

Lincoln County Solid Waste Management Plan *3 Year Update*



Plan Effective
July 1, 2012 – June 30, 2022

For
*Lincoln County
City of Lincolnton*

Revised June 28, 2012

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Section 1 – Introduction & Local Contacts

Introduction

In 2009, in conjunction with the City of Lincolnton, Lincoln County developed a solid waste management plan which outlined its existing and proposed solid waste management practices for the next ten years. The State requires an update of the plan every three years. The plan has been updated in 2000, 2003, 2006, and 2009. This document is the update for 2012.

The State of North Carolina enacted legislation in 1989 which mandated the exclusion of certain materials (white goods, yard waste, lead-acid batteries, used oil, etc.) from landfills, drastically changing the approach local governments took towards solid waste management. This legislation also required that scales be installed at each landfill to provide for an accounting of the amount of material disposed. Prior to the enactment of this legislation, very few landfills had accurate records for waste disposal. This legislation also required that local governments reduce their solid waste streams by 40% no later than 2001. This Plan was prepared in accordance with NC General Statute 130A-309.09A (b) for the purpose of meeting local solid waste needs and protecting public health and the environment.

The Lincoln County planning area covers the entire County and includes the City of Lincolnton, the only incorporated municipality in the County (see map below). Lincoln County's long range vision is for a comprehensive waste management program. This program will provide disposal capacity and waste reduction programs to all facets of the community. The vision includes the elimination of improper disposal of waste and expanded waste reduction opportunities that are convenient for residents. The vision is for a community that understands the environmental benefits of waste reduction and proper waste disposal. The community foresees some financial expenditures but intends to keep them at a reasonable level.

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LINCOLN COUNTY LANDFILL, DISASTER DEBRIS and CONVENIENCE SITES MAP

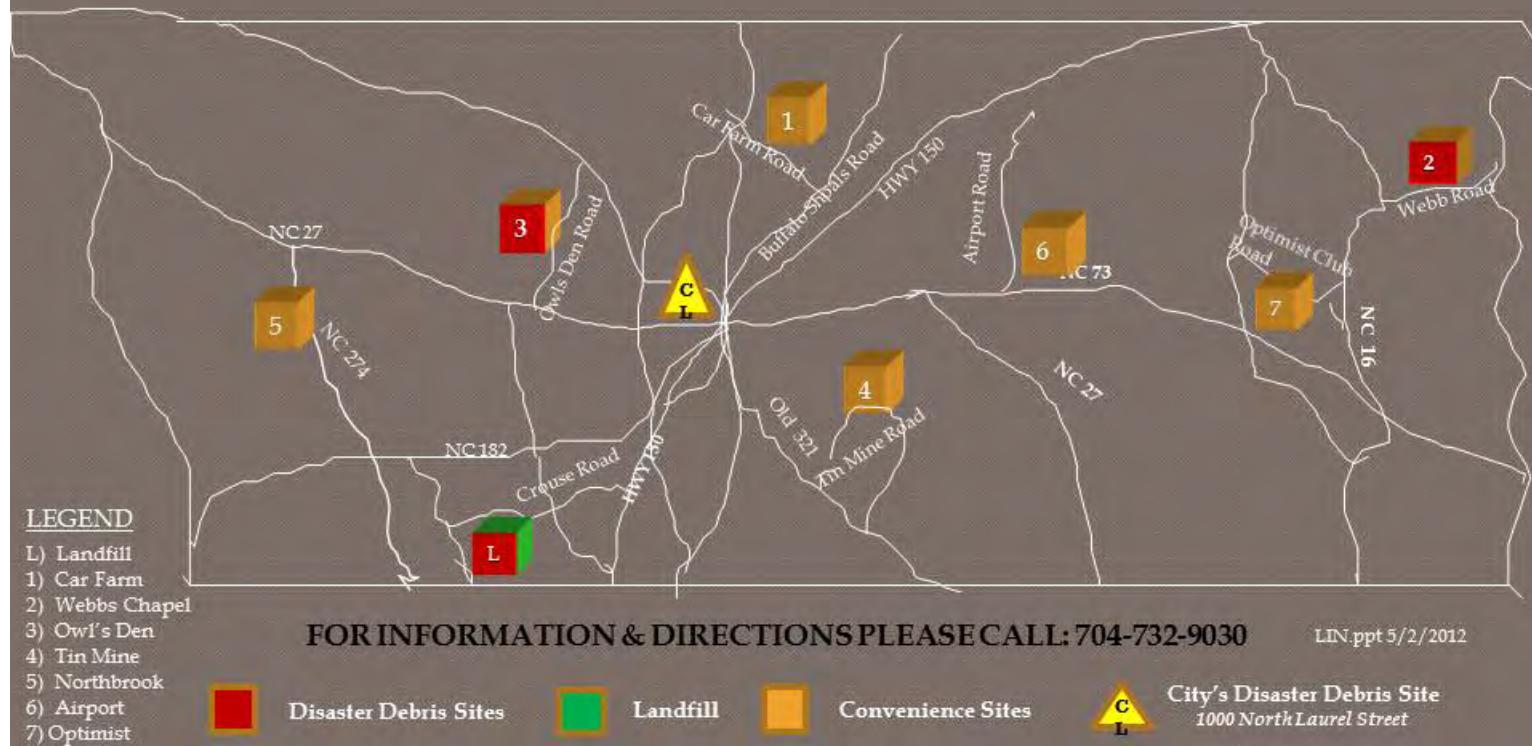
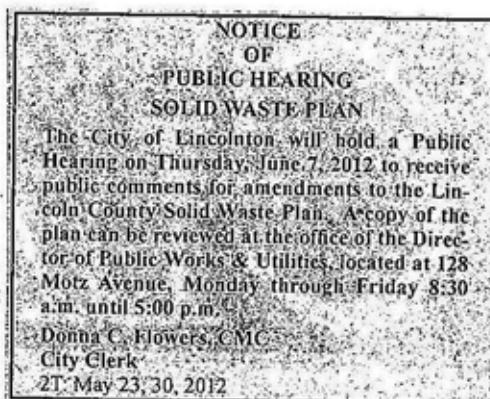


Figure 1: Map of Lincoln County solid waste facilities, convenience sites, and emergency debris staging sites

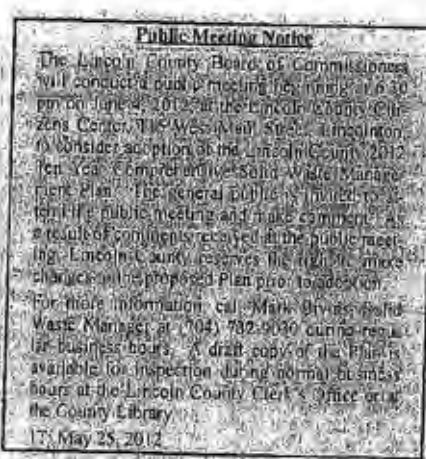
Section 2 – Public Participation

Public works staff from Lincoln County and the City of Lincolnton met together several times to update the County solid waste management plan. Staff from Centralina Council of Governments helped facilitate meetings and draft the plan document using the data, program information, and policy decisions of County and City staff. A draft of the plan was placed in the Lincoln County Clerk's office and the County Library. At a public hearing held on June 4, 2012 in the County Administration Building, public comment was received and County Commissioners adopted a resolution to approve the plan update. The City of Lincolnton also held a public hearing on June 7, 2012 and following the public hearing, the City Council adopted a resolution to approve the plan update (see Section 9 for signed resolutions). The meetings and hearings were announced in *The Lincoln Times-News* (see below). The public was invited to read the final version of the plan, placed in the Lincoln County Clerk's office and the County Library.

Notices for Public Hearings



City of Lincolnton Notice of Public Hearing, published in the Lincoln Times-News on May 23, 2012



Lincoln County Public Meeting Notice, published in the Lincoln Times-News on May 25, 2012

Section 3 – Waste Characterization

Geographic Area

This solid waste management plan covers Lincoln County and the City of Lincolnton (the only incorporated municipality in the county) and is shown in Figure 1 in Section 1 above. The majority of Lincoln County's residents live in unincorporated areas (see Table 1 below). Both the County and City of Lincolnton's population growth is leveling off; however, the eastern part of the County adjacent to Lake Norman is still experiencing steady levels of development. The City of Lincolnton's population change can also likely be further explained by adjustments made through the decennial census update process. The County west of Lincolnton is predominantly farmland.

Table 1. Population, July 2010 and 2007

MUNICIPALITY & COUNTY	POPULATION 2010	POPULATION 2007
City of Lincolnton	10,540	11,061
Lincoln County -- unincorporated areas	68,144	61,715
TOTAL	78,684	72,776

Source: NC Office of State Management and Budget

The City of Lincolnton provides solid waste management services to its residents (collection and hauling) using City owned and operated vehicles through the Public Works and Utilities department. All residential waste collected by the City is disposed at the County landfill. Additionally, the City collects approximately 75% of the commercial waste generated in the City and private haulers pick up the rest. Recycling for the City is contracted through GDS.

Lincoln County also provides solid waste management services to its residents and is responsible for operating the sanitary landfill and construction and demolition (C&D) landfill, a composting facility, collection of batteries, oil filters, electronics, tires, white goods, as well as a general recycling program. The County manages eight (8) convenience sites, one at the landfill facility and seven located throughout Lincoln County (see Figure 1 in Section 1 above). Residents take their trash to the convenience sites. Businesses contract with private waste haulers that collect and dispose their trash either at the County landfill or at facilities outside of the county.

Waste Stream Evaluation

An estimate of the Lincoln County and the City of Lincolnton waste stream by sector in FY 2010-2011 is shown in the Waste Characterization table (Table 2) below. These calculations are based on tonnages provided and estimates made by County and City staff, reports from GDS, and the North Carolina Division of Waste Management. In this plan, "residential waste" refers to waste generated by households (individual and multi-family dwellings). The term "non-residential" refers to waste generated from commercial, industrial, and institutional activities. Waste generated from construction, development, and other related activities are separated from non-residential waste in this plan because it is disposed of separately in a C&D waste landfill.

Table 2: FY 2010-2011 Waste Stream Characterization

	City of Lincolnton	Lincoln County	Total
Non-Residential			
Commercial	1,084.68		
Industrial			
Institutional			
Residential (including brown goods) ²	3,971.76		
All Lined Landfill Material (in Tons)¹	5,056.44	41,634.56	46,691.00
Construction & Demolition (C&D)	577.09	15,554.39	16,131.48
Land Clearing and Inert Debris (LCID) ³			
Yard Waste ⁴	1,247.78	5,215.22	6,463.00
White Goods		801.00	801.00
Tires		1,209.00	1,209.00
Oil		93.00	93.00
Oil filters		385.00	385.00
Batteries		8.00	8.00
Electronics		114.00	114.00
All Remaining Landfill or Specially Stored Material (in Tons)	1,824.87	23,379.61	25,204.48
Plastic	33.15	204.00	237.15
Corrugated Cardboard		857.00	857.00
Mixed Cans	15.33	91.00	106.33
Mixed Glass	45.97	288.00	333.97
Newspaper			
Mixed Paper & Magazines		653.00	653.00
Newspaper and Magazines (City) ⁵	111.90		111.90
Organic Debris ⁴	746.00		746.00
Recyclables	952.35	2,093.00	3,045.35
Waste Disposed out of Lincoln County⁶			9603.15
Waste Managed by Lincoln County and/or City of Lincolnton	7,833.66	67,107.48	74,941.14
Waste Reduced by Recycling and Reuse efforts⁷	2,200.13	9,918.22	12,118.35
Total Materials deposited in Lincoln County Lined and C&D Landfills	5,633.53	57,189.26	62,822.79

Notes for 2012 Update:

1. County-originated lined landfill material, C&D, and Yard Waste stream flows are derived by taking total from County and subtracting out City's share
2. City Brown Goods (746.53 tons) added into City Residential
3. LCID is handled and included in the County Yard Waste program

4. Storm events between July 1, 2010 - June 30, 2011 account for higher than normal volumes. City leaves (746 tons) are now taken to organic farmer and are shown as Organic Debris
5. City's office paper is being shredded and spread at community gardens
6. Waste disposed and materials recycled out of Lincoln County (this waste is likely commercial or privately managed though no records are available to verify this):
 - 2170.1 tons of C&D at the BFI-Lake Norman Landfill,
 - 457.36 tons of C&D waste in the Gaston County Landfill,
 - 1921.24 tons of waste in the Gaston County Landfill,
 - 137.37 tons of waste in the BFI-Charlotte Motor Speedway Landfill,
 - 1180.9 tons of waste taken to Foothills Environmental Landfill
 - 1446.17 tons of waste taken to Waste Management of the Carolinas.
 - 2290.01 tons received by GDS Recycling Services
7. Includes Yard Waste, White Goods, Tires, Oil, Oil filters, Batteries, Electronics, and Recyclables

Furthermore, the County does not have an in-depth study of the breakdown of waste by residential, commercial, and industrial generator groups. Therefore, this plan assumes a general breakout as shown in Table 3 below, based on local solid waste management staff knowledge and estimates.

Table 3: FY 2010-2011 Estimate of Waste Stream by Generator Group

CATEGORY	% OF TOTAL
Residential	60%
Commercial	20%
Industrial	20%
TOTAL	100%

Section 4 – Waste Reduction Goal

Lincoln County established a goal of achieving a 25% reduction from its baseline 1991 per capita waste disposal rate. The baseline rate in 1991 was 0.87 tons disposed per person, per year thus the goal was to reach 0.65 tons disposed per person per year by the year 2001. Since the original goal was set, Lincoln County has made significant progress in reducing waste and increasing recycling, although with variations in the economy and population flows, per capita waste disposal rates have fluctuated up and down at each three-year plan update.

Traditionally, the County experienced an increase or decrease in C&D waste, corresponding with development levels and the economy. For example, in FY 1998-1999 there were 4,654 tons of C&D waste disposed by the County; in FY 2004-2005, 16,096 tons. This trend reversed in FY 2007-2008 with only 8,417 tons of C&D waste being measured, however, in 2010-2011 C&D waste has increased to 2004-2005 levels at 16,131 tons. It is important to note that this increase in C&D waste no longer appears to explain the overall disposal rate trend, as the per capita disposal rate has inched down from 0.81 to 0.80 since the last three-year plan update (see Table 4 below). Therefore, City and County staff have discussed and developed further analysis and discussion to explain these current trends in the following paragraphs.

Table 4: Per Capita Waste Disposal Rates

Year	Baseline Year FY 1991-92	Plan Update FY 1998-99	Plan Update FY 2001-02	Plan Update FY 2004-05	Plan Update FY 2007-08	Plan Update FY 2010-11
Population	50,966	59,084	65,402	68,070	72,776	78,684
Tons Waste Disposed	44,442	42,977	55,866	68,110	58,921	62,822
C&D Waste Disposed		4,654	14,635	16,097	8,417	16,131
Annual Per Capita Disposal Rate (Tons/Person)	0.87	0.73	0.85	1.00	0.81	0.80

Source: Population figures from NC Office of State Budget and Management, Waste Disposal Staff figures

The County is currently experiencing a downward trend in its disposal rate, which in 2010-2011 is 0.80 tons per capita. Although the pace of demolition C&D waste disposal has almost doubled since the previous three-year plan update, new residential construction and renovation has declined with the slowing economy.

Explanations for the higher C&D waste volumes while the overall rate of disposal has slightly decreased are summed up by the following list:

1. City and County staff believe that high C&D waste amounts are likely due to the JP Stevens Mill closing. This very large industrial facility and site has been completely demolished and cleared over the past three years.
2. Staff further believe that high C&D waste volumes despite a slight downward per capita waste disposal rate can be explained by the following contributing factors:
 - a. Recent landfill bans – wooden pallets, plastic bottles, and motor oil filters;
 - b. Within this economy, more individuals are seeking out recycling, reuse, and recovery options as an additional income source. For instance, City and County staff have noticed increases in scrap metals and other white goods being intercepted prior to collection. Also, a significant increased number of storm grates and manhole covers have gone missing since 2008-2009 specifically within the City of Lincolnton.

c. More C&D waste may be ending up within the county limits as opposed to being transferred out due fuel costs rising or higher C&D tipping fees elsewhere.

Meeting the Waste Reduction Goals

The County expects to be limited in its ability to expand current solid waste programs and create new ones due to budget constraints. In light of these constraints when weighed with the reduced per capita disposal rate and an expected continued inflow of population, the County has revised its waste reduction goals. Thus, the County sets its goal during the planning period of FY 2011-2012 through FY2021-2022 to be reduced to 0.80 tons per capita or an 8% reduction from the 0.87 tons per capita baseline year rate (1991-1992) (see Table 4 above). Should funding for County and City solid waste and recycling programs change during the planning period, such that new or expanded waste reduction and recycling programs can be implemented, then the County will revise its plan accordingly. Table 5 below shows the targeted waste stream levels for Lincoln County:

Table 5: Targeted Waste Stream Levels

Year	FY 1991-1992	FY 2021-2022
Population	50,966	84,888
Waste Disposal at 1991 Baseline Per Capita Rate (0.87 tons)	44,442	
% Waste reduction goal	-	8%
Baseline, Current, and Targeted Per Capita Rates of Waste Tonnage	0.87	0.80
Targeted Future Waste Tonnage		67,944
Projected Waste Disposal at Baseline Per Capita Rate (0.87 tons)		73,853
Targeted Annual Tonnage to Reduce from Projected Waste Disposal at Baseline Per Capita Rate (0.87 tons)		(5,908)

* July 2010 estimate

Source: NC Office of State Management and Budget, Waste Disposal Staff estimates

Assuming similar economic conditions, City and County staff believe the following specific actions/trends could lend support to maintain the targeted waste disposal rate:

- Continued increased enforcement of County windshield sticker program
- The City will seek to find more cost effective recycling programs that may increase volume
- Changing trends in the industry – such as single stream MRFs that have emerged in the area – allow for more robust programs to be considered.
- Instead of buying new equipment (e.g., heavy duty utility fleet vehicles) in the future, it may be more cost effective to lease equipment instead

Section 5 – Waste Handling Characterization

Municipal Solid Waste (MSW)

Municipal Solid Waste is hauled to the Lincoln County Landfill, dumped in the Subtitle D landfill, then pushed and packed by a waste compactor and covered daily.

Construction and Demolition Waste (C&D)

C&D Waste is hauled to the Lincoln County Landfill, is dumped in an unlined C&D landfill, then pushed and packed by a waste compactor and covered weekly.

Land Clearing and Inert Debris (LCID)

Land Clearing and Inert Debris is stockpiled for grinding, is ground into mulch and integrated with small Type I compost facility. LCID is then made available to residents for use in the County.

White Goods (WG)

White Goods are collected at convenience sites and the landfill. All white goods are ultimately taken to the landfill. All Freon containing items are separated and Freon is removed and recorded. All metals are separated uniquely (e.g., copper, aluminum, steel, etc.) and sold separately. All other non-refrigerated appliances are processed for metal separation. All post-processed white goods are then loaded together and sold as scrap metal. Southern Metals removes scrap metal from the site approximately every 1-2 weeks.

Scrap Tires (ST)

All scrap tires are accepted from the public or from scrap tire haulers at the landfill. Scrap tires are not accepted at any convenience sites. ST are then stacked and laced inside of covered trailer at the landfill. When the covered trailer is full, U.S. Tire, Inc. will retrieve and haul to an approved facility.

Electronics (EL)

Electronics are collected at all County convenience sites. Electronics are picked up and transported to the landfill, then are separated and stacked on pallets and shrink wrapped. Electronics vendor eCycleSecure retrieves and hauls Electronics to an approved processing facility approximately once per week.

Additionally, in Appendix A, documentation is provided that shows that the County program is using an electronics recycler/vendor that holds the required e-Stewards or R2 certifications, plus attestation that all of the covered equipment that is managed by the program is managed by the recycler(s)/vendor(s) in question.

Also, Lincoln County's 2009 Solid Waste Management Plan Amendment related to Electronics Disposal can be found in Appendix B.

Section 6 – Assessment and Actions

PLANNING YEARS 2012 through 2022

Reduction at the Source

Current Program: In order to reduce waste stream levels, the County has initiated separate pricing structures at the Landfill. Co-mingled waste brought in by private operators is charged at a rate of \$32 per ton; C&D waste is charged at a rate of \$20 per ton and yard waste is charged a rate of \$16 per ton. There is no fee for cardboard brought to landfill facility.

- Junk mail inquiries are addressed on a call-by-call basis. The City handles junk mail issues and inquiries on an as needed basis. When needed, the City advises citizens on what they can do to recycle their junk mail. The County website is being updated including pictures to help citizens understand what they can recycle – including junk mail – and where.
- County Recycle Hotline – The County has a hotline where citizens can call to get questions answered and receive other information on recycling programs operating in the County. The Hotline number is 704-736-8477.

Description of intended actions: The Lincoln County website is being updated to provide more information and to help people understand what they can recycle and where. While the County Recycle Hotline still exists, the County would like to transition inquiries or need for information to the County website.

Collection

Current Program: Waste is collected and hauled to the Lincoln County Landfill by the County, the City of Lincolnton and by private haulers.

- Lincoln County: Waste is also collected by the County at seven (7) collection centers, termed convenience sites, located in the rural areas of the County (see Figure 1 in Section 1). All seven sites receive both solid waste and recyclables. Additionally, an area at the landfill entrance serves residents every day but Sunday as an 8th convenience site. The convenience sites are staffed through County part-time employees. An attendant is at each center from 9:00 am to 6:00 pm, Monday – Saturday. On Sundays, three sites (Webb's Chapel, Airport, and Northbrook) are open from 1:00 pm to 5:00 pm. Residential solid waste is accepted at each site and hauled to the County Landfill for disposal.
- City of Lincolnton: The City collects residential and non-residential wastes through once a week curbside collection. Refuse should be bagged and put into containers with a maximum capacity of 45 gallons. In addition, the City provides curbside collection of source separated solid waste such as white goods, brown goods, and yard waste, as needed. As of August 2005, the City no longer collects residential construction and demolition waste. These services are provided to the general public at no charge to residents (general fund revenues are used to provide these services). The City uses its own employees to provide these services, and solid waste services are provided through the City's Public Works Department.

Description of intended actions: Lincoln County Windshield Sticker Program: The County implemented a windshield sticker program for County residents. Under the program, started in 2005, residents depositing trash at convenience sites must have a Lincoln County sticker on their car in order to use the sites. This program substantially decreased the number of out-of-county residents disposing trash at the convenience sites. The County will continue increased enforcement of County windshield sticker program.

Recycling and Reuse

Current Program:

Lincoln County: The County's seven (7) convenience sites and one (1) landfill have a variety of collection bins. Materials collected at all sites are: newspaper; corrugated cardboard; magazines; mixed paper; office paper; aluminum cans; steel cans; clear, brown, and green glass; plastic milk and soda bottles, vehicle and lead batteries, oil filters, and electronics. In addition, used oil and white goods are also collected at these sites. Also, anti-freeze (collected in separate drum at landfill), and tires are collected at the County maintenance building at the Landfill. Yard waste and C&D may be deposited at the Landfill and at all of the convenience sites (however, no shingles, block brick, and concrete at convenience sites. These items go to the Landfill). Collection center staff assists in educating residents on properly sorting and material preparation and are available to answer questions. Brochures containing recyclable material listings, phone numbers, and other information are available at each site. Corrugated cardboard goes to Sonoco for recycling. Aluminum, plastic bottles, newspaper, magazines, and office paper are taken to GDS for recycling (steel cans now go with scrap metal). Glass is now being reused at the landfill as a road base. Lincoln County hauls all scrap metal, steel cans, and white goods to various markets for recycling. The County has on staff a certified technician to extract the Freon from the white goods prior to transport. All recyclables are brought by residents to the Landfill or the convenience sites. Lincoln County uses various markets for its recycled materials. All costs that are incurred are part of the County's reported costs through collections and convenience sites budgets. The Lincoln County Citizens Center continues its recycling program.

Changing markets require the County to use different processors and may eventually require the County to begin to process some of its own materials. There are several markets for paper and magazines, plastic, scrap metal, scrap tires, and electronics. The County is continually seeking new markets for its materials. Business and industry are encouraged to contract out for recycling services. It is unclear what percentage of waste industries, businesses, and institutions are recycling. It may be possible to find other markets or outlets for some of the currently un-marketed wastes.

The County maintains its Oil Reuse Program, collecting used oil at all sites. The County has an oil-burning furnace at its Landfill maintenance facility. A portion of the collected oil is used in this furnace to heat the entire 10,000 square foot facility. FCC Environmental picks up extra oil in warmer months.

On an annual basis, the County continues to look at its tipping fee schedule to determine whether such fees are in need of change. Lincoln County has a fee program where co-mingled goods are charged \$32 per ton; C&D waste is \$20 per ton and yard waste is \$16 per ton. There is no charge for cardboard waste brought to the landfill if it is separated.

City of Lincolnton: The City of Lincolnton contracts with GDS to handle its recyclables through a curbside pickup program. The City provides each household with an 18 gallon bin for recyclables. It is estimated that approximately 90 percent of the households in the City of Lincolnton participate in the voluntary curbside program. Materials collected curbside are: newspaper; aluminum cans; steel

cans; clear, brown, and green glass; magazines and phone books; and all plastic bottles, except for motor oil containers. Little increase in the participation in residential recycling can be achieved, unless additional items are added or a mandatory program is put in place. There are no fees charged to residents of Lincolnton for recycling (all costs for recycling and solid waste are paid by the City through the City's general fund. The City's used paper is shredded, and recycling bins are at City offices. GDS collects recycling from City offices.

The amount of materials recycled by the County-operated program plus the City of Lincolnton is shown in Table 2 above.

Description of intended actions: The City is currently reviewing the potential for a City-operated recycling program that would be put in place with Council approval and funding. Glass is now being reused at the landfill as a road base but eventually, glass may be hauled to GDS.

Composting and Mulching

Composting

Current Program: Yard waste is composted by the County in windrows to a temperature of 131 degrees or greater for 3 days. Beginning in 2008, composting became available to County residents free of charge. Compost is also used at the County Landfill for beautification and road stabilization during inclement weather.

Mulching

Current Program: Yard waste is accepted at the County yard waste facility, located at the County landfill, and stockpiled and ground as needed. Clean, untreated wood from demolition wastes, pallets from industries, and the County's tub grinder grinds other types of organics. The County encourages business and industry to source separate waste in the form of pallets and untreated wood products and deliver it to the County yard waste facility. The resulting mulch is used around the County schools, County buildings, and as a beautification aid around the convenience sites. The County has a year round mulch give-away program where residents can come to the Landfill and get mulch free of charge. In the event of a disaster, the County will accept yard waste at the Landfill and at Webb's Chapel and Owl's Den convenience sites.

The City collects leaves that are distributed to organic gardeners and farmers. The City of Lincolnton participates in the County's yard waste mulching program by picking up yard waste at curbside and transporting it to the County facility.

Description of intended actions: No changes to the current program.

Incineration with and without Energy Recovery

Incineration, both with and without energy recovery, is not part of the City and County's current program due to the associated costs and small population base.

Description of intended actions: No actions are expected.

Transfer outside the Geographic Area Covered by the Plan

Current Program: A variety of private haulers collect non-residential waste in Lincoln County and transport it outside of the County. Reasons that this tonnage is being diverted from Lincoln County include that these landfills are closer (i.e., the Lincoln County landfill is a good distance from the population centers of eastern Lincoln County) and more cost effective when the value of time, fuels and other factors are considered, than the Lincoln County landfill. Waste from the County's

convenience sites as well as the waste that is collected by the City of Lincolnton is brought to the Lincoln County Landfill. The Landfill has a life expectancy of 25+ years and the County has no immediate plans or any need to ship any of its waste to other counties.

Description of intended actions: No changes to the current program.

Disposal

Current Program: Lincoln County owns and operates a state approved Subtitle D landfill. In addition, the County operates a yard waste facility, a C&D landfill, and has scrap tire, oil, oil filters, anti-freeze, lead battery, white goods, pallets, and electronics collection areas. Even though Lincoln County is growing and is anticipated to have a population of 84,888 by 2021, the Lincoln County landfill has a potential life of 25+ years.

- The County chose to develop its own Subtitle D landfill after considering other options. The County has a C&D landfill at the landfill site and is utilizing Phase III of its Subtitle D landfill.
- The importation of household solid waste from adjoining Counties is a problem that has been noted by Lincoln County officials. Most notably, it is assumed that residents of Catawba County (which lies to the immediate north of Lincoln County) frequently bring their solid waste to convenience sites in Lincoln County. There is no charge assessed to persons bringing waste to the sites. As a result, the County implemented a windshield sticker program for County residents. Under the program, started in 2005, residents depositing trash at convenience sites must have a Lincoln County sticker on their car in order to use the sites. This program substantially decreased the number of out-of-county residents disposing trash at the convenience sites.

Description of intended actions: Continuing increased enforcement of the County's windshield sticker program.

Education with the Community and through the Schools

Community Education

Current Program: Several educational pamphlets describing the locations of collection centers, recyclable materials accepted, and how to prepare materials for recycling (e.g., wash and remove lids) have been produced and distributed by Lincoln County. Educational presentations are given to local businesses and civic groups throughout the County by the County's recycling coordinator. Additionally, the City of Lincolnton distributes educational literature, as provided by GDS, discussing how to separate and prepare solid waste and recyclable materials for curbside pickup.

School Education

Current Program: The County and City staff, as requested, provide seminars to students in the school system, and make presentations to classes and school clubs. Lincoln County and the City of Lincolnton have participated in the state Adopt-A-Highway and city Adopt-A-Street program. Recycling presentations (including showing examples of recyclable materials) to use in the education of students are made available upon request.

Description of intended actions: Upon completion of the County's updated solid waste website, the web address will be promoted at all convenience sites.

Management of Special Wastes

Animal Mortality

Current Program: Typically, farmers will arrive at the landfill if they have a large quantity of remains (i.e., poultry) that will be brought to the landfill. The County will then prepare a large hole and bury the remains immediately. This area will then be covered.

Description of intended actions: No changes to the current program.

Electronics

Current Program: The County sends used County-owned electronics to Goodwill. Otherwise, electronics are collected at all County convenience sites. Electronics are picked up and transported to the landfill, then are separated and stacked on pallets and shrink wrapped. Electronics vendor eCycleSecure retrieves and hauls electronics to an approved processing facility approximately once per week. The City sees very few of these types of materials at present, however, similarly direct citizens to County convenience sites and/or to take these items to Goodwill. The County and City sell their outdated/surplus electronics on the "Gov Deal" website (www.govdeal.org).

Description of intended actions: To continue to assess electronics recycling vendors for best combination of service. It is anticipated that this portion of the waste stream will continue to grow.

Lead-acid Batteries

Current Program: Batteries may also be brought by individuals to any of the County conveniences site and the landfill site for recycling. Larger companies or organizations may bring batteries to the landfill only. Rainey Battery collects batteries every two weeks.

Description of intended actions: No changes to the current program.

Mobile Homes

Current Program: The County will accept any mobile homes that have been completely stripped of all special materials requiring disposal (e.g., white goods), is removed from the frame, and is crushed and loaded onto a truck or trailer. Once at the landfill, it will be disposed of as C&D waste. Per H1134, the County does not plan to develop a program to address nuisance mobile homes.

Description of intended actions: No changes to the current program.

Pallets

Current Program: Pallets are pulled out of the waste stream and processed through a grinder at the landfill. All pallets collected by the City are also sent to the landfill site for processing. Typically all nails and metal hardware are removed by a magnet.

Description of intended actions: The County may seek markets for boiler fuel or other outlets.

Plastic Bottles

Current Program: Recycling at each of the convenience sites and the County landfill is available. The City also has plastic bottle recycling through its contracted program.

Description of intended actions: No changes to the current program.

Scrap Tires

Current Program: Scrap tires are accepted at the Lincoln County landfill in a closed tractor trailer that stores them off of the ground and out of the weather. The County contracts with U.S. Tire, Inc. that reuses the tires for multiple purposes.

Description of intended actions: No changes to the current program.

Used Motor Oil and Anti-freeze

Current Program: Presently the County's used motor oil collection program is successful. Small amounts of used oil may be dropped off at the convenience sites while larger amounts must be taken to the Landfill. In addition, used anti-freeze may be disposed of at these facilities. The County's recycling brochures and website address the disposal of used motor oil and anti-freeze. The County has a used oil-burning furnace at its Landfill maintenance facility. A portion of the collected oil is used in this furnace to heat the entire 10,000 square foot facility. FCC Environmental picks up extra oil in warmer months. Upon request, the City would refer citizens to the County and to not pour oil into the sewer.

Description of intended actions: No changes to the current program.

Used Oil Filters

Current Program: County staff encourages citizens to dispose of oil filters through automotive shops; however, they will collect them at all County convenience sites and at the landfill.

Description of intended actions: No changes to the current program.

White Goods

Current Program: White goods are stored at the County landfill in the white goods area. The County removes the CFC (chlorofluorocarbon) producing Freon and processes the white goods for recycling and hauls them to market. The City provides collection service for white goods and the County provides the ability to drop them off at their convenience sites. It is assumed that most white goods are recovered in Lincoln County. However, to discourage illegal dumping and to encourage proper management, the County and City will continue to collect white goods.

Description of intended actions: No changes to the current program.

Household Hazardous Waste

Current Program: The County has no specific household hazardous waste program at this time. The County realizes that a household hazardous waste program is important. However, through analysis of neighboring counties and their collection programs, the County has found that starting its own program would be cost prohibitive. Currently the County educates the public regarding household hazardous waste and its proper disposal (e.g., uses the material for its intended purposes and rinses the containers prior to disposal).

The City of Lincolnton, however, does have a specialized program that deals with the disposal of used home medical hypodermic needles and syringes titled "Don't Get Stuck." In addition, the City provides sharps containers to three (3) independent drug stores that participate in the collection of the used needles mentioned above. By properly collecting these needles through this program, waste haulers are less likely to get stuck.

Description of intended actions: No changes to the current program.

Fluorescent lights

Current Program: Fluorescent lights are accepted through normal trash disposal methods and are disposed of in the Subtitle D landfill.

Description of intended actions: County is trying to pursue a recycling program for fluorescent lights.

Prevention of illegal disposal and management of litter

Illegal Disposal

Current Program: The County Planning and Inspections Department has taken complaints in the past and worked with other agencies to follow-up and correct the problems encountered. The County has a Solid Waste Ordinance that was adopted in 1993 that, among other things, covers illegal dumping of waste and littering. The Ordinance is in place in all unincorporated portions of the County. The City has various ordinances banning littering and illegal dumping. City and County officials both state that illegal dumping is not a major problem either in the City or in unincorporated portions of the County.

County point of contact:

Randy Hawkins
Planning and Inspections Department
704-736-8440

Litter Management and Promiscuous Dumping

Current Program: Lincoln County has no litter or promiscuous dumping prevention program at this time. However, like illegal dumping, litter is not a significant problem. The County Planning and Inspections Department enforces littering violations through the County's Solid Waste Ordinance.

Both Lincoln County and the City of Lincolnton have departments that have adopted streets and highways through the NCDOT's "Adopt-A-Street" and "Adopt-A-Highway" programs. In the City about 3-4 miles of roads have been adopted by various community organizations. In the County, Adopt-a-Highway is organized through NCDOT on State maintained roads. The City and County each adopt resolutions supporting the Keep America Beautiful Program.

Purchase of recycled materials and products manufactured with recycled materials

Current Program: No purchasing program for recycled content products is in place at this time. However, both units of government, when purchasing, will consider products with recycled materials if the product is of the same quality and price as the virgin material product.

Description of intended actions: No changes to the current program.

Section 7 – Solid Waste Management Cost

Lincoln County

Description:

The cost to operate Lincoln County's solid waste program in FY 2010-2011 is shown in the Full Cost Analysis Budget Form below (Table 6). Collection, reduction, and education are grouped together because residential collection and recycling are done together at the convenience sites with most educational efforts aimed at these programs. Disposal is separated because the funding and operation of the landfill facility is separate from the other aspects of County solid waste programs.

Assessment:

County solid waste disposal is fully funded by user fees, sales of recyclables and equipment salvage. Tipping fees are \$32 per ton for disposal in the lined sanitary landfill, \$20 per ton for disposal in the unlined C&D waste landfill, and \$16 per ton for disposal at the yard waste facility. All households are assessed an annual fee of \$81 per year. County solid waste collection, recycling, and education are funded by the County's Solid Waste Enterprise Fund.

Table 6. Lincoln County Full Cost Analysis, FY 2010-2011

Lincoln County - Full Cost Analysis Budget Form					
Fiscal Year: 2010-2011		Total MSW Budget	Program Category		
Annual Cost of Operations			SW Collection	SW Disposal	Recycling
	# of Employees		8FT; 1 PT	20 FT; 1 PT	
1	Wages + Benefits of Employees (FTE)	\$ 1,230,087	\$ 226,120	\$ 638,303	\$ 365,664
2	Local Government Administrative Support	\$ 100,000			
3	Equipment Operations and Maintenance	\$ 558,000	\$ 215,000	\$ 324,000	\$ 19,000
4	General Operations	\$ 425,000	\$ 15,200	\$ 385,600	\$ 26,200
5	Educational Materials				
6	Cash Capital Outlays	\$ 122,417		\$ 122,417	
7	Lease Payments				
8	Contracted Services				
9	Professional Services				
10	Insurance				
11	Tipping Fees				
12	Other:				
Cost of Large Capital Expenditures					
13	Annualized Large Capital Expenditures				
14	Annualized Landfill Development & Construction Costs				
15	Annualized Landfill Closure Costs	\$ 555,821			
16	Cost of Debt Service (loan & bond interest)				
17	Total Annual Costs: (sum lines 1-16)	\$ 2,991,325	\$ 454,320	\$ 1,468,320	\$ 410,864
Revenues					
18	Sales of Recyclables	\$ 279,893	\$ 278,893		
19	Equipment Salvage				
20	Other Revenue Sources:				
21	Total Annual Revenues: (sum line 18-20)	\$ 279,893	\$ 278,893	\$ -	\$ 410,864
22	Net Annual Costs: (subtract line 21 from line 17)	\$ 2,711,432	\$ 175,427	\$ -	\$ 410,864

City of Lincolnton

Description:

The cost to operate the City of Lincolnton's solid waste program in FY 2010-2011 is shown in the Full Cost Analysis Budget Form below (Table 7). Costs are separated into Collection and Recycling. The City uses the County landfills and does not operate its own, so there is not a Disposal program category. General operating costs are included in Total Costs.

Assessment:

All City solid waste operations are funded through general fund appropriations.

Table 7. City of Lincolnton Full Cost Analysis, FY 2010-2011

City of Lincolnton - Full Cost Analysis Budget Form						
		Total MSW Budget	Program Category			
Annual Cost of Operations			SW Collection	SW Disposal	Recycling	Other:
	# of Employees	13	13			
1	Wages + Benefits of Employees (FTE)	576,424	576,424			
2	Local Government Administrative Support					
3	Equipment Operations and Maintenance	89,426	89,426			
4	General Operations	35,719	35,719			
5	Educational Materials	2,323	2,323			
6	Cash Capital Outlays					
7	Lease Payments					
8	Contracted Services	146,275			146,275	
9	Professional Services					
10	Insurance	43,297	43,297			
11	Tipping Fees					
12	Other:					
Cost of Large Capital Expenditures						
13	Annualized Large Capital Expenditures					
14	Annualized Landfill Development & Construction Costs					
15	Annualized Landfill Closure Costs					
16	Cost of Debt Service (loan & bond interest)					
17	Total Annual Costs: (sum lines 1-16)	893,464	747,189	0	146,275	
Revenues						
18	Sales of Recyclables					
19	Equipment Salvage	3,008	3,008			
20	Other Revenue Sources:					
21	Total Annual Revenues: (sum lines 18-20)	3,008	0	0	0	
22	Net Annual Costs: (subtract line 21 from line 17)	890,456	744,181	0	146,275	

Section 8 – Emergency/Disaster Debris Management and Animal Mortality

In a disaster, debris is the major factor that inhibits repair and rescue because it blocks roads and destroys power lines. Handling debris quickly and efficiently aids other recovery efforts by allowing repair vehicles and crews to get to the areas in a timely fashion.

Lincoln County and the City of Lincolnton are prepared to handle a large influx of trash, limbs, and other debris created due to a storm or a disaster. The City and County have a joint Lincoln County Emergency Operations Plan (see Appendix C). Interested parties should contact the County Department of Emergency Management at 704-736-8660 for additional information.

Lincoln County presently operates an approved Subtitle D Landfill and 7 convenience sites. Brush and limbs are accepted at the landfill and Webb's Chapel Road Convenience site. The City of Lincolnton hauls its brush and limbs to the County's landfill site in non-emergency times; however, should a disaster occur, the County and the City would follow the policies outlined below:

- Emergency management would call in services or direct the County and City to contract for needed services. Once the proper approval and procedures have been set, services would be contracted.
- Secure sufficient equipment to collect, haul and mulch the brush and limbs as well as any other disaster debris. Both the County and the City maintain a list of contractors with whom they can seek assistance in the event of a disaster. Keeping this list and contacts current minimizes social disruption as well as economic impact when a disaster occurs.
- The County would continue to use its two brush and limb collection sites, and the City will use a site at the end of North Laurel Street to store storm debris until it is ground and dispersed. Most of the material will be given away or used by the City and County for mulching projects.
- Storm debris would be directed to the County landfill yard waste site. The debris in east Lincoln County could be taken to Webb's Chapel convenience site yard waste area for future grinding.
- Lincoln County has its own tub grinder, which will allow faster turnaround in grinding the debris; however, it may still be necessary to hire outside assistance depending on the size of the disaster.
- Special permits to allow burning in some areas will be secured if needed.

Once the streets are opened, household waste will be collected at the landfill and the 7 convenience sites, and the City will resume pickup services.

Section 9 – Resolutions

**RESOLUTION #2012-19:
RESOLUTION ACCEPTING AND ENDORSING THE SOLID WASTE
MANAGEMENT PLAN OF 2012 FOR LINCOLN COUNTY**

WHEREAS, it is a priority of this community to protect human health and the environment through safe and effective management of county solid waste;

WHEREAS, the reduction of the amount and toxicity of the local waste stream is a goal of this community;

WHEREAS, equitable and efficient delivery of solid waste management services is an essential characteristic of the local solid waste management system;

WHEREAS, it is a goal of the community to maintain and improve its physical appearance and to reduce the adverse effects of illegal disposal and littering;

WHEREAS, Lincoln County recognizes its role in the encouragement of recycling markets by purchasing the recycled products;

WHEREAS, involvement and education of the citizenry is critical to the establishment of an effective local solid waste program;

WHEREAS, the State of North Carolina has placed planning responsibility on local government for the management of solid waste;

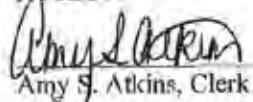
WHEREAS, NC General Statute 130A-309.09A(b) requires each unit of local government, either individually or in cooperation with other units of local government, to update the Ten Year Comprehensive Solid Waste Management Plan at least every three years;

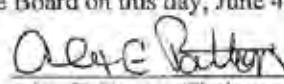
WHEREAS, the Lincoln County Solid Waste Division and the City of Lincolnton Public Works and Utilities Department have jointly undertaken and completed a long-range planning effort to evaluate the appropriate technologies and strategies available to manage solid waste effectively;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COMMISSIONERS OF LINCOLN COUNTY:

That Lincoln County's 2012 Ten Year Comprehensive Solid Waste Management Plan is accepted and placed on file with Clerk to the Board on this day, June 4th, 2012.

ATTEST:


Amy S. Atkins, Clerk


Alex E. Patton

Alex E. Patton, Chairman

CITY OF LINCOLNTON

CITY COUNCIL
John O. Gilleland, Jr., Mayor
John L. Continger, Mayor Pro-Tem
Devin Rhine
Carroll Hanner
Larry MacHowell



CITY MANAGER
Jeff Emory
jeftemory@lincolnton.nc.us
CITY CLERK
DONNA C. FLOWERS, CMC
donnacflowers@lincolnton.nc.us
CITY ATTORNEY
THOMAS J. WILSON, JR.

(R-02-12)

RESOLUTION ACCEPTING AND ENDORSING THE SOLID WASTE MANAGEMENT PLAN OF 2012 FOR LINCOLN COUNTY

WHEREAS, it is a priority of this community to protect human health and the environment through safe and effective management of municipal solid waste;

WHEREAS, the reduction of the amount and toxicity of the local waste stream is a goal of this community;

WHEREAS, equitable and efficient delivery of solid waste management services is an essential characteristic of the local solid waste management system;

WHEREAS, it is a goal of the community to maintain and improve its physical appearance and to reduce the adverse effects of illegal disposal and littering;

WHEREAS, the City of Lincolnton recognizes its role in the encouragement of recycling markets by purchasing the recycled products;

WHEREAS, involvement and education of the citizenry is critical to the establishment of an effective local solid waste program;

WHEREAS, the State of North Carolina has placed planning responsibility on local government for the management of solid waste;

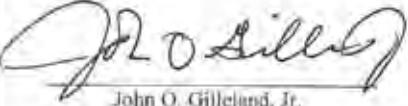
WHEREAS, NC General Statute 130A-309.09A (b) requires each unit of local government, either individually or in cooperation with other units of local government, to update the Ten Year Comprehensive Solid Waste Management Plan at least every three years;

WHEREAS, the Lincoln County Solid Waste Division and the City of Lincolnton Public Works and Utilities Department have jointly undertaken and completed a long-range planning effort to evaluate the appropriate technologies and strategies available to manage solid waste effectively;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LINCOLNTON:

That Lincoln County's 2012 Ten Year Comprehensive Solid Waste Management Plan is accepted and placed on file with Clerk to the City Council on this day, June 7th, 2012.

ATTEST:



John O. Gilleland, Jr.
Mayor



Donna C. Flowers, CMC
City Clerk

Section 10 – Ordinances

- Lincoln County's Solid Waste Ordinance (adopted in 1993) can be accessed here:
<http://infohouse.p2ric.org/ref/12/11950.pdf>
- The City of Lincolnton's Codified Ordinance: Chapter 50 Solid Waste Collection and Disposal. See Appendix D.
- Lincoln County and the City of Lincolnton follow North Carolina laws related to landfill bans. Per North Carolina law, a listing of items banned from disposal in landfills can be accessed here:
<http://portal.ncdenr.org/web/wm/sw/landfillbans>