

### **STATEWIDE TERM CONTRACTS**

As existing term contracts are re-bid and new term contracts are developed, the Division of Purchase and Contract continues to improve the contracts by offering a wide range of sustainable or environmentally friendly products. Examples of the sustainable features of these term contracts are listed below.

- **Agricultural Tractors, 020A** - Tractors are provided with a standard compression ignition diesel type, liquid cooled engine designed for operation on commercial diesel fuel and B20 or greater bio-diesel. The bio-diesel may be derived from plant matter.
- **Air Conditioners, Room, 031A** - Items available through this contract were awarded based on the lowest energy efficiency cost, meeting specifications. The majority of the items awarded are Energy Star Compliant, containing recycled materials and packaging.
- **Automotive, Industrial Parts and Supplies, 060A** - Some products have recycled materials with 10%-20% post consumer content.
- **Batteries, Storage, 060B** - Battery casings are made from recycled material (96%). Batteries are exchanged as a core and picked up by the vendor. In addition, the contractor will pick up and properly dispose of junk batteries on quantities less than 20. Core (junk) batteries are considered to be an environmental hazard and are otherwise expensive to properly remove.
- **Tire, Automotive, Recapping and Repairing, 060E** – Retread tires extend the life of the original product. The purchase of retreads saves resources used in the production of new tires. The use of retread tires reduces tire disposal. Retread tires cost 30% to 50% less than new tires.
- **2010 Model Passenger Cars, 070A; Law Enforcement Vehicles, 070B** - Passenger car awards included several alternate fuel vehicles (AFV) and two models of gasoline /electric hybrid vehicles. One four cylinder, four door subcompact was also awarded with a bi-fuel capability consisting of compressed natural gas (CNG) and gasoline. Limited availability restricted award of all the AFVs requested for the passenger cars, especially the law enforcement vehicles. According to the Steel Recycling Institute, 67.7% of a vehicle is steel or iron. Of that steel or iron, 26.6% is post consumer material. Therefore, 18% of a vehicle is made from post consumer recycled material.
- **Conventional School and Activity Buses, 070C; Conventional Activity Buses, 070D** – Vehicles typically contain approximately 20% post consumer recycled material by weight and 80% of the vehicle by weight is recovered for reuse. Used school buses are usually sold or are used for spare parts.

- **2010 Model Year Trucks, Vans, Utility Vehicles, Crossovers-Conventional Fuels and AFVs, TC # 070G** – All diesel fueled trucks and vehicles are required to additionally operate using B20 bio-diesel fuel. Gasoline fueled vehicles were also bid with flex fuel as an alternative category. Awarded flex fuel vehicles comply with the intent of Senate Bill 2051. Vehicles noted as Flex Fuel or E85 can use both pure gasoline and E85 fuel. A hybrid “carry all” SUV was a new model type awarded for the new contract. Lightweight crossovers (four and six cylinder) and manual transmission compact pickups were also awarded to potentially achieve greater fuel efficiency.
- **Neighborhood Electric Vehicles, 070N** - Neighborhood Electric Vehicles (NEV) are battery operated vehicles that are "street legal" for use on roads with a posted speed limit of 35 MPH or less. There are eight different NEV models available from this contract from two suppliers offering GEM and E-Ride vehicles. The contract vehicles are offered with a price range of \$11,552 to \$25,893 and include an extended warranty. Because these vehicles do not consume hydrocarbon fuel, they produce zero direct emissions. It is estimated that NEVs cost three to five cents per mile to operate. These vehicles are considered good additions to agency fleets to help meet petroleum reduction goals.
- **Golf Cars, 070P** – This a new term contract for golf cars. Fully electric models are available for all categories. Models are made with components of 85-90% recycled steel, plastic and aluminum.
- **Remanufactured Toner Cartridges, 207A** – Currently, common use Hewlett Packard and Lexmark cartridges are remanufactured to equivalency with the original OEM performance. New Brother brand drum assemblies and toner hopper assemblies were also added. Fewer cartridges are added to the waste stream. Product specifications are being transitioned from mandated construction requirements to product and vendor performance requirements. This is expected to allow a wider variety of brands and models to be covered as requested by the contract users.
- **Ballasts, 285B** - Electronic ballasts are more energy efficient, support variable illumination on demand and reduce electromagnetic radiation. A link from the Federal Energy Management Program (FEMP) website, illustrating a return on investment for retrofitting with more energy efficient lamps and ballasts is provided. Ballasts contain no PCB's and can be disposed of in the trash. Reduced product shape and size also minimizes packaging and metal enclosure requirements.
- **Carpet, 360A** - Recycled content required is either (1) minimum 5% postconsumer content (except that vinyl-backed and other similar hardbacked products contain 20% by weight of postconsumer recycled content) (2) minimum 15% by weight of recovered materials (both preconsumer and postconsumer), or (3) minimum of 25% by weight of recyclable content.
- **Paper, Computer and Labels, 395B** - Computer paper contains 50% recycled with 30% post consumer content.
- **Propane Tankwagon, 405A** – 6,178,665 gallons of this clean burning fuel were purchased last year.

- **Oils, Lubricants, Greases, and Antifreeze, 405H** – The following synthetic, bio-degradable, and recycled lubricants were supplied under this contract: Synthetic Motor Oil (1,647 Gallons), Synthetic/Biodegradable Hydraulic Oil (1,570 Gallons), Synthetic Gear Oil (11,870 Pounds), Synthetic Automatic Transmission Fluid (5,308 Gallons), Synthetic/Biodegradable Grease (1,600 Pounds) and Recycled Antifreeze 50/50 (9,752 Gallons.) Additional synthetic type oils and transmission fluids have been added to the contract to allow increased service life to reduce consumption and decrease maintenance cycles. The State Surplus Property disposes of waste oil and antifreeze under contract.
- **Propane Transport, 405K** – 43,939 gallons of this clean burning fuel were purchased last year.
- **B-20 Transport, 405L** - B20 blended fuel contains 80% diesel fuel and 20% virgin soy or reprocessed vegetable oil. This means that of the 8,436,128 gallons of B20 blended fuel purchased, 1,687,226 gallons were produced from plant mater. This results in a reduction of crude oil consumption.
- **Gasohol, E-10 Transport, 405M** - E-10 blended fuel contains 90% unleaded gasoline and 10% ethanol. This means that of the 12,343,366 gallons of E10 blended fuel purchased, 1,234,337 gallons were derived from ethanol. This results in a reduction of crude oil consumption.
- **Pipeline Natural Gas, 405N** - \$20,312,100.00 or 3,978,082 Dekatherms of this clean burning fuel were purchased last year.
- **Ultra-Low Sulfur Diesel Transport, 405P** - 405P offers 15 ppm of sulfur content compared to 500 ppm sulfur content on the previous low sulfur diesel contract. Transport loads are over 6,000 gallons per delivery, and are typically used heavily by DPI and DOT. Approximately 47,181,646 gallons were purchased. This will help to provide compliance with clean air mandates.
- **Ultra-Low #2 Sulfur Diesel Tankwagon, 405Q** – This is identical to the 405P contract except in form of delivery, offering 15 ppm sulfur content compared to 500 ppm sulfur content on the previous contract. Tankwagon loads are less than 6,000 gallons, down to a minimum of 500 gallons. Approximately 947,233 gallons were purchased. This will help to provide compliance with clean air mandates.
- **E-85 Flex Fuel, 405R** - E-85 blended fuel contains 15% unleaded gasoline and 85% ethanol derived from corn production. This alternative fuel is provided in transport quantities of 6000 gallons or more. There were no sales to report since the contract just became available for use.
- **E-10 Tankwagon, 405S** - E-10 blended fuel contains 90% unleaded gasoline and 10% ethanol. Tankwagon loads are less than 6,000 gallons down to a minimum of 500 gallons. This means that of approximately 191,243 gallons of the blended E10 fuel purchased, 19,124 gallons were derived from ethanol, reducing crude oil consumption.
- **Ultra-Low Sulfur Diesel #2 Emergency Transport, 405T** – This contract offers 15 ppm of sulfur content compared to 500 ppm sulfur. This contract is used in emergency cases when there is a pipeline interruption. The ultra-low sulfur content will help to provide compliance with clean air mandates.
- **E-10 Emergency Transport, 405U** – **405U** This offers 90% unleaded gasoline and 10% ethanol. This contract is used in emergency cases when there is a pipeline interruption. The ethanol blend can reduce crude oil consumption.
- **Bio-Diesel Fuel, B-20 Tankwagon, 405V** – B20 blended fuel contains 80% diesel fuel and 20% virgin soy or reprocessed vegetable oil. Tankwagon loads are less than 6,000 gallons down to a minimum of 500 gallons. This means that of 38,226 gallons purchased, 7,645 gallons are derived from plant mater. This results in a reduction of crude oil consumption.

- **Furniture, Metal, Folding Chairs, Tables, Storage Units, Wood Library Furniture, 420 - Furniture, Desks (Wood), Credenzas, Conference Tables, Etc. & Bookcases, Furniture, 425B & C** - Contractors support sustainability through different practices. Mechanical parts can be recycled or replaced, thereby extending service of item. Packaging is recyclable. Products may be ground up into particleboard. Packaging may contain up to 40% post consumer waste and is reusable. Wood, plastic and metal contain recycled post consumer content and are recyclable.
- **Bedding Mattress Term Contract, 420E** - Mattresses comprised of innersprings (similar to the type used primarily in the residential and hospitality bedding industries) now require successful evaluation to the 16 CFR Part 1633, the Consumer Product Safety Commission's new mattress flammability testing standard, "Standard for the Flammability (Open Flame) of Mattress Sets". Successful evaluation of products offered continue to require the 16 CFR Part 1632, Standard for the Flammability of Mattresses and Mattress Pads (directed toward cigarette ignition of mattresses). The revised specifications promote increased safety and durability to extend product life.
- **Furniture, Chairs, Ergonomic, 425E** – Fabric and chair cushions may contain up to 100% post consumer recycled content. Packaging contains post consumer waste, and is reusable and recyclable after use.
- **Lateral and Vertical Filing Cabinets, 425F & 425G** - Cabinets contain from 10% to 30% recycled content. Corrugated boxes contain a minimum of 50% post consumer waste and are recyclable. Contractor will purchase back files at end of their use.
- **Storage, Combination Storage/Wardrobe and Wardrobe Cabinets, 425H** - Cabinets have a minimum of 10% recycled metals. Packaging contains post consumer waste, is reusable and recyclable after use.
- **Industrial, Medical and Specialty Gases, 430A** – These are delivered statewide in reusable cylinders and are exchanged when replacement cylinders are needed.
- **Disinfectants, Janitorial Cleaners, Environmental Cleaners, and Odor Counteractants, 435A** – The additions of three common-use janitorial products which are certified to the GS-37 (Green Seal), Certified Environmental Standard were awarded to products that have limited toxicity. Premoistened towelettes are available to provide an alternative to chemicals aerosoled or dispensed in the indoor air. Disinfectants included contain various active ingredients and end-use concentrations to allow proper selection for limiting contact and exposure to amounts required to be efficacious for specific pathogens targeted. All disinfectants are EPA-registered for efficacy of pathogens identified by the NC Statewide Program for Infection Control and Epidemiology, within health care related facilities. Chemical dilution control equipment for designated products is supported to improve sanitation quality, deliver accurate recommended product dilution and control costs. Contractors are required to provide the product use training and MSDS sheets.
- **Maintenance, Repair & Operation Supplies, 445B** – Items which were offered under the following contracts are now covered under this contract: Lamps, Large & Specialty (285A), Material Handling Carts/Trucks (560A), Low-Flow Plumbing Fixtures (670A), and Safety Equipment, Eye/Face Protectors (345A). Lamps may contain up to 65% recycled content including glass and mercury delivered in packaging that may contain 73% recycled content. Some of the lamps are low mercury (TCLP compliant), non-hazardous. Low-flow plumbing fixtures are offered to reduce consumption.
- **Locks, Locking Devices & Accessories, 450B** – Product metal content includes 26-31% Pre-Consumer recycled materials and 4-6% Post-Consumer recycled materials.
- **External Defibrillators, 465B** - Defibrillators can be refurbished and packaging materials can be recycled.
- **Incontinent Care Products, Disposable, 475C** - Disposable washcloths (wipes) contain a minimum 50% of fully biodegradable paper (cellulose fibers).

- **Indoor And Outdoor Waste Receptacles, Food Prep Containers, Pails, and Related Items, 485F** - Most plastic products contain 15% post consumer recycled content. Packaging contains 10% post consumer recycled content. Some containers are sold to customers to assist with sustainability management. For example, the aluminum can recycle bins support recycling procedures recommended to users. Metal parts contain recycled content.
- **Brooms, Mops, Brushes, and Other Cleaning Implements, 485G** - Products may contain up to 60% post consumer recycled content. Packaging may contain up to 40% post consumer recycled waste. All cotton mops are made of cotton waste. Shipping boxes are recyclable. Broom handles can be used as wooden dowels for multiple purposes, such as garden stakes, hanging banners in classroom, etc. Forty-five percent of broom material is biodegradable.
- **LED Vehicle Traffic Signal Modules, 550A** - Traffic signals and crosswalk notification employing the high efficiency light emitting diode (LED) technology consume 90% less energy than conventional signals, while providing greater reliability, longer life, and low-maintenance performance. Signals are certified for ENERGY STAR for reduced energy consumption.
- **Traffic Cones and Drums, 550F** – Contract includes products with up to 50% reclaimed materials.
- **Musical Instruments and Accessories, 580B** - New designs use recyclable plastics. Band instruments may be traded in to be reconditioned and re-sold. Donations of trade-in instruments to the Links Program for the needy promote music education. Plastic and brass parts may be recycled for future part replacement. Cardboard and pallets are recyclable.
- **Calculators, 600A** - Packaging material may be recycled.
- **Dictation/Transcription Equipment, 600C** - New digital recorders employ internal electronic storage media for constant reuse without cassette tapes. Voice recordings may be easily downloaded for dictation transcription, copied to disc (CD or DVD) and transmitted to distant or remote locations. Only proofed or edited recordings are archived to (CD or DVD). Archived recordings enhance offline lectures and training events. Electronic storage media has a long lifetime before replacement. Contract also offers voice to text digital transcription software that serves the traditional state users or nonprofits for the physically impaired.
- **Office Supplies, 615A** - Contractors are required to the extent feasible and practical, to offer recycled products, including packaging, especially those having post-consumer waste content. Wherever possible and practical, such products should be identified.
- **Napkins, Bathroom Tissue, and Paper Towels, 640A** – Napkins are biodegradable, with either 95% recycled with 5% post consumer elemental chlorine-free or 100% recycled and chlorine-free. Bathroom Tissue is biodegradable, 100% recycled with 20% post consumer and chlorine-free. Paper Towels are biodegradable, 95% recycled with 40% post consumer content and elemental chlorine-free.
- **Office Paper, 645A** - Various products contain both 100% and 50% post consumer and chlorine free copy paper. Other recycled and virgin paper products including envelopes are supported.
- **Bags, Plastic, Trash, 665B** - Liners contain a minimum of 10% post-consumer or 10% pre-consumer reprocessed copolymer. All the liners awarded were thoroughly evaluated for strength and performance.
- **Laminators & Laminating Film, 665A** - Some of the film contains 5% post consumer content. Packaging contains 25%-80% post consumer content.
- **Ammunition, 680A** - Brass shell casings can be saved and recycled and others can be reloaded.
- **Vending Machines And Money Changers, 740B** - Packaging, refrigerant and metal components may contain recycled content and are recyclable.
- **Skid Steer Loaders, 760A** – Contract includes models with 24% recycled content.

- **Excavators-20 Metric Ton-143HP, 760C** – The engine must meet the current North Carolina and Federal EPA and regulations indicated by the EPA Clean Air Act for reduced emissions.
- **Aerial Device, Truck Mounted, 765A** – Contract requires trucks be provided with a standard compression ignition diesel type, designed for operation on commercial diesel fuel and B20 or greater bio-diesel. The diesel engine provided is also compliant with the current EPA Tier requirements for emissions control. The bio-diesel fuel may be derived from plant matter.
- **Paper, Drawing and Construction, Newsprint, 785B** - Various products as indicated typically contain 25% to 100% recycled paper fiber.
- **Television/Video Equipment, 840A** - Most video products are certified “Energy Star” to denote efficient energy use.
- **Tires and Tubes, 863A** - Tires depending on manufacturer may contain from 1.55% to 2.5% of recycled materials based on the product attributes, speed rating and performance criteria.
- **Teaching Equipment, Electricity/Electronics Courses, 924A** - Office paper, cardboard and metal enclosures have recycled content. Documentation provided in soft copy instead of hard copy printed materials.
- **Electronic Equipment Recycling Services, 926A** - Assists agencies and local governments with contracted disposal of CRTs. Contract diverts discarded electronic products from landfill disposal.
- **Recycling Services for Fluorescent Lamps, Ballasts & Other Mercury Containing Devices, TC# 926B** – **New term contract** assists agencies and local governments with contracted disposal of discarded electronic products that are diverted from landfill disposal.

**Items Aiding Waste Reduction Purchased By State Agencies  
Through Term Contracts and Open Market Purchases**

The following items purchased by state agencies meet the criteria for aiding waste reduction by being reusable, refillable, repairable, more durable, and/or less toxic than their traditional counterparts:

**Reusable**

Refrigerant Recovery System (filters reusable refrigerant)  
Musical Instruments  
Rechargeable Dry Cell Batteries  
Recycled Carpet  
Recycled Paper  
Recycled Content Furniture (not traditional wood)  
Printers  
Solvent Degreaser (reuses solvent)  
Tire Recapping & Repairing Service  
Uniforms, Vacuum Bags, Wiping Cloths

**More Durable**

Above-Ground Vaulted Fuel Storage Tanks  
Classroom Furniture, Electronic Lamps & Ballasts  
Vacuum Cleaners, Floor Polish, Grader Blades  
Grader Slope Attachment, Kindergarten Furniture  
Paint Brushes, Plastic Lumber, Mattresses  
Plastic Tableware, Staplers  
Vertical File Cabinets, Wood Case goods  
Wood library furniture

**Energy Star – Reduced Energy Consumption**

Audio Visual System,  
Changeable Message Signs – Solar Powered  
Domestic Appliances  
Lighting Fixtures,  
Room Air Conditioners,  
Sonography Equipment  
Television & Video Equipment, Lamps  
Traffic Signals – LED,  
Ultrasound Scanner  
Ultrasound Training Simulator Equipment  
Warning Lights - Vehicles Safety  
Water Coolers

**Flow Plumbing Fixtures for Reduced Water**

**Consumption** – 0.5 GPM lavatory faucet nozzles and 1.5 GPM showerheads support the Governor's water conservation initiative during severe water restrictions throughout the state.

**Used - Automobiles and trucks**

**Refillable**

Ammunition - Cartridge Refills  
Batteries - Vehicle & Storage  
Drums – Steel, Fire Extinguishers  
Cylinders for Welding, Medical & Specialty Gases  
Fuel Tanks,  
Self-Contained Breathing Apparatus

**Repairable**

Defibrillators, Musical Instruments  
Tire Recapping & Repairing Service

**Refurbished/Rebuilt**

Aircraft Engines, Ferry Engine Repair Parts  
Medical Diagnostic Equipment & Instrumentation  
Remanufactured Toner Cartridges for Laser  
Scientific Equipment, Sewing Machines

**Less Toxic**

Alternative Fuel Vehicles, Correction Fluid  
Dry Cell Batteries, Electronic Lamps & Ballasts,  
Fertilizers/Farm Chemicals, Inks for printing (using non-petroleum based inks) Instructional Art  
Materials, Markerboard Markers, Mattresses,  
Scientific Products (eliminating Freon),  
Refrigeration and A/C Equipment

**Longer Lasting**

Floor Maintenance Machine Batteries, Library  
Furniture, Aluminum Nuts and Bolts – non-rusting  
alloys, Fluorescent electronic ballasts permit longer  
lamp life

**Recyclable**

Commodity Packaging, Commodity Metal  
enclosures & parts, Plastics, Steel & Reinforced  
Concrete Pipe, Chain Link Fencing, Electrical Wire,  
Treated Lumber, Motor Oil – refined, HVAC &  
Refrigeration Equipment - Refrigerants

**Washable - HVAC Filters Wiping Cloths**

N.C. Solid Waste and Materials Management Annual Report  
Fiscal Year 2009-2010

# Chapter 9

3R Program and Report





# **NCDOT REDUCE/REUSE/RECYCLE REPORT**

**FISCAL YEAR 2009-2010**



**John L. Sharp  
Environmental Specialist  
General Service Division**



## EUGENE A. CONTI, JR. SECRETARY

"It is vitally important for all North Carolinians to preserve and protect our environment for future generations. NCDOT has made a strong commitment to recycle, reduce the amount of waste produced in projects and reuse as many materials as possible, and we continue to make this a central focus in our daily operations."





## **TERRY GIBSON, P.E. STATE HIGHWAY ADMINISTRATOR**

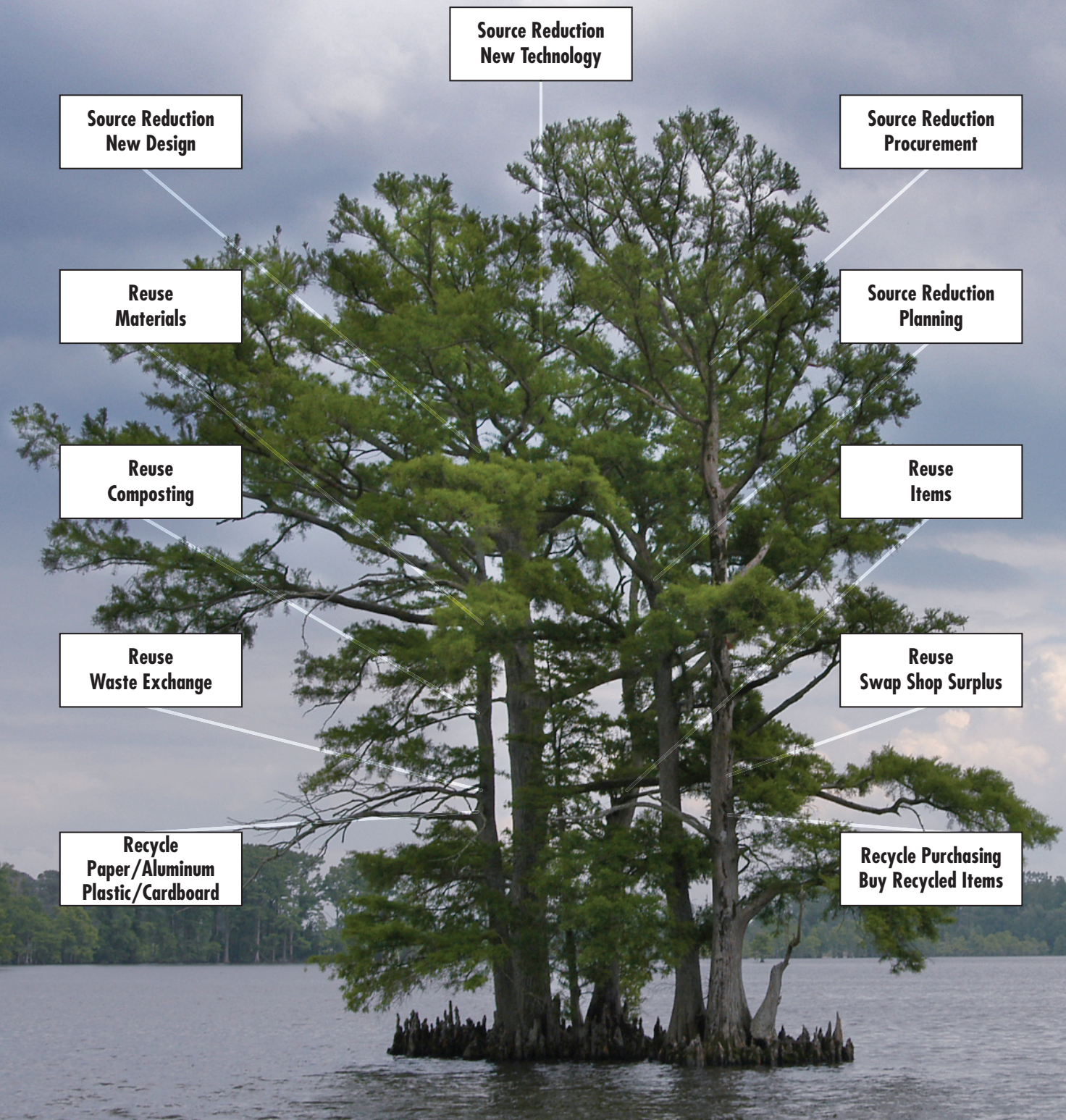
"The 3R Program is an important program at NCDOT. Being good stewards of the environment, and keeping a close watch on the larger picture, will help us to be more responsible toward conserving our natural resources today and in the years to come."



## **MICHAEL D. ROBERTSON DMV COMMISSIONER**

"At the Division of Motor Vehicles, one of our key programs is working with the N.C. Division of Air Quality and the U.S. Environmental Protection Agency to reduce the pollutants coming from the vehicles we drive. Our safety and emissions inspections help keep our vehicles operating safely and cleanly. We take great pride in doing all we can to preserve the quality of our environment for future North Carolinians."

# NCDOT 3R Program Tree



**Benefits:** • More Efficient Operation • Cost Savings • Environmental Sustainability • Compliance

# Education on Waste Reduction and Recycling

**Effective education is key to a successful waste reduction program.**

**As of 2009–2010, NCDOT has the following measures in place:**

- Top-down support for a recycling program;
- A lead coordinator for waste reduction and recycling efforts;
- Waste reduction and recycling opportunities for visitors at its public facilities such as highway rest stops; and
- Ongoing educational and promotional programs for waste reduction and recycling.

**A majority of the information was communicated and distributed electronically through e-mail and online.**



# Source Reduction of Waste/ Waste Prevention and Reuse



**NCDOT places source reduction of waste/waste prevention and reuse at the top of the hierarchy of preferred methods for managing solid waste. Executive Order 156 requires state agencies to practice waste reduction.**

**The following are actions taken by NCDOT in 2009–2010 to practice waste reduction:**

- Most employees practiced at least one technique for reducing waste.
- 80 percent of NCDOT facilities took action to reduce office paper such as copy paper, letterhead, envelopes and packaging.

This was done through:

- Eliminating unnecessary reports and reducing report size;
- Eliminating unnecessary forms or converting to electronic format;
- Making fewer copies;
- Printing or copying documents on both sides of paper;
- Using electronic mail and voice mail; and
- Posting announcements on bulletin boards and in break areas.

# In 2009- 2010, NCDOT Construction & Demolition Waste Reduction/ Recycle Program recycled 2,365 tons of waste such as Metal, Brick/Block and Concrete



# 2009- 2010 NCDOT Construction & Demolition Waste Reduction/ Recycle Program

**NCDOT is dramatically reducing the amount of material it puts into landfills statewide. One of the ways the department is accomplishing this reduction is by reusing and recycling parts of its old buildings through the Construction Waste Reduction and Recycling Program.**

"This program is a great example of our commitment to environmental sensitivity in action," Transportation Secretary Gene Conti said.

## **Highlighted savings from each of the four pilot projects include:**

- The Halifax Prison demolition project in Halifax County recycled scrap metal, copper wire, stainless steel and brass. Sale revenue of this material was \$16,342. An additional \$53,194 was saved in disposal costs and reuse of materials;
- On the I-77 Visitors Center renovation project in Mecklenburg County, NCDOT recycled materials such as concrete block, ceramic tile and glass block and saved \$42,454 in disposal fees. An additional \$6,505 was saved through the reuse and sale of recycled materials;
- During the renovation of the NCDOT annex in Wilson, the department purchased the old Watson Electric building across the street from the Division 4 office and replaced the aging modular buildings on site. Ceiling tiles and grid, light fixtures, doors and frames, wood paneling, 2x4 studs, most HVAC ductwork and systems, and all kitchen fixtures were reused, resulting in a savings of \$28,121. The carpet and asphalt were recycled, saving an additional \$1,633 in disposal costs; and
- Crews on the U.S. 64 Visitors Center renovation project in Tyrrell County recycled 87 tons of concrete, saving \$4,851 in disposal fees. NCDOT also reused as much of the original building, and its fittings and fixtures as possible.

**NCDOT architects who design the agency's facilities now specify in each set of project plans how they will reduce, reuse and recycle construction waste. All general contractors doing building design for NCDOT are required to create a recycling plan and report for each project.**

In addition to being environmentally sensitive, other important aspects of the program include:

- Creating local jobs for processing and manufacturing recycled materials;
- Generating revenue from the sale of unwanted copper, scrap steel, aluminum and stainless steel. Ninety-five percent of the funds received go to the budgets of NCDOT's transportation divisions. The remaining five percent goes to the state surplus office, which supplies recycled office materials to all NCDOT units;
- Saving money on landfill disposal fees and saving valuable landfill space; and
- Preserving/conserving natural resources.

**Overall, the program yielded \$153,100 in avoided hard costs, savings and revenue and kept 2,371 tons of material out of landfills with its four pilot projects. The overall savings will rise sharply as the department expands the program's reach to the state level. For more information about NCDOT's environmental efforts, visit [www.ncdot.gov/programs/environment/3R/](http://www.ncdot.gov/programs/environment/3R/).**



# Recycled Products & Solid Waste Utilization in Construction & Maintenance Projects



| Reused Materials 2009-2010 | Quantity | Unit of Measure   |
|----------------------------|----------|-------------------|
| Aggregate Base Course      | 14,709   | Tons              |
| Concrete Pipe              | 2,029    | Linear Feet       |
| Guardrail                  | 15,038   | Linear Feet       |
| Portable Concrete Barrier  | 4,127    | each              |
| Sign Posts                 | 5,917    | each              |
| Signal Heads               | 352      | each              |
| Signs                      | 14,897   | each              |
| Steel Beams                | 26,052   | Linear Meter / LM |



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PURDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

**Recycling and Solid Waste Management Report  
For Highway Construction and Maintenance Projects  
Fiscal Year 2010**

This report is a summary of the recycling and solid waste management efforts on highway construction and maintenance projects within the North Carolina Department of Transportation for fiscal year 2010 (July 1, 2009 - June 30, 2010) as required by G.S. 136-28.8(g). This statute mandates the Department prepare an annual report on the amounts and types of recycled materials specified or used in construction and maintenance operations during the previous fiscal year. The types of recycled materials incorporated into the projects noted would normally contribute to the consumer and industrial waste streams, compounding the problem of declining space in landfills.

Efforts to utilize recycled and solid waste materials are in response to the requirements of G.S. 136-28.8(b) which mandates the Department to use recycled materials in highway projects, specifically:

- (1) Rubber from tires for pavements, subbase materials, and other appropriate applications.
- (2) Recycled materials for guardrail posts, right of way fence posts, and sign supports.
- (3) Recycling technology including but not limited to hot in-place recycling on roads in highway maintenance.

All applications of recycled materials are to be consistent with economic feasibility and applicable engineering and environmental quality standards.

**Highway Construction and Maintenance Projects**

Specifications now require that many of the products used in highway construction projects, such as guardrail offset blocks and flexible delineator posts, be manufactured from some quantity of recycled materials. Glass beads used for retroreflective pavement markings are manufactured from 100 % recycled glass. Reclaimed asphalt pavement (RAP) may constitute up to 50 % of the total material used in most recycled mixtures, and RAP mixtures are used on a majority of projects. Fly ash is sometimes used as a concrete component for up to 20 % by weight of the required cement content. Some of the notable recycled or solid waste materials utilized this fiscal year are listed below.

**MAILING ADDRESS:**  
NC DEPARTMENT OF TRANSPORTATION  
QUALITY ENHANCEMENT UNIT  
1502 MAIL SERVICE CENTER  
RALEIGH NC 27699-1502

TELEPHONE: 919-508-1867  
FAX: 919-508-1954

WEBSITE: [WWW.NCDOT.GOV](http://WWW.NCDOT.GOV)

**LOCATION:**  
RANEY BUILDING  
104 FAYETTEVILLE STREET MALL  
RALEIGH NC 27601

Recycling and Solid Waste Management Report  
For Highway Construction and Maintenance Projects  
Fiscal Year 2010

1. Over 525,000 tons of Reclaimed Asphalt Pavement (RAP) was used as an asphalt mix additive.
2. About 5,000 cubic yards of clearing and grubbing debris was used as mulch for erosion control and roadside environmental applications.
3. Over 8,700 tons of coal combustion fly ash was used in concrete mixes.
4. Approximately 4,500 tons of recycled glass beads were used in pavement marking.
5. Maintenance personnel across the state continue to reuse products including:
  - Aggregate Base Course
  - Concrete pipe
  - Guardrail
  - Signs and posts
  - Steel Beams

See Attachment 1 for quantities of recycled and solid waste materials used during the 2010 fiscal year. Attachment 2 summarizes total quantities, as well as rolling average since 1989.

## **Website**

For up-to-date information on NCDOT's use of recycled materials, visit

<http://www.ncdot.org/~adu>

or

<http://www.ncdot.org/doh/preconstruct/altern/value/recycle/default.html>

| <b>North Carolina Department of Transportation</b><br><b>Recycled Products &amp; Solid Waste Utilization in Construction &amp; Maintenance Projects</b><br><b>Fiscal Year July 1, 2009 - June 30, 2010</b> |                                |  |                  |                       |                 |
|--|--------------------------------|--|------------------|-----------------------|-----------------|
| <b>Division:</b> All Divisions   |                                |  |                  |                       |                 |
| <b>Reporting Location:</b> All Divisions   |                                |  |                  |                       |                 |
| <b>Completed By:</b> J Scouten (9/13/10)   |                                | Choose English <b>OR</b> Metric Quantities |                  |                       |                 |
| Product Category and Description   | Usage                          | English Measure                            | English Quantity | Metric Measure        | Metric Quantity |
| <b>1-Asphalt:</b>  |                                |  |                  |                       |                 |
| Reclaimed Asphalt Pavement (RAP)   | Asphalt Mix Additive           | ton  | 526,849          | metric ton(tonne)/mtn |                 |
| Reclaimed Asphalt Shingles (RAS)   | Asphalt Mix Additive           | ton  | 4,321            | metric ton(tonne)/mtn |                 |
| Reclaimed Asphalt Pavement (RAP)   | Shoulder Reconstruction        | cubic yard/yd3                             | 24,986           | cubic meter/m3        |                 |
| Hot-In-Place Asphalt Recycling   | Pavement                       | square yard/yd2                            | 0                | square meter/m2       |                 |
| Full-Depth Reclamation   | Pavement                       | cubic yard/yd3                             | 3,400            | cubic meter/m3        |                 |
| Asphalt Shavings From Rumble Strip Install   | Driveway Ruts                  | ton  | 180              |                       |                 |
| <b>2-Clearing and Grubbing Debris:</b>   |                                |  |                  |                       |                 |
| Mulch  | Mulch                          | acre/acr                                   | 23               | hectare/hec           |                 |
| Mulch  | Mulch - Roadside Environmental | cubic yard/yd3                             | 5,600            | cubic meter/m3        |                 |
| Mulch  | Erosion Control                | cubic yard/yd3                             | 166              | cubic meter/m3        |                 |
| <b>3-Coal Combustion Products:</b>   |                                |  |                  |                       |                 |
| Fly Ash  | Concrete Mix Additive          | ton  | 8,710            | metric ton(tonne)/mtn |                 |
| Fly Ash  | Embankment Fill                | cubic yard/yd3                             | 0                | cubic meter/m3        |                 |
| Fly Ash  | Flowable Fill                  | cubic yard/yd3                             | 0                | cubic meter/m3        |                 |
| Bottom Ash   | Embankment Fill                | cubic yard/yd3                             | 0                | cubic meter/m3        |                 |
| <b>4-Concrete:</b>   |                                |  |                  |                       |                 |
| Recycled Concrete  | Aggregate Base Course (ABC)    | ton  | 264              | metric ton(tonne)/mtn |                 |
| Recycled Concrete  | Fill Material                  | ton  | 340              | metric ton(tonne)/mtn |                 |
| Crack and Seat   | Base Material                  | ton  | 75               | metric ton(tonne)/mtn |                 |
| Rubblized Concrete   | Base Material                  | ton  | 0                | metric ton(tonne)/mtn |                 |
| <b>5-Glass:</b>  |                                |  |                  |                       |                 |
| Recycled Glass Beads   | Pavement Markings              | ton  | 4,550            | metric ton(tonne)/mtn |                 |
| Crushed Glass  | Subdrain Backfill              | cubic yard/yd3                             | 0                | cubic meter/m3        |                 |
| Crushed Glass  | Aggregate Base                 | cubic yard/yd3                             | 0                | cubic meter/m3        |                 |
| <b>6-Plastic:</b>  |                                |  |                  |                       |                 |
| Recycled Plastic Offset Blocks   | Guardrail Offset Blocks        | each/ea                                    | 22,530           | each/ea               |                 |
| Recycled Plastic Fence Posts (All Sizes)   | Fence Posts                    | each/ea                                    | 0                | each/ea               |                 |
| Recycled Plastic Pipe (All Types and Sizes)  | Pipe                           | linear foot/ft                             | 580              | linear meter/lm       |                 |
| Recycled Plastic Sign Supports   | Sign Supports                  | each/ea                                    | 0                | each/ea               |                 |
| Recycled Plastic Flexible Delineators  | Flexible Delineators           | each/ea                                    | 50               | each/ea               |                 |
| <b>7-Scrap Tires:</b>  |                                |  |                  |                       |                 |
| Chipped Tires  | Embankment Fill                | cubic yard/yd3                             | 0                | cubic meter/m3        |                 |
| Chipped Tires  | Lightweight Aggregate          | cubic yard/yd3                             | 0                | cubic meter/m3        |                 |
| Crumb Rubber   | Crack Sealant                  | pound/lb                                   | 3,288            | kilogram/kg           |                 |
| Crumb Rubber   | Asphalt Mix Additive           | pound/lb                                   | 0                | kilogram/kg           |                 |
| Rubber Mulch   | Mulch                          | cubic yard/yd3                             | 2,378            | cubic meter/m3        |                 |
| Tire Sidewalls   | Traffic Drum Ballast           | each/ea                                    | 6,297            | each/ea               |                 |
| Whole Tires  | Retaining Wall                 | each/ea                                    | 356              | each/ea               |                 |
| Weed Control Matting   | Under Guardrail                | pound/lb                                   | 173,145          |                       |                 |
| <b>8-Roadside Environmental:</b>   |                                |  |                  |                       |                 |
| Animal Waste   | Fertilizer/Soil Amendment      | ton  | 0                | metric ton(tonne)/mtn |                 |
| Bioremediated Petroleum Affected Soils   | Soil Amendment                 | cubic yard/yd3                             | 217              | cubic meter/m3        |                 |
| Sludge   | Soil Amendment                 | ton  | 0                | metric ton(tonne)/mtn |                 |
| <b>9-Other:</b>  |                                |  |                  |                       |                 |
| Paper  | Phone Books                    | pound/lb                                   | 19               |                       |                 |
| Mabey Bridge   | Temporary Detour Bridge        | each/ea                                    | 1                |                       |                 |
| Chain Link Fence   | Reset Existing Fence           | linear foot/ft                             | 164              |                       |                 |
| Cardboard  | Boxes                          | pound/lb                                   | 10               |                       |                 |
| Plastic Bottles  | Bottles                        | pound/lb                                   | 40               |                       |                 |
| Aluminum   | Cans                           | pound/lb                                   | 10               |                       |                 |
| Asphalt From Plants & Roadway Cores  | Testing                        | ton  | 50               |                       |                 |
| Tires  | Retreads                       | pound/lb                                   | 6,000            |                       |                 |
| <b>10-Reused Materials:</b>  |                                |  |                  |                       |                 |
| Aggregate Base Course  | Aggregate Base Course          | ton  | 14,709           | metric ton(tonne)/mtn |                 |
| Concrete Pipe  | Concrete Pipe                  | linear foot/ft                             | 2,029            | linear meter/lm       |                 |
| Guardrail  | Guardrail                      | linear foot/ft                             | 15,038           | linear meter/lm       |                 |
| Portable Concrete Barrier  | Portable Concrete Barrier      | each/ea                                    | 4,127            | each/ea               |                 |
| Sign Posts   | Sign Posts                     | each/ea                                    | 5,917            | each/ea               |                 |
| Signal Heads   | Signal Heads                   | each/ea                                    | 352              | each/ea               |                 |
| Signs  | Signs                          | each/ea                                    | 14,897           | each/ea               |                 |
| Steel Beams  | Steel Beams                    | linear foot/ft                             | 26,052           | linear meter/lm       |                 |
| 40' Class III Wood Signal Post   | Signal Pole                    | each/ea                                    | 10               |                       |                 |

**North Carolina Department of Transportation**  
**Recycled Products & Solid Waste Utilization in Construction & Maintenance Projects**  
**Summary, January 1989 through June 2010**

| Product Category and Description         | Usage                     | Quantity          | Unit of Measure | 1989-2010<br>Rolling Average |
|--|---------------------------|-------------------|-----------------|------------------------------|
| <b>1-Asphalt:</b>                        |                           |                   |                 |                              |
| Reclaimed Asphalt Pavement (RAP)         | Asphalt Mix Additive      | 4,729,542         | Tons            | 225,216 Tons                 |
| Reclaimed Asphalt Pavement (RAP)         | Aggregate Base Course     | 27,829            | Tons            | 1,325 Tons                   |
| Reclaimed Asphalt Pavement (RAP)         | Shoulder Reconstruction   | 31,033            | Cubic Yards     | 1,478 Cubic Yards            |
| Reclaimed Asphalt Shingles (RAS)         | Asphalt Mix Additive      | 57,824            | Tons            | 2,754 Tons                   |
| Hot-In-Place Asphalt Recycling           | Pavement                  | 2,413,867         | Square Yards    | 114,946 Square Yards         |
| Full-Depth Reclamation                   | Pavement                  | 144,444           | Cubic Yards     | 6,878 Cubic Yards            |
| <b>2-Clearing and Grubbing Debris:</b>   |                           |                   |                 |                              |
| Mulch                                    | Mulch                     | 529               | Acres           | 25 Acres                     |
| Mulch                                    | Roadside Environmental    | 39,032            | Cubic Yards     | 1,859 Cubic Yards            |
| Mulch                                    | Erosion Control           | 39,751            | Cubic Yards     | 1,893 Cubic Yards            |
| <b>3-Coal Combustion Products:</b>       |                           |                   |                 |                              |
| Fly Ash                                  | Concrete Mix Additive     | 102,893           | Tons            | 4,900 Tons                   |
| Fly Ash                                  | Embankment Fill           | 865,186           | Cubic Yards     | 41,199 Cubic Yards           |
| Fly Ash                                  | Flowable Fill             | 630               | Cubic Yards     | 30 Cubic Yards               |
| Fly Ash                                  | Asphalt Mix Additive      | 40,800            | Tons            | 1,943 Tons                   |
| Bottom Ash                               | Embankment Fill           | 2,707             | Cubic Yards     | 129 Cubic Yards              |
| <b>4-Concrete:</b>                       |                           |                   |                 |                              |
| Recycled Concrete                        | Aggregate Base Course     | 6,399             | Tons            | 304 Tons                     |
| Recycled Concrete                        | Fill Material             | 54,047            | Tons            | 2,576 Tons                   |
| Crack and Seat                           | Base Material             | 260,853           | Tons            | 12,422 Tons                  |
| Rubblized Concrete                       | Base Material             | 310,917           | Tons            | 14,806 Tons                  |
| <b>5-Glass:</b>                          |                           |                   |                 |                              |
| Recycled Glass Beads                     | Pavement Markings         | 75,823            | Tons            | 3,611 Tons                   |
| Crushed Glass                            | Subdrain Backfill         | 130               | Tons            | 6.2 Tons                     |
| Crushed Glass                            | Pipe Foundation           | 333               | Tons            | 15.86 Tons                   |
| Crushed Glass                            | Aggregate Base            | 203               | Tons            | 9.67 Tons                    |
| <b>6-Plastic:</b>                        |                           |                   |                 |                              |
| Recycled Plastic Offset Blocks           | Guardrail Offset Blocks   | 342,007           | Each            | 16,286 Each                  |
| Recycled Plastic Fence Posts (All Sizes) | Fence Posts               | 8,100             | Each            | 386 Each                     |
| Recycled Plastic Pipe (All Types)        | Pipe                      | 57,703            | Linear Feet     | 2,748 Linear Feet            |
| Recycled Plastic Flexible Delineators    | Flexible Delineator Posts | 4,838             | Each            | 230 Each                     |
| Recycled Plastic Barricades              | Type III Barricades       | 2,091             | Feet            | 100 Feet                     |
| Recycled Plastic Traffic Separators      | Railroad Safety Device    | 2,922             | Linear Feet     | 139 Linear Feet              |
| <b>7 - Scrap Tires:</b>                  |                           |                   |                 |                              |
| Chipped Tires                            | Embankment Fill           | 11,695,045        | Tires           | 556,907 Tires                |
| Chipped Tires                            | Lightweight Aggregate     | 50,739            | Tires           | 2,416 Tires                  |
| Chipped Tires                            | Sound Wall Panels         | 8,000             | Tires           | 381 Tires                    |
| Crumb Rubber                             | Crack Sealant             | 3,413             | Tires           | 163 Tires                    |
| Crumb Rubber                             | Soil Amendment            | 2,000             | Tires           | 95 Tires                     |
| Crumb Rubber                             | Asphalt Mix Additive      | 124,512           | Tires           | 5,929 Tires                  |
| Rubber Mulch                             | Mulch                     | 3,603             | Tires           | 172 Tires                    |
| Tires Sidewalls                          | Traffic Drum Ballast      | 68,500            | Tires           | 3,262 Tires                  |
| Whole Tires                              | Retaining Wall            | 3,721             | Tires           | 177 Tires                    |
| <b>Total Waste Scrap Tires</b>           |                           | <b>11,959,533</b> | <b>Tires</b>    | <b>569,502 Tires</b>         |

**North Carolina Department of Transportation**  
**Recycled Products & Solid Waste Utilization in Construction & Maintenance Projects**  
**Summary, January 1989 through June 2010**

| Product Category and Description       | Usage                     | Quantity | Unit of Measure | 1989-2010<br>Rolling Average |
|--|---------------------------|----------|-----------------|------------------------------|
| <b>8 - Roadside Environmental:</b>     |                           |          |                 |                              |
| Advanced Alkaline Sludge               | Soil Amendment            | 495      | Tons            | 24 Tons                      |
| Aged Leaf Mold & Yard Debris           | Soil Amendment            | 2,370    | Tons            | 113 Tons                     |
| Ammonium Sulfate Liquid                | Fertilizer/Soil Amendment | 420,948  | Gallons         | 20,045 Gallons               |
| Bark Mulch                             | Soil Amendment            | 10,434   | Tons            | 497 Tons                     |
| Bioremediated Petroleum Affected Soils | Soil Amendment            | 920      | Cubic Yards     | 44 Cubic Yards               |
| Cotton Gin Waste                       | Soil Amendment            | 7,130    | Cubic Yards     | 340 Cubic Yards              |
| Hog Waste                              | Fertilizer/Soil Amendment | 25       | Cubic Yards     | 1.2 Cubic yards              |
| Hurricane Fran Mulch                   | Soil Amendment            | 200,000  | Cubic Yards     | 9,524 Cubic Yards            |
| Hydromulch                             | Mulch                     | 89,160   | Pounds          | 4,246 Pounds                 |
| Lime Stabilized Municipal Sludge       | Soil Amendment            | 704      | Tons            | 34 Tons                      |
| Municipal Sludge                       | Soil Amendment            | 8,610    | Tons            | 410 Tons                     |
| Poultry Litter                         | Fertilizer/Soil Amendment | 425      | Tons            | 20 Tons                      |
| Soil Derived from Demolition Debris    | Soil Amendment            | 1,742    | Tons            | 83 Tons                      |
| <b>9 - Other:</b>                      |                           |          |                 |                              |
| Steel Slag                             | Base Aggregate            | 224      | Tons            | 11 Tons                      |
| Processed Silica                       | Embankment Fill           | 46,072   | Cubic Yards     | 2,194 Cubic Yards            |
| Recycled Polyester Resin               | Weedmat                   | 1,152    | Square Yards    | 55 Square Yards              |
| Recycled Bridge Items                  | Decking & Beams (Wood)    | 1,500    | Linear Feet     | 71 Linear Feet               |
| Reclaimed Asphalt Pavement (RAP)       | Patching                  | 900      | Tons            | 43 Tons                      |
| Used Unclassified Structure            | Borrow                    | 3,180    | Cubic Yards     | 151 Cubic Yards              |
| Mabey Bridge                           | Bridge                    | 1        | Each            | 1 Each                       |
| Drainage Ditch Excavation              | Borrow                    | 200      | Cubic Yards     | 10 Cubic Yards               |
| Corrugated Metal Pipe                  | Metal Pipe                | 2,500    | Linear Feet     | 119 Linear Feet              |
| Erosion Control Stone 'B'              | Slope Protection          | 340      | Tons            | 16 Tons                      |
| White Roofing Rock                     | Mulch, Ditch Liner        | 250      | Cubic Yards     | 12 Cubic Yards               |
| <b>10-Reused Materials:</b>            |                           |          |                 |                              |
| Aggregate Base Course                  | Aggregate Base Course     | 55,103   | Tons            | 1,053 Tons                   |
| Concrete Pipe                          | Concrete Pipe             | 11,334   | Linear Feet     | 540 Linear Feet              |
| Guardrail                              | Guardrail                 | 49,732   | Linear Feet     | 2,368 Linear Feet            |
| Refurbished Traffic Signal Heads       | Traffic Signal Heads      | 11       | Each            | 0.52 Each                    |
| Sign Posts                             | Sign Posts                | 16,409   | Each            | 781 Each                     |
| Signal Heads                           | Signal Heads              | 1,090    | Each            | 52 Each                      |
| Signs                                  | Signs                     | 42,845   | Each            | 2,040 Each                   |
| Silt Fence and Posts                   | Silt Fence and Posts      | 2,550    | Linear Feet     | 121 Linear Feet              |
| Steel Beams                            | Steel Beams               | 559,652  | Pounds          | 26,650 Pounds                |
| Double Faced Concrete Barrier          | Concrete Barrier          | 12,168   | Linear Feet     | 579 Linear Feet              |
| Wooden Breakaway Posts                 | Guardrail Offset Blocks   | 11,409   | Each            | 543 Each                     |
| 40' Signal Pole (wood)                 | Signal Pole Replacement   | 27       | Each            | 1.28 Each                    |
| LED Signal Lamps                       | Signal Repair             | 200      | Each            | 9.52 Each                    |
| Signal Cabinet                         | Signal Repair             | 3        | Each            | 0.14 Each                    |
| 1" Rigid Pipe                          | Signal Repair             | 110      | Linear Feet     | 5.24 Each                    |
| Portable Concrete Barrier              | Portable Concrete Barrier | 11,428   | Each            | 544 Each                     |

**End 1989-2010 Summary**  
**End Report**

Sheet 2 of 2

### Recycling provides NCDOT and North Carolina with several major benefits:

- REDUCE REUSE RECYCLE**
- FY 2009-2010 North Carolina Solid Waste and Materials Management Annual Report - 98

# In 2009-2010, NCDOT recycled 782 tons of paper such as office papers, telephone books and cardboard.

## **NCDOT has embraced recycling throughout North Carolina.**

The growth in recycling programs throughout NCDOT reflects the common-sense instinct of its employees to conserve resources and save on operating costs in their own backyard. Transforming waste materials into useable resources supports our mission of connecting people and places in North Carolina — safely and efficiently, with accountability and environmental sensitivity.



## **NCDOT 2009–2010 Paper Recycling Program Environmental Impact**

- 5,474,000 gallons of water saved
- 3,284,400 kilowatt hours of energy saved
- 304,980 gallons of oil saved
- 2,346 cubic yards of land fill space
- 13,294 trees saved

**In 2009-2010, NCDOT  
recycled 22 tons of plastic  
such as jugs, buckets  
and bottles.**



**NCDOT Rest Areas make recycling opportunities easy for the general public.  
In 2009-2010, NCDOT recycled more than nine tons of glass bottles.**



**In 2009-2010, NCDOT  
recycled 531,379 tons of oil,  
concrete, tires and asphalt.**



**In 2009-2010, NCDOT recycled 3,810 tons of organic material such as wood pallets, beams and mulch.**



**In 2009-2010, NCDOT recycled 88 tons of electronics such as computers, monitors and printers.**



**NCDOT also recycled 2461 tons of metal such as highway signs and scrap metal that same year.**



# NCDOT Rail, Ferry and Aviation Divisions



The NCDOT Rail Division leads the way among alternative modes in reuse and recycling of materials. Rail Division reuse programs provided thousands of dollars in cost savings.



Reuse and Recycle programs in the Ferry and Aviation divisions keep their waste stream to a minimum.

# **NCDOT Solid Waste Disposal and Cost Information July 1, 2009 - June 30, 2010**

## **SOLID WASTE DISPOSAL AND COST INFORMATION**

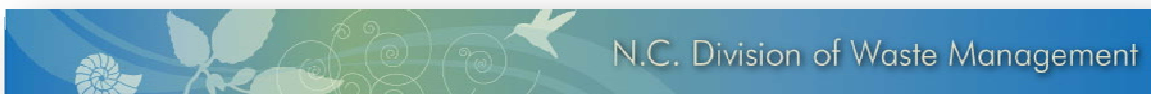
1. Total tons of solid waste disposed of in land fills or by incineration  
**78,890**
2. Total costs for solid waste collection and disposal  
**\$ 2,366,707**
3. Total tons recycled or composted  
**538,551**
4. Total solid waste collection and disposal costs avoided through recycling and composting  
**\$ 16,156,530**
5. Total revenues from sale of recycled materials and compost products  
**\$ 1,303,588**

NCDOT's focus on waste management over the past year has moved towards implementing and educating employees on source reduction, reuse, and recycle practices. These practices have resulted in a significant reduction in our waste stream and a large increase in recycling numbers reported.

- **Establishing and implementing a construction and demolition solid waste plan.**
- **Increasing specifications to allow more reuse of asphalt, hot in-place recycling and Highway Construction and Materials System (HiCAMS) reporting.**
- **Eliminating mass printing of several manuals, documents and forms by placing them online for customers and employees.**

N.C. Solid Waste and Materials Management Annual Report  
Fiscal Year 2009-2010

# Appendices A-E



N.C. Solid Waste and Materials Management Annual Report  
Fiscal Year 2009-2010

# Appendix A

MSW and C&D Landfills, Industrial Waste, Transfer Stations and Material  
Recovery Facilities



## DIVISION OF WASTE MANAGEMENT

### Appendix A-1: Public and Private Municipal Solid Waste and Construction Demolition Disposal, FY 2009-2010

| Permit #        | Facility                              | Tons      |           |           |           |           |
|-----------------|---------------------------------------|-----------|-----------|-----------|-----------|-----------|
|                 |                                       | 2009-2010 | 2008-2009 | 2007-2008 | 2006-2007 | 2005-2006 |
| 1304-MSWLF-1992 | BFI-CHARLOTTE MTR SPEEDWAY LANDFILL V | 1,076,806 | 1,188,880 | 1,240,561 | 1,248,755 | 1,255,717 |
| 8202-MSWLF-2000 | WI-SAMPSON COUNTY DISPOSAL INC        | 1,070,441 | 1,054,305 | 1,073,936 | 981,779   | 866,528   |
| 6204-MSWLF-1995 | UWHARRIE ENV. REG. LANDFILL           | 730,173   | 817,244   | 968,212   | 729,708   | 760,704   |
| 0803-MSWLF-1993 | EAST CAROLINA REG LANDFILL            | 591,537   | 478,571   | 511,882   | 556,607   | 519,758   |
| 9222-MSWLF-2008 | WAKE COUNTY SOUTH WAKE MSWLF          | 439,069   | 463,126   | 95,471    |           |           |
| 1403-MSWLF-1998 | FOOTHILLS ENVIRONMENTAL LANDFILL      | 313,535   | 240,485   | 326,026   | 379,118   | 219,353   |
| 7304-MSWLF-1997 | UPPER PIEDMONT REG LANDFILL           | 256,643   | 225,184   | 226,710   | 198,233   | 244,695   |
| 3402-MSWLF-1997 | HANES MILL ROAD LANDFILL              | 242,211   | 239,490   | 250,627   | 276,116   | 266,504   |
| 0403-MSWLF-2010 | CHAMBERS DEVELOPMENT MSWLF            | 220,555   | 156,380   | 208,982   | 273,112   | 262,093   |
| U0017-MSWLF-    | PALMETTO LANDFILL AND RC #422401-1101 | 200,658   | 224,314   | 254,661   | 435,098   | 538,508   |
| 2509-MSWLF-1999 | CRSWMA - LONG TERM REGIONAL LANDFILL  | 175,369   | 196,418   | 217,483   | 232,555   | 236,436   |
| U0024-MSWLF-    | BRUNSWICK WASTE MANAGEMENT FACILITY   | 157,019   | 293,981   | 378,178   | 448,053   | 411,107   |
| 6504-MSWLF-1981 | NEW HANOVER COUNTY LANDFILL           | 154,614   | 119,808   | 155,311   | 199,633   | 245,781   |
| 4903-MSWLF-1993 | IREDELL COUNTY SANITARY LF            | 152,636   | 187,177   | 162,208   | 167,950   | 162,637   |
| 2601-MSWLF-1997 | CUMBERLAND COUNTY LANDFILL            | 140,176   | 168,473   | 164,214   | 177,756   | 171,151   |
| 3606-MSWLF-1997 | GASTON COUNTY LANDFILL                | 136,012   | 146,775   | 156,983   | 108,616   | 97,159    |
| 8003-MSWLF-1988 | ROWAN COUNTY LANDFILL                 | 133,523   | 136,751   | 86,548    | 94,642    | 98,548    |
| 6709-MSWLF-1997 | ONSLOW COUNTY SUBTITLE D LANDFILL     | 124,027   | 124,025   | 134,127   | 142,155   | 141,239   |
| 1803-MSWLF-1997 | CATAWBA COUNTY LANDFILL               | 122,938   | 132,901   | 151,007   | 165,384   | 167,988   |
| U0038-MSWLF-    | R & B LANDFILL                        | 122,563   | 126,844   | 132,973   | 139,763   | 38,676    |
| 1107-MSWLF-1996 | BUNCOMBE COUNTY MSW LANDFILL          | 115,083   | 131,895   | 143,994   | 117,215   | 122,034   |
| 6013-CDLF-1993  | NORTH MECKLENBURG C&D LANDFILL        | 103,073   | 138,359   | 115,678   | 129,209   | 119,795   |
| 5103-MSWLF-     | JOHNSTON COUNTY LANDFILL              | 99,372    | 103,501   | 116,086   |           |           |
| 9231-CDLF-      | MATERIAL RECOVERY/ BROWNFIELD RD C&D  | 91,994    | 124,986   | 177,563   | 154,814   | 148,244   |

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### Appendix A-1: Public and Private Municipal Solid Waste and Construction Demolition Disposal, FY 2009-2010

| Permit #        | Facility                                | Tons      |           |           |           |           |
|-----------------|---|-----------|-----------|-----------|-----------|-----------|
|                 |   | 2009-2010 | 2008-2009 | 2007-2008 | 2006-2007 | 2005-2006 |
| 4104-MSWLF-1991 | HIGH POINT CITY OF - LANDFILL           | 89,970    | 81,676    | 84,843    | 99,820    | 85,889    |
| 2906-MSWLF-2008 | DAVIDSON COUNTY MSW LINED LANDFILL      | 86,905    | 57,458    |           |           |           |
| 2608-CDLF-1998  | FORT BRAGG C&D LANDFILL                 | 85,620    | 100,423   | 93,460    | 105,986   | 218,565   |
| 7803-MSWLF-1997 | ROBESON COUNTY LANDFILL                 | 84,775    | 88,329    | 86,534    | 90,005    | 89,296    |
| 7904-MSWLF-1995 | ROCKINGHAM COUNTY LANDFILL              | 83,331    | 83,878    | 89,844    | 90,072    | 89,212    |
| 9226-CDLF-2001  | SHOTWELL LANDFILL INC.                  | 81,705    | 87,513    | 85,871    | 56,192    | 36,600    |
| 1306-CDLF-2000  | HIGHWAY 49 C&D LANDFILL AND RECYCLING   | 78,247    | 81,863    | 97,422    | 116,544   | 112,072   |
| 0104-MSWLF-1994 | AUSTIN QUARTER SWM FACILITY             | 74,956    | 78,476    | 82,929    | 84,078    | 74,163    |
| 9228-CDLF-2001  | RED ROCK DISPOSAL, LLC                  | 72,831    | 98,962    | 201,597   | 200,361   | 183,704   |
| 8606-MSWLF-1998 | SURRY COUNTY MSWLF                      | 72,384    | 64,551    | 75,717    | 79,601    | 80,985    |
| U0048-MSWLF-    | UNION COUNTY (SC) LANDFILL #442441-1101 | 67,548    | 44,402    | 52,871    | 170,712   | 136,450   |
| 9606-MSWLF-1998 | WAYNE COUNTY LANDFILL                   | 62,296    | 73,201    | 83,682    | 81,030    | 92,481    |
| 2301-MSWLF-2009 | CLEVELAND COUNTY LANDFILL SELF-MCNEIL   | 62,228    |           |           |           |           |
| 6019-MSWLF-2000 | MECKLENBURG COUNTY LANDFILL             | 56,384    | 79,173    | 129,780   | 165,239   | 158,035   |
| 4116-CDLF-      | WCA OF HIGHPOINT, LLC                   | 54,320    | 78,211    | 56,947    | 37,018    | 114,093   |
| 8401-MSWLF-1999 | ALBEMARLE, CITY OF-LANDFILL             | 52,339    | 46,047    | 45,564    | 46,614    | 49,424    |
| 9230-CDLF-      | HWY 55 C & D LANDFILL, LLC              | 51,863    | 66,174    | 80,195    | 92,916    | 69,182    |
| 9704-MSWLF-1993 | WILKES COUNTY MSWLF                     | 49,571    | 57,484    | 58,220    | 58,121    | 57,391    |
| 5503-MSWLF-1986 | LINCOLN COUNTY LANDFILL                 | 48,496    | 45,508    | 44,680    | 45,090    | 45,935    |
| 6708-MSWLF-1997 | CAMP LEJEUNE MSW LANDFILL               | 48,272    | 45,920    | 40,672    | 46,612    | 50,802    |
| 3412-CDLF-1995  | OLD SALISBURY ROAD CDLF                 | 47,431    | 59,137    | 84,880    | 101,390   | 102,059   |
| 6801-MSWLF-1993 | ORANGE COUNTY MSWLF                     | 47,167    | 50,760    | 55,421    | 57,301    | 57,570    |
| 4103-CDLF-1998  | GREENSBORO, CITY OF                     | 46,914    | 72,124    | 95,755    | 130,951   | 145,871   |
| 4407-MSWLF-1993 | HAYWOOD CO WHITE OAK LANDFILL           | 46,329    | 50,881    | 56,368    | 58,455    | 42,790    |
| 2301-CDLF-1997  | CLEVELAND COUNTY CDLF                   | 45,957    | 41,273    | 50,425    | 60,056    | 25,155    |

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### Appendix A-1: Public and Private Municipal Solid Waste and Construction Demolition Disposal, FY 2009-2010

| Permit #        | Facility                             | Tons      |           |           |           |           |
|-----------------|--------------------------------------|-----------|-----------|-----------|-----------|-----------|
|                 |                                      | 2009-2010 | 2008-2009 | 2007-2008 | 2006-2007 | 2005-2006 |
| U0050-MSWLF-    | RICHLAND LANDFILL, INC.              | 41,222    | 49,919    | 66,652    | 5,946     |           |
| 3606-CDLF-1995  | GASTON COUNTY C&D LANDFILL           | 38,619    | 35,112    | 48,802    | 52,869    | 47,529    |
| 7407-CDLF-2009  | C & D LANDFILL INC                   | 38,516    |           |           |           |           |
| 5703-MSWLF-1992 | MACON COUNTY LANDFILL OPEN           | 31,454    | 32,706    | 27,999    | 27,517    | 27,783    |
| 9601-CDLF-1997  | WAYNE COUNTY CDLF                    | 29,736    | 22,501    | 36,067    | 30,382    | 28,569    |
| 1302-CDLF-2006  | CABARRUS COUNTY CDLF                 | 29,511    | 45,090    | 55,637    | 67,811    | 158,626   |
| 2601-CDLF-1997  | CUMBERLAND COUNTY C&D UNIT           | 27,829    | 17,911    | 44,143    | 46,198    | 40,163    |
| U0039-MSWLF-    | ATLANTIC WASTE DISPOSAL, INC.        | 26,456    | 21,810    | 4,523     | 99        | 32        |
| 5103-CDLF-      | JOHNSTON COUNTY C&D LANDFILL         | 23,498    | 29,517    | 36,159    |           |           |
| 5409-MSWLF-     | LENOIR COUNTY MSW LANDFILL           | 22,951    | 47,910    | 50,728    | 56,692    | 43,600    |
| 1803-CDLF-      | CATAWBA COUNTY C&D UNIT              | 22,570    | 32,911    | 38,745    | 49,733    | 40,246    |
| 8807-MSWLF-1990 | TRANSYLVANIA COUNTY LANDFILL         | 22,328    | 23,828    | 28,912    | 28,090    | 26,732    |
| 4117-CDLF-2008  | A-1 SANDROCK C&D LANDFILL            | 21,517    |           |           |           |           |
| 5504-CDLF-1999  | BFI-LAKE NORMAN LANDFILL             | 21,095    | 31,303    | 79,992    | 89,781    | 112,369   |
| 6301-CDLF-1992  | MOORE COUNTY C&D LANDFILL            | 19,839    | 23,407    | 36,469    | 36,125    | 36,406    |
| 7803-CDLF-1997  | ROBESON COUNTY CDLF                  | 17,473    | 19,233    | 17,709    | 25,529    | 31,801    |
| U0101-CDLF-     | WCA SHILOH LANDFILL                  | 16,532    |           |           |           |           |
| 2301-MSWLF-1998 | CLEVELAND COUNTY LANDFILL EAST MSWLF | 16,262    | 82,027    | 88,344    | 91,211    | 90,761    |
| 2906-MSWLF-1994 | DAVIDSON CO MSW LINED LANDFILL       | 16,100    | 54,298    | 114,485   | 103,997   | 100,574   |
| 1107-CDLF-1998  | BUNCOMBE COUNTY C&D UNIT             | 15,817    | 32,529    | 62,750    | 66,388    | 58,730    |
| U0035-MSWLF-    | BRISTOL LANDFILL                     | 15,749    | 16,879    | 16,814    | 14,486    | 14,208    |
| 1007-CDLF-1997  | BRUNSWICK COUNTY CDLF                | 15,054    | 26,684    | 45,168    | 71,402    | 76,390    |
| 9809-CDLF-      | WILSON COUNTY WESTSIDE C&D LANDFILL  | 14,917    | 12,419    | 26,888    | 28,725    | 31,442    |
| 2002-MSWLF-1998 | CHEROKEE COUNTY MSW FACILITY         | 14,453    | 16,096    | 20,558    | 19,687    | 20,113    |
| 8202-CDLF-1996  | WI-SAMPSON COUNTY C&D UNIT           | 14,166    | 739       | 942       | 1,087     | 2,357     |

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### Appendix A-1: Public and Private Municipal Solid Waste and Construction Demolition Disposal, FY 2009-2010

| Permit #        | Facility                                 | Tons      |           |           |           |           |
|-----------------|--|-----------|-----------|-----------|-----------|-----------|
|                 |  | 2009-2010 | 2008-2009 | 2007-2008 | 2006-2007 | 2005-2006 |
| 2803-CDLF-1995  | DARE COUNTY C&D LANDFILL                 | 14,022    | 14,881    | 21,282    | 28,608    | 15,368    |
| 4302-CDLF-1998  | HARNETT COUNTY CDLF                      | 13,954    | 16,566    | 20,798    | 20,312    | 20,115    |
| 3901-CDLF-1997  | GRANVILLE COUNTY CDLF                    | 13,151    | 15,160    | 20,630    | 25,446    | 31,260    |
| 5503-CDLF-1999  | LINCOLN COUNTY C&D UNIT                  | 12,798    | 11,265    | 7,809     | 10,787    | 10,351    |
| 0105-CDLF-1998  | COBLES C&D LANDFILL                      | 12,769    | 14,488    | 40,428    | 49,981    | 55,849    |
| 8401-CDLF-1997  | ALBEMARLE, CITY OF, CDLF                 | 12,308    | 16,363    | 22,397    | 27,324    | 28,413    |
| 0501-MSWLF-1993 | ASHE COUNTY LANDFILL                     | 12,030    | 18,075    | 24,346    | 22,922    | 22,643    |
| 6403-CDLF-2000  | NASH COUNTY C&D LANDFILL                 | 11,969    | 11,028    | 14,525    | 15,692    | 18,690    |
| U0033-MSWLF-    | PINEBLUFF LANDFILL                       | 11,265    | 11,590    | 12,549    | 13,410    | 13,010    |
| 4303-CDLF-1997  | HARNETT CO ANDERSON CRK C&D LANDFILL     | 11,162    | 9,313     | 10,323    | 13,160    | 13,237    |
| 9001-CDLF-1998  | UNION COUNTY C&D                         | 10,646    | 15,771    | 13,691    | 27,989    | 27,859    |
| 7002-CDLF-1996  | PASQUOTANK COUNTY C&D LANDFILL           | 10,379    | 13,268    | 13,858    | 18,029    | 23,710    |
| 7606-CDLF-2001  | GOLD HILL ROAD C&D DEBRIS LANDFILL       | 10,344    | 10,807    | 12,180    | 12,913    | 13,327    |
| 3301-CDLF-1997  | EDGCOMBE COUNTY CDLF                     | 10,065    | 13,377    | 14,272    | 9,254     | 7,670     |
| 2906-CDLF-      | DAVIDSON COUNTY CDLF                     | 9,556     | 9,314     | 11,949    | 12,725    | 7,999     |
| U0105-CDLF-     | SANDLANDS C&D LANDFILL #342729-1201      | 9,424     |           |           |           |           |
| U0051-MSWLF-    | LAKEWAY RECYCLING & SANITATION, INC. SN  | 9,381     | 9,636     | 8,852     | 5,061     |           |
| 5403-CDLF-1997  | LENOIR COUNTY CDLF                       | 9,100     | 13,581    | 12,720    | 15,009    | 19,191    |
| U0034-MSWLF-    | LEE COUNTY LANDFILL SC, LLC #312411-1101 | 8,803     | 4,428     | 4,878     | 7,066     | 10,194    |
| U0047-MSWLF-    | EAGLE POINT MSWLF                        | 8,611     | 8,452     | 9,157     | 9,137     | 8,744     |
| 1203-CDLF-1998  | BURKE COUNTY CDLF                        | 8,499     | 9,298     | 15,376    | 19,742    | 19,339    |
| 6804-CDLF-2005  | ORANGE COUNTY C&D LANDFILL               | 8,347     | 10,991    | 16,756    |           |           |
| 4112-MSWLF-1997 | GREENSBORO, CITY OF                      | 8,240     | 7,766     | 9,615     | 101,965   | 201,396   |
| 8301-CDLF-1997  | SCOTLAND COUNTY CDLF                     | 8,057     | 8,483     | 12,755    | 14,971    | 16,078    |
| 8103-CDLF-2002  | RUTHERFORD COUNTY C&D                    | 7,961     | 12,953    | 19,650    | 19,291    | 21,768    |

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### Appendix A-1: Public and Private Municipal Solid Waste and Construction Demolition Disposal, FY 2009-2010

| Permit #       | Facility                              | Tons             |                  |                   |                   |                   |
|----------------|---------------------------------------|------------------|------------------|-------------------|-------------------|-------------------|
|                |                                       | 2009-2010        | 2008-2009        | 2007-2008         | 2006-2007         | 2005-2006         |
| 4204-CDLF-1998 | HALIFAX COUNTY CDLF                   | 5,701            | 4,445            | 5,861             | 5,267             | 6,957             |
| 5901-CDLF-1995 | MARTIN COUNTY C&D LANDFILL            | 4,484            | 5,449            | 8,443             | 5,957             | 9,518             |
| 0104-CDLF-1993 | AUSTIN QUARTER C&D UNIT               | 4,005            | 3,990            | 4,539             | 4,694             | 5,102             |
| 0201-CDLF-1997 | ALEXANDER COUNTY CDLF                 | 1,914            | 1,688            | 2,167             | 2,474             | 2,444             |
| 5803-CDLF-1995 | MADISON COUNTY C&D UNIT               | 1,524            | 4,034            | 5,766             | 4,647             | 6,327             |
| U0030-MSWLF-   | IRIS GLENN LANDFILL                   | 1,452            | 48,689           | 54,760            | 56,595            | 53,706            |
| U0106-CDLF-    | EARTH RESOURCES OF FRANKLIN COUNTY, L | 1,014            |                  |                   |                   |                   |
| 9404-CDLF-1996 | WASHINGTON COUNTY C&D LANDFILL        | 719              | 1,334            | 1,122             | 1,512             | 1,856             |
| 4002-CDLF-1997 | GREENE COUNTY CDLF                    | 463              | 750              | 1,774             | 2,311             | 2,635             |
| <b>Total</b>   | <b>All Landfills</b>                  | <b>9,425,644</b> | <b>9,885,352</b> | <b>10,686,813</b> | <b>10,928,442</b> | <b>10,895,564</b> |

**DIVISION OF WASTE MANAGEMENT**  
**Appendix A-1a: Public and Private Municipal Solid Waste, FY 2009-2010**

| Permit #        | Facility                              | Tons      |           |           |           |           |
|-----------------|---------------------------------------|-----------|-----------|-----------|-----------|-----------|
|                 |                                       | 2009-2010 | 2008-2009 | 2007-2008 | 2006-2007 | 2005-2006 |
| 1304-MSWLF-1992 | BFI-CHARLOTTE MTR SPEEDWAY LANDFILL V | 1,076,806 | 1,188,880 | 1,240,561 | 1,248,755 | 1,255,717 |
| 8202-MSWLF-2000 | WI-SAMPSON COUNTY DISPOSAL INC        | 1,070,441 | 1,054,305 | 1,073,936 | 981,779   | 866,528   |
| 6204-MSWLF-1995 | UWHARRIE ENV. REG. LANDFILL           | 730,173   | 817,244   | 968,212   | 729,708   | 760,704   |
| 0803-MSWLF-1993 | EAST CAROLINA REG LANDFILL            | 591,537   | 478,571   | 511,882   | 556,607   | 519,758   |
| 9222-MSWLF-2008 | WAKE COUNTY SOUTH WAKE MSWLF          | 439,069   | 463,126   | 95,471    |           |           |
| 1403-MSWLF-1998 | FOOTHILLS ENVIRONMENTAL LANDFILL      | 313,535   | 240,485   | 326,026   | 379,118   | 219,353   |
| 7304-MSWLF-1997 | UPPER PIEDMONT REG LANDFILL           | 256,643   | 225,184   | 226,710   | 198,233   | 244,695   |
| 3402-MSWLF-1997 | HANES MILL ROAD LANDFILL              | 242,211   | 239,490   | 250,627   | 276,116   | 266,504   |
| 0403-MSWLF-2010 | CHAMBERS DEVELOPMENT MSWLF            | 220,555   | 156,380   | 208,982   | 273,112   | 262,093   |
| U0017-MSWLF-    | PALMETTO LANDFILL AND RC #422401-1101 | 200,658   | 224,314   | 254,661   | 435,098   | 538,508   |
| 2509-MSWLF-1999 | CRSWMA - LONG TERM REGIONAL LANDFILL  | 175,369   | 196,418   | 217,483   | 232,555   | 236,436   |
| U0024-MSWLF-    | BRUNSWICK WASTE MANAGEMENT FACILITY   | 157,019   | 293,981   | 378,178   | 448,053   | 411,107   |
| 6504-MSWLF-1981 | NEW HANOVER COUNTY LANDFILL           | 154,614   | 119,808   | 155,311   | 199,633   | 245,781   |
| 4903-MSWLF-1993 | IREDELL COUNTY SANITARY LF            | 152,636   | 187,177   | 162,208   | 167,950   | 162,637   |
| 2601-MSWLF-1997 | CUMBERLAND COUNTY LANDFILL            | 140,176   | 168,473   | 164,214   | 177,756   | 171,151   |
| 3606-MSWLF-1997 | GASTON COUNTY LANDFILL                | 136,012   | 146,775   | 156,983   | 108,616   | 97,159    |
| 8003-MSWLF-1988 | ROWAN COUNTY LANDFILL                 | 133,523   | 136,751   | 86,548    | 94,642    | 98,548    |
| 6709-MSWLF-1997 | ONSLOW COUNTY SUBTITLE D LANDFILL     | 124,027   | 124,025   | 134,127   | 142,155   | 141,239   |
| 1803-MSWLF-1997 | CATAWBA COUNTY LANDFILL               | 122,938   | 132,901   | 151,007   | 165,384   | 167,988   |
| U0038-MSWLF-    | R & B LANDFILL                        | 122,563   | 126,844   | 132,973   | 139,763   | 38,676    |
| 1107-MSWLF-1996 | BUNCOMBE COUNTY MSW LANDFILL          | 115,083   | 131,895   | 143,994   | 117,215   | 122,034   |
| 5103-MSWLF-     | JOHNSTON COUNTY LANDFILL              | 99,372    | 103,501   | 116,086   |           |           |
| 4104-MSWLF-1991 | HIGH POINT CITY OF - LANDFILL         | 89,970    | 81,676    | 84,843    | 99,820    | 85,889    |
| 2906-MSWLF-2008 | DAVIDSON COUNTY MSW LINED LANDFILL    | 86,905    | 57,458    |           |           |           |

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**Appendix A-1a: Public and Private Municipal Solid Waste, FY 2009-2010**

| Permit #        | Facility                                | Tons      |           |           |           |           |
|-----------------|---|-----------|-----------|-----------|-----------|-----------|
|                 |   | 2009-2010 | 2008-2009 | 2007-2008 | 2006-2007 | 2005-2006 |
| 7803-MSWLF-1997 | ROBESON COUNTY LANDFILL                 | 84,775    | 88,329    | 86,534    | 90,005    | 89,296    |
| 7904-MSWLF-1995 | ROCKINGHAM COUNTY LANDFILL              | 83,331    | 83,878    | 89,844    | 90,072    | 89,212    |
| 0104-MSWLF-1994 | AUSTIN QUARTER SWM FACILITY             | 74,956    | 78,476    | 82,929    | 84,078    | 74,163    |
| 8606-MSWLF-1998 | SURRY COUNTY MSWLF                      | 72,384    | 64,551    | 75,717    | 79,601    | 80,985    |
| U0048-MSWLF-    | UNION COUNTY (SC) LANDFILL #442441-1101 | 67,548    | 44,402    | 52,871    | 170,712   | 136,450   |
| 9606-MSWLF-1998 | WAYNE COUNTY LANDFILL                   | 62,296    | 73,201    | 83,682    | 81,030    | 92,481    |
| 2301-MSWLF-2009 | CLEVELAND COUNTY LANDFILL SELF-MCNEIL   | 62,228    |           |           |           |           |
| 6019-MSWLF-2000 | MECKLENBURG COUNTY LANDFILL             | 56,384    | 79,173    | 129,780   | 165,239   | 158,035   |
| 8401-MSWLF-1999 | ALBEMARLE, CITY OF-LANDFILL             | 52,339    | 46,047    | 45,564    | 46,614    | 49,424    |
| 9704-MSWLF-1993 | WILKES COUNTY MSWLF                     | 49,571    | 57,484    | 58,220    | 58,121    | 57,391    |
| 5503-MSWLF-1986 | LINCOLN COUNTY LANDFILL                 | 48,496    | 45,508    | 44,680    | 45,090    | 45,935    |
| 6708-MSWLF-1997 | CAMP LEJEUNE MSW LANDFILL               | 48,272    | 45,920    | 40,672    | 46,612    | 50,802    |
| 6801-MSWLF-1993 | ORANGE COUNTY MSWLF                     | 47,167    | 50,760    | 55,421    | 57,301    | 57,570    |
| 4407-MSWLF-1993 | HAYWOOD CO WHITE OAK LANDFILL           | 46,329    | 50,881    | 56,368    | 58,455    | 42,790    |
| U0050-MSWLF-    | RICHLAND LANDFILL, INC.                 | 41,222    | 49,919    | 66,652    | 5,946     |           |
| 5703-MSWLF-1992 | MACON COUNTY LANDFILL OPEN              | 31,454    | 32,706    | 27,999    | 27,517    | 27,783    |
| U0039-MSWLF-    | ATLANTIC WASTE DISPOSAL, INC.           | 26,456    | 21,810    | 4,523     | 99        | 32        |
| 5409-MSWLF-     | LENOIR COUNTY MSW LANDFILL              | 22,951    | 47,910    | 50,728    | 56,692    | 43,600    |
| 8807-MSWLF-1990 | TRANSYLVANIA COUNTY LANDFILL            | 22,328    | 23,828    | 28,912    | 28,090    | 26,732    |
| 2301-MSWLF-1998 | CLEVELAND COUNTY LANDFILL EAST MSWLF    | 16,262    | 82,027    | 88,344    | 91,211    | 90,761    |
| 2906-MSWLF-1994 | DAVIDSON CO MSW LINED LANDFILL          | 16,100    | 54,298    | 114,485   | 103,997   | 100,574   |
| U0035-MSWLF-    | BRISTOL LANDFILL                        | 15,749    | 16,879    | 16,814    | 14,486    | 14,208    |
| 2002-MSWLF-1998 | CHEROKEE COUNTY MSW FACILITY            | 14,453    | 16,096    | 20,558    | 19,687    | 20,113    |
| 0501-MSWLF-1993 | ASHE COUNTY LANDFILL                    | 12,030    | 18,075    | 24,346    | 22,922    | 22,643    |
| U0033-MSWLF-    | PINEBLUFF LANDFILL                      | 11,265    | 11,590    | 12,549    | 13,410    | 13,010    |

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### Appendix A-1a: Public and Private Municipal Solid Waste, FY 2009-2010

| Permit #        | Facility                                 | Tons             |                  |                  |                  |                  |
|-----------------|--|------------------|------------------|------------------|------------------|------------------|
|                 |  | 2009-2010        | 2008-2009        | 2007-2008        | 2006-2007        | 2005-2006        |
| U0051-MSWLF-    | LAKEWAY RECYCLING & SANITATION, INC. SN  | 9,381            | 9,636            | 8,852            | 5,061            |                  |
| U0034-MSWLF-    | LEE COUNTY LANDFILL SC, LLC #312411-1101 | 8,803            | 4,428            | 4,878            | 7,066            | 10,194           |
| U0047-MSWLF-    | EAGLE POINT MSWLF                        | 8,611            | 8,452            | 9,157            | 9,137            | 8,744            |
| 4112-MSWLF-1997 | GREENSBORO, CITY OF                      | 8,240            | 7,766            | 9,615            | 101,965          | 201,396          |
| U0030-MSWLF-    | IRIS GLENN LANDFILL                      | 1,452            | 48,689           | 54,760           | 56,595           | 53,706           |
| <b>Total</b>    | <b>All Landfills</b>                     | <b>8,074,667</b> | <b>8,358,378</b> | <b>8,686,476</b> | <b>8,808,879</b> | <b>8,570,534</b> |

## DIVISION OF WASTE MANAGEMENT

### Appendix A-1b: Public and Private Construction Demolition Disposal, FY 2009-2010

| Permit #       | Facility                              | Tons      |           |           |           |           |
|----------------|---------------------------------------|-----------|-----------|-----------|-----------|-----------|
|                |                                       | 2009-2010 | 2008-2009 | 2007-2008 | 2006-2007 | 2005-2006 |
| 6013-CDLF-1993 | NORTH MECKLENBURG C&D LANDFILL        | 103,073   | 138,359   | 115,678   | 129,209   | 119,795   |
| 9231-CDLF-     | MATERIAL RECOVERY/ BROWNFIELD RD C&D  | 91,994    | 124,986   | 177,563   | 154,814   | 148,244   |
| 2608-CDLF-1998 | FORT BRAGG C&D LANDFILL               | 85,620    | 100,423   | 93,460    | 105,986   | 218,565   |
| 9226-CDLF-2001 | SHOTWELL LANDFILL INC.                | 81,705    | 87,513    | 85,871    | 56,192    | 36,600    |
| 1306-CDLF-2000 | HIGHWAY 49 C&D LANDFILL AND RECYCLING | 78,247    | 81,863    | 97,422    | 116,544   | 112,072   |
| 9228-CDLF-2001 | RED ROCK DISPOSAL, LLC                | 72,831    | 98,962    | 201,597   | 200,361   | 183,704   |
| 4116-CDLF-     | WCA OF HIGHPOINT, LLC                 | 54,320    | 78,211    | 56,947    | 37,018    | 114,093   |
| 9230-CDLF-     | HWY 55 C & D LANDFILL, LLC            | 51,863    | 66,174    | 80,195    | 92,916    | 69,182    |
| 3412-CDLF-1995 | OLD SALISBURY ROAD CDLF               | 47,431    | 59,137    | 84,880    | 101,390   | 102,059   |
| 4103-CDLF-1998 | GREENSBORO, CITY OF                   | 46,914    | 72,124    | 95,755    | 130,951   | 145,871   |
| 2301-CDLF-1997 | CLEVELAND COUNTY CDLF                 | 45,957    | 41,273    | 50,425    | 60,056    | 25,155    |
| 3606-CDLF-1995 | GASTON COUNTY C&D LANDFILL            | 38,619    | 35,112    | 48,802    | 52,869    | 47,529    |
| 7407-CDLF-2009 | C & D LANDFILL INC                    | 38,516    |           |           |           |           |
| 9601-CDLF-1997 | WAYNE COUNTY CDLF                     | 29,736    | 22,501    | 36,067    | 30,382    | 28,569    |
| 1302-CDLF-2006 | CABARRUS COUNTY CDLF                  | 29,511    | 45,090    | 55,637    | 67,811    | 158,626   |
| 2601-CDLF-1997 | CUMBERLAND COUNTY C&D UNIT            | 27,829    | 17,911    | 44,143    | 46,198    | 40,163    |
| 5103-CDLF-     | JOHNSTON COUNTY C&D LANDFILL          | 23,498    | 29,517    | 36,159    |           |           |
| 1803-CDLF-     | CATAWBA COUNTY C&D UNIT               | 22,570    | 32,911    | 38,745    | 49,733    | 40,246    |
| 4117-CDLF-2008 | A-1 SANDROCK C&D LANDFILL             | 21,517    |           |           |           |           |
| 5504-CDLF-1999 | BFI-LAKE NORMAN LANDFILL              | 21,095    | 31,303    | 79,992    | 89,781    | 112,369   |
| 6301-CDLF-1992 | MOORE COUNTY C&D LANDFILL             | 19,839    | 23,407    | 36,469    | 36,125    | 36,406    |
| 7803-CDLF-1997 | ROBESON COUNTY CDLF                   | 17,473    | 19,233    | 17,709    | 25,529    | 31,801    |
| U0101-CDLF-    | WCA SHILOH LANDFILL                   | 16,532    |           |           |           |           |
| 1107-CDLF-1998 | BUNCOMBE COUNTY C&D UNIT              | 15,817    | 32,529    | 62,750    | 66,388    | 58,730    |

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### Appendix A-1b: Public and Private Construction Demolition Disposal, FY 2009-2010

| Permit #       | Facility                             | Tons      |           |           |           |           |
|----------------|--------------------------------------|-----------|-----------|-----------|-----------|-----------|
|                |                                      | 2009-2010 | 2008-2009 | 2007-2008 | 2006-2007 | 2005-2006 |
| 1007-CDLF-1997 | BRUNSWICK COUNTY CDLF                | 15,054    | 26,684    | 45,168    | 71,402    | 76,390    |
| 9809-CDLF-     | WILSON COUNTY WESTSIDE C&D LANDFILL  | 14,917    | 12,419    | 26,888    | 28,725    | 31,442    |
| 8202-CDLF-1996 | WI-SAMPSON COUNTY C&D UNIT           | 14,166    | 739       | 942       | 1,087     | 2,357     |
| 2803-CDLF-1995 | DARE COUNTY C&D LANDFILL             | 14,022    | 14,881    | 21,282    | 28,608    | 15,368    |
| 4302-CDLF-1998 | HARNETT COUNTY CDLF                  | 13,954    | 16,566    | 20,798    | 20,312    | 20,115    |
| 3901-CDLF-1997 | GRANVILLE COUNTY CDLF                | 13,151    | 15,160    | 20,630    | 25,446    | 31,260    |
| 5503-CDLF-1999 | LINCOLN COUNTY C&D UNIT              | 12,798    | 11,265    | 7,809     | 10,787    | 10,351    |
| 0105-CDLF-1998 | COBLES C&D LANDFILL                  | 12,769    | 14,488    | 40,428    | 49,981    | 55,849    |
| 8401-CDLF-1997 | ALBEMARLE, CITY OF, CDLF             | 12,308    | 16,363    | 22,397    | 27,324    | 28,413    |
| 6403-CDLF-2000 | NASH COUNTY C&D LANDFILL             | 11,969    | 11,028    | 14,525    | 15,692    | 18,690    |
| 4303-CDLF-1997 | HARNETT CO ANDERSON CRK C&D LANDFILL | 11,162    | 9,313     | 10,323    | 13,160    | 13,237    |
| 9001-CDLF-1998 | UNION COUNTY C&D                     | 10,646    | 15,771    | 13,691    | 27,989    | 27,859    |
| 7002-CDLF-1996 | PASQUOTANK COUNTY C&D LANDFILL       | 10,379    | 13,268    | 13,858    | 18,029    | 23,710    |
| 7606-CDLF-2001 | GOLD HILL ROAD C&D DEBRIS LANDFILL   | 10,344    | 10,807    | 12,180    | 12,913    | 13,327    |
| 3301-CDLF-1997 | EDGCOMBE COUNTY CDLF                 | 10,065    | 13,377    | 14,272    | 9,254     | 7,670     |
| 2906-CDLF-     | DAVIDSON COUNTY CDLF                 | 9,556     | 9,314     | 11,949    | 12,725    | 7,999     |
| U0105-CDLF-    | SANDLANDS C&D LANDFILL #342729-1201  | 9,424     |           |           |           |           |
| 5403-CDLF-1997 | LENOIR COUNTY CDLF                   | 9,100     | 13,581    | 12,720    | 15,009    | 19,191    |
| 1203-CDLF-1998 | BURKE COUNTY CDLF                    | 8,499     | 9,298     | 15,376    | 19,742    | 19,339    |
| 6804-CDLF-2005 | ORANGE COUNTY C&D LANDFILL           | 8,347     | 10,991    | 16,756    |           |           |
| 8301-CDLF-1997 | SCOTLAND COUNTY CDLF                 | 8,057     | 8,483     | 12,755    | 14,971    | 16,078    |
| 8103-CDLF-2002 | RUTHERFORD COUNTY C&D                | 7,961     | 12,953    | 19,650    | 19,291    | 21,768    |
| 4204-CDLF-1998 | HALIFAX COUNTY CDLF                  | 5,701     | 4,445     | 5,861     | 5,267     | 6,957     |
| 5901-CDLF-1995 | MARTIN COUNTY C&D LANDFILL           | 4,484     | 5,449     | 8,443     | 5,957     | 9,518     |
| 0104-CDLF-1993 | AUSTIN QUARTER C&D UNIT              | 4,005     | 3,990     | 4,539     | 4,694     | 5,102     |

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### Appendix A-1b: Public and Private Construction Demolition Disposal, FY 2009-2010

| Permit #       | Facility                              | Tons             |                  |                  |                  |                  |
|----------------|---------------------------------------|------------------|------------------|------------------|------------------|------------------|
|                |                                       | 2009-2010        | 2008-2009        | 2007-2008        | 2006-2007        | 2005-2006        |
| 0201-CDLF-1997 | ALEXANDER COUNTY CDLF                 | 1,914            | 1,688            | 2,167            | 2,474            | 2,444            |
| 5803-CDLF-1995 | MADISON COUNTY C&D UNIT               | 1,524            | 4,034            | 5,766            | 4,647            | 6,327            |
| U0106-CDLF-    | EARTH RESOURCES OF FRANKLIN COUNTY, L | 1,014            |                  |                  |                  |                  |
| 9404-CDLF-1996 | WASHINGTON COUNTY C&D LANDFILL        | 719              | 1,334            | 1,122            | 1,512            | 1,856            |
| 4002-CDLF-1997 | GREENE COUNTY CDLF                    | 463              | 750              | 1,774            | 2,311            | 2,635            |
| <b>Total</b>   | <b>All Landfills</b>                  | <b>1,350,977</b> | <b>1,526,974</b> | <b>2,000,337</b> | <b>2,119,563</b> | <b>2,325,030</b> |

**DIVISION OF WASTE MANAGEMENT**  
**Appendix A-2: Industrial Waste Disposal, FY 2009-2010**

| Permit #        | Facility                              | Tons             |                  |                  |                |                |
|-----------------|---------------------------------------|------------------|------------------|------------------|----------------|----------------|
|                 |                                       | 2009-2010        | 2008-2009        | 2007-2008        | 2006-2007      | 2005-2006      |
| 7302-INDUS-1988 | PROGRESS ENERGY                       | 818,544          | 632,738          | 703,629          | 420,957        | 366,747        |
| 4406-INDUS-1984 | BLUE RIDGE PAPER PRODUCTS, INC.       | 396,008          | 415,884          | 338,040          | 315,997        | 304,512        |
| 8505-INDUS-     | DUKE ENERGY CORP.- BELEWS CREEK FGD R | 278,795          | 139,996          | 54,613           | 0              |                |
| 8504-INDUS-     | DUKE ENERGY CORPORATION- BELEWS CRE   | 277,514          | 165,476          | 1,802            | 0              |                |
| 3612-INDUS-2008 | DUKE ENERGY-ALLEN STEAM STATION RAB A | 194,232          |                  |                  |                |                |
| 2402-INDUS-1972 | INTERNATIONAL PAPER                   | 144,543          | 87,486           | 102,038          | 137,899        |                |
| 1809-INDUS-     | DUKE POWER/MARSHALL STEAM PLT FGD     | 125,032          | 30,937           | 22,274           | 2,548          |                |
| 4204-INDUS-1994 | HALIFAX COAL ASH LANDFILL             | 75,314           | 2,332            | 2,035            | 5,453          | 3,232          |
| 9401-INDUS-2008 | DOMTAR PAPER COMPANY LANDFILL         | 37,749           |                  | 58,963           | 85,423         | 129,729        |
| 9703-INDUS-1981 | LOUISIANA-PACIFIC CORPORATION         | 8,960            | 5,036            | 4,838            | 3,130          | 2,568          |
| 6004-INDUS-1981 | DUKE POWER COMPANY MCGUIRE            | 5,508            | 3,152            | 3,950            | 2,333          | 2,327          |
| 3209I-INCIN-I-  | GLAXOSMITHKLINE                       | 701              |                  |                  | 905            | 848            |
| 7602-INDUS-1983 | EVEREADY BATTERY                      | 157              | 347              | 632              | 956            | 590            |
| <b>Total</b>    |                                       | <b>2,363,056</b> | <b>1,483,385</b> | <b>1,292,814</b> | <b>975,601</b> | <b>810,553</b> |

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## DIVISION OF WASTE MANAGEMENT

### Appendix A-3: Transfer and Mixed Waste Processing Facilities, FY 2009-2010

| Permit #            | Facility                            | 2009-2010 | Disposal Destination        | Permit #        |
|---------------------|-------------------------------------|-----------|-----------------------------|-----------------|
| 0202T-TRANSFER-1998 | ALEXANDER CO. TRANSFER STATION      | 18,147    | FOOTHILLS ENVIRONMENTAL     | 1403-MSWLF-1998 |
| 0303T-TRANSFER-1994 | ALLEGHANY COUNTY TRANSFER FACILIT   | 8,101     | FOOTHILLS ENVIRONMENTAL     | 1403-MSWLF-1998 |
| 0602T-TRANSFER-1995 | AVERY COUNTY TRANSFER STATION       | 15,709    | BRISTOL VA LANDFILL         | U0035-MSWLF-    |
| 0703T-TRANSFER-1994 | ARS - BEAUFORT TRANSFER STATION     | 36,042    | EAST CAROLINA ENVIRONMENTAL | 0803-MSWLF-1993 |
| 0904T-TRANSFER-1995 | BLADEN COUNTY TRANSFER STATION      | 18,523    | WI-SAMPSON COUNTY           | 8202-MSWLF-2000 |
| 10003T-TRANSFER-199 | YANCEY-MITCHELL TRANSFER STATION    | 24,043    | FOOTHILLS ENVIRONMENTAL     | 1403-MSWLF-1998 |
| 1010T-TRANSFER-1997 | BRUNSWICK COUNTY TRANSFER STATIO    | 76,590    | WI-SAMPSON COUNTY           | 8202-MSWLF-2000 |
| 1104-TRANSFER-1993  | WASTE MANAGEMENT OF ASHEVILLE       | 109,418   | PALMETTO LANDFILL           | U0017-MSWLF-    |
| 1108T-TRANSFER-1996 | BUNCOMBE COUNTY TRANSFER STATION    | 65,761    | BUNCOMBE COUNTY MSWLF       | 1107-MSWLF-1996 |
| 1116T-TRANSFER-2010 | CONSTRUCTION & DEMOLITION RECYCLI   | 3         | BUNCOMBE COUNTY MSWLF       | 1107-MSWLF-1996 |
| 1116T-TRANSFER-2010 | CONSTRUCTION & DEMOLITION RECYCLI   | 251       | WCA SHILOH LANDFILL         | U0101-CDLF-     |
| 1205T-TRANSFER-1998 | BURKE COUNTY TRANSFER FACILITY      | 48,599    | FOOTHILLS ENVIRONMENTAL     | 1403-MSWLF-1998 |
| 1604-TRANSFER-1993  | CARTERET COUNTY TRANSFER STATION    | 88,259    | CRSWMA                      | 2509-MSWLF-1999 |
| 1805-TRANSFER-      | GDS RECYCLING SERVICES              | 8,499     | BLACKBURN LANDFILL          | 1803-MSWLF-1997 |
| 1808T-TRANSFER-     | CITY OF HICKORY TRANSFER STATION    | 25,636    | BLACKBURN LANDFILL          | 1803-MSWLF-1997 |
| 1903T-TRANSFER-1993 | WASTE MAN. - CHATHAM CO TRANSFER    | 21,714    | WI-SAMPSON COUNTY           | 8202-MSWLF-2000 |
| 2101T-TRANSFER-2001 | TOWN OF EDENTON TRANSFER STATION    | 3,053     | EAST CAROLINA ENVIRONMENTAL | 0803-MSWLF-1993 |
| 2202T-TRANSFER-1997 | CLAY COUNTY TRANSFER STATION        | 4,575     | PINE BLUFF LANDFILL         | U0033-MSWLF-    |
| 2403T-TRANSFER-1997 | COLUMBUS COUNTY TRANSFER STATION    | 38,291    | WI-SAMPSON COUNTY           | 8202-MSWLF-2000 |
| 2510T-TRANSFER-1997 | CHERRY POINT TRANSFER STATION       | 4,887     | CRSWMA                      | 2509-MSWLF-1999 |
| 2606T-TRANSFER-1998 | FORT BRAGG TRANSFER STATION         | 3,977     | UWHARRIE ENVIRONMENTAL      | 6204-MSWLF-1995 |
| 2606T-TRANSFER-1998 | FORT BRAGG TRANSFER STATION         | 22,491    | WI-SAMPSON COUNTY           | 8202-MSWLF-2000 |
| 2609-TRANSFER-      | CITY OF FAYETTEVILLE/ WASTE INDUSTR | 82,936    | WI-SAMPSON COUNTY           | 8202-MSWLF-2000 |
| 2611T-TRANSFER-     | RIVER CITY TRANSFER STATION         | 3,866     | CUMBERLAND COUNTY C&D       | 2601-CDLF-1997  |

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### Appendix A-3: Transfer and Mixed Waste Processing Facilities, FY 2009-2010

| Permit #            | Facility                            | 2009-2010 | Disposal Destination        | Permit #        |
|---------------------|-------------------------------------|-----------|-----------------------------|-----------------|
| 2611T-TRANSFER-     | RIVER CITY TRANSFER STATION         | 32        | ROBESON COUNTY CDLF         | 7803-CDLF-1997  |
| 2703T-TRANSFER-1996 | CURRITUCK TRANSFER STATION          | 24,602    | EAST CAROLINA ENVIRONMENTAL | 0803-MSWLF-1993 |
| 2705-MWP-           | SOUNDSIDE RECYCLING & MATERIALS, IN | 362       | EAST CAROLINA ENVIRONMENTAL | 0803-MSWLF-1993 |
| 2805T-TRANSFER-     | DARE COUNTY TRANSFER STATION        | 49,981    | EAST CAROLINA ENVIRONMENTAL | 0803-MSWLF-1993 |
| 3103T-TRANSFER-     | DUPLIN COUNTY TRANSFER STATION      | 27,394    | WI-SAMPSON COUNTY           | 8202-MSWLF-2000 |
| 3212T-TRANSFER-1999 | CITY OF DURHAM TRANSFER STATION     | 139,386   | BRUNSWICK LANDFILL          | U0024-MSWLF-    |
| 3214T-TRANSFER-2001 | STONE PARK COURT TRANSFER STATIO    | 18,854    | RED ROCK DISPOSAL           | 9228-CDLF-2001  |
| 3214T-TRANSFER-2001 | STONE PARK COURT TRANSFER STATIO    | 103,225   | WI-SAMPSON COUNTY           | 8202-MSWLF-2000 |
| 3302T-TRANSFER-1998 | EDGCOMBE COUNTY TRANSFER STATIO     | 23,379    | EAST CAROLINA ENVIRONMENTAL | 0803-MSWLF-1993 |
| 3416T-TRANSFER-     | OVERDALE ROAD TRANSFER STATION      | 113,324   | UWHARRIE ENVIRONMENTAL      | 6204-MSWLF-1995 |
| 3503-TRANSFER-      | FRANKLIN COUNTY TRANSFER STATION    | 30,454    | WI-SAMPSON COUNTY           | 8202-MSWLF-2000 |
| 3608-TRANSFER-1993  | WASTE MANAGEMENT OF CAROLINAS       | 52,454    | PALMETTO LANDFILL           | U0017-MSWLF-    |
| 3803-TRANSFER-      | GRAHAM COUNTY TRANSFER STATION      | 6,667     | PINE BLUFF LANDFILL         | U0033-MSWLF-    |
| 4116-MWP-           | WCA OF HIGHPOINT                    | 44,666    | WCA HIGH POINT              | 4116-CDLF-      |
| 4118T-TRANSFER-     | BISHOP ROAD TRANSFER STATION        | 127,529   | UWHARRIE ENVIRONMENTAL      | 6204-MSWLF-1995 |
| 4120T-TRANSFER-     | GREENSBORO TRANSFER STATION         | 233,521   | UWHARRIE ENVIRONMENTAL      | 6204-MSWLF-1995 |
| 4205T-TRANSFER-1997 | WELDON, TOWN OF, TRANSFER STATION   | 53,575    | EAST CAROLINA ENVIRONMENTAL | 0803-MSWLF-1993 |
| 4305T-TRANSFER-1994 | HARNETT COUNTY TRANSFER STATION     | 16,675    | WI-SAMPSON COUNTY           | 8202-MSWLF-2000 |
| 4307T-TRANSFER-1997 | HARNETT CNTY-DUNN/ERWIN TRANSFER    | 34,560    | WI-SAMPSON COUNTY           | 8202-MSWLF-2000 |
| 4408-MWP-           | HAYWOOD COUNTY MWP FACILITY         | 26,884    | HAYWOOD COUNTY LANDFILL     | 4407-MSWLF-1993 |
| 4504T-TRANSFER-1998 | HENDERSON COUNTY TRANSFER FACILIT   | 48,532    | R&B LANDFILL                | U0038-MSWLF-    |
| 4504T-TRANSFER-1998 | HENDERSON COUNTY TRANSFER FACILIT   | 24,777    | PALMETTO LANDFILL           | U0017-MSWLF-    |
| 4602T-TRANSFER-1995 | HERTFORD COUNTY TRANSFER STATION    | 2,766     | EAST CAROLINA ENVIRONMENTAL | 0803-MSWLF-1993 |
| 4702-TRANSFER-1994  | HOKE COUNTY TRANSFER STATION        | 23,856    | WI-SAMPSON COUNTY           | 8202-MSWLF-2000 |
| 4904T-TRANSFER-1998 | IREDELL COUNTY TRANSFER STATION     | 38,679    | IREDELL COUNTY MSWLF        | 4903-MSWLF-1993 |

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### Appendix A-3: Transfer and Mixed Waste Processing Facilities, FY 2009-2010

| Permit #            | Facility                            | 2009-2010 | Disposal Destination         | Permit #        |
|---------------------|-------------------------------------|-----------|------------------------------|-----------------|
| 5003T-TRANSFER-     | JACKSON COUNTY SCOTT CREEK TRANS    | 28,111    | R&B LANDFILL                 | U0038-MSWLF-    |
| 5304T-TRANSFER-1993 | WASTE MAN. - LEE CO.TRANSFER STATIO | 48,767    | WI-SAMPSON COUNTY            | 8202-MSWLF-2000 |
| 5405T-TRANSFER-1998 | LENOIR COUNTY TRANSFER FACILITY     | 18,843    | WI-SAMPSON COUNTY            | 8202-MSWLF-2000 |
| 5408T-TRANSFER-2001 | ONslow CONTAINER SERVICE, INC.      | 31,321    | EAST CAROLINA ENVIRONMENTAL  | 0803-MSWLF-1993 |
| 5602T-TRANSFER-1995 | MCDOWELL CO TRANSFER FACILITY       | 30,723    | FOOTHILLS ENVIRONMENTAL      | 1403-MSWLF-1998 |
| 5704T-TRANSFER-2008 | HIGHLANDS TRANSFER STATION          | 4,651     | MACON COUNTY MSWLF           | 5703-MSWLF-1992 |
| 5803T-TRANSFER-2002 | MADISON COUNTY TRANSFER             | 9,970     | LAKEWAY RECYCLE & SANITATION | U0051-MSWLF-    |
| 6014-TRANSFER-1996  | QUEEN CITY TRANSFER STATION         | 45,372    | RICHLAND COUNTY LANDFILL     | U0050-MSWLF-    |
| 6014-TRANSFER-1996  | QUEEN CITY TRANSFER STATION         | 95,465    | CHAMBERS DEVELOPMENT ANSON C | 0403-MSWLF-2010 |
| 6026-CDP-2008       | RUSO DUMPSTER SERVICE               | 320       | FOXHOLE LANDFILL             | 6019-MSWLF-2000 |
| 6026-CDP-2008       | RUSO DUMPSTER SERVICE               | 990       | NORTH MECKLENBURG LANDFILL   | 6013-CDLF-1993  |
| 6202MRF-MWP-        | UWHARRIE ENVIRONMENTAL MRF          | 13,931    | UWHARRIE ENVIRONMENTAL       | 6204-MSWLF-1995 |
| 6302-TRANSFER-1994  | UWHARRIE ENV INC/MOORE CTY TRANSF   | 50,114    | UWHARRIE ENVIRONMENTAL       | 6204-MSWLF-1995 |
| 6405T-TRANSFER-2001 | CITY OF ROCKY MOUNT TRANSFER STATI  | 78,877    | EAST CAROLINA ENVIRONMENTAL  | 0803-MSWLF-1993 |
| 6505I-MSWLF-1984    | NEW HANOVER WASTE-TO-ENERGY FACI    | 42,499    | NEW HANOVER COUNTY LANDFILL  | 6504-MSWLF-1981 |
| 6903T-TRANSFER-1993 | PAMLICO COUNTY TRANSFER STATION     | 9,424     | CRSWMA                       | 2509-MSWLF-1999 |
| 7003T-TRANSFER-1994 | PASQUOTANK COUNTY TRANSFER STATI    | 23,933    | ATLANTIC WASTE DISPOSAL      | U0039-MSWLF-    |
| 7103T-TRANSFER-1990 | PENDER CO TRANSFER STATION          | 5,873     | WI-SAMPSON COUNTY CDLF       | 8202-CDLF-1996  |
| 7103T-TRANSFER-1990 | PENDER CO TRANSFER STATION          | 22,814    | WI-SAMPSON COUNTY            | 8202-MSWLF-2000 |
| 7202T-TRANSFER-1995 | PERQUIMANS-CHOWAN-GATES TRANSFE     | 19,517    | EAST CAROLINA ENVIRONMENTAL  | 0803-MSWLF-1993 |
| 7404T-MWP-1996      | PITT COUNTY TRANSFER STATION        | 17,539    | C&D LANDFILL INC             | 7407-CDLF-2009  |
| 7404T-MWP-1996      | PITT COUNTY TRANSFER STATION        | 98,171    | EAST CAROLINA ENVIRONMENTAL  | 0803-MSWLF-1993 |
| 7406T-TRANSFER-2001 | EJE RECYCLING TRANSFER STATION      | 2,161     | C&D LANDFILL INC             | 7407-CDLF-2009  |
| 7406T-TRANSFER-2001 | EJE RECYCLING TRANSFER STATION      | 15,250    | EAST CAROLINA ENVIRONMENTAL  | 0803-MSWLF-1993 |
| 7504T-Transfer-2005 | POLK COUNTY TRANSFER STATION        | 17,893    | UNION COUNTY LANDFILL        | U0048-MSWLF-    |

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### Appendix A-3: Transfer and Mixed Waste Processing Facilities, FY 2009-2010

| Permit #            | Facility                              | 2009-2010 | Disposal Destination         | Permit #        |
|---------------------|---------------------------------------|-----------|------------------------------|-----------------|
| 7603T-TRANSFER-1997 | RANDOLPH COUNTY TRANSFER FACILITY     | 44,160    | UWHARRIE ENVIRONMENTAL       | 6204-MSWLF-1995 |
| 7605T-TRANSFER-2002 | CITY OF ASHEBORO RECYCLING/SOLID W    | 15,964    | UWHARRIE ENVIRONMENTAL       | 6204-MSWLF-1995 |
| 7703T-TRANSFER-1994 | RICHMOND COUNTY TRANSFER STATION      | 34,771    | UWHARRIE ENVIRONMENTAL       | 6204-MSWLF-1995 |
| 7902T-TRANSFER-1991 | REIDSVILLE, CITY OF TRANSFER FACILITY | 3,745     | UPPER PIEDMONT ENVIRONMENTAL | 7304-MSWLF-1997 |
| 7902T-TRANSFER-1991 | REIDSVILLE, CITY OF TRANSFER FACILITY | 2,120     | ROCKINGHAM COUNTY LANDFILL   | 7904-MSWLF-1995 |
| 7903T-TRANSFER-1991 | EDEN, CITY OF TRANSFER STATION        | 4,824     | ROCKINGHAM COUNTY LANDFILL   | 7904-MSWLF-1995 |
| 8104T-TRANSFER-1998 | RUTHERFORD COUNTY TRANSFER FACILI     | 39,559    | R&B LANDFILL                 | U0038-MSWLF-    |
| 8104T-TRANSFER-1998 | RUTHERFORD COUNTY TRANSFER FACILI     | 2,561     | PALMETTO LANDFILL            | U0017-MSWLF-    |
| 8302T-TRANSFER-1997 | SCOTLAND COUNTY T.S.                  | 24,818    | UWHARRIE ENVIRONMENTAL       | 6204-MSWLF-1995 |
| 8603T-TRANSFER-2001 | SURRY COUNTY TRANSFER STATION         | 699       | SURRY COUNTY MSWLF           | 8606-MSWLF-1998 |
| 9005T-TRANSFER-1999 | UNION COUNTY TRANSFER STATION         | 80,460    | BFI-CMS LANDFILL             | 1304-MSWLF-1992 |
| 9102T-TRANSFER-1997 | WASTE INDUSTRIES-VANCE COUNTY         | 44,661    | UPPER PIEDMONT ENVIRONMENTAL | 7304-MSWLF-1997 |
| 9102T-TRANSFER-1997 | WASTE INDUSTRIES-VANCE COUNTY         | 2,178     | BRUNSWICK COUNTY LANDFILL    | U0024-MSWLF-    |
| 9211T-TRANSFER-1990 | CARY TOWN OF - TRANSFER STATION       | 4         | HIGHWAY 55 LANDFILL          | 9230-CDLF-      |
| 9211T-TRANSFER-1990 | CARY TOWN OF - TRANSFER STATION       | 3,037     | WAKE COUNTY SOUTH LANDFILL   | 9222-MSWLF-2008 |
| 9215T-TRANSFER-1994 | WASTE MANAGEMENT OF RAL-DUR           | 24,588    | WI-SAMPSON COUNTY            | 8202-MSWLF-2000 |
| 9215T-TRANSFER-1994 | WASTE MANAGEMENT OF RAL-DUR           | 31,741    | UPPER PIEDMONT ENVIRONMENTAL | 7304-MSWLF-1997 |
| 9217-TRANSFER-1994  | WASTE INDUSTRIES GARNER TRANSFER      | 85,458    | WI-SAMPSON COUNTY            | 8202-MSWLF-2000 |
| 9224-MWP-2008       | WCA MATERIAL RECLAMATION              | 46,704    | WCA BROWNFIELD ROAD          | 9231-CDLF-      |
| 9227T-TRANSFER-2008 | THORNTON ROAD TRANSFER STATION        | 14,964    | SHOTWELL LANDFILL            | 9226-CDLF-2001  |
| 9229T-TRANSFER-2009 | APEX C&D WASTE TRANSFER FACILITY      | 29,136    | SHOTWELL LANDFILL            | 9226-CDLF-2001  |
| 9233T-TRANSFER-     | CITY OF RALEIGH TRANSFER STATION      | 256,653   | WAKE COUNTY SOUTH LANDFILL   | 9222-MSWLF-2008 |
| 9234-TRANSFER-      | WCA WAKE TRANSFER STATION             | 18,770    | WCA BROWNFIELD LANDFILL      | 9231-CDLF-      |
| 9237T-TRANSFER-2010 | CAPITAL WASTE C&D TRANSFER STATIO     | 12,141    | SHOTWELL LANDFILL            | 9226-CDLF-2001  |
| 9302T-TRANSFER-1995 | WARREN COUNTY TRANSFER STATION        | 8,182     | BRUNSWICK COUNTY LANDFILL    | U0024-MSWLF-    |

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### Appendix A-3: Transfer and Mixed Waste Processing Facilities, FY 2009-2010

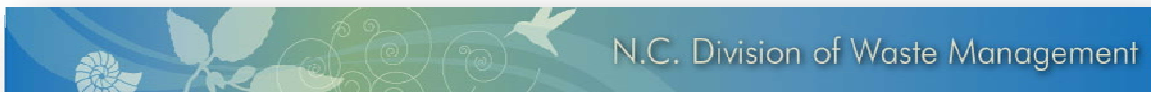
| Permit #            | Facility                             | 2009-2010        | Disposal Destination        | Permit #        |
|---------------------|--------------------------------------|------------------|-----------------------------|-----------------|
| 9503T-TRANSFER-1996 | WATAUGA CO TRANSFER FACILITY         | 42,603           | FOOTHILLS ENVIRONMENTAL     | 1403-MSWLF-1998 |
| 9607T-TRANSFER-1997 | GOLDSBORO TRANSFER STATION           | 10,692           | WAYNE COUNTY LANDFILL       | 9606-MSWLF-1998 |
| 9808T-TRANSFER-2000 | WASTE INDUSTRIES- BLK. CRK. RD. TRAN | 83,228           | WI-SAMPSON COUNTY           | 8202-MSWLF-2000 |
| 9808T-TRANSFER-2000 | WASTE INDUSTRIES- BLK. CRK. RD. TRAN | 34,395           | EAST CAROLINA ENVIRONMENTAL | 0803-MSWLF-1993 |
| 9903T-TRANSFER-1994 | YADKIN COUNTY TRANSFER FACILITY      | 25,758           | FOOTHILLS ENVIRONMENTAL     | 1403-MSWLF-1998 |
| 9903T-TRANSFER-1994 | YADKIN COUNTY TRANSFER FACILITY      | 64               | BFI-CMS LANDFILL            | 1304-MSWLF-1992 |
| U0045-TRANS-        | FORT MILL TRANSFER STATION (CONTAI   | 103,419          | BFI-CMS LANDFILL            | 1304-MSWLF-1992 |
| <b>Total</b>        |                                      | <b>3,860,091</b> |                             |                 |

*Permit #'s beginning with "U" represent unpermitted or out-of-state facilities.*

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# Appendix B

County Population, Waste Disposal, Per Capita Rate and Percent Reduction



## DIVISION OF WASTE MANAGEMENT

### Appendix B: County Population, Waste Disposal, Per Capita Rate and Percent Reduction, FY 2009-2010

| County    | Population<br>July 2009 | MSW Tons<br>Managed<br>1991-1992 | MSW Tons Disposed |           |           |           |           | Base Year<br>Per Capita<br>1991-1992 | Per Capita<br>Rate<br>2009-2010 | % Change from<br>1991-1992<br>2009-2010** |
|-----------|-------------------------|----------------------------------|-------------------|-----------|-----------|-----------|-----------|--------------------------------------|---------------------------------|---|
|           |                         |                                  | 2005-2006         | 2006-2007 | 2007-2008 | 2008-2009 | 2009-2010 |                                      |                                 |   |
| Alamance  | 148,338                 | 99,302                           | 166,815           | 156,903   | 154,442   | 129,825   | 118,854   | 0.91                                 | 0.80                            | -12%                                      |
| Alexander | 37,316                  | 25,716                           | 24,614            | 24,082    | 23,606    | 21,166    | 20,202    | 0.90                                 | 0.54                            | -40%                                      |
| Alleghany | 11,258                  | 14,131                           | 9,594             | 9,804     | 9,707     | 8,689     | 8,390     | 1.45                                 | 0.75                            | -49%                                      |
| Anson     | 25,193                  | 14,229                           | 23,580            | 23,919    | 21,757    | 21,601    | 19,200    | 0.61                                 | 0.76                            | 25%                                       |
| Ashe      | 26,491                  | 18,089                           | 22,798            | 23,188    | 24,445    | 22,011    | 19,756    | 0.81                                 | 0.75                            | -8%                                       |
| Avery     | 18,303                  | 11,130                           | 18,045            | 20,042    | 21,628    | 17,351    | 16,078    | 0.74                                 | 0.88                            | 19%                                       |
| Beaufort  | 47,393                  | 41,796                           | 60,670            | 66,996    | 57,753    | 50,768    | 49,334    | 0.99                                 | 1.04                            | 5%  |
| Bertie    | 20,114                  | 17,372                           | 27,474            | 22,230    | 19,017    | 17,090    | 15,136    | 0.86                                 | 0.75                            | -12%                                      |
| Bladen    | 32,043                  | 25,048                           | 30,666            | 36,815    | 41,137    | 35,536    | 38,487    | 0.86                                 | 1.20                            | 40%                                       |
| Brunswick | 107,127                 | 78,123                           | 172,389           | 188,573   | 168,476   | 127,664   | 120,361   | 1.48                                 | 1.12                            | -24%                                      |
| Buncombe  | 230,421                 | 159,040                          | 301,430           | 322,738   | 331,932   | 259,216   | 232,304   | 0.90                                 | 1.01                            | 12%                                       |
| Burke     | 89,653                  | 78,006                           | 87,160            | 90,757    | 83,439    | 74,283    | 69,026    | 1.02                                 | 0.77                            | -25%                                      |
| Cabarrus  | 174,255                 | 95,215                           | 434,268           | 361,884   | 307,502   | 270,153   | 239,988   | 0.94                                 | 1.38                            | 47%                                       |
| Caldwell  | 80,130                  | 65,532                           | 96,882            | 95,174    | 94,939    | 79,437    | 92,882    | 0.92                                 | 1.16                            | 26%                                       |
| Camden    | 9,732                   | 1,850                            | 5,070             | 5,365     | 4,582     | 4,022     | 4,007     | 0.31                                 | 0.41                            | 33%                                       |
| Carteret  | 64,712                  | 86,894                           | 122,886           | 119,201   | 105,340   | 95,698    | 89,385    | 1.62                                 | 1.38                            | -15%                                      |
| Caswell   | 23,571                  | 5,136                            | 5,879             | 6,795     | 8,153     | 9,864     | 9,344     | 0.25                                 | 0.40                            | 59%                                       |
| Catawba   | 157,002                 | 151,559                          | 208,837           | 215,196   | 190,014   | 166,138   | 146,368   | 1.26                                 | 0.93                            | -26%                                      |
| Chatham   | 62,482                  | 33,235                           | 40,117            | 34,849    | 38,544    | 32,619    | 38,398    | 0.84                                 | 0.61                            | -27%                                      |
| Cherokee  | 27,090                  | 16,020                           | 20,113            | 19,687    | 20,558    | 16,096    | 14,453    | 0.78                                 | 0.53                            | -32%                                      |

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### Appendix B: County Population, Waste Disposal, Per Capita Rate and Percent Reduction, FY 2009-2010

| County     | Population<br>July 2009 | MSW Tons<br>Managed<br>1991-1992 | MSW Tons Disposed |           |           |           |           | Base Year<br>Per Capita<br>1991-1992 | Per Capita<br>Rate<br>2009-2010 | % Change from<br>1991-1992<br>2009-2010** |
|------------|-------------------------|----------------------------------|-------------------|-----------|-----------|-----------|-----------|--------------------------------------|---------------------------------|---|
|            |                         |                                  | 2005-2006         | 2006-2007 | 2007-2008 | 2008-2009 | 2009-2010 |                                      |                                 |   |
| Chowan     | 14,818                  | 13,692                           | 20,655            | 16,356    | 17,262    | 15,742    | 11,926    | 0.99                                 | 0.80                            | -19%                                      |
| Clay       | 10,538                  | 4,172                            | 5,269             | 5,924     | 5,357     | 4,934     | 4,597     | 0.57                                 | 0.44                            | -23%                                      |
| Cleveland  | 98,628                  | 73,138                           | 117,031           | 154,382   | 140,099   | 124,349   | 128,103   | 0.86                                 | 1.30                            | 51%                                       |
| Columbus   | 56,309                  | 45,199                           | 45,299            | 44,529    | 46,415    | 41,315    | 41,828    | 0.91                                 | 0.74                            | -18%                                      |
| Craven     | 100,261                 | 86,549                           | 105,031           | 101,074   | 104,319   | 96,408    | 80,074    | 1.05                                 | 0.80                            | -24%                                      |
| Cumberland | 321,071                 | 227,302                          | 560,404           | 449,386   | 425,481   | 404,787   | 369,794   | 0.81                                 | 1.15                            | 42%                                       |
| Currituck  | 23,815                  | 13,792                           | 37,085            | 31,288    | 36,496    | 24,769    | 22,565    | 1.00                                 | 0.95                            | -5%                                       |
| Dare       | 34,355                  | 51,300                           | 99,299            | 110,980   | 93,059    | 70,064    | 67,041    | 2.23                                 | 1.95                            | -12%                                      |
| Davidson   | 159,947                 | 139,617                          | 141,205           | 133,739   | 164,145   | 138,527   | 131,437   | 1.08                                 | 0.82                            | -24%                                      |
| Davie      | 41,752                  | 19,348                           | 39,046            | 39,052    | 39,667    | 35,233    | 35,419    | 0.68                                 | 0.85                            | 25%                                       |
| Duplin     | 53,659                  | 33,310                           | 46,833            | 48,311    | 50,038    | 56,222    | 54,878    | 0.82                                 | 1.02                            | 25%                                       |
| Durham     | 266,132                 | 218,972                          | 292,730           | 310,443   | 307,725   | 301,975   | 270,240   | 1.17                                 | 1.02                            | -13%                                      |
| Edgecombe  | 51,327                  | 71,471                           | 47,224            | 60,042    | 51,712    | 61,733    | 57,086    | 1.25                                 | 1.11                            | -11%                                      |
| Forsyth    | 355,575                 | 304,290                          | 564,037           | 538,108   | 508,310   | 412,824   | 438,807   | 1.14                                 | 1.23                            | 8%  |
| Franklin   | 59,191                  | 28,702                           | 38,476            | 38,866    | 42,064    | 33,941    | 33,391    | 0.76                                 | 0.56                            | -26%                                      |
| Gaston     | 207,234                 | 165,100                          | 239,157           | 250,611   | 241,022   | 224,543   | 251,134   | 0.93                                 | 1.21                            | 30%                                       |
| Gates      | 11,814                  | 5,897                            | 7,028             | 5,969     | 6,790     | 5,536     | 5,473     | 0.63                                 | 0.46                            | -26%                                      |
| Graham     | 8,327                   | 4,508                            | 7,161             | 7,498     | 7,357     | 6,780     | 6,684     | 0.62                                 | 0.80                            | 29%                                       |
| Granville  | 57,434                  | 54,548                           | 74,764            | 71,823    | 62,550    | 54,204    | 52,922    | 1.39                                 | 0.92                            | -34%                                      |
| Greene     | 21,384                  | 7,428                            | 7,685             | 6,560     | 7,595     | 5,275     | 5,780     | 0.48                                 | 0.27                            | -44%                                      |
| Guilford   | 475,953                 | 471,541                          | 703,606           | 701,461   | 629,665   | 624,762   | 571,202   | 1.35                                 | 1.20                            | -11%                                      |

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### Appendix B: County Population, Waste Disposal, Per Capita Rate and Percent Reduction, FY 2009-2010

| County      | Population | MSW Tons<br>Managed | MSW Tons Disposed |           |           |           |           | Base Year<br>Per Capita | Per Capita<br>Rate | % Change from<br>1991-1992 |
|-------------|------------|---------------------|-------------------|-----------|-----------|-----------|-----------|-------------------------|--------------------|----------------------------|
|             | July 2009  | 1991-1992           | 2005-2006         | 2006-2007 | 2007-2008 | 2008-2009 | 2009-2010 | 1991-1992               | 2009-2010          | 2009-2010**                |
| Halifax     | 55,173     | 54,907              | 55,944            | 58,047    | 61,308    | 55,712    | 55,456    | 0.98                    | 1.01               | 3%                         |
| Harnett     | 112,844    | 69,073              | 90,784            | 91,232    | 92,540    | 84,342    | 82,262    | 1.01                    | 0.73               | -28%                       |
| Haywood     | 58,028     | 57,842              | 60,800            | 72,186    | 70,620    | 50,967    | 46,631    | 1.21                    | 0.80               | -34%                       |
| Henderson   | 105,221    | 81,498              | 133,618           | 123,284   | 116,850   | 97,342    | 101,496   | 1.14                    | 0.96               | -15%                       |
| Hertford    | 24,010     | 14,288              | 30,577            | 47,109    | 35,706    | 21,630    | 24,755    | 0.63                    | 1.03               | 64%                        |
| Hoke        | 46,134     | 18,331              | 29,925            | 28,441    | 28,394    | 28,114    | 25,670    | 0.80                    | 0.56               | -30%                       |
| Hyde        | 5,391      | 2,762               | 7,219             | 6,864     | 6,461     | 5,658     | 4,831     | 0.50                    | 0.90               | 79%                        |
| Iredell     | 157,013    | 114,539             | 231,821           | 237,068   | 216,957   | 198,155   | 163,932   | 1.19                    | 1.04               | -12%                       |
| Jackson     | 37,990     | 18,661              | 52,674            | 41,461    | 40,621    | 36,087    | 29,633    | 0.68                    | 0.78               | 15%                        |
| Johnston    | 168,217    | 74,169              | 170,051           | 189,642   | 250,139   | 201,537   | 197,464   | 0.88                    | 1.17               | 33%                        |
| Jones       | 10,150     | 4,360               | 2,803             | 3,788     | 2,884     | 1,644     | 2,189     | 0.47                    | 0.22               | -54%                       |
| Lee         | 58,563     | 48,341              | 70,320            | 76,856    | 66,949    | 54,776    | 54,964    | 1.16                    | 0.94               | -19%                       |
| Lenoir      | 57,221     | 67,693              | 77,513            | 96,192    | 74,618    | 69,969    | 62,056    | 1.17                    | 1.08               | -7%                        |
| Lincoln     | 75,702     | 44,442              | 101,878           | 93,816    | 75,557    | 70,251    | 71,478    | 0.87                    | 0.94               | 9%                         |
| Macon       | 34,494     | 19,738              | 37,167            | 37,318    | 37,463    | 32,706    | 31,454    | 0.82                    | 0.91               | 11%                        |
| Madison     | 20,846     | 11,676              | 15,677            | 14,775    | 14,625    | 13,912    | 11,032    | 0.68                    | 0.53               | -22%                       |
| Martin      | 23,855     | 30,112              | 28,121            | 24,630    | 25,159    | 22,982    | 21,262    | 1.19                    | 0.89               | -25%                       |
| McDowell    | 44,742     | 29,180              | 39,325            | 39,670    | 38,972    | 34,794    | 33,707    | 0.82                    | 0.75               | -8%                        |
| Mecklenburg | 894,290    | 677,573             | 1,506,405         | 1,543,924 | 1,442,987 | 1,200,636 | 1,046,570 | 1.29                    | 1.17               | -9%                        |
| Mitchell    | 15,976     | 15,768              | 18,008            | 16,983    | 15,119    | 14,475    | 13,436    | 1.11                    | 0.84               | -24%                       |
| Montgomery  | 27,983     | 28,873              | 47,145            | 32,124    | 32,324    | 25,714    | 23,757    | 1.23                    | 0.85               | -31%                       |

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### Appendix B: County Population, Waste Disposal, Per Capita Rate and Percent Reduction, FY 2009-2010

| County      | Population<br>July 2009 | MSW Tons<br>Managed<br>1991-1992 | MSW Tons Disposed |           |           |           |           | Base Year<br>Per Capita<br>1991-1992 | Per Capita<br>Rate<br>2009-2010 | % Change from<br>1991-1992<br>2009-2010** |
|-------------|-------------------------|----------------------------------|-------------------|-----------|-----------|-----------|-----------|--------------------------------------|---------------------------------|---|
|             |                         |                                  | 2005-2006         | 2006-2007 | 2007-2008 | 2008-2009 | 2009-2010 |                                      |                                 |   |
| Moore       | 86,945                  | 74,062                           | 99,097            | 101,009   | 98,820    | 82,221    | 77,101    | 1.23                                 | 0.89                            | -28%                                      |
| Nash        | 95,804                  | 84,594                           | 116,431           | 105,847   | 112,341   | 86,023    | 83,496    | 1.09                                 | 0.87                            | -20%                                      |
| New Hanover | 194,054                 | 157,647                          | 333,313           | 322,844   | 267,292   | 242,696   | 270,491   | 1.28                                 | 1.39                            | 9%  |
| Northampton | 21,018                  | 19,528                           | 16,806            | 14,714    | 15,332    | 14,004    | 12,871    | 0.94                                 | 0.61                            | -35%                                      |
| Onslow      | 179,455                 | 158,344                          | 200,160           | 190,664   | 178,092   | 184,852   | 184,777   | 1.04                                 | 1.03                            | -1%                                       |
| Orange      | 132,272                 | 131,067                          | 93,805            | 88,060    | 86,300    | 80,864    | 79,886    | 1.36                                 | 0.60                            | -56%                                      |
| Pamlico     | 12,838                  | 8,541                            | 10,195            | 11,790    | 11,613    | 10,285    | 9,591     | 0.75                                 | 0.75                            | 0%  |
| Pasquotank  | 41,845                  | 30,150                           | 41,734            | 38,834    | 34,155    | 42,609    | 42,933    | 0.97                                 | 1.03                            | 6%  |
| Pender      | 53,095                  | 18,188                           | 36,448            | 39,082    | 38,396    | 34,675    | 33,216    | 0.60                                 | 0.63                            | 4%  |
| Perquimans  | 12,980                  | 7,520                            | 12,743            | 12,561    | 10,819    | 8,036     | 10,797    | 0.73                                 | 0.83                            | 14%                                       |
| Person      | 38,272                  | 24,249                           | 34,837            | 37,856    | 38,464    | 32,203    | 30,447    | 0.80                                 | 0.80                            | -1%                                       |
| Pitt        | 158,541                 | 132,896                          | 168,957           | 167,721   | 155,082   | 135,761   | 132,093   | 1.21                                 | 0.83                            | -31%                                      |
| Polk        | 19,355                  | 9,327                            | 18,818            | 23,234    | 22,119    | 20,173    | 18,275    | 0.63                                 | 0.94                            | 50%                                       |
| Randolph    | 142,467                 | 78,663                           | 119,466           | 113,624   | 110,920   | 96,065    | 96,641    | 0.73                                 | 0.68                            | -7%                                       |
| Richmond    | 46,847                  | 60,752                           | 71,854            | 71,727    | 59,407    | 55,275    | 50,077    | 1.35                                 | 1.07                            | -21%                                      |
| Robeson     | 131,080                 | 104,700                          | 133,002           | 130,578   | 116,303   | 121,612   | 118,264   | 0.99                                 | 0.90                            | -9%                                       |
| Rockingham  | 91,878                  | 71,481                           | 98,604            | 99,472    | 97,694    | 92,631    | 89,481    | 0.83                                 | 0.97                            | 17%                                       |
| Rowan       | 140,495                 | 90,081                           | 141,922           | 155,407   | 138,954   | 116,942   | 111,335   | 0.80                                 | 0.79                            | -1%                                       |
| Rutherford  | 63,821                  | 89,175                           | 67,036            | 84,300    | 65,238    | 59,619    | 50,157    | 1.56                                 | 0.79                            | -50%                                      |
| Sampson     | 65,406                  | 33,545                           | 52,238            | 52,671    | 59,464    | 56,177    | 49,501    | 0.70                                 | 0.76                            | 8%  |
| Scotland    | 36,926                  | 39,867                           | 34,703            | 33,609    | 31,359    | 29,697    | 25,017    | 1.17                                 | 0.68                            | -42%                                      |

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### Appendix B: County Population, Waste Disposal, Per Capita Rate and Percent Reduction, FY 2009-2010

| County              | Population<br>July 2009 | MSW Tons<br>Managed<br>1991-1992 | MSW Tons Disposed |                   |                   |                  |                  | Base Year<br>Per Capita<br>1991-1992 | Per Capita<br>Rate<br>2009-2010 | % Change from<br>1991-1992<br>2009-2010** |
|---------------------|-------------------------|----------------------------------|-------------------|-------------------|-------------------|------------------|------------------|--------------------------------------|---------------------------------|---|
|                     |                         |                                  | 2005-2006         | 2006-2007         | 2007-2008         | 2008-2009        | 2009-2010        |                                      |                                 |   |
| Stanly              | 60,079                  | 69,288                           | 80,912            | 75,409            | 71,700            | 66,036           | 71,393           | 1.32                                 | 1.19                            | -10%                                      |
| Stokes              | 46,792                  | 17,976                           | 11,176            | 11,112            | 11,054            | 10,524           | 13,353           | 0.47                                 | 0.29                            | -39%                                      |
| Surry               | 73,881                  | 73,595                           | 100,363           | 94,096            | 83,132            | 66,997           | 75,241           | 1.18                                 | 1.02                            | -14%                                      |
| Swain               | 13,851                  | 5,651                            | 8,774             | 9,137             | 9,157             | 8,452            | 8,669            | 0.50                                 | 0.63                            | 25%                                       |
| Transylvania        | 31,091                  | 30,072                           | 40,073            | 34,574            | 34,814            | 35,562           | 34,833           | 1.16                                 | 1.12                            | -3%                                       |
| Tyrrell             | 4,251                   | 2,985                            | 2,853             | 2,561             | 2,883             | 2,725            | 2,651            | 0.79                                 | 0.62                            | -21%                                      |
| Union               | 196,322                 | 77,842                           | 205,251           | 264,469           | 241,045           | 185,067          | 183,921          | 0.90                                 | 0.94                            | 4%  |
| Vance               | 43,614                  | 43,267                           | 40,809            | 48,550            | 41,926            | 49,269           | 39,941           | 1.11                                 | 0.92                            | -17%                                      |
| Wake                | 892,409                 | 569,622                          | 1,071,971         | 1,140,478         | 1,151,050         | 976,762          | 886,814          | 1.29                                 | 0.99                            | -23%                                      |
| Warren              | 19,932                  | 10,978                           | 10,310            | 11,014            | 10,442            | 9,857            | 9,435            | 0.63                                 | 0.47                            | -25%                                      |
| Washington          | 13,000                  | 11,699                           | 14,410            | 11,363            | 10,535            | 9,342            | 10,617           | 0.84                                 | 0.82                            | -3%                                       |
| Watauga             | 45,377                  | 36,755                           | 62,503            | 63,456            | 67,510            | 67,431           | 48,699           | 0.99                                 | 1.07                            | 8%  |
| Wayne               | 116,554                 | 106,149                          | 123,445           | 119,681           | 130,740           | 107,557          | 112,647          | 1.00                                 | 0.97                            | -3%                                       |
| Wilkes              | 67,519                  | 58,818                           | 57,391            | 58,124            | 58,637            | 57,484           | 49,575           | 0.97                                 | 0.73                            | -24%                                      |
| Wilson              | 80,005                  | 120,870                          | 115,018           | 119,086           | 113,545           | 93,185           | 126,309          | 1.82                                 | 1.58                            | -13%                                      |
| Yadkin              | 37,996                  | 20,779                           | 20,157            | 19,183            | 24,160            | 24,465           | 26,579           | 0.67                                 | 0.70                            | 4%  |
| Yancey              | 18,551                  | 15,576                           | 12,179            | 13,195            | 13,866            | 12,347           | 11,966           | 1.01                                 | 0.65                            | -36%                                      |
| <b>State Totals</b> | <b>9,382,609</b>        | <b>7,257,428</b>                 | <b>11,765,855</b> | <b>11,837,104</b> | <b>11,284,712</b> | <b>9,910,031</b> | <b>9,395,457</b> | <b>1.07</b>                          | <b>1.00</b>                     | <b>-6%</b>                                |

Total Adjusted for Hurricane Debris (e.g. Fran, Floyd)

**\*\* Percent Change formula: (current year per capita minus base year per capita) divided by base year per capita**

N.C. Solid Waste and Materials Management Annual Report  
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# Appendix C

Waste Import and Export



# DIVISION OF WASTE MANAGEMENT

## Appendix C

### Imports and Exports

FY 1995-1996 through FY 2009-2010

| Fiscal Year | Total Tons Exported      | Receiving Facility              | Tons Received | Total Tons Imported    | Receiving Facility                     | Tons Received |
|-------------|--------------------------|---------------------------------|---------------|------------------------|--|---------------|
| 2009-2010   | 788,834                  | Atlantic Waste Disposal, VA     | 26,456        | 213,323                | BFI-Charlotte Motor Speedway LF        | 110,972       |
|             |                          | Bristol Landfill, VA            | 15,749        |                        | BFI-Lake Norman Landfill               | 4             |
|             |                          | Brunswick Landfill, VA          | 157,019       |                        | Boggs Paving Asphalt Recycling         | 8             |
|             |                          | Eagle Point Landfill, GA        | 8,611         |                        | Chambers Development MSW Landfill      | 8,243         |
|             |                          | Earth Resources Landfill, GA    | 1,014         |                        | Currituck Transfer Station             | 3             |
|             |                          | First Piedmont Co. Transfer, VA | 7,572         |                        | GDS Recycling Services                 | 173           |
|             |                          | Fort Mill Transfer, SC          | 79,128        |                        | Mecklenburg County Landfill            | 568           |
|             |                          | Iris Glenn Landfill, TN         | 1,452         |                        | Scotland County C&D Landfill           | 114           |
|             |                          | Lakeway Landfill, TN            | 9,381         |                        | Scotland County Transfer               | 301           |
|             |                          | Lee County Landfill, SC         | 8,803         |                        | Upper Piedmont Regional Landfill       | 89,333        |
|             |                          | Palmetto Landfill, SC           | 200,612       |                        | Waste Management of Carolinas Transfer | 3,604         |
|             |                          | Pinebluff Landfill, GA          | 11,265        |                        |  |               |
|             |                          | R&B Landfill, GA                | 122,563       |                        |  |               |
|             |                          | Richland Landfill, SC           | 41,222        |                        |  |               |
|             |                          | Sandlands Landfill, SC          | 9,424         |                        |  |               |
|             |                          | Union County Landfill, SC       | 67,548        |                        |  |               |
|             |                          | Waterway Recycling, VA          | 4,483         |                        |  |               |
|             |                          | WCA Shiloh Landfill, SC         | 16,532        |                        |  |               |
| 2008-2009   | 863,604 <sub>(7)</sub>   | Atlantic Waste Disposal, VA     | 21,810        | 139,446 <sub>(7)</sub> | BFI- Charlotte Motor Speedway LF       | 43,256        |
|             |                          | Bristol Landfill, VA            | 16,879        |                        | Chambers Development MSW Landfill      | 10,779        |
|             |                          | Brunswick Landfill, VA          | 293,981       |                        | Gaston County MSW Landfill             | 26            |
|             |                          | Eagle Point Landfill, GA        | 8,452         |                        | Mecklenburg County Landfill            | 1,296         |
|             |                          | Iris Glenn Landfill, TN         | 48,689        |                        | New Hanover WASTEC                     | 74            |
|             |                          | Lee County Landfill, SC         | 4,428         |                        | Scotland County Transfer Station       | 996           |
|             |                          | Palmetto Landfill, SC           | 224,314       |                        | Scotland County C&D Landfill           | 216           |
|             |                          | Pinebluff Landfill, GA          | 11,590        |                        | Upper Piedmont Regional Landfill       | 79,230        |
|             |                          | R&B Landfill, GA                | 126,844       |                        | Waste Management of Carolinas Transfer | 3,573         |
|             |                          | Richland Landfill, SC           | 49,919        |                        |  |               |
|             |                          | Southeastern Regional, SC       | 2,661         |                        |  |               |
|             |                          | TIDI1 Waste Landfill, TN        | 9,636         |                        |  |               |
|             |                          | Union County Landfill, SC       | 44,402        |                        |  |               |
| 2007-2008   | 1,069,428 <sub>(6)</sub> | Amelia Landfill, VA             | 442           | 145,551 <sub>(6)</sub> | BFI- Charlotte Motor Speedway LF       | 40,577        |
|             |                          | Atlantic Waste Disposal         | 4,523         |                        | C & D Landfill Inc.                    | 116           |
|             |                          | Bristol Landfill, VA            | 16,814        |                        | Chambers Development MSW Landfill      | 20,169        |
|             |                          | Brunswick Landfill, VA          | 368,178       |                        | Currituck Transfer Station             | 3             |
|             |                          | Eagle Point Landfill, GA        | 9,157         |                        | Gaston County C&D landfill             | 25            |
|             |                          | First Piedmont Landfill, VA     | 3,420         |                        | Gaston County MSW Landfill             | 68            |
|             |                          | Iris Glenn Landfill, TN         | 54,740        |                        | Griffin Farms C&D Landfill             | 485           |
|             |                          | John Holland CDLF, VA           | 977           |                        | Mecklenburg County Landfill            | 2,885         |
|             |                          | Lee County Landfill, SC         | 4,878         |                        | New Hanover WASTEC                     | 8             |
|             |                          | Palmetto Landfill, SC           | 254,661       |                        | Scotland County Transfer Station       | 65            |
|             |                          | Pinebluff Landfill, GA          | 12,549        |                        | Upper Piedmont Regional Landfill       | 77,567        |
|             |                          | R&B Landfill, GA                | 132,973       |                        | Waste Management of Carolinas Transfer | 3,574         |
|             |                          | Richland Landfill, SC           | 66,652        |                        |  |               |
|             |                          | Screaming Eagle Landfill        | 56,314        |                        |  |               |
|             |                          | Southeastern Regional, SC       | 18,023        |                        |  |               |
|             |                          | TIDI1 Waste Landfill, TN        | 8,852         |                        |  |               |
|             |                          | Union County Landfill, SC       | 52,871        |                        |  |               |
|             |                          | WM of Hampton Roads             | 3,385         |                        |  |               |

|                  |                                |  |  |                              |  |   |
|------------------|--------------------------------|--|--|------------------------------|--|---|
| <b>2006-2007</b> | <b>1,329,202<sub>(5)</sub></b> | Atlantic Waste Disposal, VA<br>BFI, Carter Valley, TN<br>Bristol Landfill, VA<br>Brunswick Landfill, VA<br>Eagle Point Landfill, GA<br>Iris Glenn Landfill, TN<br>Lee County Landfill, SC<br>Maplewood Landfill, VA<br>Palmetto Landfill, SC<br>Pinebluff Landfill, GA<br>R&B Landfill, GA<br>Richland Landfill, SC<br>Southeastern Regional, VA<br>TIDI Waste Systems, TN<br>Union County Landfill, SC<br>WM of Hampton Roads, VA | 99<br>5044<br>14,486<br>448,053<br>9,137<br>56,595<br>7,066<br>261<br>435,098<br>13,410<br>139,763<br>5,946<br>16,426<br>5,061<br>170,712<br>2,046 | <b>129,906<sub>(5)</sub></b> | BFI- Charlotte Motor Speedway<br>Chambers Development MSWLF<br>Gaston County Landfill<br>Griffin Farms CDLF<br>Mecklenburg County Landfill<br>Scotland County CDLF<br>Scotland County Transfer Station<br>Upper Piedmont Regional LF<br>Waste Management of Carolinas                        | 25,893<br>17,235<br>163<br>301<br>2752<br>132<br>109<br>79,776<br>3,545 |
| <b>2005-2006</b> | <b>1,234,307</b>               | Atlantic Waste, VA<br>BFI, Carter Valley, TN<br>Bristol Landfill, VA<br>Brunswick Landfill, VA<br>Eagle Point Landfill, GA<br>Iris Glenn Landfill, TN<br>Lee County Landfill, SC<br>Maplewood Landfill, VA<br>Palmetto Landfill, SC<br>Pinebluff Landfill, GA<br>R&B Landfill, GA<br>Union County Landfill, SC   | 32<br>9,311<br>14,208<br>411,107<br>8,744<br>53,706<br>10,194<br>361<br>538,508<br>13,010<br>38,676<br>136,450                                     | <b>137,307<sub>(6)</sub></b> | BFI- Lake Norman<br>Chambers Development<br>Gaston County C&D Landfill<br>Gaston County Landfill<br>Griffin Farms C&D<br>Mecklenburg County Landfill<br>New Hanover Waste to Energy<br>Upper Piedmont Regional Landfill<br>Waste Management of the Carolinas                                 | 18,403<br>55,869<br>30<br>239<br>510<br>1944<br>9<br>56,428<br>3,875    |
| <b>2004-2005</b> | <b>1,161,926<sub>(3)</sub></b> | Atlantic Waste, VA<br>BFI- Carter Valley, TN<br>Bristol Landfill, VA<br>Brunswick Landfill, VA<br>Eagle Point Landfill, GA<br>Fort Mill Transfer, SC <sub>(3)</sub><br>Iris Glenn Landfill, TN<br>Maplewood Landfill, VA<br>Palmetto Landfill, SC<br>Pinebluff Landfill, GA<br>R&B Landfill, GA<br>Union County, SC  | 44,864<br>9,500<br>14,314<br>370,810<br>8,398<br>52,731<br>53,126<br>364<br>507,307<br>14,414<br>34,748<br>51,338                                  | <b>119,202<sub>(3)</sub></b> | Chambers Development Landfill<br>Gaston County Landfill<br>Griffin Farms C&D Landfill<br>Mecklenburg County Landfill<br>Piedmont Sanitary Landfill<br>Upper Piedmont Regional Landfill<br>Waste Management of the Carolinas<br>Transfer  | 82,535<br>75<br>373<br>584<br>1,754<br>30,163<br>3,230                  |
| <b>2003-2004</b> | <b>1,048,111</b>               | Atlantic Waste Disposal, VA<br>Carter Valley, TN<br>Bristol Landfill, VA<br>Brunswick Landfill, VA<br>Eagle Point Landfill, GA<br>Iris Glenn Landfill, TN<br>Maplewood Landfill, VA<br>Palmetto Landfill, SC<br>Pinebluff Landfill, GA<br>R&B Landfill<br>Hampton Roads, VA<br>Union County Landfill, SC   | 53,898<br>9,356<br>13,768<br>377,250<br>3,046<br>10,608<br>1,321<br>479,650<br>12,788<br>22,216<br>4,072<br>14,453                                 | <b>108,803</b>               | Charlotte Motor Speedway Landfill<br>Lake Norman Landfill<br>Chambers Development Landfill<br>Gaston County Landfill<br>Griffin Farms C&D Landfill<br>Mecklenburg County Landfill<br>New Hanover Waste to Energy<br>Upper Piedmont Landfill<br>Waste Management of the Carolinas<br>Transfer | 3,567<br>6,452<br>61,301<br>106<br>197<br>855<br>3<br>33,733<br>2,589   |

|                  |                              |   |   |                              |   |  |
|------------------|------------------------------|---|---|------------------------------|---|--|
| <b>2002-2003</b> | <b>971,286<sup>(1)</sup></b> | Maplewood Landfill, VA<br>Atlantic Waste, VA<br>BFI, Carter Valley, TN<br>Bristol Landfill, VA<br>Brunswick Landfill, VA<br>Iris Glenn Landfill, TN<br>Lee Co. Landfill, SC<br>Palmetto Landfill, SC<br>Pinebluff Landfill, GA<br>R&B Landfill, GA<br>John C. Holland Enterprises | 10,887<br>61,912<br>8,746<br>13,000<br>396,386<br>41,384<br>31,084<br>395,418<br>9,839<br>2,030<br>600  | <b>144,116<sup>(2)</sup></b> | BFI- Charlotte Motor Speedway <sup>(2)</sup><br>Chambers Development, Anson Co. <sup>(2)</sup><br>Gaston Co. Landfill<br>Griffin Farms C&D Landfill, Union Co.<br>Mecklenburg Co. Landfill<br>New Hanover Waste to Energy<br>Piedmont Sanitary Landfill, Forsyth Co.<br>Upper Piedmont Regional Landfill, Person Co.<br>Waste Management of Carolinas, Gaston Co. | 66,246<br>91,990<br>127<br>201<br>1,181<br>1<br>37,264<br>10,949<br>2,403                      |
| <b>2001-2002</b> | <b>882,247<sup>(1)</sup></b> | Maplewood Landfill, VA<br>Atlantic Waste, VA<br>BFI, Carter Valley, TN<br>Bristol Landfill, VA<br>Brunswick Landfill, VA<br>Danville Transfer, VA<br>Iris Glenn Landfill, TN<br>Lee Co. Landfill, SC<br>Palmetto Landfill, SC<br>Pinebluff Landfill, GA<br>R&B Landfill, GA       | 8,844<br>36,290<br>4,789<br>12,584<br>420,627<br>5,327<br>44,548<br>28,515<br>312,013<br>6,683<br>2,027 | <b>117,981</b>               | BFI- Charlotte Motor Speedway<br>Chambers Development, Anson Co.<br>Gaston Co. Landfill<br>GDS Recycling Services, Catawba Co.<br>Griffin Farms C&D Landfill, Union Co.<br>Mecklenburg Co. Landfill<br>Piedmont Sanitary Landfill, Forsyth Co.<br>Upper Piedmont Regional Landfill, Person Co.<br>Waste Management of Carolinas, Gaston Co.                       | 11,645<br>48,368<br>199<br>486<br>60<br>888<br>49,305<br>2,784<br>4,246                        |
| <b>2000-2001</b> | <b>900,743</b>               | Brunswick Landfill, VA<br>Palmetto Landfill, SC<br>Iris Glenn Landfill, TN<br>Atlantic Waste, VA<br>Maplewood Landfill, VA<br>Bristol Landfill, VA<br>Lee Co. Landfill, SC<br>Pinebluff Landfill, GA<br>R & B Landfill, GA  | 436,264<br>340,782<br>44,863<br>30,275<br>18,541<br>13,121<br>9,912<br>6,809<br>176                     | <b>21,614</b>                | Chambers Development Landfill, Anson Co.<br>Waste Management, Gaston Co. (transfer)<br>Addington Upper Piedmont Landfill, Person<br>Mecklenburg Co. Landfill (CDLF)<br>Gaston Co. Landfill<br>Griffin Farms C&D Landfill, Union Co.<br>GDS Recycling Services, Catawba Co.<br>Uwharrie Env. MRF, Montgomery Co.   | 10,328<br>4,659<br>2,417<br>2,407<br>664<br>639<br>441<br>59                                   |
| <b>1999-2000</b> | <b>1,106,897</b>             | Palmetto Landfill, SC<br>Brunswick Landfill, VA<br>Lee Co. Landfill, SC<br>Iris Glenn Landfill, TN<br>Bristol Landfill, VA<br>Pinebluff Landfill, GA  | 463,587<br>432,645<br>148,412<br>43,680<br>14,001<br>4,572  | <b>41,840</b>                | Addington Upper Piedmont Landfill, Person Co.<br>Piedmont Sanitary Landfill, Forsyth Co.<br>Gaston Co. Landfill<br>Griffin Farms C&D Landfill, Union Co.<br>GDS Recycling Services, Catawba Co.<br>Uwharrie Env. MRF, Montgomery Co.<br>Mecklenburg Co. Landfill<br>Uwharrie Env. Landfill, Montgomery Co.  | 32,976 (VA)<br>7,158 (VA)<br>640 (SC)<br>565 (SC)<br>377 (SC)<br>101 (SC)<br>15 (SC)<br>8 (SC) |
| <b>1998-1999</b> | <b>1,166,875</b>             | Palmetto Landfill, SC<br>Brunswick Landfill, VA<br>Lee Co. Landfill, SC<br>Iris Glenn Landfill, TN<br>Bristol Landfill, VA<br>Pinebluff Landfill, GA  | 446,858<br>382,479<br>277,246<br>41,612<br>14,766<br>3,914  | <b>74,185</b>                | Addington Upper Piedmont Landfill, Person<br>Piedmont Sanitary Landfill, Forsyth Co.<br>Griffin Farms C&D, Union Co.<br>Gaston Co. Landfill<br>Uwharrie Env. MRF, Montgomery Co.<br>New Hanover Waste to Energy   | 53,798 (VA)<br>19,251 (VA)<br>594 (SC)<br>418 (SC)<br>67 (SC)<br>57 (MD)                       |
| <b>1997-1998</b> | <b>629,415</b>               | Palmetto Landfill, SC<br>Brunswick Landfill, VA<br>Lee Co. Landfill, SC   | 422,248<br>190,890<br>16,277  | <b>87,393</b>                | Piedmont Sanitary Landfill, Forsyth Co.<br>Addington Upper Piedmont Landfill, Person Co.<br>Union Co. Landfill  | 80,570 (VA)<br>6,194 (VA)<br>629 (SC)  |
| <b>1996-1997</b> | <b>280,400</b>               | Palmetto Landfill, SC   | 280,400   | <b>103,510</b>               | Piedmont Sanitary Landfill, Forsyth Co.<br>Union County Landfill  | 103,120 (VA)<br>390 (SC)   |
| <b>1995-1996</b> | <b>111,097</b>               | Palmetto Landfill, SC   | 111,097   | <b>88,982</b>                | Piedmont Sanitary Landfill, Forsyth Co.   | 88,982 (VA)  |

<sup>(1)</sup> This does not include 73,911 tons from Mecklenburg County that were exported to the Fort Mill Transfer Station in South Carolina and then imported to a landfill in North Carolina.

- (2) This does not include 77,217 tons from Mecklenburg County that was exported to the Fort Mill Transfer Station in South Carolina and imported back to landfills in North Carolina.
- (3) This does not include 99,065 tons of Municipal Solid Waste from Mecklenburg County that was exported to the Fort Mill Transfer Station in South Carolina and then imported back into North Carolina to the BFI- Charlotte Motor Speedway Landfill. The total also does not include an additional 16,847 tons of construction and demolition material from Mecklenburg County sent to the Fort Mill Transfer Station and imported back to North Carolina to the BFI- Lake Norman Construction and Demolition Landfill.
- (4) This does not include 107,888 tons from Mecklenburg County that was exported to the Fort Mill Transfer station in South Carolina and then imported back into NC to the Charlotte Motor Speedway Landfill.
- (5) This does not include 113,360 tons from Mecklenburg County that was exported to the Fort Mill Transfer station in South Carolina and then imported back into NC to the Charlotte Motor Speedway Landfill and Chambers Development Landfill .and the Lake Norman C&D Landfill.
- (6) This does not include tons of Mecklenburg County Waste that was exported to the Fort Mill Transfer Station in SC but, was returned and sent to BFI- Charlotte Motor Speedway Landfill and Chambers Development Landfill in NC.
- (7) This does not include tons of Mecklenburg, Gaston, and Union county waste that was exported to the Fort Mill Transfer Station in SC but was returned to BFI- Charlotte Motor Speedway Landfill. The total listed also does not include Caswell and Rockingham county waste that went to the First Piedmont Transfer station in VA and then was imported back into NC to the Upper Piedmont Landfill.

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# Appendix D

C&D and MSW Landfill Capacity





## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Austin Quarter C&D Unit

01-04

2701 Austin Quarter Road

Graham, NC 27253

phone: (336) 376-8902

<http://www.alamance-nc.com/d/landfill>

| County   |
|----------|
| Alamance |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 11/1/1993 | 3/18/2010 | 16.4       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 4,005.43          | 112,342.93 | 6,860.60         |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 215,334.00        | 78,389.00           | 293,723.00     |
| Used                      | 202,587.00        | 0.00                | 202,587.00     |
| Remaining                 | 12,747.00         | 78,389.00           | 91,136.00      |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 112,342.93 | 202,587.00    | 0.55               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 7,068.74          | 43,469.97           | 50,538.71      |
| Years (Avg TPY)    | 1.03              | 6.34                | 7.37           |
| Years (FY TPY)     | 1.76              | 10.85               | 12.62          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Coble's C&D Landfill

01-05

5833 Foster Store Road

Liberty, NC 27298

phone: (336) 565-4750

| County   |
|----------|
| Alamance |

| DATES | Opened    | Surveyed | Years Open |
|-------|-----------|----------|------------|
|       | 9/25/1998 | 6/7/2010 | 11.7       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 12,769.32         | 600,523.00 | 51,331.86        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 940,446.00        | 5,995,460.00        | 6,935,906.00   |
| Used                      | 853,861.00        | 0.00                | 853,861.00     |
| Remaining                 | 86,585.00         | 5,995,460.00        | 6,082,045.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 600,523.00 | 853,861.00    | 0.70               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 60,895.49         | 4,216,624.98        | 4,277,520.47   |
| Years (Avg TPY)    | 1.19              | 82.14               | 83.33          |
| Years (FY TPY)     | 4.77              | 330.22              | 334.98         |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Alexander County C&D Landfill

02-01

2500 Payne Dairy Road

Taylorsville, NC 28681

phone: (828) 632-1101

<http://www.alexandercountync.gov/solid-waste.php>

| County    |
|-----------|
| Alexander |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 1/1/1998 | 6/8/2010 | 12.4       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total     | Average per Year |
|--------------------|-------------------|-----------|------------------|
|                    | 1,914.49          | 36,385.00 | 2,926.58         |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 130,296.00        | 113,236.00          | 243,532.00     |
| Used                      | 87,348.00         | 0.00                | 87,348.00      |
| Remaining                 | 42,948.00         | 113,236.00          | 156,184.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 36,385.00  | 87,348.00     | 0.42               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 17,890.08         | 47,168.70           | 65,058.79      |
| Years (Avg TPY)    | 6.11              | 16.12               | 22.23          |
| Years (FY TPY)     | 9.34              | 24.64               | 33.98          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Brunswick County C&D Landfill

10-07

172 Landfill Road NE

Bolivia, NC 28422

phone: (910) 253-2524

http://www.brunasco.net

| County    |
|-----------|
| Brunswick |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 7/1/1998 | 9/28/2009 | 11.2       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 15,053.63         | 521,654.00 | 46,392.53        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 1,045,235.00      | 100,865.00          | 1,146,100.00   |
| Used                      | 964,736.00        | 0.00                | 964,736.00     |
| Remaining                 | 80,499.00         | 100,865.00          | 181,364.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 521,654.00 | 964,736.00    | 0.54               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 43,527.58         | 54,539.93           | 98,067.51      |
| Years (Avg TPY)    | 0.94              | 1.18                | 2.11           |
| Years (FY TPY)     | 2.89              | 3.62                | 6.51           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Buncombe County Solid Waste Management Facility

11-07

85 Panther Branch Road

Alexander, NC 28701

phone: (828) 250-5467

<http://www.buncombecounty.org>

| County   |
|----------|
| Buncombe |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 1/21/1998 | 4/21/2010 | 12.2       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 15,816.72         | 469,064.00 | 38,302.17        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 909,100.00        | 1,521,200.00        | 2,430,300.00   |
| Used                      | 727,226.00        | 0.00                | 727,226.00     |
| Remaining                 | 181,874.00        | 1,521,200.00        | 1,703,074.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 469,064.00 | 727,226.00    | 0.65               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 117,309.54        | 981,180.76          | 1,098,490.29   |
| Years (Avg TPY)    | 3.06              | 25.62               | 28.68          |
| Years (FY TPY)     | 7.42              | 62.03               | 69.45          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Burke County CDLF

12-03

2500 Marsh Trail  
Morganton, NC 28655  
phone: (828) 439-4394  
http://co.burke.nc.us

| County |
|--------|
| Burke  |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 1/7/1998 | 4/30/2010 | 12.3       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 8,499.43          | 171,804.92 | 13,957.24        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 322,496.00        | 0.00                | 322,496.00     |
| Used                      | 246,502.00        | 0.00                | 246,502.00     |
| Remaining                 | 75,994.00         | 0.00                | 75,994.00      |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 171,804.92 | 246,502.00    | 0.70               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 52,965.67         | 0.00                | 52,965.67      |
| Years (Avg TPY)    | 3.79              | 0.00                | 3.79           |
| Years (FY TPY)     | 6.23              | 0.00                | 6.23           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Cabarrus County Solid Waste

13-02

4441 Irish Potato

Concord, NC 28026

phone: (704) 920-2951

<http://www.cabarruscounty.us/solidwaste>

| County   |
|----------|
| Cabarrus |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 12/5/2006 | 5/14/2010 | 3.4        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 29,510.76         | 145,310.67 | 42,256.94        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 352,000.00        | 59,564.00           | 411,564.00     |
| Used                      | 327,559.00        | 0.00                | 327,559.00     |
| Remaining                 | 24,441.00         | 59,564.00           | 84,005.00      |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 145,310.67 | 327,559.00    | 0.44               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 10,842.44         | 26,423.59           | 37,266.03      |
| Years (Avg TPY)    | 0.26              | 0.63                | 0.88           |
| Years (FY TPY)     | 0.37              | 0.90                | 1.26           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Highway 49 C&D Landfill and Recycling

13-06

2105 Speedrail Court

Concord, NC 28025

phone: (704) 895-0329

<http://www.griffinbrothers.com/reclamation/hwy49.html>

| County   |
|----------|
| Cabarrus |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 4/4/2000 | 4/9/2010 | 10.0       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 78,246.56         | 816,483.00 | 81,547.83        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 2,370,000.00      | 1,274,567.00        | 3,644,567.00   |
| Used                      | 1,095,433.00      | 0.00                | 1,095,433.00   |
| Remaining                 | 1,274,567.00      | 1,274,567.00        | 2,549,134.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 816,483.00 | 1,095,433.00  | 0.75               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 950,000.86        | 950,000.86          | 1,900,001.71   |
| Years (Avg TPY)    | 11.65             | 11.65               | 23.30          |
| Years (FY TPY)     | 12.14             | 12.14               | 24.28          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Catawba County Landfill

18-03

3993 Rocky Ford Road

Newton, NC 28658

phone: (704) 462-1348

<http://www.co.catawba.nc.us/depts/u&e/solwasmg.asp>

| County  |
|---------|
| Catawba |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 10/1/2002 | 5/13/2010 | 7.6        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 22,569.83         | 260,148.44 | 34,167.28        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 1,449,000.00      | 0.00                | 1,449,000.00   |
| Used                      | 423,030.00        | 0.00                | 423,030.00     |
| Remaining                 | 1,025,970.00      | 0.00                | 1,025,970.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 260,148.44 | 423,030.00    | 0.61               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 630,935.15        | 0.00                | 630,935.15     |
| Years (Avg TPY)    | 18.47             | 0.00                | 18.47          |
| Years (FY TPY)     | 27.95             | 0.00                | 27.95          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Cleveland County CDLF

23-01

1609 Airport Road  
Shelby, NC 28150  
phone: (704) 447-8204  
<http://clevelandcounty.com>

| County    |
|-----------|
| Cleveland |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 1/1/1998 | 6/16/2010 | 12.5       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 45,957.21         | 534,302.44 | 42,900.41        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 789,550.00        | 339,088.00          | 1,128,638.00   |
| Used                      | 595,914.00        | 0.00                | 595,914.00     |
| Remaining                 | 193,636.00        | 339,088.00          | 532,724.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 534,302.44 | 595,914.00    | 0.90               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 173,615.97        | 304,029.69          | 477,645.66     |
| Years (Avg TPY)    | 4.05              | 7.09                | 11.13          |
| Years (FY TPY)     | 3.78              | 6.62                | 10.39          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Cumberland County C&D Unit

26-01

698 Ann Street

Fayetteville, NC 28301

phone: Karen Hall

[http://co.cumberland.nc.us/solid\\_waste\\_mgmt/container\\_sites/ann\\_st\\_landfill.aspx](http://co.cumberland.nc.us/solid_waste_mgmt/container_sites/ann_st_landfill.aspx)

| County     |
|------------|
| Cumberland |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 1/1/1998 | 7/2/2010 | 12.5       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 27,829.27         | 340,612.00 | 27,252.69        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 1,052,284.00      | 921,300.00          | 1,973,584.00   |
| Used                      | 527,007.00        | 0.00                | 527,007.00     |
| Remaining                 | 525,277.00        | 921,300.00          | 1,446,577.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 340,612.00 | 527,007.00    | 0.65               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 339,493.88        | 595,449.08          | 934,942.96     |
| Years (Avg TPY)    | 12.46             | 21.85               | 34.31          |
| Years (FY TPY)     | 12.20             | 21.40               | 33.60          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Fort Bragg C&D Landfill

26-08

Bldg #O-3454, Lamont Road

Fort Bragg, NC 28310

phone: (910) 977-2502

| County     |
|------------|
| Cumberland |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 1/27/1998 | 7/19/2010 | 12.5       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total        | Average per Year |
|--------------------|-------------------|--------------|------------------|
|                    | 85,619.81         | 1,319,925.72 | 105,817.14       |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 2,214,157.00      | 2,116,700.00        | 4,330,857.00   |
| Used                      | 2,144,652.50      | 0.00                | 2,144,652.50   |
| Remaining                 | 69,504.50         | 2,116,700.00        | 2,186,204.50   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|---------------------------------|--------------|---------------|--------------------|
|                                 | 1,319,925.72 | 2,144,652.50  | 0.62               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 42,776.52         | 1,302,722.36        | 1,345,498.89   |
| Years (Avg TPY)    | 0.40              | 12.31               | 12.72          |
| Years (FY TPY)     | 0.50              | 15.22               | 15.71          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Dare County C&D Landfill

**28-03**

1603 Cub Road

Manns Harbor, NC 27953

phone: (252) 475-5880

| County |
|--------|
| Dare   |

| DATES | Opened     | Surveyed  | Years Open |
|-------|------------|-----------|------------|
|       | 11/15/1995 | 7/27/2010 | 14.7       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 14,021.74         | 247,848.97 | 16,864.16        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 1,244,900.00      | 326,900.00          | 1,571,800.00   |
| Used                      | 829,477.00        | 0.00                | 829,477.00     |
| Remaining                 | 415,423.00        | 326,900.00          | 742,323.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 247,848.97 | 829,477.00    | 0.30               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 124,129.01        | 97,678.21           | 221,807.22     |
| Years (Avg TPY)    | 7.36              | 5.79                | 13.15          |
| Years (FY TPY)     | 8.85              | 6.97                | 15.82          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Davidson County CDLF

29-06

220 Davidson County Landfill Road

Lexington, NC 27292

phone: (336) 240-0303

[http://www.co.davidson.nc.us/government/departments\\_portal.aspx?cd=10](http://www.co.davidson.nc.us/government/departments_portal.aspx?cd=10)

| County   |
|----------|
| Davidson |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 12/4/2001 | 5/27/2010 | 8.5        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total     | Average per Year |
|--------------------|-------------------|-----------|------------------|
|                    | 9,555.52          | 84,339.00 | 9,949.88         |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 244,324.00        | 76,006.00           | 320,330.00     |
| Used                      | 164,857.00        | 0.00                | 164,857.00     |
| Remaining                 | 79,467.00         | 76,006.00           | 155,473.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 84,339.00  | 164,857.00    | 0.51               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 40,654.43         | 38,883.82           | 79,538.25      |
| Years (Avg TPY)    | 4.09              | 3.91                | 7.99           |
| Years (FY TPY)     | 4.25              | 4.07                | 8.32           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Edgecombe County Solid Waste

**33-01**

2872 Colonial Road

Tarboro, NC 27886

phone: (252) 827-4253

<http://www.edgecombecountync.gov>

| County    |
|-----------|
| Edgecombe |

| DATES | Opened     | Surveyed  | Years Open |
|-------|------------|-----------|------------|
|       | 12/30/1997 | 7/21/2010 | 12.6       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 10,065.05         | 367,118.00 | 29,238.96        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 717,000.00        | 983,000.00          | 1,700,000.00   |
| Used                      | 671,192.00        | 0.00                | 671,192.00     |
| Remaining                 | 45,808.00         | 983,000.00          | 1,028,808.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 367,118.00 | 671,192.00    | 0.55               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 25,055.34         | 537,665.82          | 562,721.15     |
| Years (Avg TPY)    | 0.86              | 18.39               | 19.25          |
| Years (FY TPY)     | 2.49              | 53.42               | 55.91          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Old Salisbury Road Landfill

34-12

3336 Old Salisbury Road

Winston-Salem, NC 27127

phone: (336) 747-7310

| County  |
|---------|
| Forsyth |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 8/1/1996 | 1/1/2010 | 13.4       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total        | Average per Year |
|--------------------|-------------------|--------------|------------------|
|                    | 47,431.48         | 1,184,904.00 | 88,305.69        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 3,808,973.00      | 0.00                | 3,808,973.00   |
| Used                      | 2,526,363.00      | 0.00                | 2,526,363.00   |
| Remaining                 | 1,282,610.00      | 0.00                | 1,282,610.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|---------------------------------|--------------|---------------|--------------------|
|                                 | 1,184,904.00 | 2,526,363.00  | 0.47               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 601,564.27        | 0.00                | 601,564.27     |
| Years (Avg TPY)    | 6.81              | 0.00                | 6.81           |
| Years (FY TPY)     | 12.68             | 0.00                | 12.68          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Gaston County C&D Landfill

36-06

3155 Philadelphia Church Road

Dallas, NC 28034

phone: (704) 922-0267

<http://www.co.gaston.nc.us/solidwaste>

| County |
|--------|
| Gaston |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 2/5/1999 | 3/24/2010 | 11.1       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 38,618.78         | 437,120.97 | 39,276.37        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 910,000.00        | 0.00                | 910,000.00     |
| Used                      | 629,441.00        | 0.00                | 629,441.00     |
| Remaining                 | 280,559.00        | 0.00                | 280,559.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 437,120.97 | 629,441.00    | 0.69               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 194,836.72        | 0.00                | 194,836.72     |
| Years (Avg TPY)    | 4.96              | 0.00                | 4.96           |
| Years (FY TPY)     | 5.05              | 0.00                | 5.05           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Granville County CDLF

39-01

6584 Landfill Road  
Oxford, NC 27565  
phone: (919) 603-1355

| County    |
|-----------|
| Granville |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 1/1/1998 | 3/3/2010 | 12.2       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total     | Average per Year |
|--------------------|-------------------|-----------|------------------|
|                    | 13,151.00         | 81,227.00 | 6,676.00         |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 349,500.00        | 0.00                | 349,500.00     |
| Used                      | 106,058.00        | 0.00                | 106,058.00     |
| Remaining                 | 243,442.00        | 0.00                | 243,442.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 81,227.00  | 106,058.00    | 0.77               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 186,445.75        | 0.00                | 186,445.75     |
| Years (Avg TPY)    | 27.93             | 0.00                | 27.93          |
| Years (FY TPY)     | 14.18             | 0.00                | 14.18          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Greene County

105 Landfill Road

Walstonburg, NC 27888

phone: (252) 747-5720

**40-02**

| County |
|--------|
| Greene |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 1/1/1998 | 5/6/2010 | 12.3       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total     | Average per Year |
|--------------------|-------------------|-----------|------------------|
|                    | 462.60            | 32,240.79 | 2,612.23         |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 352,500.00        | 42,938.00           | 395,438.00     |
| Used                      | 123,564.00        | 0.00                | 123,564.00     |
| Remaining                 | 228,936.00        | 42,938.00           | 271,874.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 32,240.79  | 123,564.00    | 0.26               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 59,734.85         | 11,203.55           | 70,938.40      |
| Years (Avg TPY)    | 22.87             | 4.29                | 27.16          |
| Years (FY TPY)     | 129.13            | 24.22               | 153.35         |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### White Street Landfill

41-03

2503 White Street

Greensboro, NC 27405

phone: (336) 373-2787

http://www.greensboro-nc.gov

| County   |
|----------|
| Guilford |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 1/1/1998 | 7/27/2010 | 12.6       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total        | Average per Year |
|--------------------|-------------------|--------------|------------------|
|                    | 46,914.41         | 1,490,581.28 | 118,613.25       |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 2,315,800.00      | 0.00                | 2,315,800.00   |
| Used                      | 1,214,196.00      | 0.00                | 1,214,196.00   |
| Remaining                 | 1,101,604.00      | 0.00                | 1,101,604.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|---------------------------------|--------------|---------------|--------------------|
|                                 | 1,490,581.28 | 1,214,196.00  | 1.23               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 1,352,360.16      | 0.00                | 1,352,360.16   |
| Years (Avg TPY)    | 11.40             | 0.00                | 11.40          |
| Years (FY TPY)     | 28.83             | 0.00                | 28.83          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### WCA of High Point

41-16

5830 Riverdale Drive  
Jamestown, NC 27282  
phone: (336) 886-3560  
<http://wcawaste.com>

| County   |
|----------|
| Guilford |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 2/4/2004 | 2/11/2010 | 6.0        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 54,320.00         | 676,004.00 | 112,283.07       |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 1,187,267.00      | 3,719,593.00        | 4,906,860.00   |
| Used                      | 948,453.00        | 0.00                | 948,453.00     |
| Remaining                 | 238,814.00        | 3,719,593.00        | 3,958,407.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 676,004.00 | 948,453.00    | 0.71               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 170,213.20        | 2,651,116.87        | 2,821,330.07   |
| Years (Avg TPY)    | 1.52              | 23.61               | 25.13          |
| Years (FY TPY)     | 3.13              | 48.81               | 51.94          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### A-1 Sandrock, Inc.

41-17

2091 Bishop Road  
Greensboro, NC 27282  
phone: (336) 855-8195  
<http://a1sandrockinc.com>

| County   |
|----------|
| Guilford |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 4/19/2009 | 7/20/2010 | 1.3        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total     | Average per Year |
|--------------------|-------------------|-----------|------------------|
|                    | 21,516.91         | 24,754.51 | 19,784.65        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 56,974.00         | 1,953,630.00        | 2,010,604.00   |
| Used                      | 39,502.00         | 0.00                | 39,502.00      |
| Remaining                 | 17,472.00         | 1,953,630.00        | 1,971,102.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 24,754.51  | 39,502.00     | 0.63               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 10,949.09         | 1,224,271.01        | 1,235,220.09   |
| Years (Avg TPY)    | 0.55              | 61.88               | 62.43          |
| Years (FY TPY)     | 0.51              | 56.90               | 57.41          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Halifax County Landfill

42-04

921 Liles Road  
Littleton, NC 27850  
phone: (252) 586-7516

| County  |
|---------|
| Halifax |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 1/1/1998 | 7/23/2010 | 12.6       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total     | Average per Year |
|--------------------|-------------------|-----------|------------------|
|                    | 5,701.42          | 63,029.00 | 5,019.92         |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 131,267.00        | 0.00                | 131,267.00     |
| Used                      | 90,868.00         | 0.00                | 90,868.00      |
| Remaining                 | 40,399.00         | 0.00                | 40,399.00      |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 63,029.00  | 90,868.00     | 0.69               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 28,022.06         | 0.00                | 28,022.06      |
| Years (Avg TPY)    | 5.58              | 0.00                | 5.58           |
| Years (FY TPY)     | 4.91              | 0.00                | 4.91           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Harnett County CDLF

43-02

449 Daniels Road

Dunn, NC 27546

phone: (910) 893-7536

| County  |
|---------|
| Harnett |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 1/1/1998 | 6/28/2010 | 12.5       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 13,953.60         | 195,245.26 | 15,635.46        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 280,000.00        | 500,000.00          | 780,000.00     |
| Used                      | 255,100.00        | 0.00                | 255,100.00     |
| Remaining                 | 24,900.00         | 500,000.00          | 524,900.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 195,245.26 | 255,100.00    | 0.77               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 19,057.65         | 382,683.77          | 401,741.42     |
| Years (Avg TPY)    | 1.22              | 24.48               | 25.69          |
| Years (FY TPY)     | 1.37              | 27.43               | 28.79          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Harnet County Anderson Creek C&D Landfill

43-03

1086 Poplar Drive

Lillington, NC 27546

phone: (910) 893-7536

| County  |
|---------|
| Harnett |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 12/1/1996 | 6/25/2010 | 13.6       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 11,162.44         | 108,557.00 | 8,003.72         |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 294,600.00        | 500,000.00          | 794,600.00     |
| Used                      | 284,400.00        | 0.00                | 284,400.00     |
| Remaining                 | 10,200.00         | 500,000.00          | 510,200.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 108,557.00 | 284,400.00    | 0.38               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 3,893.39          | 190,852.67          | 194,746.07     |
| Years (Avg TPY)    | 0.49              | 23.85               | 24.33          |
| Years (FY TPY)     | 0.35              | 17.10               | 17.45          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Johnston County C&D Landfill

51-03

680 County Home Road

Smithfield, NC 27577

phone: (919) 938-4750

| County   |
|----------|
| Johnston |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 7/18/2007 | 6/11/2010 | 2.9        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total     | Average per Year |
|--------------------|-------------------|-----------|------------------|
|                    | 23,497.63         | 87,803.00 | 30,283.33        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 231,198.00        | 693,856.00          | 925,054.00     |
| Used                      | 179,478.00        | 0.00                | 179,478.00     |
| Remaining                 | 51,720.00         | 693,856.00          | 745,576.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 87,803.00  | 179,478.00    | 0.49               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 25,302.10         | 339,443.49          | 364,745.59     |
| Years (Avg TPY)    | 0.84              | 11.21               | 12.04          |
| Years (FY TPY)     | 1.08              | 14.45               | 15.52          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Lenoir County Landfill

54-03

2949 Hodges Farm Road

LaGrange, NC 28551

phone: (252) 566-4194

| County |
|--------|
| Lenoir |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 1/1/1998 | 5/4/2010 | 12.3       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 9,100.27          | 292,535.86 | 23,712.54        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 85,799.00         | 3,164,068.00        | 3,249,867.00   |
| Used                      | 420,965.00        | 0.00                | 420,965.00     |
| Remaining                 | -335,166.00       | 3,164,068.00        | 2,828,902.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 292,535.86 | 420,965.00    | 0.69               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | -232,912.65       | 2,198,765.58        | 1,965,852.93   |
| Years (Avg TPY)    | -9.82             | 92.73               | 82.90          |
| Years (FY TPY)     | -25.59            | 241.62              | 216.02         |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Lincoln County Solid Waste

55-03

5291 Crouse Road

Crouse, NC 28033

phone: (704) 732-9030

| County |
|--------|
| 28033  |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 7/1/1993 | 7/4/2010 | 17.0       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 12,798.00         | 702,821.00 | 41,324.11        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 2,176,100.00      | 2,261,600.00        | 4,437,700.00   |
| Used                      | 1,517,916.00      | 0.00                | 1,517,916.00   |
| Remaining                 | 658,184.00        | 2,261,600.00        | 2,919,784.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 702,821.00 | 1,517,916.00  | 0.46               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 304,750.42        | 1,047,159.38        | 1,351,909.80   |
| Years (Avg TPY)    | 7.37              | 25.34               | 32.71          |
| Years (FY TPY)     | 23.81             | 81.82               | 105.63         |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Lake Norman C&D Landfill

55-04

7099 Quarry Lane

Stanley, NC 28164

phone: (704) 262-6002

<http://www.republicservices.com>

| County  |
|---------|
| Lincoln |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 3/25/1999 | 2/11/2010 | 10.9       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 21,094.93         | 938,826.35 | 86,244.05        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 1,840,960.00      | 1,215,060.00        | 3,056,020.00   |
| Used                      | 1,549,870.00      | 0.00                | 1,549,870.00   |
| Remaining                 | 291,090.00        | 1,215,060.00        | 1,506,150.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 938,826.35 | 1,549,870.00  | 0.61               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 176,326.38        | 736,016.79          | 912,343.17     |
| Years (Avg TPY)    | 2.04              | 8.53                | 10.58          |
| Years (FY TPY)     | 8.36              | 34.89               | 43.25          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Madison County Solid Waste Dept.

58-03

271 Craig Rudisill Road

Marshall, NC 28753

phone: (828) 649-2311

<http://madisoncountync.org>

| County  |
|---------|
| Madison |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 11/1/2006 | 6/25/2010 | 3.6        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total     | Average per Year |
|--------------------|-------------------|-----------|------------------|
|                    | 1,523.65          | 12,591.00 | 3,452.60         |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 131,600.00        | 0.00                | 131,600.00     |
| Used                      | 31,000.00         | 0.00                | 31,000.00      |
| Remaining                 | 100,600.00        | 0.00                | 100,600.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 12,591.00  | 31,000.00     | 0.41               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 40,859.83         | 0.00                | 40,859.83      |
| Years (Avg TPY)    | 11.83             | 0.00                | 11.83          |
| Years (FY TPY)     | 26.82             | 0.00                | 26.82          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Martin County C&D Landfill

59-01

1445 Landfill Road

Williamston, NC 27892

phone: (252) 792-1240

<http://www.martincountyncgov.com>

| County |
|--------|
| Martin |

| DATES | Opened    | Surveyed | Years Open |
|-------|-----------|----------|------------|
|       | 3/23/1994 | 2/2/2010 | 15.9       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total     | Average per Year |
|--------------------|-------------------|-----------|------------------|
|                    | 4,484.00          | 84,676.00 | 5,337.00         |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 132,000.00        | 0.00                | 132,000.00     |
| Used                      | 96,008.95         | 0.00                | 96,008.95      |
| Remaining                 | 35,991.05         | 0.00                | 35,991.05      |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 84,676.00  | 96,008.95     | 0.88               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 31,742.65         | 0.00                | 31,742.65      |
| Years (Avg TPY)    | 5.95              | 0.00                | 5.95           |
| Years (FY TPY)     | 7.08              | 0.00                | 7.08           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### North Mecklenburg C&D Landfill

60-13

15300 Holbrooks Road

Huntersville, NC 28078

phone: (704) 895-0329

<http://www.griffinbrothers.com/reclamation/northmeck.html>

| County      |
|-------------|
| Mecklenburg |

| DATES | Opened    | Surveyed | Years Open |
|-------|-----------|----------|------------|
|       | 3/12/2006 | 4/2/2010 | 4.1        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 103,073.21        | 499,586.12 | 123,126.74       |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 1,100,000.00      | 442,178.00          | 1,542,178.00   |
| Used                      | 657,822.00        | 0.00                | 657,822.00     |
| Remaining                 | 442,178.00        | 442,178.00          | 884,356.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 499,586.12 | 657,822.00    | 0.76               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 335,814.23        | 335,814.23          | 671,628.47     |
| Years (Avg TPY)    | 2.73              | 2.73                | 5.45           |
| Years (FY TPY)     | 3.26              | 3.26                | 6.52           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Moore County C&D Landfill

63-01

456 Turning Leaf Way (Landfill Road)

Aberdeen, NC 28315

phone: (910) 947-6315

| County |
|--------|
| Moore  |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 10/1/1993 | 4/15/2010 | 16.5       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 19,839.29         | 415,366.32 | 25,117.97        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 1,130,000.00      | 205,396.00          | 1,335,396.00   |
| Used                      | 924,604.00        | 0.00                | 924,604.00     |
| Remaining                 | 205,396.00        | 205,396.00          | 410,792.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 415,366.32 | 924,604.00    | 0.45               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 92,271.48         | 92,271.48           | 184,542.96     |
| Years (Avg TPY)    | 3.67              | 3.67                | 7.35           |
| Years (FY TPY)     | 4.65              | 4.65                | 9.30           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Nash County C&D Landfill

64-03

3057 Duke Road  
Nashville, NC 27856  
phone: (252) 459-9899

| County |
|--------|
| 27856  |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 1/3/2000 | 3/19/2010 | 10.2       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 11,969.00         | 185,415.00 | 18,165.99        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 731,600.00        | 0.00                | 731,600.00     |
| Used                      | 480,568.00        | 0.00                | 480,568.00     |
| Remaining                 | 251,032.00        | 0.00                | 251,032.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 185,415.00 | 480,568.00    | 0.39               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 96,854.34         | 0.00                | 96,854.34      |
| Years (Avg TPY)    | 5.33              | 0.00                | 5.33           |
| Years (FY TPY)     | 8.09              | 0.00                | 8.09           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Orange County Landfill

68-04

1514 Eubanks Road

Chapel Hill, NC 27516

phone: (919) 968-2800

<http://www.co.orange.nc.us/landfill>

| County |
|--------|
| Orange |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 5/31/2005 | 3/19/2010 | 4.8        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total     | Average per Year |
|--------------------|-------------------|-----------|------------------|
|                    | 8,347.06          | 64,572.00 | 13,454.03        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 253,380.00        | 521,658.00          | 775,038.00     |
| Used                      | 115,314.00        | 0.00                | 115,314.00     |
| Remaining                 | 138,066.00        | 521,658.00          | 659,724.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 64,572.00  | 115,314.00    | 0.56               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 77,312.36         | 292,111.11          | 369,423.47     |
| Years (Avg TPY)    | 5.75              | 21.71               | 27.46          |
| Years (FY TPY)     | 9.26              | 35.00               | 44.26          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Pasquotank County Landfill

70-02

983 Simpson Ditch Road

Elizabeth City, NC 27909

phone: (252) 335-4105

| County     |
|------------|
| Pasquotank |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 4/1/1996 | 7/17/2010 | 14.3       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 10,378.90         | 180,592.00 | 12,636.25        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 687,458.00        | 0.00                | 687,458.00     |
| Used                      | 645,280.00        | 0.00                | 645,280.00     |
| Remaining                 | 42,178.00         | 0.00                | 42,178.00      |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 180,592.00 | 645,280.00    | 0.28               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 11,804.19         | 0.00                | 11,804.19      |
| Years (Avg TPY)    | 0.93              | 0.00                | 0.93           |
| Years (FY TPY)     | 1.14              | 0.00                | 1.14           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### C&D Landfill, Inc.

802 Recycling Lane  
Greenville, NC 27834  
phone: (252) 752-8274

**74-07**

| County |
|--------|
| Pitt   |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 6/1/2001 | 3/1/2010 | 8.7        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 38,515.91         | 420,520.00 | 48,073.53        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 1,155,044.00      | 733,112.00          | 1,888,156.00   |
| Used                      | 863,593.00        | 0.00                | 863,593.00     |
| Remaining                 | 291,451.00        | 733,112.00          | 1,024,563.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 420,520.00 | 863,593.00    | 0.49               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 141,919.83        | 356,983.28          | 498,903.11     |
| Years (Avg TPY)    | 2.95              | 7.43                | 10.38          |
| Years (FY TPY)     | 3.68              | 9.27                | 12.95          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Gold Hill Road C&D Debris Landfill

76-06

385 Gold Hill Road  
Asheboro, NC 27203  
phone: (336) 629-7175  
<http://goldhillroad.com>

| County   |
|----------|
| Randolph |

| DATES | Opened     | Surveyed  | Years Open |
|-------|------------|-----------|------------|
|       | 10/19/2001 | 5/12/2010 | 8.6        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 10,343.65         | 115,476.65 | 13,488.28        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 290,162.00        | 159,838.00          | 450,000.00     |
| Used                      | 181,463.00        | 0.00                | 181,463.00     |
| Remaining                 | 108,699.00        | 159,838.00          | 268,537.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 115,476.65 | 181,463.00    | 0.64               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 69,172.21         | 101,715.26          | 170,887.47     |
| Years (Avg TPY)    | 5.13              | 7.54                | 12.67          |
| Years (FY TPY)     | 6.69              | 9.83                | 16.52          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Robeson County

246 Landfill Road

Saint Pauls, NC 28384

phone: (910) 865-3348

**78-03**

| County  |
|---------|
| Robeson |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 1/2/1998 | 7/2/2010 | 12.5       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 17,473.00         | 217,422.00 | 17,399.95        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 390,935.00        | 332,899.00          | 723,834.00     |
| Used                      | 434,372.00        | 0.00                | 434,372.00     |
| Remaining                 | -43,437.00        | 332,899.00          | 289,462.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 217,422.00 | 434,372.00    | 0.50               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | -21,742.10        | 166,630.37          | 144,888.27     |
| Years (Avg TPY)    | -1.25             | 9.58                | 8.33           |
| Years (FY TPY)     | -1.24             | 9.54                | 8.29           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Rutherford County Central C&D Landfill (Phase 1A)

**81-03**

656 Laurel Hill Drive

Rutherfordton, NC 28139

phone: (828) 287-6002

| County     |
|------------|
| Rutherford |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 1/1/2001 | 4/20/2010 | 9.3        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 7,961.17          | 148,383.44 | 15,959.08        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 262,787.00        | 0.00                | 262,787.00     |
| Used                      | 340,840.46        | 0.00                | 340,840.46     |
| Remaining                 | -78,053.46        | 0.00                | -78,053.46     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 148,383.44 | 340,840.46    | 0.44               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | -33,980.24        | 0.00                | -33,980.24     |
| Years (Avg TPY)    | -2.13             | 0.00                | -2.13          |
| Years (FY TPY)     | -4.27             | 0.00                | -4.27          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### WI - Sampson County Disposal

82-02

7434 Roseboro Highway

Roseboro, NC 28382

phone: (910) 990-0141

| County  |
|---------|
| Sampson |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 9/16/1996 | 2/11/2010 | 13.4       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 14,165.69         | 251,218.00 | 18,741.29        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 1,148,941.00      | 1,871,059.00        | 3,020,000.00   |
| Used                      | 555,862.00        | 0.00                | 555,862.00     |
| Remaining                 | 593,079.00        | 1,871,059.00        | 2,464,138.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 251,218.00 | 555,862.00    | 0.45               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 268,037.97        | 845,612.22          | 1,113,650.19   |
| Years (Avg TPY)    | 14.30             | 45.12               | 59.42          |
| Years (FY TPY)     | 18.92             | 59.69               | 78.62          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Scotland County CDLF

**83-01**

10701 Patterson Road

Laurinburg, NC 28352

phone: (910) 844-9206

| County   |
|----------|
| Scotland |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 1/1/1998 | 4/7/2010 | 12.3       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 8,057.13          | 250,483.00 | 20,426.19        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 1,146,118.00      | 0.00                | 1,146,118.00   |
| Used                      | 483,492.00        | 0.00                | 483,492.00     |
| Remaining                 | 662,626.00        | 0.00                | 662,626.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 250,483.00 | 483,492.00    | 0.52               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 343,287.06        | 0.00                | 343,287.06     |
| Years (Avg TPY)    | 16.81             | 0.00                | 16.81          |
| Years (FY TPY)     | 42.61             | 0.00                | 42.61          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### City of Albemarle Landfill

**84-01**

40592 B Stony Gap Road

Albemarle, NC 28001

phone: (704) 984-9667

| County |
|--------|
| Stanly |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 5/31/1998 | 5/11/2010 | 11.9       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 12,307.64         | 307,125.00 | 25,711.07        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 864,477.00        | 471,900.00          | 1,336,377.00   |
| Used                      | 605,880.00        | 0.00                | 605,880.00     |
| Remaining                 | 258,597.00        | 471,900.00          | 730,497.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 307,125.00 | 605,880.00    | 0.51               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 131,084.71        | 239,209.56          | 370,294.27     |
| Years (Avg TPY)    | 5.10              | 9.30                | 14.40          |
| Years (FY TPY)     | 10.65             | 19.44               | 30.09          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Union County C&D Landfill

90-01

2125 Austin Chaney Road

Wingate, NC 29174

phone: (704) 296-4215

http://ucpw.co.union.nc.us

| County |
|--------|
| Union  |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 1/1/1998 | 7/15/2010 | 12.5       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 10,645.68         | 278,131.00 | 22,190.33        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 726,956.00        | 726,956.00          | 1,453,912.00   |
| Used                      | 399,238.00        | 0.00                | 399,238.00     |
| Remaining                 | 327,718.00        | 726,956.00          | 1,054,674.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 278,131.00 | 399,238.00    | 0.70               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 228,306.26        | 506,437.26          | 734,743.52     |
| Years (Avg TPY)    | 10.29             | 22.82               | 33.11          |
| Years (FY TPY)     | 21.45             | 47.57               | 69.02          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Shotwell Landfill, Inc.

4724 Smithfield Road

Wendell, NC 27591

phone: (919) 795-0599

92-26

| County |
|--------|
| Wake   |

| DATES | Opened     | Surveyed  | Years Open |
|-------|------------|-----------|------------|
|       | 10/13/1997 | 7/15/2010 | 12.8       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 81,704.57         | 460,016.00 | 36,071.46        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 813,000.00        | 212,000.00          | 1,025,000.00   |
| Used                      | 798,906.00        | 0.00                | 798,906.00     |
| Remaining                 | 14,094.00         | 212,000.00          | 226,094.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 460,016.00 | 798,906.00    | 0.58               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 8,115.43          | 122,071.17          | 130,186.60     |
| Years (Avg TPY)    | 0.22              | 3.38                | 3.61           |
| Years (FY TPY)     | 0.10              | 1.49                | 1.59           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

### Red Rock Disposal, LLC

92-28

7130 New Landfill Drive  
Holly Springs, NC 27540  
phone: (919) 557-9583  
<http://www.wasteindustries.com>

| County |
|--------|
| Wake   |

| DATES | Opened     | Surveyed  | Years Open |
|-------|------------|-----------|------------|
|       | 11/19/2001 | 2/11/2010 | 8.2        |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total      | Average per Year |
|-----------------|-------------------|------------|------------------|
|                 | 72,830.55         | 985,619.00 | 119,759.59       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 4,525,265.00      | 0.00                | 4,525,265.00   |
| Used                   | 2,179,555.00      | 0.00                | 2,179,555.00   |
| Remaining              | 2,345,710.00      | 0.00                | 2,345,710.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 985,619.00 | 2,179,555.00  | 0.45               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 1,060,756.14      | 0.00                | 1,060,756.14   |
| Years (Avg TPY)    | 8.86              | 0.00                | 8.86           |
| Years (FY TPY)     | 14.56             | 0.00                | 14.56          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Highway 55 C&D Landfill, LLC

92-30

5940 Old Smithfield Road

Apex, NC 27502

phone: (704) 895-0329

<http://www.griffinbrothers.com/reclamation/hwy55.html>

| County |
|--------|
| Wake   |

| DATES | Opened    | Surveyed | Years Open |
|-------|-----------|----------|------------|
|       | 10/1/2002 | 5/5/2010 | 7.6        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 51,863.01         | 641,539.37 | 84,501.35        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 1,142,475.00      | 278,205.00          | 1,420,680.00   |
| Used                      | 864,270.00        | 0.00                | 864,270.00     |
| Remaining                 | 278,205.00        | 278,205.00          | 556,410.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 641,539.37 | 864,270.00    | 0.74               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 206,508.92        | 206,508.92          | 413,017.83     |
| Years (Avg TPY)    | 2.44              | 2.44                | 4.89           |
| Years (FY TPY)     | 3.98              | 3.98                | 7.96           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### WCA / Material Recovery/Brownfield C&D Landfill

92-31

2600 Brownfield Road

Raleigh, NC 27610

phone: (919) 866-1211

| County |
|--------|
| Wake   |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 10/1/2003 | 2/11/2010 | 6.4        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 91,994.35         | 893,361.00 | 140,344.13       |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 1,632,050.00      | 5,705,474.00        | 7,337,524.00   |
| Used                      | 1,227,708.00      | 0.00                | 1,227,708.00   |
| Remaining                 | 404,342.00        | 5,705,474.00        | 6,109,816.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 893,361.00 | 1,227,708.00  | 0.73               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 294,225.80        | 4,151,677.73        | 4,445,903.53   |
| Years (Avg TPY)    | 2.10              | 29.58               | 31.68          |
| Years (FY TPY)     | 3.20              | 45.13               | 48.33          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Washington County Landfill

94-04

718 Landfill Road  
Roper, NC 27970  
phone: (252) 793-5615

| County     |
|------------|
| Washington |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 1/1/1996 | 3/1/2010 | 14.2       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total     | Average per Year |
|--------------------|-------------------|-----------|------------------|
|                    | 718.80            | 20,501.00 | 1,447.51         |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 45,000.00         | 79,484.00           | 124,484.00     |
| Used                      | 55,355.00         | 0.00                | 55,355.00      |
| Remaining                 | -10,355.00        | 79,484.00           | 69,129.00      |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 20,501.00  | 55,355.00     | 0.37               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | -3,835.03         | 29,437.30           | 25,602.27      |
| Years (Avg TPY)    | -2.65             | 20.34               | 17.69          |
| Years (FY TPY)     | -5.34             | 40.95               | 35.62          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Wayne County Solid Waste Department

96-01

460 B South Landfill Road

Dudley, NC 28333

phone: (919) 689-2994

<http://www.waynegov.com/165810316164725693/site/default.asp>

| County |
|--------|
| 28333  |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 1/1/1998 | 5/10/2010 | 12.4       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 29,735.67         | 410,066.34 | 33,195.20        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 209,230.00        | 2,095,060.00        | 2,304,290.00   |
| Used                      | 636,858.00        | 0.00                | 636,858.00     |
| Remaining                 | -427,628.00       | 2,095,060.00        | 1,667,432.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 410,066.34 | 636,858.00    | 0.64               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | -275,345.29       | 1,348,987.66        | 1,073,642.38   |
| Years (Avg TPY)    | -8.29             | 40.64               | 32.34          |
| Years (FY TPY)     | -9.26             | 45.37               | 36.11          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



## DIVISION OF WASTE MANAGEMENT

### Construction and Demolition Landfill Capacity Fiscal Year 2009-2010

#### Wilson County Solid Waste C&D Landfill

98-09

4537 Landill Road

Wilson, NC 27893

phone: (252) 399-2823

http://www.wilson-co.com

| County |
|--------|
| Wilson |

| DATES | Opened    | Surveyed | Years Open |
|-------|-----------|----------|------------|
|       | 10/4/2004 | 4/7/2010 | 5.5        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 14,917.00         | 136,745.00 | 24,836.46        |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 432,000.00        | 193,700.00          | 625,700.00     |
| Used                      | 187,000.00        | 0.00                | 187,000.00     |
| Remaining                 | 245,000.00        | 193,700.00          | 438,700.00     |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 136,745.00 | 187,000.00    | 0.73               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 179,157.89        | 141,644.42          | 320,802.31     |
| Years (Avg TPY)    | 7.21              | 5.70                | 12.92          |
| Years (FY TPY)     | 12.01             | 9.50                | 21.51          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Austin Quarter SWM Facility

**01-04**

2701 Austin Quarter Road

Graham, NC 27253

phone: (336) 376-8902

<http://www.alamance-nc.com/d/landfill>

| County   |
|----------|
| Alamance |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 3/18/1994 | 3/18/2010 | 16.0       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 74,956.01         | 1,284,259.28 | 80,266.21        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 2,875,600.00      | 7,124,400.00        | 10,000,000.00  |
| Used                   | 1,881,313.00      | 0.00                | 1,881,313.00   |
| Remaining              | 994,287.00        | 7,124,400.00        | 8,118,687.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 1,284,259.28 | 1,881,313.00  | 0.68               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 678,739.96        | 4,863,399.56        | 5,542,139.52   |
| Years (Avg TPY)    | 8.46              | 60.59               | 69.05          |
| Years (FY TPY)     | 9.06              | 64.88               | 73.94          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Chambers Development MSWLF

**04-03**

375 Dozer Drive

Polkton, NC 28135

phone: (704) 694-6900

<http://www.wasteconnections.com>

| County |
|--------|
| Anson  |

| DATES | Opened     | Surveyed | Years Open |
|-------|------------|----------|------------|
|       | 12/12/2000 | 3/5/2010 | 9.2        |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 220,555.14        | 2,364,496.78 | 256,270.76       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 3,287,827.00      | 17,625,308.00       | 20,913,135.00  |
| Used                   | 2,826,982.00      | 0.00                | 2,826,982.00   |
| Remaining              | 460,845.00        | 17,625,308.00       | 18,086,153.00  |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 2,364,496.78 | 2,826,982.00  | 0.84               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 385,452.23        | 14,741,863.94       | 15,127,316.17  |
| Years (Avg TPY)    | 1.50              | 57.52               | 59.03          |
| Years (FY TPY)     | 1.75              | 66.84               | 68.59          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Ashe County Landfill

**05-01**

739 Fred Pugh Road  
Crumpler, NC 28617  
phone: (336) 846-3721  
<http://ashecountygov.com>

| County |
|--------|
| Ashe   |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 11/1/1993 | 5/13/2010 | 16.5       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total      | Average per Year |
|-----------------|-------------------|------------|------------------|
|                 | 12,029.69         | 288,704.96 | 17,467.20        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 629,404.00        | 1,685,251.00        | 2,314,655.00   |
| Used                   | 582,065.00        | 0.00                | 582,065.00     |
| Remaining              | 47,339.00         | 1,685,251.00        | 1,732,590.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 288,704.96 | 582,065.00    | 0.50               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 23,480.20         | 835,886.58          | 859,366.78     |
| Years (Avg TPY)    | 1.34              | 47.85               | 49.20          |
| Years (FY TPY)     | 1.95              | 69.49               | 71.44          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### East Carolina Regional Landfill

**08-03**

1922 Republican Road  
Aulander, NC 27805  
phone: (252) 348-3322

| County |
|--------|
| Bertie |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 8/6/1993 | 3/4/2010 | 16.6       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 591,536.55        | 7,517,816.00 | 453,564.96       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 11,943,234.00     | 12,050,127.00       | 23,993,361.00  |
| Used                   | 9,196,620.00      | 0.00                | 9,196,620.00   |
| Remaining              | 2,746,614.00      | 12,050,127.00       | 14,796,741.00  |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 7,517,816.00 | 9,196,620.00  | 0.82               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 2,245,231.26      | 9,850,427.39        | 12,095,658.65  |
| Years (Avg TPY)    | 4.95              | 21.72               | 26.67          |
| Years (FY TPY)     | 3.80              | 16.65               | 20.45          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Buncombe County Solid Waste Management Facility

**11-07**

85 Panther Branch Road

Alexander, NC 28701

phone: (828) 250-5467

http://www.buncombe.org

| County   |
|----------|
| Buncombe |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 9/29/1997 | 4/21/2010 | 12.6       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 115,082.82        | 1,694,192.00 | 134,903.78       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 4,598,914.00      | 4,986,501.00        | 9,585,415.00   |
| Used                   | 3,391,359.00      | 0.00                | 3,391,359.00   |
| Remaining              | 1,207,555.00      | 4,986,501.00        | 6,194,056.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 1,694,192.00 | 3,391,359.00  | 0.50               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 603,247.85        | 2,491,063.35        | 3,094,311.20   |
| Years (Avg TPY)    | 4.47              | 18.47               | 22.94          |
| Years (FY TPY)     | 5.24              | 21.65               | 26.89          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### BFI-Charlotte Mtr Speedway Landfill V

**13-04**

5105 Morehead Road

Concord, NC 28027

phone: (704) 262-6002

<http://www.republicservices.com>

| County   |
|----------|
| Cabarrus |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 3/6/1992 | 2/11/2010 | 17.9       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total         | Average per Year |
|-----------------|-------------------|---------------|------------------|
|                 | 1,076,806.29      | 25,087,394.00 | 1,398,743.80     |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 28,180,250.00     | 18,535,000.00       | 46,715,250.00  |
| Used                   | 25,598,330.00     | 0.00                | 25,598,330.00  |
| Remaining              | 2,581,920.00      | 18,535,000.00       | 21,116,920.00  |

| COMPACTION DENSITY (tons/cy) | Total Tons    | Airspace Used | Compaction Density |
|------------------------------|---------------|---------------|--------------------|
|                              | 25,087,394.00 | 25,598,330.00 | 0.98               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 2,530,385.55      | 18,165,046.23       | 20,695,431.78  |
| Years (Avg TPY)    | 1.81              | 12.99               | 14.80          |
| Years (FY TPY)     | 2.35              | 16.87               | 19.22          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Foothills Environmental Landfill

**14-03**

2800 Cheraw Road  
 Lenoir, NC 28645  
 phone: (828) 757-0965

| County   |
|----------|
| Caldwell |

| DATES | Opened    | Surveyed | Years Open |
|-------|-----------|----------|------------|
|       | 8/26/1998 | 3/6/2010 | 11.5       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 313,534.58        | 2,036,301.00 | 176,664.83       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 5,043,248.00      | 12,775,992.00       | 17,819,240.00  |
| Used                   | 4,377,114.00      | 0.00                | 4,377,114.00   |
| Remaining              | 666,134.00        | 12,775,992.00       | 13,442,126.00  |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 2,036,301.00 | 4,377,114.00  | 0.47               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 309,895.82        | 5,943,588.69        | 6,253,484.51   |
| Years (Avg TPY)    | 1.75              | 33.64               | 35.40          |
| Years (FY TPY)     | 0.99              | 18.96               | 19.95          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
 Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Catawba County Landfill

**18-03**

3993 Rocky Ford Road

Newton, NC 28658

phone: (704) 462-1348

<http://www.co.catawba.nc.us/depts/u&e/solwasmg.asp>

| County  |
|---------|
| Catawba |

| DATES | Opened     | Surveyed  | Years Open |
|-------|------------|-----------|------------|
|       | 12/30/1997 | 5/13/2010 | 12.4       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 122,938.29        | 1,982,753.77 | 160,327.83       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 6,265,000.00      | 38,390,000.00       | 44,655,000.00  |
| Used                   | 3,797,813.00      | 0.00                | 3,797,813.00   |
| Remaining              | 2,467,187.00      | 38,390,000.00       | 40,857,187.00  |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 1,982,753.77 | 3,797,813.00  | 0.52               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 1,288,063.51      | 20,042,565.87       | 21,330,629.38  |
| Years (Avg TPY)    | 8.03              | 125.01              | 133.04         |
| Years (FY TPY)     | 10.48             | 163.03              | 173.51         |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Cherokee County MSW Facility

**20-02**

10160 US 19/74  
Marble, NC 28905  
phone: (828) 837-2621

| County   |
|----------|
| Cherokee |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 1/9/1998 | 6/25/2010 | 12.5       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total      | Average per Year |
|-----------------|-------------------|------------|------------------|
|                 | 14,452.59         | 231,507.00 | 18,584.16        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 506,705.00        | 733,903.00          | 1,240,608.00   |
| Used                   | 412,498.00        | 0.00                | 412,498.00     |
| Remaining              | 94,207.00         | 733,903.00          | 828,110.00     |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 231,507.00 | 412,498.00    | 0.56               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 52,871.97         | 411,889.71          | 464,761.68     |
| Years (Avg TPY)    | 2.85              | 22.16               | 25.01          |
| Years (FY TPY)     | 3.66              | 28.50               | 32.16          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Cleveland County Landfill Self McNeilly

**23-01**

250 Fielding Road  
Cherryville, NC 28021  
phone: (704) 447-8204  
<http://clevelandcounty.com>

| County    |
|-----------|
| Cleveland |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 5/15/2009 | 2/10/2010 | 0.7        |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total     | Average per Year |
|-----------------|-------------------|-----------|------------------|
|                 | 62,227.84         | 62,227.84 | 83,869.81        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 1,017,484.00      | 8,452,525.00        | 9,470,009.00   |
| Used                   | 136,985.00        | 0.00                | 136,985.00     |
| Remaining              | 880,499.00        | 8,452,525.00        | 9,333,024.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 62,227.84  | 136,985.00    | 0.45               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 399,982.12        | 3,839,707.80        | 4,239,689.92   |
| Years (Avg TPY)    | 4.77              | 45.78               | 50.55          |
| Years (FY TPY)     | 6.43              | 61.70               | 68.13          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Cleveland County Landfill East MSWLF

**23-01**

1609 Airport Road  
Shelby, NC 28150  
phone: (704) 447-8204  
<http://clevelandcounty.com>

| County    |
|-----------|
| Cleveland |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 7/27/1998 | 6/16/2010 | 11.9       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total      | Average per Year |
|-----------------|-------------------|------------|------------------|
|                 | 16,262.25         | 918,875.53 | 77,296.01        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 1,904,745.00      | 0.00                | 1,904,745.00   |
| Used                   | 1,839,514.00      | 0.00                | 1,839,514.00   |
| Remaining              | 65,231.00         | 0.00                | 65,231.00      |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 918,875.53 | 1,839,514.00  | 0.50               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 32,584.24         | 0.00                | 32,584.24      |
| Years (Avg TPY)    | 0.42              | 0.00                | 0.42           |
| Years (FY TPY)     | 2.00              | 0.00                | 2.00           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### CRSWMA Long-term Regional Landfill

**25-09**

7400 Old US 70 West

New Bern, NC 28562

phone: (252) 633-1564

<http://www.coastalenvironmentalpartnership.com>

| County |
|--------|
| Craven |

| DATES | Opened    | Surveyed | Years Open |
|-------|-----------|----------|------------|
|       | 8/25/1999 | 7/1/2010 | 10.9       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 175,368.79        | 2,113,933.00 | 194,830.69       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 5,198,300.00      | 10,301,700.00       | 15,500,000.00  |
| Used                   | 3,154,636.00      | 0.00                | 3,154,636.00   |
| Remaining              | 2,043,664.00      | 10,301,700.00       | 12,345,364.00  |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 2,113,933.00 | 3,154,636.00  | 0.67               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 1,369,466.64      | 6,903,206.45        | 8,272,673.09   |
| Years (Avg TPY)    | 7.03              | 35.43               | 42.46          |
| Years (FY TPY)     | 7.81              | 39.36               | 47.17          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Cumberland County Landfill

**26-01**

698 Ann Street

Fayetteville, NC 28301

phone: (910) 321-6929

[http://co.cumberland.nc.us/solid\\_waste\\_mgmt/container\\_sites/ann\\_st\\_landfill.aspx](http://co.cumberland.nc.us/solid_waste_mgmt/container_sites/ann_st_landfill.aspx)

| County     |
|------------|
| Cumberland |

| DATES | Opened     | Surveyed | Years Open |
|-------|------------|----------|------------|
|       | 12/17/1997 | 7/2/2010 | 12.5       |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total        | Average per Year |
|--------------------|-------------------|--------------|------------------|
|                    | 140,176.40        | 1,889,703.00 | 150,701.75       |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 4,167,834.00      | 2,692,007.00        | 6,859,841.00   |
| Used                      | 2,926,601.00      | 0.00                | 2,926,601.00   |
| Remaining                 | 1,241,233.00      | 2,692,007.00        | 3,933,240.00   |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|---------------------------------|--------------|---------------|--------------------|
|                                 | 1,889,703.00 | 2,926,601.00  | 0.65               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 801,462.76        | 1,738,225.92        | 2,539,688.68   |
| Years (Avg TPY)    | 5.32              | 11.53               | 16.85          |
| Years (FY TPY)     | 5.72              | 12.40               | 18.12          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Davidson County MSW Lined Landfill / Phase II

**29-06**

1160 Old Hwy 29

Thomasville, NC 27360

phone: (336) 240-0303

[http://www.co.davidson.nc.us/government/Department\\_Portal.aspx?cd=10](http://www.co.davidson.nc.us/government/Department_Portal.aspx?cd=10)

| County   |
|----------|
| Davidson |

| DATES | Opened     | Surveyed  | Years Open |
|-------|------------|-----------|------------|
|       | 12/10/2008 | 5/27/2010 | 1.5        |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total      | Average per Year |
|-----------------|-------------------|------------|------------------|
|                 | 86,905.09         | 134,090.00 | 91,888.13        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 624,083.00        | 5,360,688.00        | 5,984,771.00   |
| Used                   | 240,240.00        | 0.00                | 240,240.00     |
| Remaining              | 383,843.00        | 5,360,688.00        | 5,744,531.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 134,090.00 | 240,240.00    | 0.56               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 214,242.04        | 2,992,068.99        | 3,206,311.03   |
| Years (Avg TPY)    | 2.33              | 32.56               | 34.89          |
| Years (FY TPY)     | 2.47              | 34.43               | 36.89          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Hanes Mill Road Landfill

**34-02**

325 West Hanes Mill Road

Winston-Salem, NC 27105

phone: (336) 747-7310

http://www.cityofws.org

| County  |
|---------|
| Forsyth |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 4/7/1997 | 1/1/2010 | 12.7       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 242,211.39        | 3,538,445.00 | 277,819.66       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 6,627,216.00      | 9,536,000.00        | 16,163,216.00  |
| Used                   | 5,661,716.00      | 0.00                | 5,661,716.00   |
| Remaining              | 965,500.00        | 9,536,000.00        | 10,501,500.00  |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 3,538,445.00 | 5,661,716.00  | 0.62               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 603,415.76        | 5,959,785.25        | 6,563,201.01   |
| Years (Avg TPY)    | 2.17              | 21.45               | 23.62          |
| Years (FY TPY)     | 2.49              | 24.61               | 27.10          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Gaston County Landfill

**36-06**

3155 Philadelphia Church Road

Dallas, NC 28034

phone: (704) 922-0267

<http://www.co.gaston.nc.us/solidwaste>

| County |
|--------|
| Gaston |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 7/1/1997 | 4/21/2010 | 12.8       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 136,011.76        | 1,268,864.52 | 99,091.89        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 2,541,872.00      | 7,553,000.00        | 10,094,872.00  |
| Used                   | 2,421,473.00      | 0.00                | 2,421,473.00   |
| Remaining              | 120,399.00        | 7,553,000.00        | 7,673,399.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 1,268,864.52 | 2,421,473.00  | 0.52               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 63,089.71         | 3,957,811.51        | 4,020,901.22   |
| Years (Avg TPY)    | 0.64              | 39.94               | 40.58          |
| Years (FY TPY)     | 0.46              | 29.10               | 29.56          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### City of High Point MSW Landfill

**41-04**

3748 East Kivett Drive  
 High Point, NC 27260  
 phone: (336) 883-3433  
<http://www.high-point.net>

| County   |
|----------|
| Guilford |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 10/1/1993 | 5/26/2010 | 16.6       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 89,970.08         | 1,876,577.00 | 112,714.97       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 3,114,769.00      | 0.00                | 3,114,769.00   |
| Used                   | 3,080,220.00      | 0.00                | 3,080,220.00   |
| Remaining              | 34,549.00         | 0.00                | 34,549.00      |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 1,876,577.00 | 3,080,220.00  | 0.61               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 21,048.45         | 0.00                | 21,048.45      |
| Years (Avg TPY)    | 0.19              | 0.00                | 0.19           |
| Years (FY TPY)     | 0.23              | 0.00                | 0.23           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
 Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### White Street Landfill

**41-12**

2503 White Street  
Greensboro, NC 27405  
phone: (336) 373-2787  
<http://www.greensboro-nc.gov>

| County   |
|----------|
| Guilford |

This facility's large capacity is due to reduced intake of waste.

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 12/9/1997 | 6/27/2010 | 12.5       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 8,239.95          | 2,366,148.17 | 188,574.21       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 5,140,000.00      | 0.00                | 5,140,000.00   |
| Used                   | 3,530,000.00      | 0.00                | 3,530,000.00   |
| Remaining              | 1,610,000.00      | 0.00                | 1,610,000.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 2,366,148.17 | 3,530,000.00  | 0.67               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 1,079,178.06      | 0.00                | 1,079,178.06   |
| Years (Avg TPY)    | 5.72              | 0.00                | 5.72           |
| Years (FY TPY)     | 130.97            | 0.00                | 130.97         |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Haywood County Solid Waste

**44-07**

3898 Fines Creek Road  
Waynesville, NC 28785  
phone: (828) 627-8042  
<http://haywoodnc.net>

| County  |
|---------|
| Haywood |

| DATES | Opened     | Surveyed | Years Open |
|-------|------------|----------|------------|
|       | 10/15/1993 | 6/9/2010 | 16.6       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total      | Average per Year |
|-----------------|-------------------|------------|------------------|
|                 | 46,328.69         | 768,727.00 | 46,172.92        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 1,549,000.00      | 4,117,000.00        | 5,666,000.00   |
| Used                   | 1,422,055.00      | 0.00                | 1,422,055.00   |
| Remaining              | 126,945.00        | 4,117,000.00        | 4,243,945.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 768,727.00 | 1,422,055.00  | 0.54               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 68,623.26         | 2,225,546.17        | 2,294,169.43   |
| Years (Avg TPY)    | 1.49              | 48.20               | 49.69          |
| Years (FY TPY)     | 1.48              | 48.04               | 49.52          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Iredell County Solid Waste

**49-03**

354 Twin Oaks Road  
Statesville, NC 28625  
phone: (704) 878-5430

| County  |
|---------|
| Iredell |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 10/8/1993 | 5/28/2010 | 16.6       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 152,636.14        | 2,277,670.07 | 136,918.86       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 5,167,570.00      | 1,493,810.00        | 6,661,380.00   |
| Used                   | 3,989,912.00      | 0.00                | 3,989,912.00   |
| Remaining              | 1,177,658.00      | 1,493,810.00        | 2,671,468.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 2,277,670.07 | 3,989,912.00  | 0.57               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 672,274.57        | 852,752.22          | 1,525,026.79   |
| Years (Avg TPY)    | 4.91              | 6.23                | 11.14          |
| Years (FY TPY)     | 4.40              | 5.59                | 9.99           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Johnston County MSW Landfill

**51-03**

680 County Home Road  
Smithfield, NC 27577  
phone: (919) 938-4750

| County   |
|----------|
| Johnston |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 1/9/2003 | 6/11/2010 | 7.4        |

| DISPOSAL<br>(tons) | Fiscal Year 09-10 | Total      | Average per Year |
|--------------------|-------------------|------------|------------------|
|                    | 99,372.22         | 796,974.00 | 107,415.04       |

| AIRSPACE<br>(cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|---------------------------|-------------------|---------------------|----------------|
| Permitted                 | 1,749,958.00      | 16,516,714.00       | 18,266,672.00  |
| Used                      | 1,528,471.00      | 0.00                | 1,528,471.00   |
| Remaining                 | 221,487.00        | 16,516,714.00       | 16,738,201.00  |

| COMPACTION<br>DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|---------------------------------|------------|---------------|--------------------|
|                                 | 796,974.00 | 1,528,471.00  | 0.52               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 115,487.56        | 8,612,130.44        | 8,727,617.99   |
| Years (Avg TPY)    | 1.08              | 80.18               | 81.25          |
| Years (FY TPY)     | 1.16              | 86.67               | 87.83          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Lenoir County Landfill

**54-09**

2949 Hodges Farm Road

LaGrange, NC 28551

phone: (252) 566-4194

| County |
|--------|
| Lenoir |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 7/1/2004 | 5/4/2010 | 5.8        |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total      | Average per Year |
|-----------------|-------------------|------------|------------------|
|                 | 22,950.89         | 584,637.12 | 100,111.91       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 635,000.00        | 2,365,000.00        | 3,000,000.00   |
| Used                   | 553,357.00        | 0.00                | 553,357.00     |
| Remaining              | 81,643.00         | 2,365,000.00        | 2,446,643.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 584,637.12 | 553,357.00    | 1.06               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 86,258.11         | 2,498,688.53        | 2,584,946.64   |
| Years (Avg TPY)    | 0.86              | 24.96               | 25.82          |
| Years (FY TPY)     | 3.76              | 108.87              | 112.63         |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Lincoln County Solid Waste

**55-03**

5291 Crouse Road  
Crouse, NC 28033  
phone: (704) 732-9030  
<http://www.lincolncounty.org>

| County  |
|---------|
| Lincoln |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 7/1/1993 | 7/4/2010 | 17.0       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total      | Average per Year |
|-----------------|-------------------|------------|------------------|
|                 | 48,496.00         | 702,821.00 | 41,324.11        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 2,176,100.00      | 2,261,600.00        | 4,437,700.00   |
| Used                   | 1,517,916.00      | 0.00                | 1,517,916.00   |
| Remaining              | 658,184.00        | 2,261,600.00        | 2,919,784.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 702,821.00 | 1,517,916.00  | 0.46               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 304,750.42        | 1,047,159.38        | 1,351,909.80   |
| Years (Avg TPY)    | 7.37              | 25.34               | 32.71          |
| Years (FY TPY)     | 6.28              | 21.59               | 27.88          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Macon County Landfill

**57-03**

1448 Lakeside Drive  
Franklin, NC 28734  
phone: (828) 349-2100

| County |
|--------|
| Macon  |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 5/1/1992 | 6/21/2010 | 18.1       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total      | Average per Year |
|-----------------|-------------------|------------|------------------|
|                 | 31,454.18         | 506,239.71 | 27,910.05        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 1,210,525.00      | 1,405,600.00        | 2,616,125.00   |
| Used                   | 892,132.00        | 0.00                | 892,132.00     |
| Remaining              | 318,393.00        | 1,405,600.00        | 1,723,993.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 506,239.71 | 892,132.00    | 0.57               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 180,671.90        | 797,606.79          | 978,278.68     |
| Years (Avg TPY)    | 6.47              | 28.58               | 35.05          |
| Years (FY TPY)     | 5.74              | 25.36               | 31.10          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Mecklenburg County Landfill

**60-19**

17131 Lancaster Highway

Charlotte, NC 28277

phone: (704) 336-6513

http://wipeoutwaste.com

| County      |
|-------------|
| Mecklenburg |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 4/1/2000 | 3/6/2010 | 9.9        |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 56,384.00         | 1,151,175.00 | 115,958.82       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 2,866,238.00      | 17,858,312.00       | 20,724,550.00  |
| Used                   | 2,030,935.00      | 0.00                | 2,030,935.00   |
| Remaining              | 835,303.00        | 17,858,312.00       | 18,693,615.00  |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 1,151,175.00 | 2,030,935.00  | 0.57               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 473,466.62        | 10,122,452.13       | 10,595,918.75  |
| Years (Avg TPY)    | 4.08              | 87.29               | 91.38          |
| Years (FY TPY)     | 8.40              | 179.53              | 187.92         |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Uwharrie Environmental

**62-04**

500 Landfill Road  
Mount Gilead, NC 27306  
phone: (910) 576-3697

| County     |
|------------|
| Montgomery |

| DATES | Opened     | Surveyed | Years Open |
|-------|------------|----------|------------|
|       | 12/11/1995 | 3/5/2010 | 14.2       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 716,241.82        | 8,516,854.00 | 598,457.28       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 15,943,711.00     | 17,842,004.00       | 33,785,715.00  |
| Used                   | 11,920,556.00     | 0.00                | 11,920,556.00  |
| Remaining              | 4,023,155.00      | 17,842,004.00       | 21,865,159.00  |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 8,516,854.00 | 11,920,556.00 | 0.71               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 2,874,414.90      | 12,747,538.21       | 15,621,953.11  |
| Years (Avg TPY)    | 4.80              | 21.30               | 26.10          |
| Years (FY TPY)     | 4.01              | 17.80               | 21.81          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### New Hanover County Landfill

**65-04**

5210 US Highway 421 North

Wilmington, NC 28401

phone: (910) 798-4403

http://www.nhcgov.com

| County      |
|-------------|
| New Hanover |

| DATES | Opened    | Surveyed | Years Open |
|-------|-----------|----------|------------|
|       | 8/24/1981 | 5/1/2010 | 28.7       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 154,613.91        | 4,367,400.00 | 152,256.64       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 7,843,310.00      | 1,060,790.00        | 8,904,100.00   |
| Used                   | 5,976,854.00      | 0.00                | 5,976,854.00   |
| Remaining              | 1,866,456.00      | 1,060,790.00        | 2,927,246.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 4,367,400.00 | 5,976,854.00  | 0.73               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 1,363,854.62      | 775,139.27          | 2,138,993.89   |
| Years (Avg TPY)    | 8.96              | 5.09                | 14.05          |
| Years (FY TPY)     | 8.82              | 5.01                | 13.83          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Camp Lejeune MSW Landfill

**67-08**

Building 982 Piney Green Road

Camp Lejeune, NC 28542

phone: (910) 451-5003

| County |
|--------|
| Onslow |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 1/1/1998 | 6/11/2010 | 12.4       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total      | Average per Year |
|-----------------|-------------------|------------|------------------|
|                 | 48,271.91         | 568,967.00 | 45,733.98        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 1,996,665.00      | 2,092,335.00        | 4,089,000.00   |
| Used                   | 1,356,682.00      | 0.00                | 1,356,682.00   |
| Remaining              | 639,983.00        | 2,092,335.00        | 2,732,318.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 568,967.00 | 1,356,682.00  | 0.42               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 268,396.87        | 877,486.08          | 1,145,882.95   |
| Years (Avg TPY)    | 5.87              | 19.19               | 25.06          |
| Years (FY TPY)     | 5.56              | 18.18               | 23.74          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Onslow County Subtitle D

**67-09**

415 Meadowview Road

Jacksonville, NC 28540

phone: (910) 989-2107

<http://www.onslowcountync.gov/landfill>

| County |
|--------|
| Onslow |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 1/1/1998 | 6/23/2010 | 12.5       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 124,026.71        | 1,498,107.00 | 120,101.75       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 3,779,568.00      | 1,438,477.00        | 5,218,045.00   |
| Used                   | 2,393,723.00      | 0.00                | 2,393,723.00   |
| Remaining              | 1,385,845.00      | 1,438,477.00        | 2,824,322.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 1,498,107.00 | 2,393,723.00  | 0.63               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 867,328.47        | 900,268.10          | 1,767,596.57   |
| Years (Avg TPY)    | 7.22              | 7.50                | 14.72          |
| Years (FY TPY)     | 6.99              | 7.26                | 14.25          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Orange County Landfill

**68-01**

1515 Eubanks Road  
Chapel Hill Road, NC 27516  
phone: (919) 968-2788  
<http://www.co.orange.nc.us>

| County |
|--------|
| Orange |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 7/1/1995 | 3/19/2010 | 14.7       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total      | Average per Year |
|-----------------|-------------------|------------|------------------|
|                 | 47,166.58         | 833,850.00 | 56,663.02        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 1,604,000.00      | 0.00                | 1,604,000.00   |
| Used                   | 1,350,000.00      | 0.00                | 1,350,000.00   |
| Remaining              | 254,000.00        | 0.00                | 254,000.00     |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 833,850.00 | 1,350,000.00  | 0.62               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 156,887.33        | 0.00                | 156,887.33     |
| Years (Avg TPY)    | 2.77              | 0.00                | 2.77           |
| Years (FY TPY)     | 3.33              | 0.00                | 3.33           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Upper Piedmont Regional Landfill

**73-04**

9650 Oxford Road  
 Rougemont, NC 27572  
 phone: (336) 364-3699

| County |
|--------|
| Person |

| DATES | Opened    | Surveyed | Years Open |
|-------|-----------|----------|------------|
|       | 7/30/1997 | 3/6/2010 | 12.6       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 256,643.35        | 2,809,907.33 | 223,015.79       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 5,305,544.00      | 2,577,115.00        | 7,882,659.00   |
| Used                   | 4,155,282.00      | 0.00                | 4,155,282.00   |
| Remaining              | 1,150,262.00      | 2,577,115.00        | 3,727,377.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 2,809,907.33 | 4,155,282.00  | 0.68               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 777,836.41        | 1,742,710.68        | 2,520,547.09   |
| Years (Avg TPY)    | 3.49              | 7.81                | 11.30          |
| Years (FY TPY)     | 3.03              | 6.79                | 9.82           |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
 Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Robeson County MSW Landfill

**78-03**

246 Landfill Road  
Saint Pauls, NC 28384  
phone: (910) 865-3348

| County  |
|---------|
| Robeson |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 1/1/1998 | 7/2/2010 | 12.5       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 84,775.00         | 1,146,274.00 | 91,714.48        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 2,642,164.00      | 3,482,134.00        | 6,124,298.00   |
| Used                   | 1,987,328.00      | 0.00                | 1,987,328.00   |
| Remaining              | 654,836.00        | 3,482,134.00        | 4,136,970.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 1,146,274.00 | 1,987,328.00  | 0.58               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 377,703.87        | 2,008,465.47        | 2,386,169.34   |
| Years (Avg TPY)    | 4.12              | 21.90               | 26.02          |
| Years (FY TPY)     | 4.46              | 23.69               | 28.15          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Rockingham County Landfill

**79-04**

281 Shuff Road  
Madison, NC 27025  
phone: (336) 342-8276  
<http://co.rockingham.nc.us>

| County     |
|------------|
| Rockingham |

| DATES | Opened   | Surveyed  | Years Open |
|-------|----------|-----------|------------|
|       | 5/5/1995 | 1/13/2010 | 14.7       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 83,330.66         | 1,145,691.00 | 77,969.75        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 3,142,755.00      | 4,920,410.00        | 8,063,165.00   |
| Used                   | 2,196,754.00      | 0.00                | 2,196,754.00   |
| Remaining              | 946,001.00        | 4,920,410.00        | 5,866,411.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 1,145,691.00 | 2,196,754.00  | 0.52               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 493,375.60        | 2,566,181.49        | 3,059,557.09   |
| Years (Avg TPY)    | 6.33              | 32.91               | 39.24          |
| Years (FY TPY)     | 5.92              | 30.80               | 36.72          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Rowan County

789 Campbell Road  
Woodleaf, NC 27054  
phone: (704) 798-6025

**80-03**

| County |
|--------|
| Rowan  |

| DATES | Opened    | Surveyed | Years Open |
|-------|-----------|----------|------------|
|       | 12/1/1989 | 6/7/2010 | 20.5       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 133,523.16        | 1,668,521.00 | 81,332.88        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 3,451,834.00      | 15,071,000.00       | 18,522,834.00  |
| Used                   | 3,003,661.00      | 0.00                | 3,003,661.00   |
| Remaining              | 448,173.00        | 15,071,000.00       | 15,519,173.00  |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 1,668,521.00 | 3,003,661.00  | 0.56               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 248,958.21        | 8,371,876.85        | 8,620,835.06   |
| Years (Avg TPY)    | 3.06              | 102.93              | 105.99         |
| Years (FY TPY)     | 1.86              | 62.70               | 64.56          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### WI - Sampson County MSW Unit

**82-02**

7434 Roseboro Highway

Roseboro, NC 28382

phone: (910) 990-0141

| County  |
|---------|
| Sampson |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 2/22/1999 | 2/11/2010 | 11.0       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 1,070,440.67      | 8,758,332.00 | 798,348.08       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 16,800,936.00     | 39,799,064.00       | 56,600,000.00  |
| Used                   | 10,717,341.00     | 0.00                | 10,717,341.00  |
| Remaining              | 6,083,595.00      | 39,799,064.00       | 45,882,659.00  |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 8,758,332.00 | 10,717,341.00 | 0.82               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 4,971,582.48      | 32,524,244.19       | 37,495,826.68  |
| Years (Avg TPY)    | 6.23              | 40.74               | 46.97          |
| Years (FY TPY)     | 4.64              | 30.38               | 35.03          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### City of Albemarle Landfill

**84-01**

40592 B Stony Gap Road

Albemarle, NC 28001

phone: (704) 984-9667

| County |
|--------|
| Stanly |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 5/20/1999 | 5/11/2010 | 11.0       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total      | Average per Year |
|-----------------|-------------------|------------|------------------|
|                 | 52,339.30         | 491,730.00 | 44,800.29        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 1,449,190.00      | 3,489,077.00        | 4,938,267.00   |
| Used                   | 818,379.00        | 0.00                | 818,379.00     |
| Remaining              | 630,811.00        | 3,489,077.00        | 4,119,888.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 491,730.00 | 818,379.00    | 0.60               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 379,028.17        | 2,096,441.66        | 2,475,469.83   |
| Years (Avg TPY)    | 8.46              | 46.80               | 55.26          |
| Years (FY TPY)     | 7.24              | 40.05               | 47.30          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Surry County Municipal Solid Waste Landfill

**86-06**

237 Landfill Road  
Mount Airy, NC 27030  
phone: (336) 401-8375

| County |
|--------|
| Surry  |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 12/1/1998 | 6/19/2010 | 11.5       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total      | Average per Year |
|-----------------|-------------------|------------|------------------|
|                 | 72,383.56         | 785,359.00 | 68,006.73        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 2,135,568.00      | 3,257,183.00        | 5,392,751.00   |
| Used                   | 1,416,190.00      | 0.00                | 1,416,190.00   |
| Remaining              | 719,378.00        | 3,257,183.00        | 3,976,561.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 785,359.00 | 1,416,190.00  | 0.55               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 398,936.57        | 1,806,295.75        | 2,205,232.33   |
| Years (Avg TPY)    | 5.87              | 26.56               | 32.43          |
| Years (FY TPY)     | 5.51              | 24.95               | 30.47          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)  
 Unconstructed Airspace = (Facility Total) - (Constructed)  
 Remaining Airspace  
     Constructed = (Constructed) - (Used)  
     Unconstructed = (Unconstructed) - (Used)  
     Facility Total = (Facility Total) - (Used)  
 Compaction Density = (Total Tons Received) / (Total Airspace Used)  
 Remaining Capacity  
     Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)  
     Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)  
     Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)  
     Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)  
     Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)  
     Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)  
     Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)  
     Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)  
     Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Transylvania County Landfill

**88-07**

500 Howell Road  
Brevard, NC 28712

phone: (828) 884-6830

<http://www.transylvaniacounty.org>

| County       |
|--------------|
| Transylvania |

| DATES | Opened    | Surveyed | Years Open |
|-------|-----------|----------|------------|
|       | 6/13/1990 | 4/9/2010 | 19.8       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total      | Average per Year |
|-----------------|-------------------|------------|------------------|
|                 | 22,328.00         | 361,915.00 | 18,258.21        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 878,782.00        | 508,308.00          | 1,387,090.00   |
| Used                   | 643,480.00        | 0.00                | 643,480.00     |
| Remaining              | 235,302.00        | 508,308.00          | 743,610.00     |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 361,915.00 | 643,480.00    | 0.56               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 132,341.83        | 285,889.68          | 418,231.51     |
| Years (Avg TPY)    | 7.25              | 15.66               | 22.91          |
| Years (FY TPY)     | 5.93              | 12.80               | 18.73          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Wake County South Wake MSWLF

**92-22**

6300 Old Smithfield Road

Apex, NC 27502

phone: (919) 856-7444

| County |
|--------|
| Wake   |

| DATES | Opened   | Surveyed | Years Open |
|-------|----------|----------|------------|
|       | 2/7/2008 | 7/4/2010 | 2.4        |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 439,069.00        | 1,001,555.00 | 416,649.16       |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 4,823,781.00      | 26,056,640.00       | 30,880,421.00  |
| Used                   | 1,814,516.00      | 0.00                | 1,814,516.00   |
| Remaining              | 3,009,265.00      | 26,056,640.00       | 29,065,905.00  |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 1,001,555.00 | 1,814,516.00  | 0.55               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 1,661,018.37      | 14,382,434.81       | 16,043,453.18  |
| Years (Avg TPY)    | 3.99              | 34.52               | 38.51          |
| Years (FY TPY)     | 3.78              | 32.76               | 36.54          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Wayne County Landfill

**96-06**

460 B South Landfill Road

Dudley, NC 28333

phone: (919) 689-2994

<http://www.waynegov.com/165810316164725693/site/default.asp>

| County |
|--------|
| Wayne  |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 1/26/1998 | 5/10/2010 | 12.3       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total        | Average per Year |
|-----------------|-------------------|--------------|------------------|
|                 | 62,296.31         | 1,018,846.40 | 82,935.96        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 352,153.00        | 3,313,091.00        | 3,665,244.00   |
| Used                   | 1,626,907.00      | 0.00                | 1,626,907.00   |
| Remaining              | -1,274,754.00     | 3,313,091.00        | 2,038,337.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons   | Airspace Used | Compaction Density |
|------------------------------|--------------|---------------|--------------------|
|                              | 1,018,846.40 | 1,626,907.00  | 0.63               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | -798,311.47       | 2,074,814.87        | 1,276,503.40   |
| Years (Avg TPY)    | -9.63             | 25.02               | 15.39          |
| Years (FY TPY)     | -12.81            | 33.31               | 20.49          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.  
Analysis by Solid Waste Section.

Printed:2/8/2011



# DIVISION OF WASTE MANAGEMENT

## Municipal Solid Waste Landfill Capacity

### Fiscal Year 2009-2010

#### Wilkes County Landfill

**97-04**

9219 Elkin Highway

Roaring River, NC 28669

phone: (336) 696-5806

http://wilkescounty.net

| County |
|--------|
| Wilkes |

| DATES | Opened    | Surveyed  | Years Open |
|-------|-----------|-----------|------------|
|       | 10/7/1993 | 3/19/2010 | 16.4       |

| DISPOSAL (tons) | Fiscal Year 09-10 | Total      | Average per Year |
|-----------------|-------------------|------------|------------------|
|                 | 49,571.30         | 835,217.37 | 50,784.61        |

| AIRSPACE (cubic yards) | Constructed Cells | Unconstructed Cells | Facility Total |
|------------------------|-------------------|---------------------|----------------|
| Permitted              | 2,342,380.00      | 2,110,100.00        | 4,452,480.00   |
| Used                   | 1,825,596.00      | 0.00                | 1,825,596.00   |
| Remaining              | 516,784.00        | 2,110,100.00        | 2,626,884.00   |

| COMPACTION DENSITY (tons/cy) | Total Tons | Airspace Used | Compaction Density |
|------------------------------|------------|---------------|--------------------|
|                              | 835,217.37 | 1,825,596.00  | 0.46               |

| REMAINING CAPACITY | Constructed Cells | Unconstructed Cells | Facility Total |
|--------------------|-------------------|---------------------|----------------|
| Tons of Waste      | 236,430.72        | 965,379.07          | 1,201,809.79   |
| Years (Avg TPY)    | 4.66              | 19.01               | 23.66          |
| Years (FY TPY)     | 4.77              | 19.47               | 24.24          |

#### Calculated Values:

Average Tons = (Total Tons Received) / (Years Open)

Unconstructed Airspace = (Facility Total) - (Constructed)

Remaining Airspace

Constructed = (Constructed) - (Used)

Unconstructed = (Unconstructed) - (Used)

Facility Total = (Facility Total) - (Used)

Compaction Density = (Total Tons Received) / (Total Airspace Used)

Remaining Capacity

Tons of Waste (Constructed) = (Remaining Constructed Airspace) x (Compaction Density)

Tons of Waste (Unconstructed) = (Remaining Unconstructed Airspace) x (Compaction Density)

Tons of Waste (Facility Total) = (Remaining Facility Total Airspace) x (Compaction Density)

Years Avg TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Average Tons)

Years Avg TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Average Tons)

Years Avg TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Average Tons)

Years FY TPY (Constructed) = (Remaining Capacity-Tons of Waste (Constructed)) / (Fiscal Year Tons)

Years FY TPY (Unconstructed) = (Remaining Capacity-Tons of Waste (Unconstructed)) / (Fiscal Year Tons)

Years FY TPY (Facility Total) = (Remaining Capacity-Tons of Waste (Facility Total)) / (Fiscal Year Tons)

#### Note:

These figures are based on current tonnage and compaction density and do not account for future growth or changes in operations.

Data provided by Facility.

Analysis by Solid Waste Section.

Printed:2/8/2011

N.C. Solid Waste and Materials Management Annual Report  
Fiscal Year 2009-2010

# Appendix E

Household Hazardous Waste



## DIVISION OF WASTE MANAGEMENT

### Appendix E – FY 2009-10 Household Hazardous Waste

#### Permanent Collection Sites

| Permit        | Name                                    | County      | Tons of Waste   |
|---------------|---|-------------|-----------------|
| 0502TP-HHW-   | ASHE COUNTY HHW FACILITY                | Ashe        | 14.75           |
| 1107-HHW-     | BUNCOMBE COUNTY HHW                     | Buncombe    | 200.54          |
| 1308-HHW-     | CABARRUS COUNTY HHW COLLECTION FACILITY | Cabarrus    | 92.27           |
| 1904TP-HHW-   | CHATHAM CO HHW COLLECTION FACILITY      | Chatham     | 28.09           |
| 26FH-HHW-     | CUMBERLAND CO HHW                       | Cumberland  | 22.90           |
| 2906-HHW-     | DAVIDSON COUNTY HHW                     | Davidson    | 30.15           |
| 3210-HHW-     | DURHAM CITY OF HHW FACILITY             | Durham      | 220.80          |
| 3415-HHW-2010 | RESOURCE RECOVERY AND REDUCTION, CO.    | Forsyth     | 523.04          |
| 3609TP-HHW-   | GASTON COUNTY HHW COLLECTION FACILITY   | Gaston      | 99.47           |
|               | GREENSBORO HHW                          | Guilford    | 698.50          |
| 5803-HHW-     | MADISON COUNTY SOLID WASTE HHW          | Madison     | 0.85            |
| 6016TP-HHW-   | NORTH MECKLENBURG HHW FACILITY          | Mecklenburg | 119.32          |
| 6017TP-HHW-   | HICKORY GROVE HHW FACILITY              | Mecklenburg | 123.72          |
| 6019-HHW-     | MECKLENBURG COUNTY LANDFILL             | Mecklenburg | 153.20          |
| 6023-HHW-     | MECKLENBURG CO. HHW COLLECTION FACILITY | Mecklenburg | 75.57           |
| 6803TP-HHW-   | ORANGE CO HHW COLLECTION FACILITY       | Orange      | 116.07          |
| 7905TP-HHW-   | EDEN, CITY OF, HHW COLLECTION FACILITY  | Rockingham  | 0.71            |
| 9203-HHW-2009 | SOUTH WAKE CO FELTONSVILLE HHW FACILITY | Wake        | 222.86          |
| 9218-HHW-2009 | NORTH WAKE CO HHW COLLECTION FACILITY   | Wake        | 386.21          |
| <b>TOTAL</b>  |   |             | <b>3,129.02</b> |

## Appendix E – FY 2009-10 Household Hazardous Waste

### Temporary Events

| Event Host  | County      | Date of Event      |
|---|-------------|--------------------|
| Pembroke Hardware                                 | Robeson     | July 6, 2009       |
| Wake County Solid Waste                           | Wake        | August 22, 2009    |
| Avery County                                      | Avery       | August 29, 2009    |
| Brunswick County Solid Waste Disposal             | Brunswick   | September 19, 2009 |
| Coastal Regional Solid Waste Management Authority | Carteret    | September 26, 2009 |
| Iredell county Solid Waste Facility               | Iredell     | September 26, 2009 |
| Watauga County HHW Collection                     | Watauga     | October 3, 2009    |
| Alamance County                                   | Alamance    | October 17, 2009   |
| Montgomery County                                 | Montgomery  | October 17, 2009   |
| Lee County  | Lee         | October 17, 2009   |
| Coastal Regional Solid Waste Authority            | Pamlico     | October 17, 2009   |
| Coastal Regional Solid Waste Authority            | Craven      | October 17, 2009   |
| Surry County                                      | Surry       | October 24, 2009   |
| Catawba County                                    | Catawba     | November 7, 2009   |
| City of Reidsville Public Works                   | Rockingham  | November 14, 2009  |
| Moore County                                      | Moore       | November 21, 2009  |
| Currituck County Outerbanks                       | Currituck   | December 5, 2009   |
| Currituck County Mainland                         | Currituck   | December 5, 2009   |
| Haywood County Solid Waste                        | Haywood     | March 13, 2010     |
| Stanly County Solid Waste Division                | Stanly      | April 10, 2010     |
| City of Greensboro                                | Guilford    | April 16, 2010     |
| Alamance County                                   | Alamance    | April 17, 2010     |
| Union County Solid Waste Department               | Union       | April 17, 2010     |
| Town of Hope Mills                                | Cumberland  | April 17, 2010     |
| Brunswick County Solid Waste                      | Brunswick   | April 17, 2010     |
| Cree, Inc   | Durham      | April 22, 2010     |
| New Hanover County                                | New Hanover | April 24, 2010     |
| Iredell County Solid Waste Facility               | Iredell     | April 24, 2010     |
| Catawba County                                    | Catawba     | May 1, 2010        |
| Town of Spring Lake                               | Cumberland  | May 1, 2010        |
| Nucor Steel                                       | Hertford    | May 8, 2010        |
| Cleveland County                                  | Cleveland   | May 15, 2010       |
| Watauga County                                    | Watauga     | May 22, 2010       |
| Wake County Solid Waste                           | Wake        | May 22, 2010       |
| Wayne County Landfill                             | Wayne       | May 29, 2010       |
| Avery County                                      | Avery       | August 28, 2010    |
| Brunswick County                                  | Brunswick   | September 18, 2010 |
| Carteret County                                   | Carteret    | September 25, 2010 |
| Iredell County Solid Waste Facility               | Iredell     | September 25, 2010 |
| Montgomery County                                 | Montgomery  | October 2, 2010    |
| Consolidated Diesel                               | Nash        | October 2, 2010    |
| Watauga County                                    | Watauga     | October 2, 2010    |
| Alamance County                                   | Alamance    | October 16, 2010   |
| Lee County Public Works                           | Lee         | October 16, 2010   |
| Surry County                                      | Surry       | October 23, 2010   |
| Catawba County                                    | Catawba     | November 6, 2010   |
| Wake County Solid Waste Department                | Wake        | November 13, 2010  |
| Moore County                                      | Moore       | November 13, 2010  |