

TABLE OF CONTENTS

INTRODUCTION	3
SECTION 1. LOCAL CONTACTS	3
SECTION 2. PUBLIC PARTICIPATION	6
SECTION 3. WASTE CHARACTERIZATION	6
SECTION 4. WASTE REDUCTION GOAL	8
SECTION 5. WASTE HANDLING CHARACTERIZATION	10
A. Municipal Solid Waste (MSW)	10
B. Construction and Demolition Waste (C&D)	13
C. Land Clearing and Inert Debris (LCID)	14
D. White Goods (WG)	15
E. Scrap Tires (ST)	16
F. Electronics (EL)	16
SECTION 6. ASSESSMENT AND ACTIONS	17
A. Reduction at the source	17
B. Collection	19
C. Recycling and Reuse	22
D. Composting and Mulching	29
E. Incineration with Energy Recovery	33
F. Incineration without Energy Recovery	33
G. Transfer outside the Geographic Area	34
H. Disposal	36
I. Education with the Community and through the Schools	38
J. Management of Special Wastes	42
K. Prevention of Illegal Disposal and Management of Litter	60
L. Purchase of Recycled Materials and Products Manufactured with Recycled Materials	65
SECTION 7. SOLID WASTE MANAGEMENT COSTS	67
SECTION 8. EMERGENCY/DISASTER DEBRIS MANAGEMENT and ANIMAL MORTALITY	70
SECTION 9. RESOLUTIONS	71
SECTION 10. ORDINANCES	71
APPENDIX A. Planning Elements	A-1
APPENDIX B. Resolutions from Lee County, City of Sanford & Town of Broadway	B-1
APPENDIX C. Public Hearing Notice	C-1

APPENDIX D.	Maps of Facilities & Disposal Sites Available to the Planning Area	D-1
APPENDIX E.	Waste Reduction Goal	E-1
APPENDIX F.	Educational/Promotional Materials	F-1
APPENDIX G.	Electronics Recycler Certificates	G-1
APPENDIX H.	Pre-event Contract for Disaster Debris Management Services	H-1

INTRODUCTION



N. C. General Statute 130A-309.09A(b) requires each unit of local government, either individually or in cooperation with other units of local government, to develop a 10 year comprehensive solid waste management plan to be updated every three years. The Lee County planning area consisting of Lee County's unincorporated areas, the City of Sanford and the Town of Broadway, has prepared this update to its Solid Waste Management Plan originally submitted in 1997 and updated in 2000, 2003, 2006 and 2009. This fifth update covering the period from July 1, 2012 – June 30, 2022 outlines an integrated strategy for the management of the planning area's solid wastes. This strategy was designed with the following in mind:

- Protecting the general health and welfare of the citizens of Lee County;
- Meeting Lee County's solid waste needs by providing environmentally and fiscally responsible waste collection, recycling and disposal services;
- Showing Lee County's compliance with the State's comprehensive solid waste management plan; and,
- Showing Lee County's good faith effort to achieve the State's waste reduction goal of 40%.

This document clearly shows Lee County's commitment to meeting the constantly changing solid waste conditions facing North Carolina. The Lee County planning area believes that this update outlines the first step in meeting these challenges through a resource management infrastructure designed to reduce its reliance on land disposal and to promote sustainable behavior.

SECTION 1. LOCAL CONTACTS

Lee County

County Manager:

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Lee County General Services
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Sanford, NC 27330

(919) 718-4622 ext. 5380

Deputy General Services Director: Larry D. Bridges
Lee County General Services
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Solid Waste Superintendent: Joseph T. Cherry
Lee County General Services
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Sanford, NC 27330

(919) 718-4622 ext. 5381

Emergency Management Director: T. Shane Seagroves
Office of Emergency Management
225 South Steele Street
Sanford, NC 27331

(919) 718-4670

City of Sanford

Mayor: Cornelia P. Olive
225 E. Weatherspoon Street
Sanford, NC 27331

(919) 775-8365

City Manager: Phillip “Hal” Hegwer
225 E. Weatherspoon Street
Sanford, NC 27331

(919) 775-8202

General Services Director: Tim Shaw
Public Works Service Center
601 N. Fifth Street
Sanford, NC 27330

(919) 775-8247

Solid Waste Superintendent: Larry Craig
Public Works Service Center
601 N. Fifth Street
Sanford, NC 27330

(919) 775-8319

Code Enforcement Superintendent: Carl Anglin
226 Carthage Street
Sanford, NC 27330

(919) 775-8354

Town of Broadway

Mayor: Donald Andrews
Broadway Town Hall
117 Main Street
Broadway, NC 27505

(919) 258-9922

Town Manager: Bob Stevens
Broadway Town Hall
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Broadway, NC 27505

(919) 258-9922

NOTE: As requested, maps including all solid waste facilities, disposal sites, and emergency debris staging sites used by the Planning Area are included as Appendix D

SECTION 2. PUBLIC PARTICIPATION

This document was prepared and written by representatives of the Lee County planning area. These representatives included Russell L. Spivey, Lee County Director of General Services, Joseph T. Cherry, Lee County Solid Waste Superintendent, Marc Clark, Engineering Technician, Larry Craig, City of Sanford Solid Waste Superintendent and Robert W. Stevens, Town of Broadway Manager.

A public hearing was held on December 3, 2012 at the Lee County Government Center. During this meeting the plan was discussed, and public comments were solicited and addressed. Prior to the hearing the public was invited to review the draft update which was available on the County's website at www.leecountync.gov and at the Lee County General Services Department, Lee County Public Library, Lee County Government Center, City of Sanford Public Works Department, and the Town of Broadway Town Hall.

The Update was approved by the Lee County Board of Commissioners following the public hearing on December 3, 2012. The City of Sanford and Town of Broadway adopted the update on December 18, 2012 and December 17, 2012 respectively. Resolutions from each governing body approving the Plan are included in Appendix B.

A copy of the final plan update will be available to the public on the County's website www.leecountync.gov/Departments/SolidWaste/SolidWasteManagementPlan.aspx or a hard copy provided upon request.

SECTION 3. WASTE CHARACTERIZATION

This document covers the geographic area formally known as Lee County, including the City of Sanford and the Town of Broadway. Lee County is 257.2 square miles located in the geographic center of North Carolina and has an estimated population of 59,809 (as of July 1, 2012). As shown in Table 2, the population of Lee County is expected to increase by approximately 20% over the next 10 years.

TABLE 2: ESTIMATED POPULATION GROWTH 2012-22

Area	Jul. 2012	Jul. 2022	Change	% +/-
UNINCORPORATED AREAS	29,418	34,082	4,664	+16%
CITY OF SANFORD	29,116	35,837	6,721	+23%
TOWN OF BROADWAY	1,275	1,564	289	+23%
TOTAL	59,809	71,483	11,674	+20%

Source:

Lee County is rich in industrial diversity, has a solid retail base and an excellent transportation network including an airport. Land use includes residential, agricultural, commercial, institutional, light industrial, heavy industrial and green space. Waste generation, including recyclable and compostable materials, by sector is summarized in Table 3.

TABLE 3: PLANNING AREA'S ESTIMATED WASTE GENERATION BY SECTOR

Sector	Tonnage*	% of Waste Stream
Residential	33,664	44%
Commercial- Industrial- Institutional	42,972	56%
TOTAL	76,636	100%

Source: Planning Area Records for FY 2011-12

*Includes wastes diverted from landfills.

Lee County recognizes the benefits to long range planning associated with conducting a formal waste characterization study of the Planning Area's solid waste stream. However, Lee County lacks the financial resources to hire a consultant to perform a study and the manpower to do one in-house. Therefore, the Planning Area's waste characterization as advanced in Table 4 is based on a 2010 study performed by the US Environmental Protection Agency.

TABLE 4: PLANNING AREA WASTE CHARACTERIZATION

Material	% of Waste Stream	Local Tonnage	Current Recovery*	% Recovered
Paper and Paperboard	28.5%	21,842	2,979 tons	14%
Food Scraps	13.9%	10,652	NA**	
Yard Trimmings	13.4%	10,269	7,744 tons	75%
Plastics	12.4%	9,503	1,171 tons	12%
Metals	9.0%	6,897	1,274 tons	18%
Rubber, Leather & Textiles	8.4%	6,437	3,110 tons	48%
Wood	6.4%	4,905	235 tons	5%
Glass	4.6%	3,525	431 tons	12%
Other^	3.4%	2,606	115 tons	4%
Total	100%	76,636	17,059	22%

Source: US EPA and Planning Area Records

*Figures are based on known quantities and may in fact be higher particularly in the metals category.

**NA = Not Available

^Other includes items categorized as special wastes including electronics, motor oil, cooking oil and HHW.

SECTION 4. WASTE REDUCTION GOAL

The Planning Area's original Solid Waste Management Plan (SWMP), submitted in 1997, set waste reduction goals of 10% by 2001 and 20% by 2006. Table 5 clearly illustrates that these goals were not met. Subsequent updates to the SWMP set new waste reduction goals, but despite its good faith effort, the Planning Area continued to see little progress in waste reduction until FY 2007-08.

The FY 2009-19 Update to the SWMP painted a less than optimistic picture regarding the Planning Area's ability to meet its waste reduction goal of 10% by 2013. In reality, however, the Planning Area not only met, but exceeded that goal by realizing a 19% reduction rate in FY 2009-10 and continues to maintain a significant reduction from the baseline rate of 1.16 tons/capita.

The Planning Area's success in affecting this significant decrease in its per capita generation can in large part be directly attributed to the following:

- Increase in local recycling opportunities to divert state landfill banned materials including, but not necessarily limited to motor oil filters, recyclable plastic bottles, wooden pallets, televisions and computer equipment.
- Increase in away-from-home recycling opportunities.
- Greater industrial sector waste reduction and recycling programs.

A case can be made, however, that the poor economic conditions over the last few years have also played a role in the decrease in waste generation. The extent to which this is the case is difficult at best to quantify and will not become clear until economic conditions improve.

TABLE 5: Per Capita Waste Generation in the Planning Area

FISCAL YEAR	POPULATION	TONS DISPOSED	TONS/CAPITA DISPOSED	+/- % CHANGE
Baseline 1991-92	41,370	48,341	1.16	
1996-97	47,986	58,051	1.21	+4%
1997-98	48,369	61,277	1.27	+9%
1998-99	49,456	78,594	1.59	+37%
1999-2000	50,396	70,953	1.41	+22%
2000-01	49,040	67,018	1.37	+18%
2001-02	49,426	60,584	1.23	+6%
2002-03	49,810	67,648	1.36	+17%
2003-04	49,792	67,941	1.36	+17%
2004-05	50,146	76,971	1.53	+32%
2005-06	53,789	70,320	1.31	+13%
2006-07	55,282	68,358	1.24	+7%
2007-08	56,376	66,949	1.19	-3%
2008-09	57,500	61,502	1.07	-8%
2009-10	58,563	54,964	0.94	-19%
2010-11	58,059	56,351	0.97	-16%
2011-12	58,752	59,577	1.01	-13%

Source: NCDEHNR generated County Waste Disposal Reports

One additional point that bears mentioning is the apparent upward tick in solid waste generation during FY 2010-11 and FY 2011-12. This can be attributed to an increase in C&D debris disposal resulting from the April 2011 tornado.

As outlined in the Waste Reduction Goal Sheet included as Appendix E, the Planning Area has set a new waste reduction goal of 25% by FY 2021-22. In order to meet this goal the Planning Area plans to capitalize on its past and current successes and remove an additional 2,731 tons of material from the waste stream annually over the next ten years.

SECTION 5. WASTE HANDLING CHARACTERIZATION

A. MUNICIPAL SOLID WASTE (MSW)

TABLE 5: WASTE COLLECTION IN THE LEE COUNTY PLANNING AREA

WASTE STREAM	TONNAGE*	COLLECTION METHOD
Unincorporated- Residential	5,075	Drop-Off (Convenience Centers)
	9,843	Curbside – Private Hauler
City of Sanford – Residential	7,136	Curbside – Contract w/Hauler
	1,200	Curbside - City Crews
Town of Broadway- Residential	512	Curbside – Contract w/Hauler
	26	Curbside – Town crews
Commercial- Industrial- Institutional	34,732	Private Hauler
	1,053	Lee County Crews
TOTAL	59,577	

Source: Municipal records, waste hauler records and County Waste Disposal Report

*Does not include recyclables

Residential

Unincorporated Areas

The 12,660 households located in Lee County’s unincorporated areas can choose one of two available options to meet their solid waste collection needs: drop-off sites or curbside collection through a contract with a licensed private waste hauler.

Drop-Off



Lee County's six solid waste drop-off facilities commonly referred to as "convenience centers", is the main method of waste collection for residents of the County's unincorporated areas. 81% (10,283) of the "unincorporated households" rely on the convenience centers for the collection of their bagged garbage, bulky trash and various recyclable materials. The 5,075 tons of municipal solid waste,

excluding recyclables, collected through these "centers" annually is transported by County personnel to Waste Management's Lee County Transfer Station (Permit #5304T-TRANSFER-1993) where it is then transferred to Waste Industries' Sampson County Landfill (Permit #8202-MSWLF-2000) for final disposal.

Curbside Collection

The *Lee County Solid Waste Ordinance* prohibits any person from engaging in the business of solid waste collection except under a license issued by the county. 19% (2,377) of the households within the unincorporated areas utilize the services of the licensed waste haulers currently operating within Lee County. These haulers collect an estimated 10,056 tons of residential waste annually according to a private agreement with participating homeowners. According to permit applications and quarterly reports, all collected residential waste is transported to Waste Management's Lee County Transfer Station (Permit #5304T-TRANSFER-1993) where it is then transferred to Waste Industries' Sampson County Landfill (Permit #8202-MSWLF-2000) for final disposal.

City of Sanford

The City of Sanford provides weekly curbside garbage and recycling service for its 8,830 households according to a contract with Waste Management of the Carolinas, Inc. The estimated 7,780 tons of garbage collected annually is transported to Waste Management's Lee County Transfer Station (Permit #5304T-TRANSFER-1993) where it is then transferred to Waste Industries' Sampson County Landfill (Permit #8202-MSWLF-2000) for final disposal.



The City of Sanford uses public employees and resources to collect an estimated 1,200 tons of bulky trash annually. Bulk Trash including furniture, mattresses and other large items is collected curbside and transported to Waste Management's Lee County Transfer Station (Permit #5304T-TRANSFER-1993) where it is then transferred to Waste Industries' Sampson County Landfill (Permit #8202-MSWLF-2000) for final disposal.

Town of Broadway

Residential waste generated within the Town of Broadway is collected curbside according to a 5 year contract with Waste Management of the Carolinas, Inc. The estimated 512 tons of waste collected from Broadway residents annually is carried to Waste Management's Lee County Transfer Station (Permit #5304T-TRANSFER-1993) where it is then transferred to Waste Industries' Sampson County Landfill (Permit #8202-MSWLF-2000) for final disposal.

The Town of Broadway uses public employees and resources to collect an estimated 26 tons of bulky trash annually. The bulk Trash collected curbside is transported to Waste Management's Lee County Transfer Station (Permit #5304T-TRANSFER-1993) where it is then transferred to Waste Industries' Sampson County Landfill (Permit #8202-MSWLF-2000) for final disposal.

Non-Residential (Commercial-Industrial-Institutional)

An estimated 36,515 tons of non-residential waste, not including diverted wastes, is collected annually throughout the planning area. 97% of this waste is collected according to a contract between the generator and private haulers licensed to do business in Lee County. Approximately 63% of this waste is collected by a licensed waste hauler and transported to either the City of Fayetteville/Waste Industries Transfer Station (Permit #2609-TRANSFER) or Waste Management's Lee County Transfer Station (Permit #5304T-TRANSFER-1993) where it is then transferred to Waste Industries' Sampson County Landfill (Permit #8202-MSWLF-2000) for final disposal. The remaining 37% has historically been hauled from the site of generation directly to one of the following facilities:

- | | |
|--|-------------------------|
| • Uwharrie Environmental Reg. Landfill | Permit #6204-MSWLF-1995 |
| • WI-Sampson Co. Disposal Inc. | Permit #8202-MSWLF-2000 |
| • Rowan County Landfill | Permit #8003-MSWLF-1988 |
| • Lee County Landfill SC, LLC | Permit #U0034-MSWLF |
| SC #312411-1101 | |



The remaining 3% or 1,053 tons is generated by Lee County Government offices, parks and recreational facilities and the County's schools. This waste is collected by county crews and transported to Waste Management's Lee County Transfer Station (Permit #5304T-TRANSFER-1993) where it is then transferred to Waste Industries' Sampson County Landfill (Permit #8202-MSWLF-2000) for final disposal.

B. CONSTRUCTION AND DEMOLITION WASTE (C&D)

Residential

Unincorporated Areas

Lee County does not provide a service for the collection of construction and demolition wastes generated within the Planning Area's unincorporated areas. The management of C&D waste is the responsibility of the generator and can be managed in any of the following ways:



1. Generator takes C&D wastes directly to Waste Management's Lee County Transfer Station (Permit #5304T-TRANSFER-1993) where it is then transferred to Waste Industries' Sampson County Landfill (Permit #8202-MSWLF-2000) for final disposal.
2. Generator hauls C&D wastes directly to a permitted C&D debris landfill.
3. Generator can contract with a County licensed waste hauler to transport C&D wastes to the aforementioned transfer station or a permitted C&D debris landfill.

City of Sanford

The City of Sanford provides curbside collection of C&D wastes generated by small project "do it yourselfers." C&D waste collected curbside by City crews is transported to Waste Management's Lee County Transfer Station (Permit

#5304T-TRANSFER-1993) where it is then transferred to Waste Industries' Sampson County Landfill (Permit #8202-MSWLF-2000) for final disposal.

The City of Sanford does not provide a service for the collection of C&D wastes generated by large construction or demolition projects or by contractors.

Town of Broadway

The Town of Broadway provides curbside collection of small amounts of homeowner generated C&D wastes. C&D waste collected curbside by Town crews is transported to Waste Management's Lee County Transfer Station (Permit #5304T-TRANSFER-1993) where it is then transferred to Waste Industries' Sampson County Landfill (Permit #8202-MSWLF-2000) for final disposal.

The Town of Broadway does not provide a service for the collection of C&D wastes generated by large construction or demolition projects or by contractors.

Non-Residential (Commercial-Industrial-Institutional)

Construction and demolition wastes generated within the planning area's commercial-industrial-institutional sector are managed by the generator. Lee County does not provide a service for the collection of non-residentially generated C&D wastes.

C. LAND CLEARING AND INERT DEBRIS (LCID)

Unincorporated Areas

Lee County does not provide a service for the collection of land clearing and inert debris generated within the Planning Area's unincorporated areas. The management of land clearing and inert debris is the responsibility of the generator.

City of Sanford

The City of Sanford provides curbside collection of some homeowner generated land clearing debris including brush, limbs, leaves, and other naturally occurring

vegetative materials. Collected debris is transported directly to the City's compost facility (Permit #5303-COMPOST-1992).

The City of Sanford does not provide a service for the collection of inert debris generated within the City. The management of inert debris is the responsibility of the generator.

Town of Broadway

The Town of Broadway provides curbside collection of some homeowner generated land clearing debris and inert debris. Small amounts of LCID including brush, leaves, limbs, brick, concrete and asphalt is transported directly to Blaylock Grading Stump Dump in Harnett County.

D. WHITE GOODS (WG)

A detailed narrative of the Planning Area's white goods program can be found in Section 6, Item J Management of Special Wastes.

Unincorporated Areas

White goods, large appliances including, but not necessarily limited to refrigerators, ranges, water heaters, freezers, air-conditioners, washing machines, clothes dryers, and dishwashers generated within the unincorporated areas of Lee County are accepted from residents at all of the six staffed convenience centers.

County crews transport the white goods and scrap metal collected at the County's convenience centers to a staging area located at the Lee County Resource Management Facility (formerly the C&D Debris Landfill). Refrigerant bearing white goods are segregated from non-refrigerant bearing white goods and other scrap metal. White goods and scrap metal are recycled according to a contract between Lee County and Metal Recycling Services (formerly Stateline Scrap Metal, Inc.). Prior to transportation off site, Metal Recycling Services uses EPA certified technicians to remove any and all gases from all refrigerant bearing white goods including, but not necessarily limited to refrigerators, freezers, and air-conditioners. All recovered gases are sold by Metal Recycling Services to C.C. Dickson Co.

The County's white goods/scrap metal staging area located at the Lee County Resource Management Facility (formerly the C&D Debris Landfill) accepts white goods and scrap metal from all generators located within the Planning Area.

City of Sanford

White goods and scrap metal are collected curbside throughout the City of Sanford. Once collected, refrigerant bearing white goods are transported to the staging area located at the Lee County Resource Management Facility (formerly the C&D Debris Landfill) where they are processed according to the County's program. Non-refrigerant bearing white goods and scrap metal are transported to Lee Iron and Metal Co., Inc. for recycling.

Town of Broadway

The Town of Broadway provides its residents with a curbside collection of white goods and scrap metal. White goods and scrap metal are transported to Lee Iron and Metal Co., Inc. for recycling.

E. SCRAP TIRES (ST)

Lee County residents, including the City of Sanford and the Town of Broadway, can bring up to 5 waste tires to the Lee County Resource Management Facility (formerly the C& D Debris Landfill). Collected tires are transported to Central Carolina Tire Disposal (CCTD) in Cameron, North Carolina.

The City of Sanford and the Town of Broadway provide their residents with a periodic curbside collection of tires which are hauled directly to CCTD.

Generators with large quantities of waste tires, including tire retail outlets, are required to haul tires directly to a permitted recycling/disposal facility.

A detailed narrative of the Planning Area's scrap tire program can be found in Section 6, Item J. Management of Special Wastes.

F. ELECTRONICS (EL)

A detailed narrative of the Planning Area's electronics program can be found in Section 6, Item J Management of Special Wastes.

Unincorporated Areas

Unwanted electronics (anything with a cord) are accepted at all of Lee County's six convenience centers. Items collected at the centers are transferred by County personnel to a staging area at the County's Resource Management Facility (formerly the Lee County C&D Landfill) where they are sorted, palletized and shrink-wrapped according to market specifications. All items are transported off site and marketed according to an agreement between Lee County and Synergy Recycling, LLC located in Madison, North Carolina. Synergy Recycling, LLC is an R2 certified electronics recycling vendor.

City of Sanford

The City of Sanford collects residentially generated electronic equipment as a part of its regular curbside waste collection program.

Curbside collected items are brought to a central staging area located at the City's Public Works Facility where they are sorted, palletized and shrink-wrapped according to market specifications. All items are transported off site and marketed according to an agreement with Synergy Recycling, LLC located in Madison, North Carolina.

Town of Broadway

Residents of the Town of Broadway can set out their unwanted electronic equipment at the curb for collection by Town crews.

All items collected curbside are transferred to the staging area at the County's Resource Management Facility (formerly the Lee County C&D Landfill) where they are managed with those collected by the County.

SECTION 6. ASSESSMENT AND ACTIONS

The following planning element narratives outline an integrated strategy designed to meet the Planning Area's adjusted waste reduction goal of 25% by FY 2021-22.

A. REDUCTION AT THE SOURCE

Residential

Current Programs:

The Planning Area has participated in a number of waste reduction initiatives including a Master Waste Manager workshop, Envirosopping workshop, junk mail reduction program and public presentations designed to promote source reduction and detoxification of the waste stream. In March, 2010 Lee County joined Chatham, Durham, Orange and Wake Counties under the Triangle J Council of Governments umbrella in a media campaign designed to reduce unwanted mail. The “Free My Mailbox” campaign utilizes social media, radio spots, print media and giveaways to lead residents to a website (www.freemymailbox.com) where users can opt out of unwanted phone books, catalogs and other junk mail.

Assessment:

In recent years the Lee County Planning Area has dedicated its limited resources to the expansion of recycling opportunities at the expense of residential waste prevention or source reduction strategies. However, the Planning Area recognizes that to affect significant progress in waste reduction it must make a commitment to the implementation of programs designed to discourage waste generation at the source.

Intended Actions:

The Lee County Planning Area realizes the importance of promoting residential source reduction opportunities as an integral part of its strategy in meeting its waste reduction goals. This initiative will include the following actions:

- Develop and implement a social media campaign utilizing sources including, but not necessarily limited to Facebook, Twitter, LinkedIn, You Tube and Greenopolis.
- Continue to promote the Free My Mailbox website as a tool to reduce unwanted mail. The “Free My Mailbox” campaign can potentially divert up to 70 lbs. of unwanted mail per household annually. An estimated 5% (1,104 households) participation rate could affect a reduction of up to 40 tons per year.
- Evaluate the feasibility of unit based pricing, more commonly known as Pay-As-You-Throw (PAYT), as a waste reduction strategy. PAYT provides a financial incentive for convenience center users to minimize waste generation and maximize reduction, reuse and recycling. Communities that have adopted PAYT programs have reduced their waste by 14% - 17% in the first year.

Commercial-Industrial-Institutional (C-I-I)

Current Programs and Assessment:

Many of the planning areas' industrial facilities have taken leadership roles in the implementation of environmentally responsible policies and procedures. These companies have found that in many cases simple industrial process changes have resulted not only in reducing waste, but in substantial cost savings. These companies include, but are not necessarily limited to Frontier Spinning Mills, Inc., Caterpillar, Moen Inc., Coty and Tyson Mexican Original. Coty US, LLC for example held a "Rapid Improvement Event in November 2010 to collect recyclables generated on site. This event resulted in a \$90,000.00 savings to the company and increased its landfill diversion rate to 45%.

Intended Actions:

Lee County Government continues to increase its commitment to waste reduction through source reduction and waste prevention by evaluating its own operations in an effort to implement enhanced waste management strategies and programs. In July, 2006, the County formed the *Waste Reduction and Recycling Committee* of county employees brought together to develop and implement efficient and effective programs and practices that support reduction, reuse, recycling, recycled content purchasing. The *Waste Reduction and Recycling Committee* developed and distributed a *Waste Reduction and Recycling Guide* to educate County employees about recycling opportunities and ways to reduce office waste. A copy of the *Guide* is included in Appendix F.

B. COLLECTION

Residential

Unincorporated Areas

Current Programs:

- A description of Lee County's municipal solid waste collection program is detailed in *Section 5 Waste Handling Characterization*.

Assessment:

- The current methods of waste collection available to the residents of Lee County's unincorporated areas meet their needs at the present time.

Intended Actions:

- There are no actions or changes planned regarding the collection of residential msw within the unincorporated areas of Lee County during this planning period.

City of Sanford

Current Programs:

- A description of the City of Sanford's municipal solid waste collection program is detailed in *Section 5 Waste Handling Characterization*.

Assessment:

- The City of Sanford's waste collection program meets the needs of its residents.

Intended Actions:

- The contract between the City of Sanford and Waste Management of the Carolinas, Inc. for the curbside collection of solid waste and recyclables will expire June 30, 2013. The City is currently preparing a request for proposals for a private waste contractor to provide the curbside collection of municipal solid waste and recycling to be effective July 1, 2013.

Town of Broadway

Current Programs:

- A description of the Town of Broadway's municipal solid waste collection program is detailed in *Section 5 Waste Handling Characterization*.

Assessment:

- The Town of Broadway's waste collection program meets the needs of its residents.

Intended Actions:

- The contract between the Town of Broadway and Waste Management of the Carolinas, Inc. for the curbside collection of solid waste expires June 30, 2013. Prior to the expiration of said contract, the Town of Broadway will reevaluate its current collection methods and decide on a course of action including a new contract for the curbside collection by a private hauler.

Non-Residential (Commercial-Industrial-Institutional)

Current Program:

- A description of non-residential municipal solid waste collection within the Planning Area is detailed in *Section 5 Waste Handling Characterization*.

Assessment:

- The current non-residential waste collection program meets the needs of the planning area.

Intended Actions:

- There are no actions or changes planned regarding the collection of non-residential solid waste during this planning period.

Construction and Demolition Debris

Current Program:

- A description of construction and demolition debris management within the Planning Area is detailed in *Section 5 Waste Handling Characterization*.

Assessment:

- Methods of construction and demolition debris collection have historically met the needs of the Planning Area, however, since the closing of Lee County's C&D Landfill many unincorporated residents have requested that these materials be accepted at the convenience centers. The convenience centers are not equipped to accept large amounts of construction and demolition wastes.

Intended Actions:

- Lee County has no plans to implement a program to collect large amounts of construction and demolition wastes. However, the Solid Waste Division is evaluating the feasibility of accepting small amounts of these wastes from County homeowners (no contractor waste will be accepted) at its Resource Management Facility (formerly C&D Landfill) for offsite management at a permitted C&D facility.

C. RECYCLING AND REUSE

The Lee County planning area has made a strong commitment to diverting wastes from landfills. As illustrated in TABLE C-1 and throughout this plan all major waste generators, both public and private, have implemented waste diversion programs, including recycling and reuse. According to available data the planning area is currently diverting an estimated 22% of its waste stream.

TABLE C -1: Summary of Waste Diversion in the Lee County Planning Area (FY 2007-08)

GENERATOR	TONS DISPOSED	TONS DIVERTED*	TOTAL TONS	% RECYCLED
Residential	23,792	9,872	33,664	29%
Commercial- Industrial- Institutional	35,785	7,187	42,972	17%
TOTAL	59,577	17,059	76,636	22%

Source: C-I-I surveys, Planning Area Data and County Waste Disposal Report July 1, 2007 - June 30, 2008.

*Includes "wastes" addressed as composted or mulched (see Section 6 - D) and special wastes (see Section 6 - J).

Residential

Unincorporated Areas

Current Program:

The 12,660 households located throughout Lee County's unincorporated areas have access to a variety of recycling opportunities. Recyclables generated by these households are collected through the County's six staffed convenience centers and account for approximately 8% of the measurable total of recyclables collected throughout the Planning Area. Table C-2 shows recycling data for residential programs during fiscal year 2011-12. (Note that data includes "Special Wastes" that are described in greater detail in Section 6 – J Management of Special Wastes).

TABLE C-2: Summary of Residential Recycling in Lee County's Unincorporated Areas

MATERIAL	AMOUNT RECYCLED	POINT OF COLLECTION	PROCESSOR/MARKET
Corrugated Cardboard	203.35 tons	Convenience Centers	Sanford Recycling
Newsprint/Magazines	292.72tons	Convenience Centers	The News & Observer Recycling
Used Beverage Containers	11.80 tons	Convenience Centers	Sanford Recycling
Steel Cans	*	Convenience Centers	Stateline Scrap Metal
Glass Containers – Clear	59.36 tons	Convenience Centers	Sanford Recycling
Brown/Green	82.18 tons	Convenience Centers	Sanford Recycling
Plastic Containers HDPE	26.06 tons	Convenience Centers	Sanford Recycling
PETE	48.10 tons	Convenience Centers	Sanford Recycling
White Goods/Scrap Metal	361.94 tons	Convenience Centers	Stateline Scrap Metal
Tires	4.56 tons	Landfill Area	Central Carolina Tire Disposal
Used Motor Oil	6,094 gallons	Convenience Centers	Noble Oil Services
Used Oil Filters	3,250 filters	Convenience Centers	Noble Oil Services
Used Anti-freeze	318 gallons	Convenience Centers	Noble Oil Services
Lead Acid Batteries	3.75 tons	Convenience Centers	Interstate Batteries
Electronics	122.61 tons	Convenience Centers	Synergy Recycling
Rechargeable Batteries	.02 tons	Convenience Centers Drop off Locations	RBRC
Ink Jet Cartridges	NA	Convenience Centers	Recycle Rewards
Cell Phones	NA	Convenience Centers	Habitat for Humanity
Cooking Oil	501.20 gallons**	Convenience Centers	Griffin Industries
Textiles	35.43 tons	Convenience Centers	Planet Aid
HHW	4.29 tons	HHW Collection Event	Clean Harbors

Source: Lee County Solid Waste Records

*Steel cans are collected comingled with scrap metal.

**Includes oil collected from Lee County Schools



In March, 2009 the menu of materials accepted as recyclables was expanded to include old clothing and footwear through a partnership with Planet Aid. This partnership with Planet Aid, a non-profit organization dedicated to improving the lives of people in developing countries, diverts 35 tons of textile "waste" annually.

Assessment:

The planning area has implemented a wide range of residential recycling and reuse opportunities. However, a disappointing 34% of regular convenience center users are actually participating in them. Participation is even lower when the number of households using private waste collectors is factored in.

Intended Actions:

In an effort to increase recycling and reuse within the planning area, Lee County Solid waste plans to implement the following:

- Lee County has set a goal to increase participation in our recycling programs by 30% over the planning period. Through surveys and feedback of regular convenience center users, Lee County hopes to identify barriers to participation. Identification of said barriers will allow the Solid Waste Division to adjust its program accordingly. A 30% increase in participation could divert up to 660 tons annually.
- News and Observer Recycling currently collects newspaper and magazines from the County Convenience centers for recycling. Recently N&O has begun adding more paper items to its menu of materials acceptable for recycling including office paper and junk mail. In April, 2013, to coincide with Earth Day, Lee County plans to add office paper and junk mail to its menu of recyclables. These additional items have the potential to divert an additional 180 tons of material from the landfill annually.
- Lee County plans to expand its residential recycling menu to include hardcover and paperback books in the Fall of 2012.
- Develop and distribute a "re-use guide" designed to make the areas' residents aware of local repair shops, thrift shops, and charitable organizations that accept donations of used household items that might otherwise be thrown away. The "guide", to be published in November 2013, to coincide with America Recycles Day, will also include a section on waste reduction methods at home and at the

office. The potential diversion of materials through reuse cannot be measured through available data at this time.

City of Sanford

Current Program:



53% (7,907.05 tons) of the waste stream managed by the City of Sanford is recycled. The City of Sanford provides, through a contract with Waste Management of the Carolinas, Inc., weekly curbside collection of recyclables for its 8,830 single family households. Recyclables are collected commingled using a single 18 gallon green box and are transported to Waste Management's Recycle America Material Recovery Facility in Raleigh, North

Carolina for processing. Recycling collection for multi-family residences or apartments is available upon request. Approximately 35% of the City's residents currently participate in the "green box" program. These recyclables, including newspaper, plastic containers, glass containers, used beverage containers, and steel cans, account for nearly 10% (782 tons) of the diverted waste or 5.2% of the waste stream managed or controlled by the City.

White Goods, scrap metal, tires, lead-acid batteries, and yard wastes are collected curbside by city crews. These items represent 90% (7,125.05 tons) of the diverted waste. Programs dealing with the management of these wastes are described in greater detail in the Special Wastes and Composting and Mulching sections of this Plan. Table C-3 shows recycling data for recyclables collected by the City of Sanford during fiscal year 2011-12.

TABLE C-3: Summary of Residential Recyclables Collected in the City of Sanford (FY 2011-12)

MATERIAL	AMOUNT RECYCLED	POINT OF COLLECTION	PROCESSOR/MARKET
Newspaper	328 tons	Curbside	WM's Recycle America MRF
Cardboard	78 tons	Curbside	WM's Recycle America MRF
Magazines	20 tons	Curbside	WM's Recycle America MRF
Mixed Paper	13 tons	Curbside	WM's Recycle America MRF
Plastic Containers		Curbside	WM's Recycle America MRF
HDPE	16 tons		
PETE	16 tons		
Other	16 tons		
Glass Containers		Curbside	WM's Recycle America MRF
Clear	78 tons		
Brown	78 tons		
Green	78 tons		
Used Beverage	31 tons	Curbside	WM's Recycle America MRF

Containers			
Steel Cans	30 tons	Curbside	WM's Recycle America MRF
Tires	3 tons	Curbside	Central Carolina Tire Disposal
Scrap Metal	44 tons	Curbside	Lee Iron & Metal
White Goods	4 tons	Curbside	Lee County C&D Landfill
L-A Batteries	.05 tons	Curbside	Local Auto Parts Stores
Yard Wastes	7,074 tons	Curbside	City of Sanford Compost Facility
E-Waste	14.97 tons	Curbside	Synergy Recycling

SOURCE: City of Sanford records for FY 2011-12

Assessment:

The City of Sanford's current residential recycling programs meet the needs of its residents.

Intended Actions:

- The contract between the City of Sanford and Waste Management of the Carolinas, Inc. covering the curbside collection of recyclables expires in 2013. The City plans to renegotiate or enter a new contract with a private hauler for the curbside collection of recyclables prior to the expiration of its current contract on June 30, 2013.
- The City of Sanford will replace the 18 gallon recycling bins with 96 gallon roll-out carts. The purchase and distribution of these carts to each of the 8,830 homes throughout the City of Sanford will take place by January 1, 2013. This action is expected to remove an additional 742 tons of materials from the waste stream.

Town of Broadway

Current Program:

The Town of Broadway does not provide a curbside recycling program for its residents. However, the Town of Broadway does provide a drop off area for residents who wish to recycle. This program was responsible for the diversion of 100.56 tons of materials from the waste stream. Table C-4 shows recycling data for recyclables collected by the Town of Broadway during fiscal year 2011-12.

TABLE C-4: Summary of Residential Recyclables Collected in the Town of Broadway (FY 2011-12)

MATERIAL	AMOUNT RECYCLED	POINT OF COLLECTION	PROCESSOR/MARKET
Newspaper	8.00 tons	Drop-off	WM's Recycle America MRF
Cardboard	65.00 tons	Drop-off	WM's Recycle America MRF
Co-mingled Containers	25.30 tons	Drop-off	WM's Recycle America MRF
White Goods/Scrap Metal	2.00 tons	Curbside Collection	County Program/Lee Iron and Metal
Electronics	0.26 tons	Curbside Collection	Synergy Recycling

SOURCE: Town of Broadway Solid waste and Materials Management Annual Report for FY 2011-12

Assessments:

The Town of Broadway's current waste management programs meet the needs of its residents.

Intended Actions:

The Town of Broadway will add curbside recycling as an alternate when it bids a new contract for the curbside collection of garbage to begin July 1, 2013. The Town will at that time reevaluate the feasibility of implementing a curbside recycling program. Implementation of curbside recycling could affect the diversion of up to 104 tons annually.

Commercial-Industrial-Institutional (C-I-I)

Lee County controls or manages approximately 3% of the estimated 42,972 tons of discards generated throughout the planning areas C-I-I sector. The remaining 97% is managed by the generator through private contracts. As a result, measurement of the extent of C-I-I recycling programs is difficult and the following narrative may only present a partial picture.

Current Programs and Assessment:

County Managed Away-From-Home Recycling

Lee County has dedicated substantial resources to recycling programs servicing the County's schools, governmental offices, public parks and recreational facilities and various non-profit organizations. Since 2004 Lee County has received over \$36,000 in grants from NCDENR's *Community Waste Reduction and Recycling Grant* program to help fund the implementation of "away-from-home" recycling programs and promotional materials. These funds were used to purchase specially designed containers to aid the separation of various materials from this waste stream, as well as promotional materials. Since the 2006-16 update this program has expanded to all of the County's 15 public schools. An estimated 103 tons of recyclables, including newspaper, magazines, mixed office paper, corrugated cardboard and commingled containers are collected through these programs annually.



TABLE C-4: Summary of County Managed C-I-I Sector Recycling

MATERIAL RECOVERED	AMOUNT RECOVERED
Cardboard	62.22 tons
Mixed Paper	28.82 tons
Newspaper and Magazines	3.69 tons
Commingled containers	2.35 tons
Books	5.10 tons

Source: Lee County Solid Waste Records

Privately Managed Recycling

In an effort to gauge the level of waste reduction, recycling and reuse among the planning areas' commercial and industrial sector, Lee County sent out surveys asking for information regarding existing programs. Responses to these surveys have identified waste reduction and recycling programs ranging from office paper and used beverage containers to programs targeting a wide variety of materials specific to the nature of the generator. According to available records, these programs are responsible for the recycling of 7,187 tons of waste annually.

In March 2012, EPI Recycling Solutions opened a plastic recycling facility in Sanford and is currently recycling approximately 600 tons of post-industrial plastic waste from the Planning Area's industrial sector. EPI's Sanford facility will be fully operational in November 2012 and is expected to divert up to 2,400 tons of materials from the waste stream annually.

Intended Actions:

Where the County has limited or no control it will continue to play an advisory role in helping small businesses and industries implement recycling programs. Lee County will continue to promote and implement C-I-I recycling programs in areas where it has control over the management of waste. This will include:

- Expand away-from-home recycling into parks and recreational facilities where it does not currently exist. This expansion will continue according to available resources.
- Implement a bin lending program for the expansion of away-from-home recycling to festivals, fairs and other special events.

D. COMPOSTING AND MULCHING

A list of facilities available to Planning Area residents for the management through composting or mulching of various organic “waste” are outlined in Table D-1.

TABLE D-1: COMPOSTING/MULCHING FACILITIES AVAILABLE TO PLANNING AREA

FACILITY	LOCATION	MATERIALS ACCEPTED	ACCEPTED GENERATORS
Lee County Resource Management Facility	Lemon Springs, NC	Limbs, Trees, Stumps, Brush, Leaves, Grass, other naturally occurring vegetative materials	All Planning Area (Lee County Residents
City of Sanford Compost Facility	Sanford, NC	Limbs, Trees, Stumps, Brush, Leaves, Grass, other naturally occurring vegetative materials	City of Sanford Residents
McGill Environmental Systems, Inc.	New Hill, NC	Animal Waste*, Food Waste, Grease Trap Waste, Municipal/Industrial Biosolids, Wood Wastes, Sheetrock	All Planning Area (Lee County Residents
Brooks Contractor Compost Facility	Goldston, NC	Wood & Paper Materials, Clean Wood Wastes, Waxed Cardboard, Food Scraps, Food Processing Wastes, Grease Trap Wastes, Hatchery Waste, Leaves	All Planning Area (Lee County Residents

*Predominantly Poultry Processing Wastes

Unincorporated Areas

Current Program:

The unincorporated areas of Lee County are predominantly rural in character and much of the yard wastes and organic land clearing debris including leaves, grass, stumps, limbs

and other brush are managed at the point of generation. On site management methods might include pushing the debris to an unused portion of the generation site where weather and time will take care of it or in many cases these wastes are burned. The County does, however, offer its citizens other options for dealing with these wastes

Mulching



Lee County provides an area at its County Resource Management Facility (formerly C&D Landfill) for the management of many organic wastes generated throughout the planning area. These wastes include yard wastes, stumps, limbs, trees and brush. In 2011, Lee County ground 563.72 tons of yard waste, stumps and brush. into mulch suitable for use by area residents and landscapers. The County's composting and mulching programs cost

approximately \$64,248 annually.

Since July 30, 2008 pallets and clean wood waste have not been accepted at the Lee County Resource Management Facility (formerly C&D Landfill) for grinding into mulch/wood chips. Generators of these materials are directed to local facilities that reuse or mulch these materials.

Backyard Composting

In 2004, Lee County General Services and the Lee County Cooperative Extension Service co-sponsored a backyard composting workshop. The 45 individuals who participated in this workshop learned the basics of starting their own backyard composting or vermicomposting enterprise. This workshop was an effective method to promote waste reduction through backyard composting at no cost to the County. The County plans to conduct similar workshops in the future.



As a follow-up to the backyard composting workshop, Lee County sponsored a compost bin sale. 150 "Earth Machines" were sold to County residents for \$38.00/bin. Based on national statistics we have estimated that this program is responsible for an estimated annual diversion of 37.5 tons of food and yard trimmings from the planning area's waste stream.

Assessment:

The composting and mulching programs provided by Lee County are the most economically practicable methods available at this time.

Intended Actions:

Lee County plans to continue its mulching program, but in an attempt to maximize the removal of organics from the waste stream the County plans to increase its efforts to include the following:

- Take advantage of International Compost Awareness Week, celebrated the first full week of May, to promote compost as a means of resource management. Activities may include displays, workshops and future compost bin sales. The annual sale of compost bins could result in the diversion of an estimated 37 tons of food and yard trimmings annually.
- The County currently gives away its mulch to interested parties at no cost. In an effort to generate additional revenue to help pay for the cost of the program, the County will investigate the option of selling its product.

City of Sanford

Current Programs:

Composting and Mulching



The City of Sanford currently owns and operates a compost facility according to conditions outlined in permit number 53-03-YW issued by the North Carolina Department of Environment and Natural Resources' Solid Waste Management Division. This permit was issued on July 2, 1992. In February, 1998 the City of Sanford was permitted to operate a large, type III compost facility under permit number SWC-53-03. This permit was renewed in 2010 for an additional five year period. This facility, located on 55 acres of property adjoining the City's Public Works Service Center in northeast Sanford, produces compost and woodchips suitable for use by the areas' residents and landscapers.

City crews collect an estimated 3,000 tons of loose leaves at the curb year round. The leaves are windrowed at the compost facility for the composting process. Animal manure such as chicken litter is periodically added to speed the process as well as irrigation by City Crews. The leaves are aerated with a compost turner weekly. Mature compost is produced in approximately 10 to 12 months.



City crews also collect an estimated 3,050 tons of limbs and brush at the curb throughout the year. Limbs and brush are ground into woodchips by a private contractor approximately every 6 months for sale to the public.

Backyard Composting

Backyard composting is encouraged by the City of Sanford but few City resources are dedicated to its promotion other than support of the County's efforts.

Assessment:

The collection of leaves, limbs and other yard wastes costs the City of Sanford an estimated \$115 per ton. Revenue from the sale of screened compost and woodchips during 2011 amounted to \$50,960.00.

Intended Actions:

The City of Sanford's composting and mulching program meets the needs of its residents and, therefore, has no plans to make any changes. The City will, however, continue to apply for renewal of its permit to operate the compost facility.

Town of Broadway

Current Programs:

The Town of Broadway does not provide a composting or mulching program for its residents. Town residents rely on the Lee County programs as described earlier in this section.

Assessment:

Lee County's composting and mulching programs meet the needs of the residents of the Town of Broadway.

Intended Actions:

The Town of Broadway has no plans to implement a composting or mulching program at this time.

Private Facilities

In addition to the government controlled composting and mulching options available to the Planning Area there are a number of privately owned and operated facilities including those outlined in Table D-1.

E. INCINERATION with energy recovery

As noted in its original 10-year plan (July 1, 1996 – July, 2006), the Planning Area considers incineration an inappropriate waste management option due to the local waste flow, public opinion, and capital/operating costs.

Intended Actions:

The Planning Area does not have any plans to utilize incineration with energy recovery in the management of its solid waste. However, the Planning Area will monitor developments in waste-to-energy technology and re-evaluate this method as a waste management alternative to landfilling should local or regional circumstances change.

F. INCINERATION without energy recovery

Current Program and Assessment:

Except in the case of regulated medical waste, the Planning Area does not utilize incineration as a method of solid waste management. As noted in its original 10-year plan (July 1, 1996 – July, 2006), the Planning Area considers incineration an inappropriate waste management option due to the local waste flow, public opinion, and capital/operating costs.

Intended Actions:

The Planning Area does not have any plans to utilize incineration without energy recovery in the management of its solid waste.

G. TRANSFER OUTSIDE GEOGRAPHIC AREA COVERED BY THE PLAN

Current Program:

According to the annual reports filed by landfills, treatment and processing facilities, and transfer stations as required by the North Carolina Department of Environment and Natural Resources an estimated 59,577.23 tons of municipal solid waste was transported outside the planning area in FY 2011-12. This waste was transported via transfer station, private hauling contract and/or direct haul. Facilities utilized for disposal of waste generated within the planning area are summarized in Table F-1.

Transfer Station



Waste Management, Inc. owns and operates the only transfer station located within Lee County. This facility accepts garbage, trash, bulky waste, and light construction and remodeling debris for a tipping fee as outlined in a contract between Lee County and Waste Management. 69% (41,147 tons) of the municipal solid waste transferred outside of the planning area is accepted at this facility and hauled approximately 72 miles (one way) to Waste Industries' Sampson County

Landfill in Roseboro, North Carolina. Approximately 5% (2,644 tons) of the municipal solid waste generated in the Planning Area is transferred to the WI-Sampson County Landfill through Waste Management's Chatham County Transfer Station in Siler City, NC and the City of Fayetteville/Waste Industries Transfer Station.

Other

26% (15,786 tons) of the solid waste transferred outside of the planning area is hauled to the disposal facility directly from the point of generation. This waste consists primarily of wastes generated within the Planning Area's industrial and institutional (medical facilities) sectors.

TABLE F-1: FACILITIES OUTSIDE THE PLANNING AREA ACCEPTING LEE COUNTY WASTE

FACILITY	LOCATION	PERMIT NUMBER	TYPE OF WASTE	DISPOSAL METHOD	AMOUNT DISPOSED ANNUALLY	% OF WASTE EXPORTED
WI-Sampson County Disposal, Inc.	Roseboro, NC	8202-MSWLF-2000	MSW	Landfill	43,934.00 tons	73.74%
Uwharrie Env. Reg Landfill	Mt. Gilead, NC	6204-MSWLF-1995	MSW	Landfill	10,831.35 tons	18.18%
Red Rock Disposal	Holly Springs, NC	9228-CDLF-2001	C&D	Landfill	4,736.05 tons	7.95%
Cobles C&D Landfill	Liberty, NC	0105-CDLF-1998	C&D	Landfill	.38 tons	<1%
Stericycle, Inc.	Concord, NC		Medical Waste	Steam Sterilization	18.42	<1%
Stericycle, Inc.	Haw River, NC	0102-ICIN-M	Medical Waste	Incineration	57.03	<1%

Source: Facility Annual Reports for the period July 1, 2011 - June 30, 2012

Assessment:

At its current rate of disposal, Lee County can expect to transfer approximately 718,254 tons of solid waste outside of the planning area over the next 10 years. At this time the planning area has determined that transferring this waste outside of Lee County is the most effective option for meeting its solid waste disposal needs. There are no plans to construct either an msw landfill or additional transfer stations within Lee County in the foreseeable future.

Intended Actions:

Lee County's contract with Waste Management, Inc. for use of the transfer station expires on June 30, 2013. Lee County is currently preparing to enter a new agreement with either Waste Management or some other waste management company.

H. DISPOSAL

Despite our best efforts to implement and promote waste reduction, reuse and recycling programs, the Lee County planning area still relies on landfills as its main method of solid waste management. FY 2011-12 statistics show that approximately 1.01 tons/capita of solid waste generated within the planning area is landfilled annually. This represents a 13% decrease over the baseline rate of 1.16 tons/capita. At the current rate of disposal it is anticipated that 777,020 tons of municipal solid waste will be landfilled over the next ten years.



Municipal Solid Wastes

Current Program:

59,577.23 tons of putrescible waste, including animal offal or carcasses, but excluding sewage and human waste, which definition, by way of example, but not by way of limitation, shall include refuse, garbage, trash, bulky waste, and light construction and remodeling debris generated by public and private enterprises and individuals within the planning area was disposed of in a sanitary landfill during FY 2011-12. 74% of this waste is disposed of at Waste Industries' Sampson County Disposal Inc. landfill via transfer station according to a contract between Lee County and Waste Management, Inc. The remaining 26%, which is primarily industrial waste, is hauled directly from the point of generation according to private agreements between the disposal facility and generator. Table F-1 gives a breakdown of disposal facilities utilized by the Planning Area.

Assessment:

Since the closure of Lee County's msw landfill in October, 1993 the planning area has investigated numerous options for developing a new single-county or regional landfill including a 2003 proposal by MMR of Raleigh to locate an msw landfill in Lee County and a 2004 regional landfill feasibility study among the Triangle J Council of Government communities. Neither of which proved to be in the best interests of Lee County at that time.

Lee County will continue to investigate all available options to meet its solid waste needs. However, at this time the Planning Area's current methods of waste disposal are the most efficient and provide enough disposal capacity to meet its needs beyond the current planning period (2012-2022).

Intended Actions:

Lee County's current contract with Waste Management, Inc. for use of their transfer station expires on June 30, 2013. Prior to that time Lee County will decide whether to enter a new agreement with Waste Management or with some other waste management company to cover the disposal of solid waste.

Construction & Demolition Debris (C&D)

Current Program:

According to statistics reported by the US EPA, Construction and demolition debris make up an estimated 12.3% of the waste stream. Prior to its closure on June 30, 2008 the primary facility for disposal of this waste was the Lee County C&D Debris Landfill. Currently, however, construction and demolition wastes are either hauled directly to the transfer station or to a privately owned and operated facility outside of the planning area.



Assessment:

Waste Management's Lee County Transfer Station and other privately owned facilities located outside of the planning area have disposal capacity to extend beyond this planning period.

Intended Actions:

The planning area has no plans to revise current management practices for the disposal of construction and demolition debris.

Land Clearing & Inert Debris (LCID)

Current Program:

Land clearing and inert debris commonly include uncontaminated soil, stumps, tree limbs, grass and other natural occurring vegetative materials, untreated/unpainted wood, concrete, unpainted brick, unpainted concrete block, rock, gravel, and asphalt. Since the closure of the Lee County Construction and Demolition Debris Landfill on June 30,

2008, generators within the planning area must rely on private facilities for the disposal of these wastes. An inventory of private facilities available to the planning area for the disposal of land clearing and inert debris is included in Appendix D.

Assessment:

The methods for managing or disposing of LCID generated within Lee County meet the needs of the planning area.

Intended Actions:

The planning area has no plans to revise current management practices for the disposal of land clearing and inert debris.

I. EDUCATION WITH THE COMMUNITY AND THROUGH THE SCHOOLS

Unincorporated Areas

Current Programs:

Lee County is committed to providing strong programs designed to educate the community about waste reduction, reuse and recycling opportunities available throughout the planning area. The County reaches out to the community through the use of printed literature, local media, presentations to schools and community groups, and the use of state and national events.

Printed Literature

Lee County uses a number of brochures and flyers to promote its programs and educate the community. The centerpiece to our educational efforts is the “All Aboard” brochure which outlines the many recycling opportunities and solid waste services available within Lee County. This bi-lingual brochure was originally produced and distributed in 2004 with funds provided through NCDENR’s *Community Waste Reduction and Recycling Grant* program. This brochure which replaced the “Lee County Convenience Center Guide” originally printed in 1998 was distributed by mail to over 11,000 households within the unincorporated area at a cost of \$5,600.00. A copy of “All Aboard” is included in Appendix F.

In addition to “All Aboard”, the County distributes literature that is more generic and can be used to reach the City of Sanford and Town of Broadway residents. These materials, developed by Keep America Beautiful and other national organizations, deal with a number of waste related topics including waste oil recycling, litter prevention, purchasing products with recycled content, and proper paint reuse/disposal.

Local Media and Public Forums

The County has also taken advantage of local media and public forums to help get the message out. Articles, press releases, advertisements in local newspaper and television, and booths at the County fair and similar venues have become valuable informational/promotional tools in our efforts to educate the community about waste reduction, reuse, and recycling issues and opportunities.

Schools and Community Organizations

The County plays an active role in fostering solid waste and recycling education in the schools and among community organizations. This includes presentations presented by the Solid Waste Superintendent at the request of teachers and community leaders. These programs are presented to promote environmentally responsible solid waste programs including source reduction, recycling and purchasing recycled products. These presentations are, in many cases, generic in scope so as to benefit the residents of the City of Sanford and the Town of Broadway, as well as, the unincorporated areas of Lee County.

The “away-from-home” recycling programs, described in greater detail in Section 6 - C, implemented throughout the schools and County offices have also served as a tool to promote recycling by exposing students to recycling on a daily basis in the hope that the message will get home. The specially designed containers also double as prompts or reminders.



The *Waste Reduction and Recycling Committee* developed and distributed a *School Waste Reduction and Recycling Guide* to educate County school personnel, teachers and students about recycling opportunities and ways to reduce waste. A copy of the *Guide* is included in Appendix F.

Recycle Guys/RE3



Lee County has partnered with the North Carolina Department of Environment and Natural Resources' Division of Pollution Prevention in bringing the Recycle

Guys and RE3 campaigns to the public. As a partner, Lee County has incorporated many of the resources developed through these efforts into its education and promotional programs.

Lee County has also partnered with other communities within the Triangle region on unifying educational efforts where practicable. This group known as “SWEET” consists of representatives from the counties of Chatham, Durham, Lee, Orange, Wake, the cities of Durham and Raleigh and the Town of Cary.

Internet

Lee County's web site at www.leecountync.gov plays a vital role in helping to educate residents about solid waste issues and practices throughout the planning area.

Other



San-Lee Outdoor Recreation and Education Park holds “Recycle Week” as part of its Summer Camp programs. Recycle Week includes tours of local recycling facilities, reuse activities, learning opportunities and backyard composting demonstrations. In addition, Lee County participates in many national programs including America Recycles Day, Earth Day, and NC Big Sweep, to promote waste reduction, reuse and recycling opportunities

throughout the planning area.

Assessment:

The County believes that although increased recycling opportunities have had a positive effect, much of this success can be attributed to the intensified public education efforts described in this section. However, Lee County recognizes that it must intensify its program in an effort to reach the 2,377 unincorporated area households currently using private contractors for their waste collection needs, as well as the growing Hispanic population.

Intended Actions:

An estimated 28% of Lee County’s unincorporated area’s residents participate in the recycling and reuse opportunities on a regular basis. In an effort to increase participation in these programs, Lee County is currently developing ways to enhance its current educational efforts. These efforts will include a redesigned public education and promotional initiative using community based social marketing methods where

practicable. The essence of this initiative will be to foster sustainable behavior throughout the planning area.

In addition to the general restructuring of its efforts, the county plans to specifically do the following:

- Update the convenience center guide to reflect program changes. This update will be distributed beginning January, 2013.
- Redesign the promotional program to address the feedback from the public and changes to the program. It is our goal to increase recycling program participation by 30% during the planning period which could divert an estimated 660 tons of material per year.
- Replace current convenience center signs with new bi-lingual signs where practicable. This action is an on-going process and will be completed according to available resources.

City of Sanford

Current Programs:

The City of Sanford utilizes the education and public awareness programs administered by Waste Management of the Carolinas, Inc. according to the collection contract. The contractor is also responsible for notifying residents through the local media of any changes in service.

The City of Sanford prepares and distributes brochures for the compost facility and bi-lingual door hangers are used to advise residents of solid waste services. The City also uses radio, television and print media to advertise and promote City waste services.

Assessment:

The City of Sanford's educational and promotional efforts meet the needs of the City's residents.

Intended Actions:

The City of Sanford will continue to take advantage of educational programs offered by Waste Management of the Carolinas, as well as work with local media to educate the

public about solid waste services. This will also include booths at community events and the Lee County Fair.

Town of Broadway

Current Programs:

The Town of Broadway utilizes the education and public awareness programs administered by Waste Management of the Carolinas, Inc. according to the collection contract. The contractor is also responsible for notifying residents through the local media of any changes in service.

Assessment:

The Town of Broadway's educational and promotional efforts meet the needs of the City's residents.

Intended Actions:

The Town of Broadway will continue to take advantage of educational programs offered by Waste Management of the Carolinas, as well as work with local media to educate the public about solid waste services.

J. MANAGEMENT OF SPECIAL WASTES

Special wastes are solid wastes which require handling, disposal and/or recycling by methods other than those used to manage conventional wastes. These wastes include tires, white goods, electronics, abandoned manufactured homes, household hazardous wastes, fluorescent lights, pesticide containers, used motor oil, used oil filters, used antifreeze, cooking oil and grease, lead acid batteries, rechargeable batteries, and ink jet and toner cartridges.

1. Scrap Tires

Current Program:

Lee County residents, including the City of Sanford and the Town of Broadway, can bring up to 5 waste tires to the Lee County Resource Management Facility (formerly the C& D Debris Landfill) for transfer at no charge. However, tires on rims or those that are ineligible for free disposal (generated outside of North Carolina) are charged a \$75.00/ton tipping fee.



directly to CCTD.

All tires brought to the facility are stored in an open-ended roll-off container to prevent them from becoming a breeding ground for mosquitoes and other animals. Once the container is full it is transported to Central Carolina Tire Disposal (CCTD) in Cameron, North Carolina. The City of Sanford provides its residents with a twice per year curbside collection of tires which are hauled

Generators with large quantities of waste tires, including tire retail outlets, are required to haul tires directly to a permitted recycling/disposal facility.

823.54 tons of waste tires were hauled to CCTD from the planning area during FY 2011-12. 85% (700) of these tires were recycled. This program which cost the county \$44,145.84 is funded through distributions from the Scrap Tire Disposal Account.

Assessment:

The current waste tire management program meets the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current waste tire management program during this planning period.

2. White Goods

Current Program:

White goods generated within the planning area are recycled. Generators within the unincorporated areas of Lee County can bring white goods and other scrap metal items to any of the six staffed convenience centers. Residents of the City of Sanford and the Town of Broadway are provided with a curbside white goods collection.

White goods and scrap metal collected by county crews from the County's convenience centers, as well as the white goods collected curbside by the City of Sanford and Town of Broadway, are transported to a staging area located at the Lee County Resource Management Facility (formerly the C& D Debris Landfill). Refrigerant bearing white goods are carefully handled using a knuckle boom truck and are segregated from non-refrigerant bearing white goods and other scrap metal. A dock and ramp located at the staging area aides in the careful handling of refrigerant bearing white goods.



White goods and scrap metal are recycled according to a contract between Lee County and Metal Recycling Services (formerly Stateline Scrap Metal, Inc.) and are collected from the County's staging area approximately once every quarter or upon request. Prior to transportation off site, Metal Recycling Services uses EPA certified technicians to remove any and all refrigerants from refrigerators, freezers, and air-conditioners. All recovered gases are sold by Metal Recycling Services to C.C. Dickson Co. for recycling. Records indicating the amount of gases recovered and sold are forwarded by the contractor to the County.

361.94 tons of white goods and other scrap metal were recycled from the planning area during fiscal year 2011-12. All costs incurred from this program are funded through the quarterly distributions and grants from the white goods advance disposal fees.

Assessment:

The current white goods management program meets the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current white goods management program during this planning period.

3. Electronics

A. Current Program:



Residential

Unincorporated Areas

In July 2000 Lee County implemented a permanent full time drop off recycling program for old computers and other electronic equipment. Unwanted electronic equipment is accepted from

residents at all of the County's six staffed convenience centers. Under this program the County will accept anything with a cord including, but not necessarily limited to the following:

- Computers and peripherals
- Computer Monitors (CRTs and Flat Panel)
- CD Players
- Televisions (CRTs and Flat Screen)
- Printers, Scanners & Fax Machines
- Copy Machines
- VCRs
- Stereos
- Radios
- Ham Radio Equipment
- Tape Players
- Cell Phones
- Telephones and Cell Phones
- Telecommunications Equipment
- Microwaves
- Small Household Appliances
- Office Equipment
- Medical Equipment
- Circuit Boards, Modems, Hard Drives, etc.
- Power & Network Cables
- Rechargeable Batteries
- Ink Jet and Laser Printer Cartridges

All items accepted through this program are brought to a staging area at the County's Resource Management Facility (formerly the Lee County C&D Landfill) where they are sorted, palletized and shrink-wrapped according to market specifications. All items are transported off site and marketed according to an agreement between Lee County and Synergy Recycling, LLC located in Madison, North Carolina. Synergy Recycling, LLC is an R2 certified electronics recycling vendor whose services are available on state contract. Copies of Synergy's certification documentation are included in Appendix G.

City of Sanford

The City of Sanford collects residentially generated electronic equipment as a part of its regular curbside waste collection program. These items are collected by the City in a manner similar to its bulky waste collection using a vehicle purchased with funds awarded through the 2010 Community Waste Reduction and

Recycling Grant and dedicated solely to the collection of electronic equipment. The City of Sanford's menu of acceptable items mirrors Lee County's and, therefore, will also accept anything with a cord for recycling.

Curbside collected items are brought to a central staging area located at the City's Public Works Facility where they are sorted, palletized and shrink-wrapped according to market specifications. All items are transported off site and marketed according to an agreement with Synergy Recycling, LLC located in Madison, North Carolina.

Town of Broadway

Residents of the Town of Broadway can set out their unwanted electronic equipment at the curb for collection by Town crews. The Town of Broadway's menu of acceptable items mirrors Lee County's and, therefore, will also accept anything with a cord for recycling.

All items collected curbside are transferred to the staging area at the County's Resource Management Facility (formerly the Lee County C&D Landfill) where they are sorted, palletized and shrink-wrapped according to market specifications. All items are transported off site and marketed according to an agreement with Synergy Recycling, LLC located in Madison, North Carolina.

B. Commercial-Industrial-Institutional (C-I-I)

Non-residential generators including, but not necessarily limited to schools, non-profits, businesses or industry can either make private arrangements for the recycling of their electronics or they can drop off said items at Lee County's Resource Management Facility (formerly the Lee County C&D Landfill). All items accepted from residents are also accepted from C-I-I generators and marketed according to an agreement with Synergy Recycling, LLC located in Madison, North Carolina.

C. Public Awareness and Education Program

Since Lee County has operated a computer recycling drop-off program since 2000 most of the public is aware that they have an option for at least some of their end of life electronics. However, the growth of the program to include curbside collection in the City of Sanford and the Town of Broadway and the expanded menu of acceptable items has created the need for a larger public awareness and

education program. Lee County, the City of Sanford and the Town of Broadway will cooperatively reach out to the community through their respective websites, the use of local media, presentations to schools and community groups, social media such as Facebook and Twitter, and printed material.

The centerpiece of the public awareness and education program will be a brochure developed jointly by Lee County, the City of Sanford and the Town of Broadway. This brochure will outline to the public specific information on the How's, What's and Where's of the electronics recycling program.

D. Tracking and Reporting Tonnage of Electronics

All items received at Lee County's Resource Management Facility (formerly the Lee County C&D Landfill) are weighed and recorded according to point of collection or generator as follows:

- Convenience Center
- Town of Broadway
- City of Sanford
- Non-Residential

Lee County receives from Synergy Recycling, LLC a report detailing the description and weight for all materials transported from the County's facility to their facility in Madison, North Carolina. Each material collected will be tracked and reported separately (e.g. Televisions, Monitors, CPUs, Misc. Electronics).

The City of Sanford also receives a detailed report from Synergy Recycling, LLC for all materials transported from the City's staging area located at their Public Works Facility. Each material collected will be tracked and reported separately (e.g. Televisions, Monitors, CPUs, Misc. Electronics).

An accounting of all items collected from Lee County generators is compiled by each jurisdiction from the data received and will be reported to the state in their Solid Waste and Materials Management Annual Report , as well as being made available to any interested party upon request. For purposes of reporting each material collected will be tracked and reported separately (e.g. Televisions, Monitors, CPUs, Misc. Electronics).

E. Interactions with Other Local Governments to Operate Electronics Recycling Program

Lee County, the City of Sanford and the Town of Broadway have worked closely together to design and implement an electronics recycling program that best meet

the needs of their respective citizens. Going forward, the areas in which the three jurisdictions will have the most interaction include the marketing of collected materials and the public awareness/education portions of this program.

F. Accounting of Expenditures of Funds Received from Electronics Management Fund

Lee County has established separate line items in its Waste Collection/Solid Waste budget for both receipt and expenditure of funds received from the Electronics Management Fund. Funds are used solely for maintaining the electronics recycling program infrastructure and in the development of promotional/educational materials.

4. Abandoned Manufactured Homes

Lee County has considered whether to implement a program for the management of abandoned manufactured homes and due to lack of resources has decided not to do so at this time. The County will, however, continue to revisit this issue and evaluate the economic practicality of the implementation of said plan at a later date.

5. Household Hazardous Wastes

Current Program:



Household hazardous wastes (HHW) generated by the Planning Area's residents are managed through an annual HHW collection event held on the third Saturday of October. On October 20, 2012 Lee County, using a private contractor, removed nearly 17 tons of HHW from its general waste stream. Table I-1 shows a breakdown of the actual amounts and types of wastes collected. This program funded through the annual solid waste fee cost the County \$19,252.00 is regularly utilized by approximately 2% of the Planning Area's population.

TABLE I-1: Household Hazardous Wastes Collected in Lee County October 20, 2012

WASTE DESCRIPTION	AMOUNT	UNIT	DISPOSAL TECHNOLOGY
Paint and Paint Related Materials	23,790	lbs.	Fuels Blending
Aerosols	1,000	lbs.	Fuels Blending
Oxidizers	292	lbs.	Incineration
Corrosives	904	lbs.	Treatment
Flammables	340	lbs.	Fuel Blending
Acids	500	lbs.	Treatment
Fluorescent Light Bulbs	9	bulbs	Recycling
Compact Fluorescent Bulbs	14	lbs.	Recycling
Mercury Debris	240	lbs.	Recycling
NiCD Batteries	12	lbs.	Recycling
Alkaline Batteries	413	lbs.	Reclamation
Lithium Batteries	8	lbs.	Recycling
Lead Acid Batteries	20	batteries	Recycling
Fire Extinguishers	3	units	Recycling
Propane Cylinders	272	cyl.	Recycling
Used Motor Oil	200	lbs.	Recycling
Used Antifreeze	50	lbs.	Recycling

Source: Uniform Hazardous Waste Manifests

The planning area also uses this event to promote the proper disposal of pesticides generated by the agricultural community as well as residents. 1,000 lbs. of pesticides were managed and financed through the North Carolina Department of Agriculture and Consumer Services Pesticide Disposal Assistance Program (NCDA&CSPDAP).

Assessment:

Lee County, with the cooperation and assistance of the Lee County Cooperative Extension Service and the NCDA&CSPDAP has sponsored a HHW Collection event annually since 2001. Although the county continues to evaluate its options, including a permanent facility, our current program effectively and efficiently meets the planning area's needs.

Intended Actions:

The planning area has no plans to change its current household hazardous waste collection program at this time.

6. Other Special Wastes

Fluorescent Lights

Unincorporated Areas

Current Program:

Historically, fluorescent light and mercury-containing devices generated throughout the Planning Area have been collected as part of Lee County's annual household hazardous waste collection event. In June 2011, however, the county entered an agreement with Southeast Recycling Technologies, Inc. for the recycling of universal waste lamps and mercury-containing devices including, but not necessarily limited to thermostats, batteries, and lighting ballasts generated by households and government facilities. In 2011 Lee County recycled 5,823 fluorescent light bulbs and 45 lbs. of mercury debris.

Assessment:

This program is an environmentally responsible method of managing the fluorescent lights and mercury-containing devices generated within the unincorporated areas of the Planning Area.

Intended Actions:

There are no plans to make any changes.

City of Sanford

Current Program:

The City of Sanford collects residentially generated fluorescent light and mercury-containing devices as a part of its regular curbside waste collection program. These wastes, as well as those generated by the City's government facilities, are recycled according to an agreement with Southeast Recycling Technologies, Inc.

Assessment:

This program is an environmentally responsible method of managing the fluorescent lights and mercury-containing devices generated within the City of Sanford.

Intended Actions:

There are no plans to make any changes.

Town of Broadway

Current Program:

Residential generators of fluorescent lights and mercury-containing devices are directed to Lee County's annual household hazardous waste collection event.

Assessment:

This program is the most cost effective and environmentally responsible method of managing the fluorescent lights and mercury-containing devices generated by the Town of Broadway.

Intended Actions:

There are no plans to make any changes.

Pesticide Containers

Current Program:

In 1997 Lee County implemented a permanent pesticide container recycling program through a grant from the North Carolina Department of Agriculture and Consumer Services. Properly rinsed plastic pesticide containers are accepted at the collection facility located at the Lee County Resource Management Facility (formerly the C& D Debris Landfill). Acceptable containers are shredded on site and transferred to market by U.S. Ag Recycling of Waller, Texas at no cost to Lee County. 1,833 containers are recycled annually.



Assessment:

This program is an economical and environmentally responsible method of managing the plastic pesticide containers generated by the planning area's agricultural community.

Intended Actions:

The county plans to continue this program indefinitely. There are no plans to make any changes.

Used Motor Oil

Unincorporated Areas

Current Program:

Used motor oil and other fluids including, crank case drainings, hydraulic fluids, transmission fluids, diesel fuel, and kerosene generated by do-it-yourselfers residing in Lee County's unincorporated areas are accepted for recycling at all of the six staffed convenience centers. Lee County recently entered an agreement with Safety-Kleen Systems, Inc. to recycle an average of 6,200 gallons of used motor oil annually. The County receives \$1.00/gallon in revenue for the "sale" of used motor oil.

Assessment:

The current used motor oil management programs meet the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current used motor oil management programs during this planning period. However, the County will continue to request proposals from available oil recycling vendors in order to provide the most efficient service to our residents.

City of Sanford

Current Program:

The City of Sanford collects residentially generated motor oil as a part of its regular curbside waste collection program.

Assessment:

This program is an environmentally responsible method of managing used motor oil generated within the City of Sanford.

Intended Actions:

There are no plans to make any changes.

Town of Broadway

Current Program:

Residential generators of used motor oil within the Town of Broadway are directed to service stations, participating automotive parts stores, automotive service centers or the County's household hazardous waste program.

Assessment:

This program is the most cost effective and environmentally responsible method of managing used motor oil generated within the Town of Broadway.

Intended Actions:

There are no plans to make any changes.

Used Oil Filters

Unincorporated Areas

Current Program:

Since 2001 Lee County has collected used oil filters at its six staffed convenience centers. Lee County do-it-yourselfers recycle an average of 13 – 55 gal. drums (3,250 filters) annually. Safety-Kleen Systems, Inc. provides this service to the County at a cost of \$45.00 per drum.



Assessment:

The current used oil filter management program meets the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current used oil filter management program during this planning period.

City of Sanford

Current Program:

The City of Sanford collects residentially generated used oil filters as a part of its regular curbside waste collection program.

Assessment:

This program is an environmentally responsible method of managing used oil filters generated within the City of Sanford.

Intended Actions:

There are no plans to make any changes.

Town of Broadway

Current Program:

Residential generators of used oil filters within the Town of Broadway are directed to service stations, participating automotive parts stores, automotive service centers or the County's household hazardous waste program.

Assessment:

This program is the most cost effective and environmentally responsible method of managing used oil filters generated within the Town of Broadway.

Intended Actions:

There are no plans to make any changes.

Used Antifreeze

Unincorporated Areas

Current Program:

Lee County's six staffed convenience centers collect an estimated 389 gallons of used antifreeze annually. Safety-Kleen Systems, Inc. provides this service at no charge to the County.

Assessment:

The current used antifreeze management program meets the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current used antifreeze management program during this planning period.

City of Sanford

Current Program:

The City of Sanford collects residentially generated used antifreeze as a part of its regular curbside waste collection program.

Assessment:

This program is an environmentally responsible method of managing used antifreeze generated within the City of Sanford.

Intended Actions:

There are no plans to make any changes.

Town of Broadway

Current Program:

Residential generators of used antifreeze within the Town of Broadway are directed to service stations, participating automotive parts stores, automotive service centers or the County's household hazardous waste program.

Assessment:

This program is the most cost effective and environmentally responsible method of managing used antifreeze generated within the Town of Broadway.

Intended Actions:

There are no plans to make any changes.

Cooking Oil and Grease

Current Program:

Lee County recycles cooking oil and grease generated by households and public schools within the planning area. Griffin Industries has placed a 300 gallon capacity tank at the Lee County General Services Center to hold any cooking oil and grease collected through the County's convenience centers and schools. Griffin Industries collects an average of 4,163 lbs. of cooking oil and grease annually from the Planning Area. The County receives revenue for the sale of cooking oil according to current market prices.



Assessment:

The current cooking oil and grease management program meets the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current cooking oil and grease management program during this planning period.

Lead-Acid Batteries

Unincorporated Areas

Current Program:



An estimated 4 tons of lead-acid batteries will be recycled through the County's convenience centers this year. Collected batteries are stockpiled at a staging area located at the Lee County Resource Management Facility (formerly the C& D Debris Landfill) where they are collected by Interstate Battery System. Interstate provides this service at no cost to the County. The County receives revenue for the sale of these batteries according to current market prices.

Assessment:

The current lead-acid battery management program meets the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current lead-acid battery management program during this planning period.

City of Sanford

Current Program:

The City of Sanford collects residentially generated lead-acid batteries as a part of its regular curbside waste collection program. Collected batteries are delivered to local auto parts stores for recycling.

Assessment:

This program is an environmentally responsible method of managing lead-acid batteries generated within the City of Sanford.

Intended Actions:

There are no plans to make any changes to the current lead-acid battery management program during this planning period.

Town of Broadway

Current Program:

The Town of Broadway collects residentially generated lead-acid batteries as a part of its regular curbside waste collection program. Collected batteries are sold for scrap.

Assessment:

This program is an environmentally responsible method of managing lead-acid batteries generated within the Town of Broadway.

Intended Actions:

There are no plans to make any changes to the current lead-acid battery management program during this planning period.

Rechargeable Batteries

Current Program:

Lee County participates in the *Call2Recycle* program administered by the Rechargeable Battery Recycling Corporation (RBRC). This program recycles rechargeable batteries including nickel cadmium (Ni-Cd), nickel metal hydride (Ni-MH), lithium ion (Li-ion), and small sealed lead (PB) at no charge to participants. There are a number of collection points conveniently located throughout the planning area. These points include the County's six convenience centers, the Lee County Department of General Services main office, Lowe's Home Improvement, and RadioShack.



Non-rechargeable batteries including, but not limited to alkaline, lithium primary and wet cell are accepted at the County's annual household hazardous waste event.

Assessment:

The current battery management program meets the needs of the planning area.

Intended Actions:

There are no plans to make any changes to the current battery management program during this planning period.

Ink Jet & Toner Cartridges

Current Program:

Ink jet and toner cartridges generated within the Lee County planning area are recycled through the Recycle Rewards program. This program is available to all generators throughout the planning area and is provided at no cost to the County. Recycle Rewards pays the County for certain ink jet cartridges. The County also accepts ink jet cartridges through its electronics program.

In addition to ink jet cartridge recycling through Recycle Rewards, Lee County promotes the recycling efforts of retail outlets including Office Max and cartridge manufacturers.

Assessment:

Lee County's current method of managing ink jet and toner cartridges meets the needs of the planning area.

Intended Actions:

Lee County will continue its ink jet and toner cartridge recycling partnership with Recycle Rewards.

K. PREVENTION OF ILLEGAL DISPOSAL AND MANAGEMENT OF LITTER

Illegal Disposal

Unincorporated Areas

Current Program:



On September 15, 2008, the Lee County Board of Commissioners passed a revised ordinance covering solid waste management in the unincorporated areas of the County. The *Lee County Solid Waste Ordinance* prohibits the discarding, disposing, leaving, or dumping of any solid waste on or along any street or highway or on public or private property unless said solid waste is placed in a receptacle or at a location designated for the deposit of

solid waste. The revised ordinance goes further, however, by strengthening local enforcement powers with the addition of the following provisions:

- If any solid waste and/or recyclable material disposed of in violation of this chapter can be identified as having last belonged to, been in the possession of, sent to or received by or to have been the property of any person prior to being disposed of, said identification shall be presumed to be prime facie evidence that such person disposed of or caused to be disposed of said solid waste and/or recyclable material in violation of this chapter.
- The Director of General Services or his/her authorized representative shall be authorized as public officials to investigate violations of this chapter and, upon determination that such a violation has occurred, issue civil penalty citations.
- The Sheriff, Director of General Services or their designated representative are hereby empowered to issue civil citations upon the observance of a violation of this chapter. It is the intent of this chapter that each person is responsible for all acts involving vehicles and equipment owned by him/her.

Open burning of solid waste is also prohibited by law within Lee County. Violators are given one written and/or verbal warning by the Solid Waste Superintendent or local law enforcement agencies. Repeat offenders are referred to NCDENR's Division of Air Quality. The penalties for open burning of solid waste in North Carolina are substantial and may include fines of up to \$25,000.



The *Lee County Solid Waste Ordinance* further gives the Board of Commissioners the power to grant franchises for the operation of sanitary landfills within Lee County. All applicants for a franchise are required to include a waste load inspection plan detailing how the facility will prevent the landfilling of non-permitted and banned waste. The Board of Commissioners retains the right to terminate or suspend, upon notice and hearing, all or any portion of a franchise for failure of the facility operator to comply with any applicable provision of the *Lee County Solid Waste Ordinance*.

Assessment:

Lee County's updated solid waste ordinance provides greater local control and stronger enforcement powers than have been historically available. As a result, ordinance violations have been abated more often without the need of court action saving time and money.

Costs associated with code enforcement activities are absorbed through the County's solid waste program. However, court costs involved with legal action and costs incurred by the County relative to any court ordered cleanups are subject to reimbursement to the County by the person(s) found to be in violation of the ordinance.

Intended Actions:

- In an effort to prevent illegal disposal, Lee County Solid Waste will work with Community Development to begin requiring anyone applying for construction and/or demolition permits to submit a solid waste management plan. Said plan would include, but not necessarily be limited to:
 - Estimate of quantities and types of waste to be generated.
 - How each waste will be managed (ex. landfill vs. recycling).
 - Name of disposal/recycling facility.
 - A final report including copies of load sheets or other documentation proving that waste was managed according to all federal, state and local rules and regulations.
- Lee County does not have any plans to change its illegal disposal policies and procedures at this time. However, it will continue to evaluate them and make any changes that may be necessary to prevent or abate ordinance violations.

City of Sanford

Current Program:

City of Sanford ordinances prohibit illegal dumping. Reports of illegal dumping are forwarded to the code enforcement office of the Community Development Department for action.

Assessment:

The City of Sanford's current program for dealing with illegal disposal of solid waste has been effective.

Intended Actions:

No changes in current program are planned.

Town of Broadway

Current Program:

The Town of Broadway investigates all complaints of illegal dumping and takes appropriate remedial action.

Assessment:

The Town of Broadway's current program for dealing with illegal disposal of solid waste has been effective.

Intended Actions:

No changes in current program are planned.

Litter Control

Unincorporated Areas

Current Program:

Over the past year, approximately 40 tons of litter, excluding tires and white goods, was cleaned up from the planning area's roads. Roadside litter is picked up primarily by prison inmates in coordination with the North Carolina Department of Transportation. Lee County has in the past utilized individuals performing community service when

available and county crews when necessary to cleanup tires, white goods and nuisance sites needing immediate attention. Lee County has also used inmate labor for large cleanup projects and will continue to do so when necessary. Tire and white good cleanups are funded by revenue received by the County through advanced disposal fees levied by the State of North Carolina.



Litter control on the grounds of the County's public buildings, parks and public recreational facilities is the responsibility of the Solid Waste Division. The County has dedicated four part time employees to regularly monitor these areas, pickup litter, and empty trash cans and recycling containers. This operation cost the County's Solid Waste Division \$37,819 during fiscal year 2011-12.

In addition to its regular litter control operations Lee County participates in the following programs in an effort to control litter throughout the planning area:

Adopt-A-Highway Program

In an effort to curb litter along the state's highways, the North Carolina Department of Transportation administers the Adopt-A-Highway Program. Since 1988, this program has encouraged individuals, businesses and civic organizations to voluntarily "adopt" a 2 mile stretch of highway. Volunteers make a 4 year commitment to clean their "adopted" highway of litter 4 times a year. 29 groups have "adopted" 55 miles highways throughout the planning area. Their efforts have resulted in an estimated 2+ tons of litter being properly disposed of annually.



Litter Sweep



Twice a year the North Carolina Department of Transportation sponsors a statewide litter cleanup drive known as Litter Sweep. Many organizations throughout the planning area schedule their Adopt-A-Highway cleanups to coincide with Litter Sweep.

NC Big Sweep

2012 marked the 13th consecutive year that Lee County Solid Waste partnered with NC Big Sweep in their efforts to make North Carolina's environment litter-free. On the first Saturday of October volunteers including Lee County employees, members of the Deep River Park and the Deep River Associations, local Scout Troops and numerous individuals get wet and dirty to collect litter from selected areas throughout Lee County. In 2012, 70 volunteers collected more than 1 ton of trash from an estimated 14 miles of river banks, streams and trails throughout the planning area.



Assessment:

Lack of resources has limited the County's efforts at developing a planned anti-litter campaign. However, greater enforcement powers under the new *Lee County Solid Waste Ordinance* and other litter control efforts outlined above have been effective.

Intended Actions:

The planning area will continue its current litter control programs.

City of Sanford

Current Program:

The City of Sanford uses inmate labor daily to collect litter in its streets and highways. From July 2010 through June 2011 crews collected 46,409 lbs. of trash along the streets.

Assessment:

The City of Sanford's current program for dealing with litter has been effective.

Intended Actions:

No changes in current program are planned.

L. PURCHASE OF RECYCLED MATERIALS AND PRODUCTS MANUFACTURED WITH RECYCLED MATERIALS

Unincorporated Areas

Lee County Government

Current Program:

Lee County Government does not have a formal policy governing the purchase of products with recycled content. Departments are encouraged to purchase environmentally preferable products when economically practicable.

Assessment:

The decentralization of purchasing within Lee County Government makes it difficult to track current purchasing of products with recycled content. However, past practice has shown that Lee County is committed to environmentally responsible purchasing practices. This commitment is illustrated in TABLE L-1.

TABLE L-1: Summary of Recycled Content Purchases by Lee County Government	
PRODUCT	% OF TOTAL PURCHASES OF SPECIFIC ITEM
Office, Copier & Computer Paper	96%
General Office Supplies*	32%
Janitorial Supplies**	87%

SOURCE: Lee County Records

*General office supplies includes ink jet & toner cartridges, file folders, storage boxes, report covers, index tabs & dividers, memo pads, post-it notes, and envelopes.

**Janitorial supplies include bathroom tissue, roll paper towels, and multi-fold towels.

In addition to countywide use of the products summarized in TABLE L-1, the General Services Department uses recapped tires where applicable and continues to evaluate the possible use of re-refined oil, and recycled antifreeze. The Solid Waste Division is evaluating the feasibility of using alternative fuels, including bio-diesel, in its trash collection trucks and other equipment.

Lee County General Services Department's Maintenance Division has also implemented green practices in its repair and renovation jobs. These have included the purchase and

use of low voc paints and adhesives, plastic lumber for repairing tables and benches in the parks and carpet containing recycled content. 581 sq. yds. of LEED certified carpet containing recycled content was recently replaced in the Lee County Sheriff's Office at a cost of \$ 29,500. This carpet not only contains recycled content, but will be removed and recycled by the manufacturer after it has served its useful purpose. The County also replaced 995sq. yds. of carpet in its main Library at a cost of \$36,433. The Library carpet, tiles rather than one continuous piece also contain recycled content and is guaranteed not to be landfilled when recycled through its manufacturer.

Lee County General Services Department's Housekeeping Division has incorporated the use of Green Seal Certified cleaning products into its operation. These products include multi-surface cleaners, disinfectants and deodorizers.

Intended Actions:

Lee County does not intend to take any formal actions regarding the purchasing of recycled products at this time. However, it's Waste Reduction and Recycling Committee continues to investigate and promote ways that county government can increase its purchase and use of environmentally preferable products.

Central Carolina Community College and Lee County Schools

The Lee County campus of Central Carolina Community College (CCCC) and Lee County's public schools are required by General Statute 143-58.2(a) *to the extent economically practicable, purchase and use, or require the purchase and use of products with recycled content.*

City of Sanford

Current Program and Assessment:

The City of Sanford does not have a formal policy governing the purchase of products with recycled content. Paper with recycled content is purchased and the purchase of other recycled products is encouraged when economically practicable.

Intended Actions:

The City of Sanford does not intend to take any formal actions regarding the purchasing of recycled products during this planning period, but will continue to investigate new options concerning the purchase of recycled materials.

Town of Broadway

Current Program and Assessment:

The Town of Broadway does not have a formal policy governing the purchase of products with recycled content. The purchase of recycled products is encouraged when economically practicable.

Intended Actions:

The Town of Broadway does not intend to take any formal actions regarding the purchasing of recycled products during this planning period, but will continue to investigate new options concerning the purchase of recycled materials.

SECTION 7. SOLID WASTE MANAGEMENT COST

Unincorporated Areas:

Program Costs

The solid waste program for Lee County's unincorporated areas cost \$1,234,435.42 in FY 2011-12. As summarized in Table 7-1, it cost the County \$907,548.00 to collect approximately 6,184.69 tons of solid waste from the six (6) convenience centers, public schools and County government buildings.

Waste reduction, recycling and reuse, and mulching programs were provided for \$326,887.42. As specified previously, these programs include convenience center recycling programs, institutional recycling (public schools, County buildings), and yard waste/land clearing debris mulching. These programs accounted for the diversion of 1,950.76 tons from the waste stream.

Table 7-1: County Operated Solid Waste Program Costs, FY 2011-12

	TONS COLLECTED	COLLECTION COSTS	DISPOSAL COSTS	TOTAL COST	CALCULATED COST PER TON MANAGED
Municipal Solid Waste	6,184.69	\$593,907.30	\$313,640.70	\$907,548.00	\$146.00
Recycling Program	1,383.31	\$216,784.70	\$45,855.54	\$262,640.24	\$189.00
Yard Waste Program	563.72	\$56,397.18	\$7,850.00*	64,247.18	\$114.00
TOTAL	8,135.45	\$867,089.18	\$367,346.24	\$1,234,435.42	\$151.74

Source: Lee County Solid Waste Records

*Cost to grind yard waste into mulch.

Financing Methods

Lee County operates its solid waste program as an enterprise system. This structure has worked well for the County and provides the resources necessary to cover the costs associated with solid waste. Revenues are generated by household fees, waste collection fees, tire & white goods tax disbursements, the sale of recyclables, and grant awards. A solid waste reserve fund is used to pay for equipment purchases and capital improvements. The County's financing methods for FY 2011-12 are summarized in Table 7-2.

Table 7-2: County Financing Methods

FUNDING SOURCE	% OF PROGRAM
Household Fees	66.44%
Grant Awards	10.70%
Collection Fees	9.79%
White Goods/Tire/Excise/Electronics Tax	8.55%
Sale of Recyclables	3.52%
Brush/Yard Debris Tipping Fees	.85%
Reserve Fund/Interest	.15%
TOTAL	100%

Source: Lee County Solid Waste Records

City of Sanford:

Program Costs

Waste Management of the Carolinas, Inc. handles solid waste collection and disposal for 8,840 households within the City of Sanford. The City of Sanford's Solid Waste Division crews collect and dispose of bulk trash, leaves and limbs. The costs associated with the City's solid waste program are summarized in Table 7-3.

Table 7-3: City of Sanford Operated Solid Waste Program Costs, FY 2011-12

	TONS COLLECTED	TOTAL COST	CALCULATED COST PER TON MANAGED
Municipal Solid Waste	7,136	\$1,278,000.00	179
Recycling Program*	782		
Yard Waste Program	7,074	\$817,456	115
TOTAL	14,992	\$2,095,456.00	139

Source: City of Sanford Solid Waste Records

*Recycling Program Costs are included in Municipal Solid Waste Costs.

Financing Methods

The current solid waste program is funded by the City's general fund, a per solid waste user fee of \$125.00/household and revenue from the sale of compost. These funds are apportioned as follows:

Table 7-4: City of Sanford Financing Methods

FUNDING SOURCES	% OF PROGRAM
Property Taxes	55%
Solid Waste Fees	43%
Compost Revenue	2%
TOTAL	100%

Source: City of Sanford Solid Waste Records

Town of Broadway:

The Town of Broadway's solid waste program cost for FY 2011-12 was \$82,358.00. This cost covered the collection and disposal of solid waste per their contract with Waste Management. 100% of the financing of the solid waste program was generated by ad valorem taxes.

Table 7-5: Town of Broadway Solid Waste Program Costs, FY 2007-08

	TONS COLLECTED	COLLECTION COSTS	DISPOSAL COSTS	TOTAL COST	CALCULATED COST PER TON MANAGED
Municipal Solid Waste	402.10	\$72,000.00	*	\$72,000.00	179
Recycling Program	100.56	**	\$6,358.00	\$6,358.00	63
Yard Waste Program	140.50	\$1,700.00	\$2,320.00	\$4,000.00	28
TOTAL	643.16	\$73,700.00	\$8,678.00	\$82,358.00	128

Source: Town of Broadway Solid Waste and Materials Management Annual Report FY 2011-12

*Disposal Cost included Collection Costs

**Non-Attendant Drop off program

SECTION 8. EMERGENCY/DISASTER DEBRIS MANAGEMENT AND ANIMAL MORTALITY

Staging Areas and Disposal Sites

Staging Areas

The following sites have been pre-approved as staging areas by the North Carolina Department of Environment and Natural Resources:

1. Private Property located at 4550 Old Jefferson Davis Hwy
G.P.S. Coordinates: N: 35.381322, W: -79.234348
2. Private Property located at 2005 Rice Road
G.P.S. Coordinates: N: 35.465861, W: -79.116358

The planning area will continue to evaluate the adequacy of these sites to meet its needs as temporary debris management sites. Additional sites will be identified and submitted for approval.

Disposal Sites

The planning area intends to utilize the following disposal sites for the final disposition of non-recyclable disaster debris:

1. Red Rock Disposal Permit #9228-CDLF-2001
7130 New Landfill Drive
Holly Springs, NC 27540
G.P.S. Coordinates: N 35° 36.3155', W 78° 53.7745'

2. Waste Management – Lee County Transfer Station Permit #5304T
2720 Wilkins Drive
Sanford, NC 27330
G.P.S. Coordinates: N 35° 30.2618', W 79° 12.3055'

The planning area will continue to evaluate the adequacy of these sites to meet its needs as disposal sites. Additional sites, as necessary, will be identified and submitted for approval.

Emergency Contact List

The complete emergency contact list is classified as confidential information and is exempt from NC Public Records Law Section 132.7. However, a complete emergency contact list is included in the *Lee County Disaster Debris Management Plan (DDMP)*.

Lee County Disaster Debris Management Plan (DDMP)

The planning area's response to the management of debris generated as the result of a disaster is clearly outlined in the *Lee County Disaster Debris Management Plan (DDMP)*. A copy of Lee County's *Pre-event Contract for Disaster Debris Management Services* is included as Appendix H. The complete *DDMP* is available upon request.

SECTION 9. RESOLUTIONS

Signed resolutions from all participating governments showing adoption of this plan are included as Appendix B.

SECTION 10. ORDINANCES

The web links for the solid waste ordinances of the municipalities which make up the planning area are as follows:

Lee County www.leecountync.gov/Commissioners/LeeCountyOrdinances.aspx

City of Sanford library.municode.com/index.aspx?clientId=13216

Town of Broadway www.broadwaync.com/ordinances/4-BROADWAY.5.pdf