

STATE OF SOUTH CAROLINA)
)
COUNTY OF CHEROKEE)

ORDINANCE NUMBER 2015-01


AN ORDINANCE ADOPTING AND APPROVING THE CHEROKEE
COUNTY SOLID WASTE MANAGEMENT PLAN AS REVISED
AND SET FORTH IN EXHIBIT "A" ATTACHED HERETO

WHEREAS, Cherokee County is empowered to adopt ordinances as may appear to be necessary and proper for the security, general welfare and convenience of the County and for preserving health, peace, order and good government.

NOW, THEREFORE, BE IT ORDAINED by Cherokee County Council, duly assembled, that the attached Exhibit "A" entitled Cherokee County Solid Waste Management Plan dated February 17, 2015 is hereby adopted upon third and final reading. Any previously adopted Solid Waste Management Plans inconsistent with the terms of this revision are hereby repealed.

Approved and adopted on this 17th day of February, 2015.



Timothy F. Spencer
Chairman - Cherokee County Council


Rufus H. Foster
Vice-Chairman - Cherokee County Council


Michael Alan Fowlkes
Dist. 2 - Cherokee County Council


Steven C. Blanton, Jr.
Dist. 3 - Cherokee County Council

ATTEST:


Doris Pearson


Charles T. Mathis
Dist. 5 - Cherokee County Council


L. Hoke Parris
Dist. 6 - Cherokee County Council


Tracy A. McDaniel
Dist. 7 - Cherokee County Council

First Reading: 1/20/15
Second Reading: 2/02/15
Public Hearing: 2/17/15
Third Reading: 2/17/15

Cherokee County Solid Waste Management Plan

February 17, 2015

Revised for:



Cherokee County
110 Railroad Ave
Gaffney, SC, 29340

Revised By



S&ME, Inc.
301 Zima Park Drive
Spartanburg, South Carolina 29301

S&ME Project 1264-89-165

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Plan Adoption



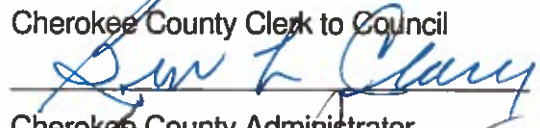
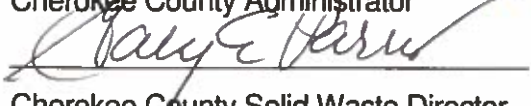
The Cherokee County Solid Waste Management Plan was adopted on a majority vote of the Cherokee County Council, to be effective on February 17, 2015 (date). The signatures below signify that this plan is the official Cherokee County Solid Waste Management Plan. The signatures below signify:

1. That this plan is the official Cherokee County Solid Waste Management Plan,
2. That the Cherokee County Council has authorized the Council Chairman to execute the Plan by his signature, as attested by the Cherokee County Council Clerk to Council, and
3. That the County Administrator has signed as the County's contact person, and
4. That the Cherokee County Solid Waste Director has signed as the Plan Director.

Authority to Submit the Plan or Revisions to the Plan

The Solid Waste Director, under the authorization of the Cherokee County Council and Cherokee County Administrator, is authorized to submit the Solid Waste Master Plan or revisions to the Plan to SCDHEC for review.

Signatures

	<u>2/17/15</u>
Cherokee County Council Chairman	Date
	<u>2-17-15</u>
Cherokee County Clerk to Council	Date
	<u>2-17-15</u>
Cherokee County Administrator	Date
	<u>2-17-15</u>
Cherokee County Solid Waste Director	Date

Chapter One

Executive Summary

Purpose / Intent

Cherokee County's Solid Waste Management Plan will serve all of Cherokee County, including the municipalities of Gaffney and Blacksburg. The intent of this plan is to help Cherokee County consider the future solid waste facilities that might be necessary, and prevent disorganized growth of the solid waste system and/or unnecessary solid waste facilities locating in the County. This plan also is intended to fulfill the solid waste management plan requirements of South Carolina Code of Laws 44-96-80.

Growth and Future Solid Waste Management

Cherokee County's population is expected to increase by 25% during the twenty year planning period, which extends to 2035. During this period the tonnage of municipal solid waste (MSW) is expected to increase proportionately from approximately 57,000 tons per year (TPY) to approximately 71,600 tons per year. The existing infrastructure is able to handle this volume of waste. The current MSW disposal practice of curbside collection and transport to the transfer station, then export to a Class Three landfill will be continued through the planning period.

This plan makes it clear that new landfills, incinerators, composting facilities and other solid waste processing facilities will be prohibited, as they are not necessary in order to handle the County's waste stream during the planning period, and

extraneously located facilities could be detrimental to County growth. Through this plan, the County does allow expansions to facilities already located in the County (for example, the city of Gaffney's landfill.) See Chapter 6 for an overview of the different types of facilities needed in our county to address our present and future solid waste needs.

Meeting Recycling and Reduction Goals

The County aims to meet the recycling and reduction goals set by the State. Methods and procedures to make this happen include: expanding current curbside recycling pickup areas for local businesses; improving the opportunities for residential recycling by increasing the number of drop off centers; implementing an educational program designed for the general public, local business, industry, and educational institutions; conducting an ongoing media campaign; and encouraging local businesses and governmental bodies to procure and use goods made with recycled materials.

Existing Solid Waste Management System

Cherokee County coordinates the existing solid waste management system with the cooperation and assistance of the two municipalities. The system includes two Class Two landfills (one permitted to the County and one permitted to the City of Gaffney), one wood chipping/wood grinding site, one transfer station and one recycling center. The recycling program includes a curbside recycling program for local businesses in designated areas of the County. Residents are encouraged to recycle at County owned and operated drop off centers. All residents of Cherokee County receive curbside trash collection provided by the applicable governing body. All municipal solid waste is disposed of at the County's permitted transfer station, with construction and demolition debris going into two Class Two landfills owned and operated by Cherokee County and the City of Gaffney.

After careful and thorough review of the existing solid waste system, requirements of solid waste legislation, the changing characteristics of Cherokee

County, and a cost/benefits analysis of various solid waste alternatives, the County plans to continue to lease operation of its transfer station to Republic Services until the lease expires in 2025. The transfer station is considered the best solid waste disposal system for the County, and the County will continue to operate it.

Adoption and Revision

The adoption of the Solid Waste Management Plan (SWMP) begins when it is submitted to County Council for its approval. It will be placed on the agenda ahead of time for public notice so that the interested public may comment on it at the Council meeting. After its adoption by County Council, the Solid Waste Manager and County Administration will submit the plan to DHEC. The Solid Waste Manager and County Administration will conduct a review of the plan annually and will make suggestions for revision as needed. The Solid Waste Manager will also be responsible for the Annual Progress report which must be sent to DHEC.

Plan Revision History

As required, a Solid Waste Advisory Council developed the initial plan in response to the Solid Waste Policy and Management Act of 1991. Cherokee County's Department of Public Works compiled subsequent updates. The plan was updated in 1999.

The following summarizes subsequent revision dates, author(s), and purpose(s).

- February 9, 2005, Goldie & Associates, Inc. - The greatest change in this plan update was the revision of the section discussing proposed facilities' consistency with the plan. This revision was necessitated by a major change in DHEC policy regarding how consistency determinations are made.
- October 31, 2008, S&ME, Inc. – The sole purpose of this revision was to document the change in landfill classifications defined by new DHEC regulation R.61-107.19. Solid Waste Management: Solid Waste Landfills and Structural Fill (effective date May 23, 2008).

- February 17, 2015 (current revision), S&ME, Inc. – The purpose of this revision is to document the County's modifications and improvements to the recycling program and to update the planning period, demographic data, and solid waste tonnage data.

Chapter Two

Legislative Authority

Cherokee County

Cherokee County Council, acting under authority of Title 44, Section 96-80(K) of The South Carolina Solid Waste Policy and Management Act of 1991, enacted ordinances for the regulation of Solid Waste Disposal and Litter Control within the unincorporated areas of Cherokee County. These laws were enacted to protect the health, safety and welfare of its citizens and the general public. The plan is not intended to include hazardous waste generated by industrial or commercial activity.

Litter Control

Chapter 12, Art. III, Sec's 30 thru 63 of the Cherokee County Code of Ordinances sets standards and regulations for the control of litter in the unincorporated areas of Cherokee County and provides guidelines for the transporting of loose materials and for the control of illegal dumping and unlawful disposal of trash. The enforcement of this ordinance is carried out by County Code Enforcement Officers who have the authority to issue written warnings and to hand out tickets requiring violators to appear on scheduled court dates.

Town of Blacksburg

Chapter 8, Health and Sanitation, Sec 8-3, of the Town of Blacksburg's ordinances deals with solid waste. It states that city residents will receive curbside pickup of garbage and yard waste. It also says that contractors and property owners are responsible for proper disposal of all C & D materials, limbs and brush, and land clearing debris.

City of Gaffney

City of Gaffney ordinance #1981-10, adopted 12-8-81, Section 1, B. states that the governing body of the City has a responsibility and obligation to provide its citizens with an adequate, reliable and economical means for the disposal of solid waste. Further, it is the responsibility of the governing body to provide recycling services to its residents.

The above policies are in compliance with the SC Solid Waste Policy and Management Act of 1991. Future policies with regard to solid waste management will also be in compliance with the South Carolina Solid Waste Management Plan for 1999.

Chapter Three

Demographics

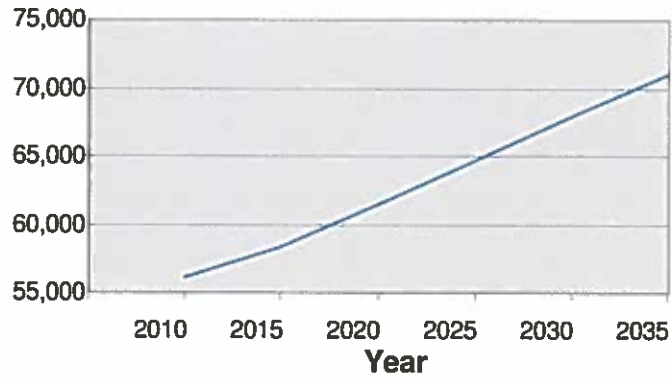
The more we know about the amount and composition of solid waste generated within Cherokee County, the easier it is to develop an effective plan for its handling and disposal. An awareness of the population base and how it is expected to grow is crucial to the development of a good solid waste plan.

In determining the best methods for present and future handling of Cherokee County's solid waste, consideration was given to population growth and characteristics, infrastructure and land use, and the local and regional economy, as well as other issues specific to the County.

Population Characteristics

Cherokee County presently has a population of 55,885 persons according to SC Office of Research and Statistics. There is no significant seasonal fluctuation. Population projections are presented in the following chart. Cherokee County is expected to have 61,760 citizens in 2020, 64,760 citizens in 2025, 67,350 citizens in 2030 and 70,170 citizens in 2035 according to the SC Budget and Control Board, Office of Research and Statistics based on the 2000 census.

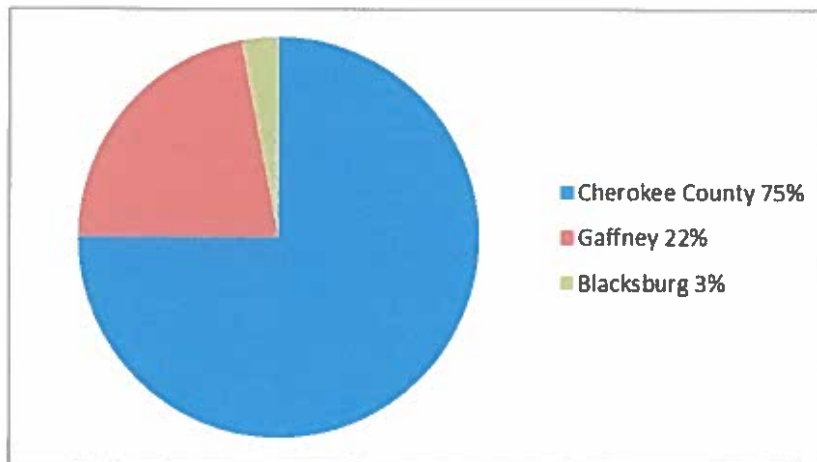
Projected Population Growth



**From South Carolina Office of Research and Statistics, Bureau of Budget and Control.*

The distribution of the current population is as follows:

Population Distribution



2010 County Population: 55,467

Economic Factors

The employment base and trends can influence the type and quantity of solid waste coming to the County facilities from industrial and commercial sources. Cherokee County has a strong agricultural history, and agriculture continues to play a major role in the County.

There are approximately 430 farms in the County, utilizing 64,020 acres of land. The average size farm in this County is 149 acres. Cattle and calves, soybeans, hay, small grain, forestry, nursery stock, tomatoes, and peaches are commodities here in Cherokee County.

Cherokee County enjoys a diversified manufacturing community. More than 18 manufacturing plants are located here, employing approximately 8415 persons.

Major employers include Nestle, The Timken Company, Hamrick Mills, Hamrick's, Inc., Brown's Packing Co., Inc., Suminoe, Freightliner, Inc., and the Milliken Company.

The SC Chamber of Commerce, Clemson University Cooperative Extension Service, and the S.C. Agriculture Statistics provided the above information.

Land Use

Current

Information from the U.S. Census reports of 1990, 2000, and 2010 indicate that Cherokee County's rural population decreased as a percentage of the total population from 63% in 1990 to 61% in 2010, while the urban population increased in percentage from 37% in 1990 to 39% in 2010. These changes in population demographics were taken into consideration as recommendations for future solid waste management were formulated.

Projected

From the above census information, it is clear that land use in Cherokee County is changing from primarily agriculture-based to that of residential land use. It is expected that with the continued commercial and industrial development along Interstate 85 and other major corridors leading to the interstate, more residential housing will be constructed in rural areas.

Transportation Routes

Cherokee County is served by Interstate 85. In addition, U. S. Highways 29 and 221 and SC Highways 5, 11, 18, 97, 105, 110, 150, 198, 211, and 329 serve the County. The County has approximately 710 miles of roads in the SC State Highway System.

There are no commercial airports located within Cherokee County, however there are two international airports located just off I-85 approximately 50 minutes driving time from Gaffney: Douglas International Airport in Charlotte, NC and Greenville-Spartanburg International Airport in Greenville, SC.

Two municipal airports are within 30 minutes driving time of Gaffney. Spartanburg Municipal Airport is a local facility with two runways, and Shelby Municipal Airport, located 12 miles north of Gaffney, and also has two runways, one of which can accommodate general aviation jet aircraft.

Other considerations specific to the plan area

Cherokee County is in an ideal location for growth. It is situated along the I-85 corridor, which is experiencing the highest rate of growth in the Southeast. It is located 50 miles from Charlotte, NC, 20 miles from Spartanburg, SC, 50 miles from Greenville, SC, and 193 miles from Atlanta, GA. In addition, Columbia is 100 miles away, Charleston is 240 miles away, and Asheville, NC is 90 miles from here.

(Source of all above information: Cherokee County Chamber of Commerce)

Chapter Four

Projected Costs

Cost of Implementation

In order to effectively evaluate solid waste management options for Cherokee County, it is necessary to have a complete understanding of the costs associated with the options under consideration as well as the costs connected with the current year's operational budget.

For FY2013-2014, County wide (Cherokee County, City of Gaffney and Town of Blacksburg) net cost for the collection, disposal and recycling of solid waste totaled \$2,042,323. Using FY2013-2014 as the base year, the solid waste management costs are calculated to rise with the population growth, and adjusted for inflation (1.7%, *current inflation rate published by the U.S. Government*) and rising costs of disposal (0.5%/year¹). In 2035, the annual cost of the Solid Waste Program is expected to be about \$4,000,000.

The handling of solid waste is a major concern for local governments. Federal and state solid waste regulations are being passed down to both County and municipal governing bodies and the local entity must bear the costs for their implementation. Realizing that solid waste costs will continue to increase, the County considers the following the best alternatives for funding the solid waste program:

¹ The rising cost of disposal is not predictable, but takes into account the rising cost of disposal due to increased regulation and reductions in landfill availability over time. If this increases at a rate of 1.0% instead of 0.5%, then the projected cost in 2035 would be just under \$4.5 million.

- Increased Ad Valorem taxes – this option would increase the cost to individual homeowner though not all solid waste generators are property owners
- Collection and Disposal Fees – an annual user fee for each residence takes pressure off sales and ad valorem taxes. Non-property owners pay their fair share as well.
- Reduction of Waste Generated – by initiating programs for:
 - Resource Recovery
 - Recycling
 - Shredding
 - Composting
 - Incineration

These programs will reduce the capacity requirement for landfills, which in turn will reduce the amount of financing required for construction and operations. The appropriate governing bodies of the County and its municipalities will make the final funding decision.

Full Cost Disclosure:

The Solid Waste Policy and Management Act of 1991 and R 61-107.2 require all local governments that provide solid waste management services within its service area to submit annual Full Cost Disclosure information to SCDHEC. Information on disposal and recycling revenues, daily operational costs, personnel costs, and all other financial data relating to solid waste management are collected from the County, City of Gaffney, and Town of Blacksburg and assimilated into a single working document which is used to compile the Full Cost Disclosure Report. The completed report is then published in a newspaper of general circulation within the service area.

**Solid Waste Management Services
Full Cost Disclosure
Summary of Costs Report**

Period of Report—July 1, 2013 through June 30, 2014

Cost of Operation	
Personnel	\$1,291,201
Administrative support	-
Equipment Operations/Maintenance	\$369,019
General Operation	\$75,128
Educational Materials/Outlays	\$4027
Cash Capital Outlays	-
Lease Payments	\$1570
Contracted Services	\$92,480
Professional Services	\$41,381
Insurance	\$19,696
Tipping fees (paid out)	-
Other	\$8,019-
Cost of Large Capital Expenditures	
Annualized Large Capital Exp.	\$387,515
Annualized Landfill/SW Facility Development & Construction	-
Annualized Landfill Closure	-
Cost of Debt Service	-
Total Annual Costs	\$2,290,036
Revenues	
Sale of recyclables	\$145,013
Grants:DHEC, FEMA, EPA, ETC.	\$102,700
Total Annual Revenues	\$247,713
Net Annual Costs	\$2,042,323

**Cherokee County
Solid Waste Management Services
Total Cost Report**

Period of Report—July 1, 2013 through June 30, 2014

Collection

Total Annual Cost	\$1,449,854
Less Income from Operations or Grants	
Net Annual Cost	\$1,449,854
Population	55,885
Cost Per Capita	\$25.94

Recycling And Composting

Total Annual Cost	\$214,396
Less Income from Operations or Grants	\$102,700
Net Annual Cost	\$111,696
Population	55,885
Cost per Capita	\$3.84

Disposal

Total Annual Cost	\$378,073
Less Income from Operation or Grants	
Tons of Solid Waste Disposed	57,270
Cost Per Ton	\$6.60
Population	55,885
Tons Per Capita	1.02
Cost per Capita	\$6.77

Chapter Five

Goals, Policies, Strategies & Barriers

Goals

In the past, Cherokee County has been most aggressive in setting recycling and reduction goals for better management of its solid waste. A recycling program was implemented in September 1993 as a pilot program to provide curbside recycling for 500 single-family homes. The initial program has constantly been expanded and today provides service to more than 6,000 single-family homes, government offices and all County schools. The County fully intends to meet the standard reduction goal of 40 percent of solid waste generated within the County by FY2014. This goal will be attained by:

- Implementing expanded commercial recycling programs.
- Educating of the general public on the benefits of waste reduction and the detrimental consequence of uncontrolled disposal.
- Reducing the amount of sludge being landfilled, by continuing the joint program of converting sludge into a usable land additive for the production of farm crops.
- Continuing to search for new markets for throw-a-way products currently not being recycled.

While all stated goals are important, education of the general public is essential if the County expects to meet these goals.

Incentives to recycle

The Recycling Department partners with SCDHEC in the schools to teach children at an early age the benefits of recycling. Cherokee County receives grant funding on an annual basis to provide educational programs in schools as well as to the general public.

Waste Reduction

The Solid Waste Department recognizes that waste reduction is needed in addition to recycling in order to meet the goal of 3.25 lbs./person/day by 2020 set by the State. The Recycling Department is working on waste reduction primarily through public education. Its school and civic group education curricula encourages source reduction and also includes instruction on which wastes should not go in the MSW stream, such as C&D or yard wastes, concrete and asphalt, as well as various other recyclable materials.

Recycling program

The Recycling Coordinator is responsible for coordinating the recycling and reduction effort within the County and is being assisted by City of Gaffney and Town of Blacksburg Administrations as well as County Administration and other departments involved with the collection and disposal of municipal solid waste. Materials which can be separated at the point of generation and how they are marketed are listed in the table below.

Standard household items which are currently considered as being recyclable will be collected before they reach the waste disposal stream by collection at the County Recycling Center or at County owned and operated drop off centers. Tires and batteries may be retained at the point-of-sale and taken to collection centers for reprocessing or dropped off at the Cherokee County Landfill and Cherokee County Recycling Center for disposal. Back yard or County owned facilities could be used to convert limbs & brush, yard waste and some household waste into gardening or landscaping products.

Existing and Proposed Facilities

The existing recycling facilities in Cherokee County Solid Waste system include

Facility	Location	Description
Cherokee County Recycling Facility	1602 Overbrook Dr. Gaffney, SC 29341	Drop center for reception of recycling materials.

Cherokee County plans to add 8 or more drop off centers in the future.

Recycled Materials and How They are Marketed

Material	How Marketed
Cardboard	Sold month to month*
Office paper of all types	Sold month to month*
Magazines	Sold month to month*
Newspapers	Sold month to month*
Junk Mail	Sold month to month*
Used motor oil	GOPHER Program
Steel cans	Sold month to month*
Aluminum cans/foil	Sold month to month*
Waste tires	Annual Contract
Plastics (PET & HDPE)	Sold month to month*
Glass	Sold month to month*
Lead acid batteries	Sold month to month*
Limbs & brush	Residents bring to permitted limb and brush pile at the Cherokee County Landfill on Lemuel's Road.
Yard waste	City picks up yard waste, which is ground by contractor when quantities justify.
White goods	Recycling company selected based on best price when quantities justify pick up.

*We presently do not have long term contracts with recycling companies for the sale of our recycled materials. Materials are sold month-to-month to those offering the best prices, at the discretion of the recycling coordinator, who solicits prices from available companies.

Public Education Program

Policies & Strategies

Residents are encouraged to compost their kitchen scraps and to compost limbs and brush, grass clippings and leaves instead of burning them or leaving them out for garbage pickup.

Cherokee County will strive to meet state-mandated goals for solid waste reduction and recycling. This will be accomplished by:

1. Expanding the current recycling program into areas of the County which do not currently have drop-off sites conveniently located.
2. Launch an extensive and comprehensive educational program on the benefits of recycling that includes citizens, institutions, industries and businesses.

Not only must an educational program be instituted, but recycling must be made easy for everyone. In addition, institutions, businesses and industry must be made aware of the requirement for the reporting of any in-house recycling efforts.

Barriers

Because of the high rate of functional illiteracy within the County, 25% of the Adult County population are functionally illiterate, it is expected that several thousand citizens will not participate effectively in recycling efforts because of their limited education and family values.

This problem is being addressed at the state as well as the local level. Literacy associations, local public school systems and centers for higher learning are conducting adult literacy and continuing education programs designed to raise the educational level of these individuals.

Future

The County will continue to evaluate its recycling program and may elect to make changes in the future as needed.

Chapter Six

Current and Future Disposal, Facilities, Generation and Management

General

Due to its unique location, along the industrialized I-85 corridor, population growth for Cherokee County is expected to increase at an above average rate for the region. The population is expected to exceed 70,170 residents by the year 2035 according to the SC Office of Research and Statistics. This rapid growth will require local governments to utilize all reasonable measures for the efficient and proper management of solid waste. The following is a breakdown, by category, of solid waste generated in FY2014 (in tons):

Type of Waste	Tons
Class Three (Residential)	17,405
Class Three (Commercial)	28,401
Class Two (C & D)	10,062.47
Class One (Yard Trash)	1403.36
Total	57,271.83

Data is from Cherokee County Solid Waste Department, FY2014

Existing Solid Waste Facilities

The solid waste facilities in Cherokee County are listed below.

Facility Name	Facility Type	SCDHEC Permit #
Cherokee County Class Two Landfill	Class Two	111001-1201
City of Gaffney Class Two Landfill	Class Two	111002-1201
Cherokee County Wood Chipping/Wood Grinding Site	Wood Chipping/Wood Grinding	111001-3001
Cherokee County Solid Waste Transfer Station	TS-MSW	111001-6001
Cherokee County Recycling Center Waste Tire Collection Facility	WTC	111001-5101

Class Three Waste

Landfill Definition by Regulation

Landfills that accept Municipal Solid Waste (MSW) are hereinafter referred to as Class Three landfills, according to DHEC regulation R.61-107.19. Solid Waste Management: Solid Waste Landfills and Structural Fill (effective date May 23, 2008).

Existing MSW Collection, Transfer or Disposal Facilities

The existing Class Three facilities in Cherokee County Solid Waste system include

Type of Facility	Facility	Location	Description
Class Three (MSW) Landfills	None	NA	NA
MSW Incineration Facilities	None	NA	NA
MSW Transfer Stations	Cherokee County Transfer Station	192 Lemuel's Road, Gaffney, SC 29341	Permitted capacity of 800 TPD

Collection

All residents of Cherokee County have access to curbside trash collection by their respective government entity, either the County or the responsible municipality.

Cherokee County provides curbside collection of household waste to 16,000 single-family residences within the unincorporated areas on a weekly basis. This service is provided without any added fee being levied on County residents. Further, each household is provided with one (1) 90-gallon roll out cart. If additional capacity is required, extra carts may be purchased from the County at cost. The County does not provide a means for the collection of any solid waste, other than household garbage.

The City of Gaffney provides weekly collection of household waste to 3200 single-family residences. Each household has been provided with a 96-gallon roll out cart to be used exclusively for household trash. The City provides for curbside pickups of yard waste, white goods, and construction and demolition debris from single-family households. Excluded from curbside collection are all forms of commercial renovation, construction, and landscaping wastes.

The Town of Blacksburg provides curbside collection for 1200 single-family residences, without providing a specified collection cart, on a weekly basis. All commercial waste is excluded from curbside pickup.

The City of Gaffney, Town of Blacksburg, and Cherokee County use rear loading sanitation trucks for collection and transportation to the County owned transfer station located at Lemuel's Road.

Generation

Current Generation

In FY2013-2014, Cherokee County residents produced a total of 57,478 tons of municipal solid waste (recycling plus disposal), a per capita rate of 5.7 pounds per day (*SC Solid Waste Management Annual Report FY2013*). This is slightly higher than the State average.

Projected Generation

There is no reason to expect this per capita generation rate to change significantly during the planning period. However, County population will rise. If the generation rate remains the same, the projected County MSW generation (recycling + disposal) in 2035 will be approximately 72,000 tons/year. The table below shows projected population and projected Class Three waste generation in five year increments:

Year	Population	Projected Class Three Wastes (Tons)
2020	61,760	63,500
2025	64,760	66,600
2030	67,350	69,300
2035	70,170	72,000

Management

The County currently manages its solid waste by export to regional Class Three (Subtitle D) landfills through the County owned, contractor operated transfer station. The transfer station, located at Lemuel's Road, is leased for operation to Republic Services until 2025 with an option to extend the lease an additional ten (10) years. In FY2014 the transfer station processed 46,662 tons, including 39 tons from Spartanburg County.

The County plans to continue disposing of its waste in this way throughout the planning period.

Waste Transport and Export in the Future

An average of 185 tons of Class Three waste are processed through the transfer station on a daily basis (The transfer station currently operates only 5 days/week). In 2035 County generation is projected to be approximately 232 tons per day. This amount represents less than one half of the transfer stations permitted capacity of 800 tons per day, leaving plenty of capacity for greater than expected generation and imported waste. The transfer station has the capacity to handle the County's waste stream during the planning period.

The County plans to export its MSW to Class Three landfills in the region through the planning period. Below are four landfills listed as commercial, all within fifty miles of Cherokee County:

- JMN Landfill, Grover, NC
- Palmetto Landfill, Spartanburg, SC
- Union County Landfill, Union, SC
- Anderson Regional Landfill, Anderson, SC

There are several other landfills beyond the 50 mi. radius that could accept the County's waste as well. There will be Class Three Landfill capacity in the region through the planning period; the County will be able to continue to export its waste through 2035.

Future Need for Class Three Facilities

All proposed MSW facilities (including but not limited to Class Three Landfills and/or MSW Incineration Facilities) are prohibited in Cherokee County. In 2035 County Class Three waste generation is projected to be approximately 232 tons per day. The transfer station's permitted capacity is 800 tons per day. Therefore, the County's current Class Three solid waste management system is able to handle the waste that the County is expected to generate in the next twenty years and no new Class Three facilities are needed. If it is necessary, however, the transfer station may be expanded or replaced.

Class Two Waste

Landfill Definition by Regulation

Landfills used for the disposal of Construction & Demolition debris (C&D) waste as outlined in Appendix I (including waste generated by construction and demolition) of DHEC regulation R.61-107.19. Solid Waste Management: Solid Waste Landfills and Structural Fill (effective date May 23, 2008) are hereinafter referred to as Class Two landfills.

Existing Class Two Facilities

The existing facilities in Cherokee County Solid Waste system include:

Type of Facility	Existing Facility	Location	Description
Class Two Landfills	Cherokee County Class Two Landfill	192 Lemuel's Road, Gaffney, SC 29341	Permitted capacity 70,000 TPY.
	City of Gaffney Class Two Landfill	No information available	No information available.

There are no proposed Class Two landfill facilities in Cherokee County.

Collection

The County does not collect Class Two wastes (C&D); C&D is hauled by generators, contractors, and hauling companies to the County Class Two landfill. City of Gaffney also operates a Class Two landfill. The city collects C&D curbside, then trucks it to their landfill for disposal.

Generation

Current Generation

During FY2014, a total of 10,062.47 tons of waste was disposed at the County's Class Two landfill. Data about the City of Gaffney landfill's tonnage is unavailable, but SCDHEC reports a total of 2,988 tons of C&D disposed in the City of Gaffney Class Two landfill in FY2013 (*SC Solid Waste Management Annual Report FY2013*). Using the County's current population estimate of 55,885, the C&D generation rate for Cherokee County is 1.28 pounds per day per person.

Projected

The Class Two wastes will rise to 16,400 tons per year through the planning period as the County population rises, based on present generation rates. A study of South Carolina Counties found that population density predicted slightly increased waste generation along with urban growth, so this figure may be somewhat higher. Cherokee County's Class Two waste generation is low

compared to other South Carolina counties, some of which have per capita generation rates as high as one ton per year. It is possible that Cherokee County could see a significant increase in C&D generation in the future. Projected Class Two waste generation rates are shown below:

Year	Population	Projected Class Two Waste (Tons)
2020	61,760	14,500
2025	64,760	15,100
2030	67,350	15,700
2035	70,170	16,400

Management & Facilities

The County-owned Class Two landfill began operation in early 1999 with a permitted capacity of 20,000 tons per year. Currently we are permitted to 70,000 tons per year. In addition to C & D material generated by residents and commercial activity, this landfill also accommodates the disposal of "brown" goods, road kill, dead livestock and euthanized domestic animals from local veterinarian clinics and from the combined City and County animal shelter. The Class Two landfill operating hours are Monday through Friday from 7:30 a.m. until 4:30 p.m. and on Saturday from 7:30 a.m. to 1:30 p.m.

Future Management

The Cherokee County Class Two landfill was constructed with a total of five cells of approximately seven acres each. Cells A and B are essentially filled. Current operations are located in cells C/D. Based on current disposal trends the Class Two landfill will accommodate the needs of the County for more than 30 years, well beyond the planning period. However, C&D waste generation could increase drastically, beyond current trends. Therefore the County will monitor the disposal rate and available capacity of the landfill. The County will permit and construct an expansion or replacement for the landfill when it reaches capacity.

Future Need for Class Two Facilities

Existing facilities, with expansions/replacements, are capable of disposing of the County's projected Class Two waste stream. In 2035, County Class Two waste generation is projected to be approximately 16,400 tons. The County's Class Two Landfill's permitted capacity is 70,000 tons per year and contains airspace for more than thirty (30) years. Therefore, the County's current Class Two solid waste management system is able to handle the Class Two waste that the County is expected to generate in the next twenty years. Therefore, proposed C&D facilities (including but not limited to Class Two landfills) are prohibited. Only Class Two (C&D) landfills already in the County may build expansions or replacements in Cherokee County.

Class One Waste

Landfill Definition by Regulation

DHEC "may issue a general permit for solid waste landfills used solely for the disposal of trees, stumps, wood chips, and yard trash that is generated from land-clearing activities", defined as a Class One Landfill in R. 61-107.19 (effective date May 23, 2008).

Other Definition by Regulation

DHEC retains regulation R.61-107.4. Solid Waste Management: Compost and Mulch Production from Land-clearing Debris, Yard Trimmings and Organic Residuals. This regulation is cited "to ensure the proper disposal and management of yard trash and land-clearing debris, and to encourage and regulate the production and use of compost made from yard trash and land-clearing debris".

Existing and Proposed Facilities

Class One waste (Land clearing debris, LCD) is accepted at the Wood Chipping/Wood Grinding facility located on the Cherokee County property located

off of Lemuel's Road. There are no proposed facilities of this type and no proposed Class One landfills.

Generation

Class One waste is generated in the County primarily by commercial activity, such as clearing land for new developments.

Management & Facilities

The County receives Class One waste at the County's Wood Chipping/Wood Grinding facility located on the Cherokee County property off of Lemuel's Road. The Class One waste is ground by a contractor and used for erosion control on the closed landfill.

Future need for Class One Facilities

Regulation R.61-107.19. Part III.B.2. requires Class One landfills be consistent with State and Region/County Solid Waste Management Plans. Existing facilities, with expansions/replacements, are capable of disposing of the County's projected Class One waste stream. Therefore, proposed Class One Landfills are prohibited.

Regulation R.61-107.4. Solid Waste Management: Compost and Mulch Production from Land-clearing Debris, Yard Trimmings and Organic Residuals makes no reference to consistency with Solid Waste Management Plans for these type facilities. However, through the plan, the County may prohibit them or limit them to a certain size and length of service. Existing facilities, with expansions/replacements, are capable of disposing of the County's projected yard trash and land-clearing debris and compost waste streams. Therefore, proposed Yard Trash and Land-Clearing Debris; and Compost facilities are prohibited.

On-site Landfills

Landfill Definition by Regulation

Regulation R.61-107.19. (Effective date May 23, 2008) Part V. establishes landfills that accept industrial solid waste to be hereinafter referred to as Class Three landfills. Also, there is the possibility that industrial waste(s) could meet the criteria for Class Two landfills via waste characterization (i.e., wastes that test less than ten (<10) times the maximum contaminant level (MCL) as published in R.61-58. State Primary Drinking Water Regulation. Regulation R.61-107.19 Part I.B.51 establishes that "On-site landfill" means landfills that accept only solid waste generated in the course of normal operations on property under the same ownership or control as the waste management facility.

Existing and Proposed Facilities

There are no existing or proposed On-site Landfill facilities in Cherokee County.

Generation and Handling

Industrial waste is produced by the activities of the industries in the County. There are no On-site Landfill facilities in the County, so the waste is transported to the County transfer station if it is Class Three wastes or the County Class Two landfill if it is Class Two wastes.

Future Need for On-site Landfill Facilities

Because the industrial waste is to be handled by the County's facilities, On-site Landfill facilities are prohibited in the County. The fact that the County facilities can handle the Class Two and Class Three waste streams is shown above under those sections.

Transfer & Collection of Waste

Why this section includes wastes covered under other sections

Transfer stations handle many types of waste. These types of waste are included in other sections in this chapter, but this section covers them as well

because all types of transfer stations must be considered when deciding their suitability for the County.

Existing and Proposed Facilities

The existing facilities in Cherokee County Solid Waste system include

Type of Facility	Facility	Location	Description
MSW Transfer Stations	Cherokee County Solid Waste Transfer Station	192 Lemuel's Road, Gaffney, SC 29341	Permitted capacity of 800 TPD
Recycled Materials Transfer	Cherokee County Recycling Facility	1602 Overbrook Dr. Gaffney, SC 29341	Drop center for reception of recycling materials.

MSW Collection and Transfer

The County and cities collect MSW curbside throughout their jurisdictions. The collection trucks bring it to the County transfer station where employees transfer it to other trucks for export and delivery to a Class Three landfill.

Tires Collection and Transfer

The County receives waste tires at its recycling facility. Tires, Inc. provides transportation and disposal/recycling services for the County.

Used Oil Collection and Transfer

The County collects used oil at its recycling center. Universal Environmental Services transports and disposes of this oil.

Transfer and Collection of other wastes

The County does not transfer or collect any other categories of wastes.

Future MSW Transfer

The transfer station and future MSW

As stated above, an average of 185 tons of municipal solid waste is processed through the transfer station on a daily basis (The transfer station currently operates only 5 days/week). In 2035 County generation is projected to be

approximately 232 tons per day. This amount represents less than one third of the transfer stations permitted capacity of 800 tons per day, leaving plenty of capacity for greater than expected generation and imported waste. The transfer station has the capacity to handle the County's waste stream during the planning period.

Future Need for Transfer Stations (MSW, C&D, or yard trash)

The three types of waste that a proposed transfer station could handle (MSW, C&D and yard trash) are adequately managed by the County MSW transfer station, the County Class Two landfill, and the County Wood Chipping/Wood Grinding facilities. These are each capable of handling the County's projected 2035 waste stream of that waste. Therefore, proposed transfer stations are prohibited in Cherokee County, though the expansion of the existing facility is acceptable if deemed necessary.

Solid Waste Processors

There are no solid waste processors in Cherokee County. There is no significant demand for a solid waste processing facility in the County. Therefore, all solid waste processors are prohibited in Cherokee County.

Municipal Solid Waste Incinerators

There are no solid waste incinerators in Cherokee County. The County has chosen to export its MSW for disposal in a Class Three landfill. The County MSW transfer station can handle the County's projected 2035 MSW waste stream. Therefore, proposed solid waste incinerators are prohibited in Cherokee County.

Municipal Solid Waste Incinerator Ash Landfill

There are no solid waste incinerators in Cherokee County and therefore no ash generated and no demand for a municipal solid waste incinerator ash landfill. Because of the lack of demand, proposed solid waste incinerator ash landfills are prohibited in Cherokee County.

Waste Tires

Waste tire collection facilities

The existing waste tire collection facilities in Cherokee County Solid Waste system include

Type of Facility	Facility	Location	Description
Waste Tire Collection	Cherokee County Recycling Center Waste Tire Facility	1602 Overbrook Dr. Gaffney, SC 29341	Drop center for reception of recycling materials.

Waste tire collection and management

Tire retail facilities receive most of the waste tires. These retailers then arrange for removal and recycling of their tires. The County also receives waste tires from its residents at its recycling center. A recycling company transports the tires from the county recycling center to its facility for disposal or recycling. The recycling company locates an empty trailer at the Recycling Center, where citizens bring the waste tires. The tires are loaded onto the locked trailers at the time of delivery. Information about the citizen and the tires are recorded in a log, which is periodically checked by SCDHEC. This method of collection will be used throughout the planning period.

Waste tire generation

Present

Cherokee County generated and recycled approximately 600 tons of tires in FY2014. Data on the quantity of tires disposed is unavailable.

Future

The number of tires generated in this County will rise slowly with population. There is no reason to believe that the County's current tire management system would be unable to handle 2035's tire quantities.

Future waste tire facilities

The only permitted tire facility in the County is the Cherokee County Recycling Center. The County's recycling policy is to encourage tire retailers to receive the waste tires at the time of sale. There are numerous tire haulers which can export the tires out of the County for recycling or disposal. Therefore all proposed waste tire facilities are prohibited in the County.

Used Oil

Used Oil Collection and Management

Used oil is received in collection units by the County at the recycling center. Most of the waste oil in the County is collected from consumers by oil change businesses, which are responsible for its disposal.

Used Oil Generation

Cherokee County recycled 16.44 tons of used oil in FY2014. There is no reason to expect the generation rate to rise much faster than the population. There is also no reason to expect that today's waste oil disposal system will not be able to handle 2035's oil stream.

Future Used Oil Facilities

There is no significant demand for additional used oil facilities in Cherokee County. Therefore proposed used oil facilities are prohibited in Cherokee County.

Off-site Treatment of Contaminated Soils

There are no facilities for offsite treatment of contaminated soil in the County, and there is no significant demand for one. Therefore, they are prohibited in Cherokee County.

Yard Wastes

Limbs and brush, yard waste, and land-clearing debris are accepted at the County's Wood Chipping/Wood Grinding operation located on the Cherokee County property off of Lemuel's Road. The waste is ground by a contractor and

removed from the site by the contractor. Proposed yard waste processing facilities do not require a consistency determination.

Composting

Existing Facilities

Cherokee County does not operate a composting facility.

Composting Program

The County encourages backyard composting through its public education program. The County grinds yard waste, limbs and brush and land-clearing debris into mulch, which is piled into 3 wind rows and used for erosion control. While proposed composting facilities do not require a consistency determination, the County prohibits proposed composting facilities.

Batteries

The County receives lead acid batteries at its Recycling Center. The County recycled 2.4 tons of batteries in the FY2014. The County policy is that retailers collect and recycle the used batteries as much as possible. Lead acid battery facilities are not permitted by DHEC; they do not require consistency determinations.

White Goods and Metals

The County collects white goods and metals at its Landfill for export and recycling outside the County. In FY2014 1073.23 tons were recycled from Cherokee County. Currently, white goods are recycled into rebar at a facility in Columbia, SC. Facilities which collect white goods do not need a permit; they do not require consistency determinations.

Concrete and Asphalt

The County collects concrete and asphalt which is grinded by an outside vender. In FY2013 the concrete totaled 622.29 tons and the asphalt totaled 346.64 tons. The product is used for erosion control and roads within Cherokee County.

Electronic Wastes

The County collects electronic wastes at its Recycling Center and at its Landfill. In FY2013 the electronic wastes totaled 34.92 tons. The electronic wastes are palletized and transported to eCycle Secure for recycling.

Chapter 7

Plan Revision, Adoption and Consistency

Plan approval and adoption process

The adoption process begins when the solid waste director or County Administrator presents a draft of the revised SWMP to County Council for their approval. On a majority vote of the County Council in public session, the draft becomes the official solid waste management plan of Cherokee County. The Solid Waste Director then submits the plan to DHEC, clearly stating that it has been approved by the Council and is the official SWMP of the County.

Public Notice

Changes to the SWMP are public noticed by inclusion in the County Council meeting agenda.

Date of effect

The Plan becomes effective when the County Council votes to adopt it or on the date set by Council for it to become effective.

Response to DHEC's consistency determinations

The Solid Waste Director will have the authority to send DHEC the County's comments (in writing) on consistency determinations made by the department for proposed facilities in Cherokee County. For a full explanation of the consistency determination process, see the Plan Consistency section below.

Solid Waste Management Plan Revisions

Section 44-96-80(O) of the South Carolina Solid Waste Policy and Management Act of 1991 requires that any amendments to the County or regional waste management plan must be adopted and implemented in the same manner as provided for in the initial plan. For Cherokee County, this means that the plan must be adopted by the Cherokee County Council in public session.

Plan Consistency

Section 44-96-80(E) states that each solid waste management plan submitted by local or regional governments shall be consistent with the State Solid Waste Management Plan, provisions of State law, and regulations promulgated by the SC Department of Health & Environmental Control for the protection of public health, safety and for the protection of the environment. No Permit to construct a new solid waste management facility or to expand an existing solid waste management facility within a County or municipality may be issued by the Department unless the proposed facility or expansion is consistent with the local or regional Solid Waste Management Plan and the State Solid Waste Management Plan.

SCDHEC Consistency Determination

Regulation 61-107.17, SWM: Demonstration-of-Need, contains a requirement for a consistency determination. The requirement includes the determination of consistency with the State and County/Region Solid Waste Management Plans. Where applicable, the Department will make a determination of consistency as a part of their permitting process.