

**HENDERSON COUNTY, TENNESSEE,
MUNICIPAL SOLID WASTE
2013 NEEDS ASSESSMENT**



**Parkers Crossroads Civil War Battlefield Site
Henderson County, Tennessee**

Prepared by the
SOUTHWEST TENNESSEE DEVELOPMENT DISTRICT
102 East College Street
Jackson, Tennessee 38301

for the
STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF SOLID WASTE MANAGEMENT
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 14th Floor
Nashville, Tennessee 37243

as required by the
SOLID WASTE MANAGEMENT ACT OF 1991
(T.C.A. 68-211-801 through 68-211-874)

TABLE OF CONTENTS

CHAPTER	PAGE
Preface - Municipal Solid Waste Needs Assessments	1
Introduction - Community Profile	3
Item 1 - Demographic Information and Projections	6
Item 2 - Analysis of Economic Activity within the Region	11
Item 3 - Characterization of the Solid Waste Stream	15
Item 4 - Solid Waste Collection Systems	20
Item 5 - Analysis of Existing or Potential Solid Waste Flows within the Region and Between Adjacent Regions	25
Item 6 - Attitudes of Region Towards Waste Management in General and Needed Changes and/or Educational Measures	29
Item 7 - Evaluation of the Waste Reduction Systems for Counties and Municipalities in Region	33
Item 8 - Collection/Disposal Capacity and Projected Life of Solid Waste Facilities	35

TABLE OF CONTENTS (CONTINUED)

CHAPTER	PAGE
<hr/>	
Item 9 - Unmet Financial Needs and Cost Summary.....	36
Item 10 - Comparison of Revenue Sources for the Region’s Current Solid Waste Programs with Projected Future Demands	38
Item 11 – Summary - Sustainable Goals Consistent with the State Plan	39
Photographs	45

Preface - Municipal Solid Waste Needs Assessments

The State of Tennessee Department of Environment and Conservation (TDEC) has contracted with the Southwest Tennessee Development District (SWTDD) to prepare a municipal solid waste needs assessment for Henderson County, Tennessee. The planning window for the needs assessment is five years. The needs assessment was prepared in the summer of 2013, and thus, its period of applicability will be 2014 through 2018.

Various sources were consulted to compile demographic and economic statistics for Henderson County and its municipalities, i.e., the U.S. Census Bureau, the Tennessee Advisory Commission on Intergovernmental Relations (TACIR), the University of Tennessee Center for Business and Economic Research, the Tennessee Department of Economic and Community Development (TECD), the 2007- 2012 Annual Progress Reports (APRs) of the Henderson County Municipal Solid Waste Region, the Henderson County Chamber of Commerce, and other similar sources. Some estimates and projections in this document may differ from one another based on the source of the information, the type of methodology used to develop the numbers, and/or the year the estimate or projection was made. However, every effort was made to select and use the most reliable information available.

The Henderson County, Tennessee, Municipal Solid Waste 2013 Needs Assessment was prepared by Jeff Reece, Environmental Programs Coordinator with SWTDD; under the direction of Matt Maynard, Manager of the Planning, Reporting, and Waste Reduction Section of TDEC's Division of Solid Waste Management . The document "Guidelines for Preparing Solid Waste Needs Assessments," updated by TDEC in September 2012, was used to establish the format of this needs assessment.

The assessment was reviewed by Marty Akins, Solid Waste Director with the Henderson County Solid Waste and Recycling Department.

For more information on the Henderson County, Tennessee, Municipal Solid Waste 2013 Needs Assessment, please contact:

Jeff Reece
Environmental Programs Coordinator
Southwest Tennessee Development District
102 East College Street
Jackson, Tennessee, 38301
731-668-6408 (T)
731-668-6421 (F)
jreece@swtdd.org

Other contacts for information on the Henderson County Solid Waste Management System include:

Marty Akins
Henderson County Solid Waste Director
264 Mig Drive
Lexington, Tennessee 38351
731-968-8738 (T)
MartyA@henderson-sw.com

Dan Hughes
Henderson County Mayor
17 Monroe Street
Lexington, Tennessee 38351
731-968-0122 (T)
danhughes7@yahoo.com

Jamie Simonton
Henderson County Solid Waste Board Chairman
300 Hale Road
Yuma, Tennessee 38390
731-968-0714 (T)
jsimonton1@earthlink.net

Introduction - Community Profile

Henderson County is located in the east-central portion of West Tennessee. Henderson County is bordered by Carroll County on the north; Chester County and Hardin County on the south; Decatur County on the east; and Madison County on the west. (See Map 1.)

Henderson County was established in 1821. It has an area of 520 square miles. The population of Henderson County in 2010 was 26,691, according to the official 2010 U. S. Census, with an estimated population of 27,159 in 2013. The estimated population figure used in this report was derived by the Tennessee Advisory Commission on Intergovernmental Relations and the University of Tennessee Center for Business and Economic Research. (See Table 1.)

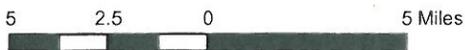
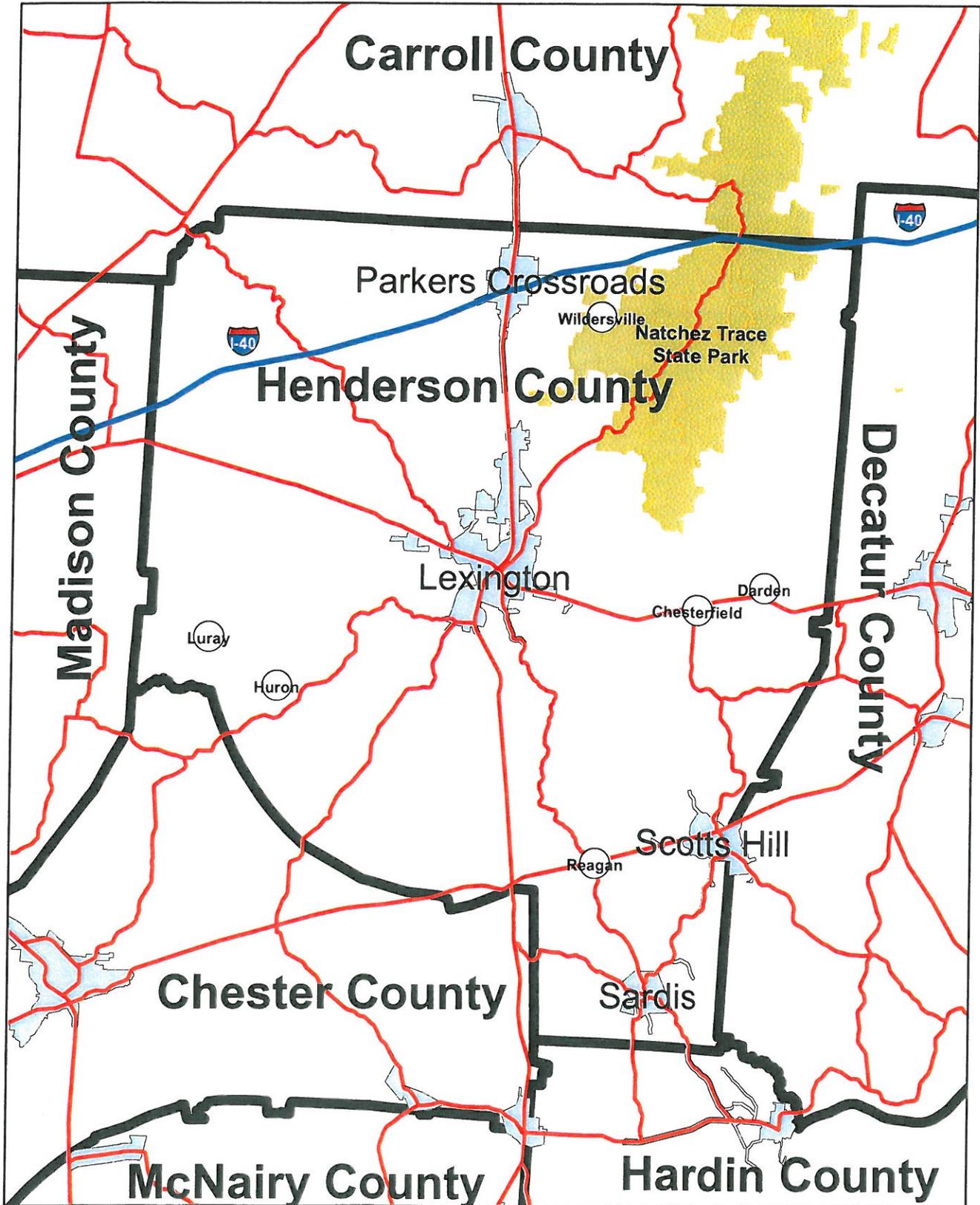
Lexington is the county seat and largest municipality in Henderson County. Lexington is located in the central portion of the county equally distant from Memphis and Nashville (111 miles northeast of Memphis and 111 miles southwest of Nashville). Other incorporated municipalities in the county are the City of Parkers Crossroads in the northern portion and the towns of Sardis and Scotts Hill in the southern portion. Scotts Hill lies in both Henderson County and Decatur County.

Several unincorporated communities in Henderson County serve as post offices for rural residents in their areas. These include Wildersville in the north, Reagan in the south, Darden in the east, and Luray and Huron in the west.

Henderson County is governed by a county mayor and 14 county commissioners. Dan Hughes is mayor of Henderson County.

The solid waste director for Henderson County is Marty Akins. Jamie Simonton is chairman of the Henderson County Municipal Solid Waste Planning Board. Other members of the Board are Mack Maness Jr., Susan Montgomery, Dennis Sumler, and Harold Tyler.

Henderson County, Tennessee



Map 1

TABLE 1
POPULATION ESTIMATES AND PROJECTIONS
HENDERSON COUNTY, TENNESSEE

Year	Population
2000	25,522
2001	25,652
2002	25,782
2003	25,912
2004	26,042
2005	26,173
2006	26,277
2007	26,381
2008	26,485
2009	26,588
2010	26,691
2011	26,847
2012	27,003
2013	27,159
2014	27,315
2015	27,472
2016	27,577
2017	27,682
2018	27,788
2019	27,893
2020	27,999

NOTE: Estimates and projections are taken from Population Projections for the State of Tennessee, 2010-2030, by the Tennessee Advisory Commission on Intergovernmental Relations and the University of Tennessee Center for Business and Economic Research.

Item 1 - Demographic Information and Projections

The estimated population of Henderson County in 2013 is 27,159 (TACIR estimate). The county has shown slow population growth over the past ten years—mostly due to the desirability of the area as a retirement community and Lexington’s proximity to metropolitan Jackson, Tennessee, (approximately 30 miles to the west) as a employee bedroom community. Much of the growth in recent years has been in and near the county seat of Lexington and along the growth corridors of Interstate 40 running southwest-northeast in the northern portion of Henderson County and along U.S. Highway 412 running east-west across the central portion of Henderson County.

The population of Henderson County is projected to be 27,888 (TACIR estimate) by 2018, an increase of around 729 persons from 2013. Tables 1 through 5 show population estimates and projections for Henderson County and its four municipalities.

Because population growth in Henderson County is expected to remain steady and slow, population growth, per se, will have little effect on solid waste management’s infrastructure needs in the county for the next five years.

TABLE 2
POPULATION ESTIMATES AND PROJECTIONS
CITY OF LEXINGTON, TENNESSEE

Year	Population
2000	7,393
2001	7,435
2002	7,477
2003	7,519
2004	7,560
2005	7,602
2006	7,631
2007	7,660
2008	7,689
2009	7,718
2010	7,749
2011	7,792
2012	7,835
2013	7,878
2014	7,921
2015	7,965
2016	7,995
2017	8,025
2018	8,055
2019	8,085
2020	8,115

NOTE: Estimates and projections are taken from Population Projections for the State of Tennessee, 2010-2030, by the Tennessee Advisory Commission on Intergovernmental Relations and the University of Tennessee Center for Business and Economic Research.

TABLE 3
POPULATION ESTIMATES AND PROJECTIONS
TOWN OF SCOTTS HILL, TENNESSEE

Year	Population
2000	894
2001	895
2002	896
2003	897
2004	898
2005	900
2006	900
2007	901
2008	901
2009	902
2010	903
2011	905
2012	907
2013	910
2014	913
2015	916
2016	917
2017	920
2018	923
2019	926
2020	929

NOTE: Estimates and projections are taken from Population Projections for the State of Tennessee, 2010-2030, by the Tennessee Advisory Commission on Intergovernmental Relations and the University of Tennessee Center for Business and Economic Research.

TABLE 4
POPULATION ESTIMATES AND PROJECTIONS
TOWN OF SARDIS, TENNESSEE

Year	Population
2000	445
2001	446
2002	447
2003	448
2004	449
2005	450
2006	449
2007	448
2008	446
2009	444
2010	443
2011	443
2012	443
2013	443
2014	443
2015	443
2016	443
2017	443
2018	442
2019	442
2020	441

NOTE: Estimates and projections are taken from Population Projections for the State of Tennessee, 2010-2030, by the Tennessee Advisory Commission on Intergovernmental Relations and the University of Tennessee Center for Business and Economic Research.

TABLE 5
POPULATION ESTIMATES AND PROJECTIONS
CITY OF PARKERS CROSSROADS, TENNESSEE

Year	Population
2000	241
2001	242
2002	243
2003	244
2004	245
2005	247
2006	246
2007	246
2008	245
2009	244
2010	243
2011	243
2012	243
2013	242
2014	242
2015	241
2016	241
2017	240
2018	240
2019	239
2020	238

NOTE: Estimates and projections are taken from Population Projections for the State of Tennessee, 2010-2030, by the Tennessee Advisory Commission on Intergovernmental Relations and the University of Tennessee Center for Business and Economic Research.

Item 2 - Analysis of Economic Activity within the Region

The Consumer Price Index (CPI) of Henderson County for 2012 was 229.39. The CPI has shown a steady rise over the last five years (See Table 7) and is expected to maintain a slow, balanced rise over the next five years.

Taxable sales for the county were \$275,340,437 in 2012. Taxable sales have generally shown an increase over the last five years. (See Table 8.) It is predicted that taxable sales for the county will continue to increase over the next five years.

The largest industries by number of employees in Henderson County include (1) Manufacturers Industrial Group LLC (approximately 900 employees), (2) Johnson Controls Interiors LLC (approximately 630 employees), (3) Leroy Somer-Emerson Electric Company (approximately 600 employees), (4) Columbus McKinnon Corporation (approximately 325 employees), and (5) Volvo Penta Marine Products LP (approximately 230 employees).

Agricultural commodities grown in Henderson County include corn, soy beans, wheat, hay, cotton, timber (mostly pine), and fruits and vegetables. Beef cattle, milk cows, hogs, chickens, and horses commonly are raised on farms in the county.

Henderson County receives thousands of visitors each year attracted by Natchez Trace State Park in the northeastern part of the county; by Parkers Crossroads Battlefield Park, a Civil War commemorative site in the far northern part; and by local reservoirs such as Beech, Browns Creek, Cedar, Dogwood, Pine, Pin Oak, Redbud, and Sycamore, in the central and eastern portions of the county, that serve Henderson and surrounding counties as prime fishing and boating lakes.

Employment in Henderson County was estimated at 11,190 persons in 2012. Unemployment remains chronically high in Henderson County—significantly higher in Henderson County than in Tennessee and the U.S. The unemployment rate for Henderson County was 12.4 percent in June

TABLE 7
CONSUMER PRICE INDEX
ACTUAL AND PROJECTED
HENDERSON COUNTY, TENNESSEE

Year	Consumer Price Index
2006	201.60
2007	207.30
2008	211.10
2009	214.54
2010	218.10
2011	224.90
2012	229.39
2013	233.88
2014	238.38
2015	242.87
2016	247.36
2017	251.85
2018	256.34

Source: Tennessee Department of Environment and Conservation (Actual Numbers)

TABLE 8
TAXABLE SALES
ACTUAL AND PROJECTED
HENDERSON COUNTY, TENNESSEE

Year	Taxable Sales (\$)
2006	\$243,044,935
2007	243,421,485
2008	248,894,616
2009	238,205,377
2010	246,232,114
2011	256,547,977
2012	275,340,437
2013	287,718,790
2014	300,097,143
2015	312,475,496
2016	324,853,849
2017	337,232,202
2018	\$349,610,555

Source: Tennessee Department of Environment and Conservation (Actual Numbers)

2013 (the latest monthly figure available at the writing of this report). The unemployment rate for Tennessee in June 2013 was 8.8 percent and was 7.8 percent for the U.S. as a whole in June 2013.

Overall, economic activity within Henderson County is expected to be slow to moderate over the next five years.

Item 3 - Characterization of the Solid Waste Stream

A – Region’s Waste Stream

Virtually all of the municipal solid waste in Henderson County is generated within the county. Table 9 shows the amount of waste disposed of by Henderson County each year since 2000.

Projecting the total amount of tons to be disposed of in Henderson County over the next few years is difficult since in recent years landfill totals have fluctuated from a high of 24,322 tons in 2005 to a low of 11,434 tons in 2008. The best prediction is that landfill totals will likely remain in the 12,000-ton-to-15,000-ton range over the next five years based on local population and economic trends in the county—well within Henderson County’s capacity and ability to handle its waste disposal needs for the coming five years.

B - Waste Flow

The Henderson County Solid Waste and Recycling Department estimates that 30 percent of its waste is residential in origin, 40 percent commercial, 20 percent industrial, and 10 percent institutional.

C - Problem Wastes

Problem wastes; such as waste tires, batteries, used oil, latex paint, and used antifreeze; are collected year round by Henderson County at its Lexington Main Convenience Center at 264 Mig Drive in Lexington. E-scrap is collected year round at all eight convenience centers in Henderson County. The County sponsors a yearly household hazardous waste collection event in cooperation with the State of Tennessee—usually in the fall of the year. Henderson County collected 4.6 tons of household hazardous waste at its event in 2012.

TABLE 9

**MUNICIPAL SOLID WASTE DISPOSED OF BY HENDERSON COUNTY
ACTUAL AND PROJECTED**

YEAR	TONS DISPOSED OF
2000	12,477
2001	12,424
2002	17,473
2003	16,827
2004	20,724
2005	24,322
2006	18,588
2007	17,127
2008	11,434
2009	13,603
2010	14,802
2011	14,262
2012	11,966
2013	12,498
2014	13,030
2015	13,562
2016	14,094
2017	14,626
2018	15,158

Source: Henderson County Solid Waste Department

D - Other Wastes

All eight of the County's convenience centers collect paper, mixed plastics, mixed metals, and electronics. The Lexington Main Convenience Center also collects mixed glass, batteries, used oil, paint, antifreeze, and used tires. Henderson County collected a total of 319 tons in 2012.

Henderson County also collected approximately 70 tons of used tires in 2012.

E - Future Plans

Henderson County plans to continue its present solid waste management program for the next five years in a similar fashion as it has for the past several years.

Henderson County is participating in the West Tennessee Regional Recycling Hub's program located at Henderson, Tennessee, and operated by the Chester County Department of Solid Waste and Recycling, in the collection of plastics. Henderson County collects the plastics and then ships the material over to the Regional Recycling Hub for processing. The West Tennessee Hub now has agreements with solid waste departments in Chester, Hardin, McNairy, and Henderson counties and could add other cooperative ventures with other counties or one or more of the municipalities in Henderson County that operate their own solid waste departments. In particular, Henderson County is interested in recycling glass if the West Tennessee Regional Recycling Hub is able to acquire a glass crusher in the future. The Regional Recycling Hub at Henderson is located approximately 30 miles southwest of Lexington.

F - Commercial Wastes

In 2012, Henderson County commercial businesses recycled approximately 7,796 tons of goods. Two commercial businesses in Henderson County provided recycling figures to the Solid Waste and Recycling Department: AutoZone and Walmart. AutoZone collected 6,909 tons of recyclables in 2012, mostly pallets, cardboard, and mixed metals. Walmart collected 887 tons in 2012, mostly cardboard.

G - Industrial Wastes

In 2012, Henderson County industries recycled approximately 15,753 tons of goods. Three industries in Henderson County provided recycling figures to the Solid Waste and Recycling Department: Leroy Somer-Emerson Electric Company, Columbus McKinnon Corporation, and Fluid Routing Solutions, Inc. By far the largest of the industrial firms reporting figures was Leroy Somer-Emerson with 14,456 tons of recyclables. By far the greatest commodity collected by Leroy Somer-Emerson was iron with 14,175 tons of the total recycled being iron.

H – Waste Diversion

In 2012, two local firms, Columbus McKinnon Corporation and Walmart, diverted an estimated total of 251 tons of material from landfills by composting industrial byproducts and food wastes and green wastes.

I - Wastes Entering and Leaving the County

Virtually all of the wastes the Henderson County Solid Waste and Recycling Department disposes of are generated within Henderson County.

Henderson County has no active Class I landfills. However, the City of Lexington does operate a Class III/IV landfill at 42 McKnight Drive in Lexington.

Because Henderson County has no Class I landfills, all Class I wastes generated in Henderson County are landfilled outside the county. In 2012, approximately 11,966 tons of solid waste generated in Henderson County were landfilled in three West Tennessee landfills. In 2012, 75 percent of Henderson County's Class I wastes were landfilled at the Decatur Landfill south of the City of Parsons to the east in neighboring Decatur County; approximately 23 percent of Henderson County's Class I wastes were landfilled at the West Camden Landfill located near Camden in Benton County northeast of Henderson County; and the remaining two percent of Class I wastes were landfilled at the Madison Landfill near Jackson to the west in neighboring Madison County.

In 2012, Class III wastes from Henderson County were landfilled in the City of Lexington's landfill on McKnight Drive. No estimate is available for the number of tons landfilled there in 2012.

Item 4 - Solid Waste Collection Systems

There are five major solid waste collection systems operating within Henderson County: (1) the county-operated Henderson County Solid Waste and Recycling Department, and the municipal systems of (2) the City of Lexington, (3) the Town of Scotts Hill, (4) the Town of Sardis, and (5) the City of Parkers Crossroads.

Lexington operates its own collection system and has two collection vehicles housed at their Public Works Department facility at 280 John Threadgill Drive in Lexington. The city's wastes are taken to the transfer station at the Lexington Main Convenience Center at 264 Mig Road where Waste Services, a private waste management company, transports the wastes to the Decatur Landfill in Decatur County. The Town of Scotts Hill and the Town of Sardis contract with Waste Services to handle their municipal wastes. The City of Parkers Crossroads contracts with Waste Management, another private waste services company, to handle the collection of solid waste within their city limits.

Commercial and industrial wastes throughout the county are handled by several private collection companies including the abovementioned Waste Services, Waste Management, and also Hub City Waste.

Residents outside the municipalities transport their municipal wastes to one of eight convenience centers located throughout the county. These are listed in Table 10 and are located on Map 2.

Class I solid wastes are transported to one of three landfills: the Decatur Landfill near Parsons in Decatur County, Tennessee; the West Camden Landfill near Camden in Benton County, Tennessee; or the Madison County Landfill near Jackson in Madison County, Tennessee. Most Class III/IV wastes generated in Henderson County are taken to the City of Lexington Class III/IV Landfill.

Recyclables are taken to the main Henderson County Solid Waste and Recycling Department headquarters and recycling facility at 264 Mig Road for processing.

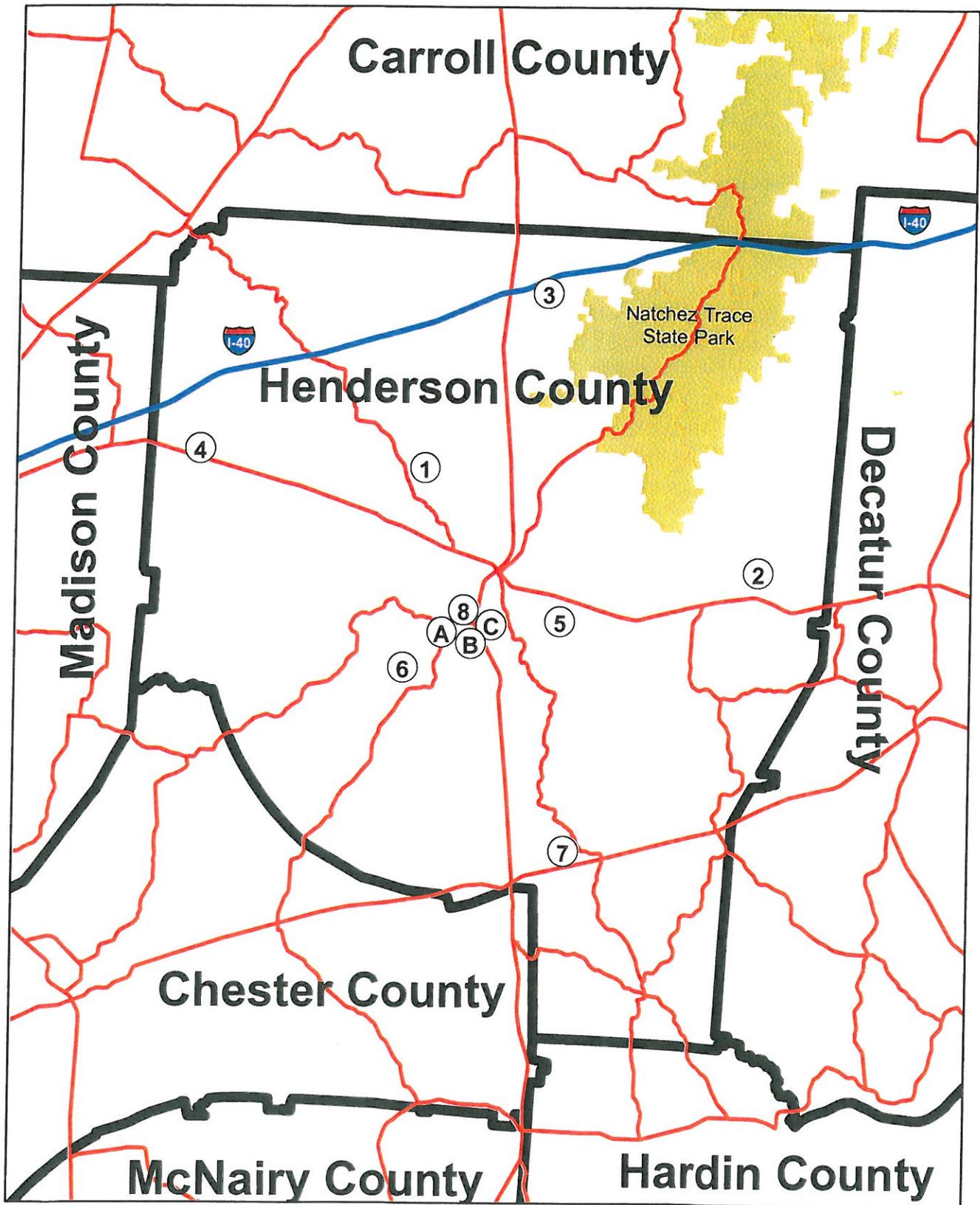
TABLE 10

HENDERSON COUNTY CONVENIENCE CENTERS

NO.	CENTER	ADDRESS	CITY/POST OFFICE
1.	Bargerton	8436 Highway 104 North	Lexington
2.	Darden	2296 Ray Carrington Road	Darden
3.	Parkers Crossroads	191 D. L. Weatherly Lane	Wildersville
4.	Blue Goose	701 Blue Goose Road	Lexington
5.	Owens Crossing	22385 Highway 412 East	Lexington
6.	South Haven	6388 Highway 22A	Lexington
7.	Reagan	5580 Highway 100	Reagan
8.	Lexington Main	264 Mig Drive	Lexington

Source: Henderson County Solid Waste and Recycling Department

Henderson County Solid Waste Facilities



MAP 2 KEY

HENDERSON COUNTY SOLID WASTE FACILITIES

SOLID WASTE CONVENIENCE CENTERS

KEY	NAME	ADDRESS	POST OFFICE
1.	Bargerton	8436 Highway 104 North	Lexington
2.	Darden	2296 Ray Carrington Road	Darden
3.	Parkers Crossroads	191 D. L. Weatherly Lane	Wildersville
4.	Blue Goose	701 Blue Goose Road	Lexington
5.	Owens Crossing	22385 Highway 412 East	Lexington
6.	South Haven	6388 Highway 22A	Lexington
7.	Reagan	5580 Highway 100	Reagan
8.	Lexington Main	264 Mig Drive	Lexington

OTHER SOLID WASTE FACILITIES

KEY	FACILITY	ADDRESS	POST OFFICE
A.	Henderson County Solid Waste and Recycling Department	364 Mig Drive	Lexington
B.	Henderson County Recycling Center	264 Mig Drive	Lexington
C.	Henderson County Transfer Station	264 Mig Drive	Lexington
D.	Lexington Class III/IV Landfill	42 McKnight Drive	Lexington
E.	Lexington Recycling Operations Center	142 East Church Street	Lexington
F.	Lexington Public Works Department	280 John Threadgill Drive	Lexington

Source: Henderson County Solid Waste and Recycling Department

Item 5 - Analysis of Existing or Potential Solid Waste Flows within the Region and Between Adjacent Regions

A - Solid Waste Staffing, Facilities, and Equipment

(1) Staffing

The Henderson County Solid Waste and Recycling Department has two, full-time solid waste management employees, two inmates who assist with solid waste activities, and ten part-time attendants at the county's convenience centers. These positions are funded by Henderson County Government.

Table 11 shows an organizational chart for the Henderson County Solid Waste and Recycling Department.

The Henderson County solid waste director reports that the County is in need of at least two additional staff members: a full-time, roll-off truck driver/maintenance person to assist at the Lexington Main Convenience Center and a part-time maintenance person directing operations at the other convenience centers.

(2) Facilities

Henderson County has identified several major projects at its Lexington Main Convenience Center to provide optimal solid waste management and recycling facilities for its staff to better perform their jobs. Needed improvements at Lexington Main include:

- solar panels installed on the recycling building,
- the roof and walls of the main building repaired and insulation added,
- demolition of the old loading/unloading ramp,
- construction of a new ramp meeting the approval of the Occupational Safety and Health Administration (OSHA),

- paving in front of and behind the center,
- construction of a new office and conference room for the use of the solid waste director (approximately 24-foot-by-30-foot),
- construction of a new building for the storage of recyclables and equipment.

In addition, the replacement of attendant buildings (eight-foot-by-eight-foot) at three outlying convenience centers is needed.

(3) Equipment

Current recycling equipment at the Henderson County Recycling Facility on Mig Road includes two vertical balers, one horizontal baler, one shredder, one forklift, and one bobcat.

Additional recycling equipment is needed, however. Equipment most needed (in order of priority) includes:

- one new roll-off truck,
- one used roll-off truck,
- six open-top, 25-yard or 30-yard containers,
- three 40-yard receiving boxes/containers,
- two $\frac{3}{4}$ -ton trucks,
- one 25-foot flatbed, gooseneck trailer,
- two four-yard compactors,
- one 16-foot equipment trailer,
- new office equipment for the solid waste director's new office including desks, chairs, cabinets, and conference table with chairs,
- one 75-horsepower bobcat skid steer with attachments,
- one 110-volt mig welder,
- one oxygen-acetylene torch rig,

- one 200-piece mechanics tool set,
- one one-inch drive hammer drill with two bits,
- one 80-gallon air compressor with 200 feet of 300-psi air hose.

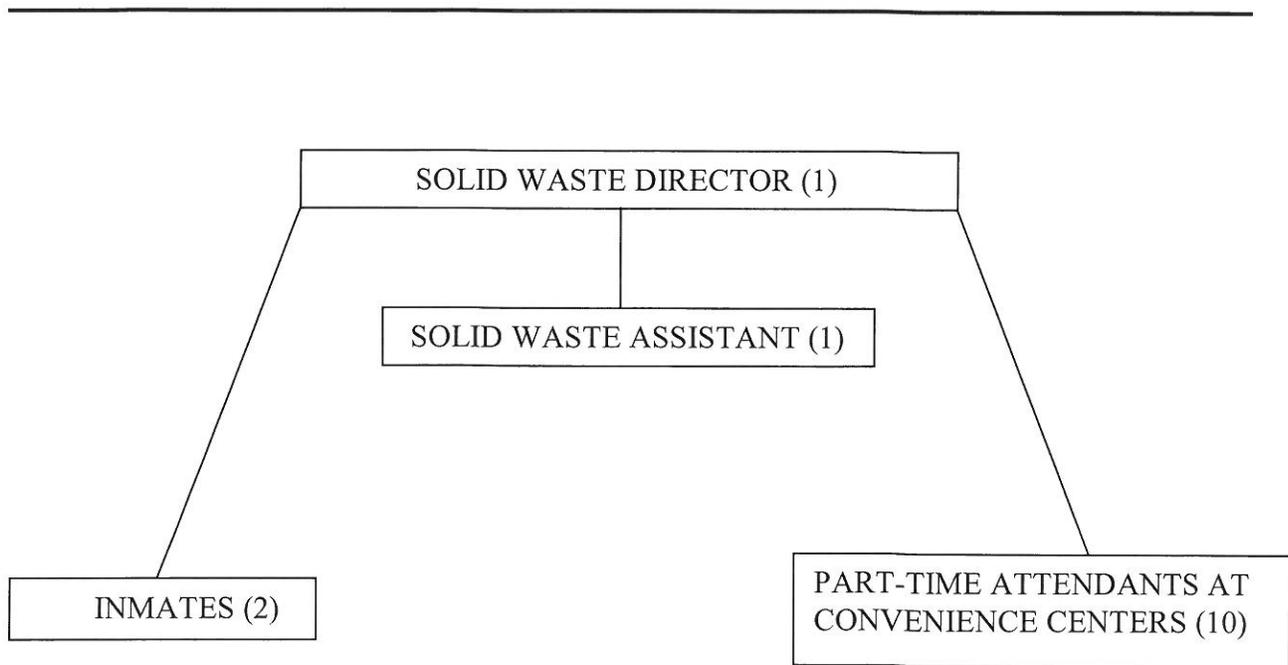
B - Waste Flow

Waste flow into, within, and out of Henderson County is relatively simple. Virtually no waste is brought into the county from other regions. Waste flows out of Henderson County into other neighboring counties in Tennessee for landfilling: into Decatur County; Benton County, and Madison County in 2012.

TABLE 11

HENDERSON COUNTY SOLID WASTE AND RECYCLING DEPARTMENT

ORGANIZATIONAL CHART



Source: Henderson County Solid Waste and Recycling Department

Item 6 - Attitudes of Region Towards Waste Management in General and Needed Changes and/or Educational Measures

The citizens of Henderson County generally have progressive attitudes towards solid waste management practices and recycling. Judged by the number of complaints the Henderson County Solid Waste and Recycling Department receives (normally no more than ten each year), it appears most residents of Henderson County approve of the way the department operates.

Most of the complaints involve roadside litter and illegal dumps—which is not unusual in predominately rural counties.

In 2012, the Henderson County APR reported that citizens in Henderson County recycled a total of 319 tons of recyclables (206 tons of old corrugated cardboard, 50 tons of used electronics, 34 tons of old newsprint, 25 tons of mixed glass, two tons of mixed plastics, one ton of aluminum beverage containers, and one ton of mixed metals). Citizens of Henderson County also recycled 4.6 tons of household hazardous waste in 2012.

The City of Lexington operates a curbside recycling program that collects cardboard, aluminum cans, office paper, plastics, and electronics. The program is headquartered at 142 East Church Street in Downtown Lexington. The program collects around 250 tons of recyclables each year.

Henderson County's public recycling totals (for the program operated by the Henderson County Solid Waste and Recycling Department) since 2003 are presented in Table 12.

Henderson County's total recycling figures (for the combined county public, commercial, and industrial recycling programs) since 2003 are presented in Table 13.

The 2012 combined figure (county public/commercial/industrial figure of 23,868 tons) represents a per capita recycling rate of .88 tons per person (using an estimated population figure of 27,003 in 2012).

Additional funding would allow the county to add or improve recycling programs and increase education efforts county-wide to increase participation in recycling.

TABLE 12

**HENDERSON COUNTY RECYCLING TOTALS FOR THE PUBLIC RECYCLING
PROGRAM OPERATED BY THE HENDERSON COUNTY SOLID WASTE
AND RECYCLING DEPARTMENT**

2003 – 2012

YEAR **RECYCLING TOTALS (TONS)**

2003	445
2004	507
2005	785
2006	537
2007	513
2008	401
2009	384
2010	323
2011	369
2012	319

From the Henderson County Municipal Solid Waste Annual Progress Reports
(2003 – 2012)

TABLE 13
HENDERSON COUNTY RECYCLING TOTALS FOR THE COMBINED
COUNTY PUBLIC, COMMERCIAL, AND INDUSTRIAL PROGRAMS
2003 – 2012

YEAR	RECYCLING TOTALS (TONS)
2003	23,624
2004	24,949
2005	29,751
2006	29,394
2007	16,434
2008	8,839
2009	8,221
2010	10,775
2011	11,121
2012	23,868

From the Henderson County Municipal Solid Waste Annual Progress Reports
(2003 – 2012)

Item 7 - Evaluation of the Waste Reduction Systems for Counties and Municipalities in Region

Table 14 shows Real Time Comparison percentages for Henderson County for the past five years. For the past five years, Henderson County's rate has ranged from 44 percent (2009) to 72 percent (2012).

Much of the waste reduction success in Henderson County can be attributed to the successful recycling programs of local industrial and commercial firms. In 2012, Henderson County industries recycled approximately 15,753 tons with commercial firms recycling approximately 7,791 tons of goods.

TABLE 14
HENDERSON COUNTY WASTE REDUCTION
2008 - 2012

YEAR	REAL TIME COMPARISON RATE (PERCENT)
2008	53
2009	44
2010	51
2011	52
2012	72

Source: Tennessee Department of Environment and Conservation

Item 8 - Collection/Disposal Capacity and Projected Life of Solid Waste Facilities

A - Landfills

Henderson County Government does not operate a landfill, neither Class I or Class III/IV.

However, the City of Lexington does own and operate a Class III landfill at 42 McKnight Drive in Lexington near the Henderson County Solid Waste and Recycling Department headquarters. The Lexington Class III landfill consists of about 30 acres and has approximately 10 to 15 years of “life expectancy” remaining.

B - Recycling Facilities

Henderson County’s designated recycling center is at its solid waste and recycling department headquarters at 264 Mig Road.

C - Convenience Centers

Convenience centers normally are not considered facilities that have capacities or maximum capacities, nor do they normally have “projected lives”. However, it should be noted that several of Henderson County’s convenience centers are in need of upgrades to maintain and improve the quality of service that County now provides.

Improvements needed at Henderson County’s convenience centers are presented in Item 5, Part 2, of this assessment.

Item 9 - Unmet Financial Needs and Cost Summary

Table 15 presents expenditures and revenue for the Henderson County Solid Waste and Recycling Department for 2012 as provided by the department.

There are no urgent unmet financial needs for the department. However, improvements to solid waste management systems are always welcome. Item 11 in this document lists current deficiencies and recommendations for the Henderson County system.

TABLE 15
HENDERSON COUNTY SOLID WASTE AND RECYCLING DEPARTMENT
EXPENDITURES AND REVENUE FOR 2012

Expenditures

Salary and Benefits	\$ 63,726
Transportation/Hauling	192,000
Collection and Disposal Systems - Equipment	90,000
Landfills - Post-Closure Care	3,000
Administration (Supplies, Communication Costs, etc.)	5,000

Revenue

Tipping Fees	\$32.65/ton
Property Taxes	\$417,812
Other Sources (Grants, Bonds, Interest, Sales, etc.)	40,000

Henderson County Solid Waste and Recycling Department

Item 10 – Comparison of Revenue Sources for the Region’s Current Solid Waste Programs with Projected Future Demands

Although dollars for solid waste programs are often in short supply, the Henderson County Solid Waste and Recycling Department is on firm financial footing and appears adequately funded for the next five years.

As presented in Table 15, revenues for the Henderson County Solid Waste and Recycling Department for 2012 adequately cover the costs incurred by the County’s expenditures for its solid waste maintenance program.

Although itemized table of revenues were not available from the municipalities of Lexington, Scotts Hill, Sardis, and Parkers Crossroads, the Henderson County solid waste director reported that revenues for solid waste services for these communities consist of (1) solid waste user fees which may be supplemented by (2) local sales taxes—as is typical for most city government operating solid waste collection programs.

Item 11 – Summary: Sustainable Goals Consistent with the State Plan

A - Deficiencies

This needs assessment has identified the following deficiencies in the Henderson County solid waste management system:

- (1) **SOLID WASTE MANAGEMENT AND RECYCLING FACILITIES:** The refurbishment or replacement of facilities at several convenience centers is needed.
- (2) **SOLID WASTE MANAGEMENT AND RECYCLING EQUIPMENT:** Up-to-date equipment to modernize its solid waste management and recycling programs is needed.
- (3) **SOLID WASTE MANAGEMENT AND RECYCLING STAFF:** An increase in solid waste staffing would improve the operations of the local solid waste management system.
- (4) **REPORTING OF RECYCLING FIGURES:** An increase in the number of local private firms that recycle and report their figures to the Henderson County Solid Waste and Recycling Department would help the department to continue to meet its 25 percent reduction goal.
- (5) **FUNDING SOLID WASTE MANAGEMENT PROGRAMS:** More money is always welcome to provide for a more comprehensive solid waste management system.
- (6) **DEVELOPMENT OF NEW RECYCLING PROGRAMS:** The development of new recycling programs in conjunction with local businesses is needed.
- (7) **SOLID WASTE AND RECYCLING EDUCATION:** An expansion of recycling education programs in local schools and for the general public is needed.

B - Recommendations

It is recommended that the following actions be taken over the next five years to address the deficiencies noted in the previous section:

SOLID WASTE MANAGEMENT AND RECYCLING FACILITIES: Refurbish or Replace Facilities at Several of the County's Convenience Centers

Henderson County needs to improve its Lexington Main Convenience Center to provide better recycling facilities for its staff to more adequately perform their jobs. At Lexington Main, the old loading/unloading ramp needs to be demolished and a new ramp that meets the approval of the Occupational Safety and Health Administration (OSHA) needs to be constructed. The convenience center's roof is in need of repair and its walls need insulating. Paving is needed in front of and behind the center. Solar panels need to be installed on the recycling building. The construction of a new office and conference room for the use of the solid waste director is needed as is the construction of a new building for the storage of recyclables and equipment. In addition, the replacement of attendant buildings (eight-feet-by-eight-feet) at three outlying convenience centers is needed.

SOLID WASTE MANAGEMENT AND RECYCLING EQUIPMENT: Acquire Additional and Better Equipment for the Henderson County Solid Waste Management and Recycling Programs

In the 2012 Annual Progress Report, the Henderson County Solid Waste and Recycling Department identified several items of equipment needed for the County's solid waste management and recycling programs. Equipment most needed (in order of priority) includes one new roll-off truck, one used roll-off truck, six open-top, 30-yard containers, three 40-yard receiving boxes/containers, two $\frac{3}{4}$ -ton trucks, one 25-foot flatbed trailer, one gooseneck trailer, two four-yard containers, one new compactor, two additional receiver

boxes for garbage, and other general painting and repair of equipment.

Because the solid waste budget for Henderson County is constrained (as is the solid waste budgets for most rural Tennessee counties), there are limited local funds for the purchase of such equipment. The County may have to look at opportunities for grants to cover the costs of purchasing any new equipment.

SOLID WASTE MANAGEMENT AND RECYCLING STAFF: Add Staffing As Needed

The Henderson County Solid Waste Director reports that the department could benefit from having access to additional staff. In particular, the director would like one additional full-time employee and one additional part-time employee.

REPORTING OF RECYCLING FIGURES: Ensure Better and More Complete Reporting by Commercial, Industrial, Institutional, and Other Entities for the Henderson County Solid Waste Annual Progress Report

In 2012, Henderson County reported that 7,796 tons of commodities were recycled by two local commercial firms and that 15,753 tons of commodities were recycled by three local industrial firms in that calendar year.

As in many counties across Tennessee, Henderson County often has difficulty in securing the information it needs to provide the State with an accurate accounting of how much solid waste is being recycled or diverted from Class I landfills by local businesses. Although the State maintains that businesses can be “compelled” to provide such information to the counties, the precise measures authorized to compel local businesses to comply are unclear. It is believed that hundreds, perhaps thousands, of tons of recycled and

diverted waste in Henderson County are “lost” (as unreported totals) each year due to incomplete reporting.

FUNDING SOLID WASTE MANAGEMENT PROGRAMS: Increase Overall Funding for Local Solid Waste Management Programs

The key ingredient in operating a modern and efficient solid waste management program in Henderson County—or any county—is adequate funding.

It is anticipated that costs for the Henderson County solid waste program will continue to rise each year—especially in areas such as fuel and other transportation costs, employee salaries, and equipment and maintenance costs.

Although the amount of funding Henderson County currently provides for solid waste management services is considered adequate, to improve the program to higher levels of services, the County should step forward and provide the funding required to ensure that Henderson County’s solid waste management services will meet the needs of the 21st Century’s residents and businesses.

The County should continue to apply for solid waste management grants from the State of Tennessee. However, because of budget problems the State is currently experiencing, future availability of the already limited grant funds from the State cannot be depended on. The County should explore other possible sources of grants funding; such as Federal programs (U.S. Department of Agriculture’s Rural Development program, the Delta Regional Authority program, etc.) as well as private, non-profit organizations to supplement grants it receives from the State of Tennessee.

DEVELOPMENT OF NEW RECYCLING PROGRAMS: Develop New Recycling Programs with Local Commercial and Industrial Firms

Henderson County should work with local firms to develop new, in-house recycling programs. Virtually every commercial and industrial firm in Henderson County could recycle office paper and cardboard and possibly other items—such as aluminum cans, plastics, and glass. And perhaps some by-products of manufacturing processes could be recycled if the company is a manufacturer.

A Business and Industry Recycling Task Force, composed of volunteer representatives, could be appointed by Henderson County Government to work with and encourage recycling with individual firms that have expressed an interest in recycling.

The Henderson County Solid Waste and Recycling Department also might consider additional participation in the West Tennessee Regional Recycling Hub operations located in Chester County.

SOLID WASTE AND RECYCLING EDUCATION: Expand Recycling Education Programs in Local Schools and for the General Public

Although Henderson County has an impressive record of promoting recycling and environmental education programs in its local schools and for the general public, the solid waste and recycling department also should consider utilizing materials from organizations such as the Keep America Beautiful campaign that provides educational resource packets for students and promotes anti-litter and other environment-friendly events.

It is recommended that Henderson County increase the amount of outreach now done during the course of the year by promoting recycling at every opportunity—by enlisting public volunteers to assist the Solid Waste Director, County Mayor, and local city mayors in speaking to local civic clubs, special interest groups, church groups,

etc.; and by developing and maintaining educational information displays at local libraries, fairs, festivals, sporting events, etc.

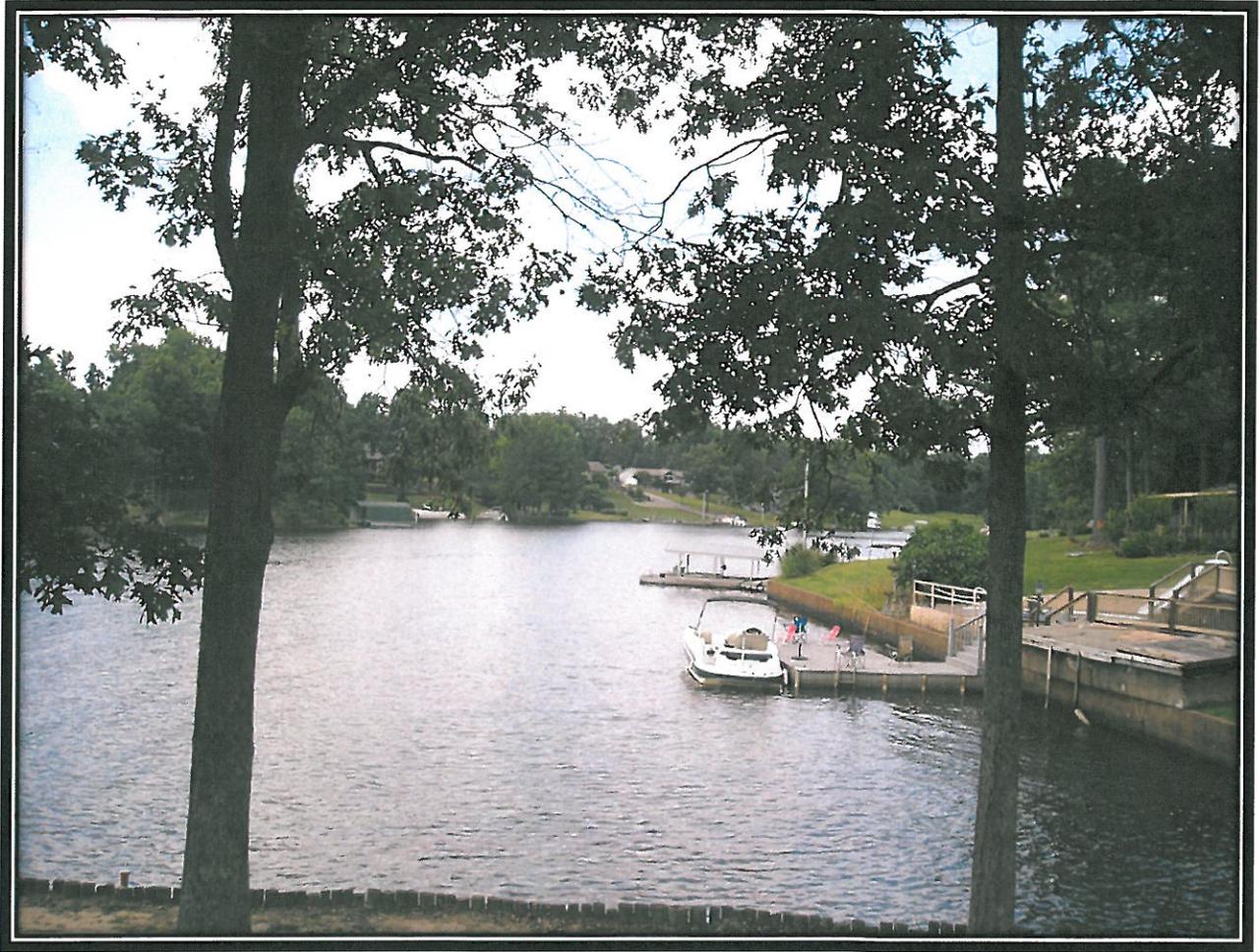
C - Region's Plan and Its Support of the Statewide Solid Waste Management Plan

The recommendations outlined above comply with and support all provisions of the State's Solid Waste Management Plan—ensuring that citizens of Henderson County continue to be provided with solid waste services in an efficient and professional manner.

PHOTOGRAPHS



Henderson County is essentially a rural county with farmland, pastureland, and timberland dominating the landscape.



Henderson County has a number man-made lakes that offer ideal sites for modern lakefront living.



Henderson County is home to one of the largest state parks in Tennessee—Natchez Trace State Park—which it shares with Carroll County to the north.



Parkers Crossroads Civil War Battlefield Park is located in northern Henderson County at Interstate 40 and State Highway 22.



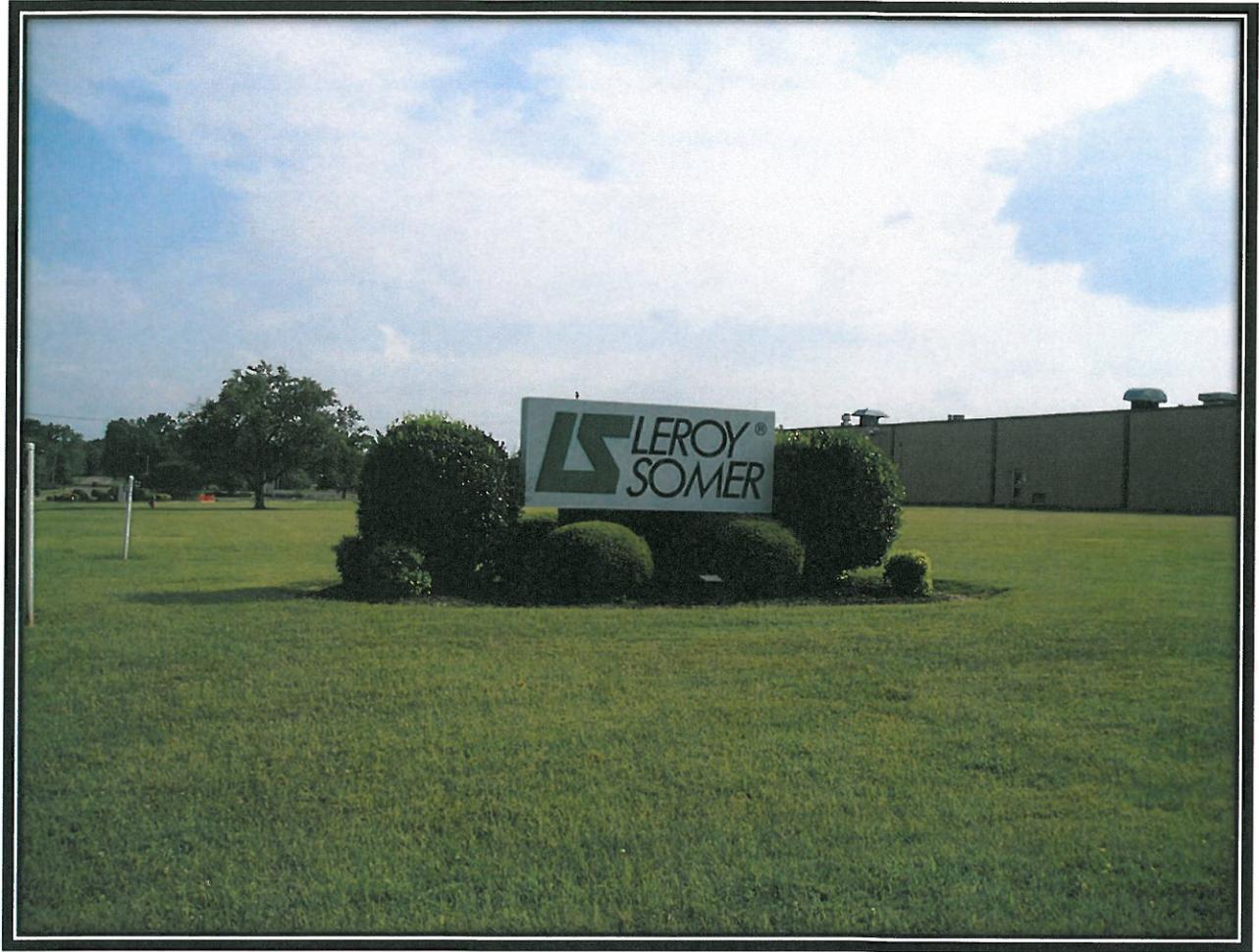
The headquarters of the Henderson County Solid Waste and Recycling Department is located in an industrial park on the south side of Lexington at 264 Mig Drive.



Henderson County operates eight convenience centers throughout the county. This is the Blue Goose Convenience Center on Blue Goose Road south of U. S. Highway 412.



The City of Lexington operates the Lexington Recycling Operations Center at 142 East Church Street in Downtown Lexington. It is located in a converted school building.



Leroy Somer/Emerson Electric Company is one of the largest industries as well as industrial recyclers in Henderson County.



The City of Parkers Crossroads contracts with Waste Management, a private solid waste services company, to handle its solid waste needs.

