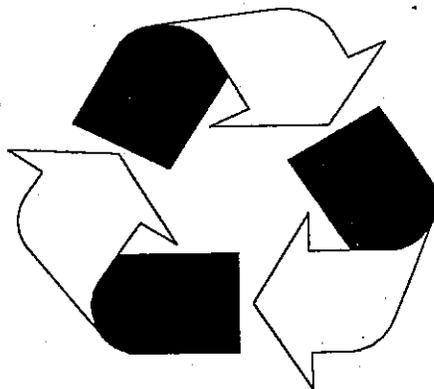


RECEIVED JUN 16 1994

HENDERSON COUNTY MUNICIPAL SOLID WASTE REGION

TEN YEAR SOLID WASTE PLAN

1994-2003



JULY 1, 1994

prepared by

**Southwest Tennessee Development District
27 Conrad Drive, Suite 150
Jackson, Tn 38305-2850**

Phone: (901) 668-7112

LETTER OF TRANSMITTAL

Please forward the attached REGIONAL SOLID WASTE PLAN to the following address:

Tennessee Department of Environment & Conservation
Division of Solid Waste Assistance
14th Floor - L & C Tower
401 Church Street
Nashville, Tennessee 37243-0455

Name of Solid Waste Region:

HENDERSON COUNTY MUNICIPAL SOLID WASTE REGION

Name of Counties in Solid Waste Region:

HENDERSON COUNTY

Contact Person regarding Regional Solid Waste Plan:

Name: **Mr. Jan P. Smith, County Executive
Henderson County Courthouse**
Address: **P. O. Box 455
Lexington, TN 38351-0455**
Phone: **(901) 968-0122**

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EXECUTIVE SUMMARY

Region Description:

The Henderson County Municipal Solid Waste Region encompasses the entire 520 square mile area within Henderson County. Some 22,000 citizens reside within the county and when land was purchased for the existing balefill these citizens were told the site would only be used for disposal of wastes generated within the county. Therefore, on October 12, 1992, the region was established by the Henderson County Board of Commissioners as a single county region.

Regional Needs:

The Region per T.C.A. 68-211-851 needs to either initiate rural residential solid waste collection or develop a system of convenience centers. The plan selected is to provide rural household collection to all county residents living outside the corporate limits of its several cities.

Other solid waste needs as required by the Tennessee Solid Waste Management Act of 1991 include expansion of recycling efforts, developing waste reduction and diversion programs, and establishing programs to handle problem wastes such as used tires, lead-acid batteries, and used motor oils. Development of public education and outreach programs are also needed to ensure the effective attainment of the goals established by the region.

Regional Goals and Objectives:

It is the goal of the region to provide household waste collection services to all citizens of the county.

It is the goal of the region to reduce, recycle, divert, and/or reuse as much of the counties solid waste as is practical.

It is the goal of the region to operate all public solid waste services within the county in an environmentally sound, efficient, and economic manner as possible.

It is the goal of the region to assist and encourage all citizens, businesses, institutions, and industries to become active participants in waste reduction, reuse, recycling, diversion, and overall management of solid waste programs through ongoing educational and informational programs.

It is an objective of the region to initiate rural residential solid waste collection services county wide during calendar year 1994.

It is an objective of the region to provide for the proper management and ultimate disposal of problem wastes such as used automotive tires, used motor oils and fluids, lead-acid batteries, and household hazardous wastes.

It is an objective of the region to appoint or hire an assistant manager whose duties will include the management of recycling, marketing, diversion, waste reduction, public education, and problem waste programs.

Regional Plan Elements:

The key elements of this plan involve the use of the following physical facilities:

1. An existing 83 acre Class I Balerfill with a life expectancy in excess of twenty years.
2. A newly permitted Class III/IV landfill with a life expectancy in excess of fifteen years. A used tire storage facility is proposed for this location.
3. An existing baler facility with capacity in excess of plan needs. This facility is centrally located and contains a new truck scale to facilitate weighing of all materials.
4. A manned convenience center drop off for recyclables located at the baler yard area. This area will also be utilized during annual household hazard waste sweeps.
5. A new fleet of rural collection vehicles, either county owned or under contract to provide rural residential solid waste collection services to all citizens not currently being served.

6. Incorporated cities may continue provide household collection services for their residents but are encouraged to consider merging their operations into a single county wide solid waste management system.
7. Private haulers will continue to serve their industrial and commercial customers.
8. Upon Tennessee Department of Environment and Conservation approval of this ten year plan, the region will consider adoption of a regional flow control resolution and/or other agreements to assure tipping fee revenues remain adequate to fund the proper management and operation of facilities and programs identified within the ten year plan.

Plan Description:

Currently, all incorporated areas of the county collect their own solid wastes which are weighed and baled prior to disposal. The county does not use green boxes, and private haulers collect outlying business and manufacturing wastes. Only a relatively few rural residences such as in Reagan (unincorp.) currently have private collection services. Cities will continue to be responsible for their incorporated areas, and private collection will continue to service most industries. Some rural businesses may be considered for county collection services on a case by case basis. Since the regional board will continue to represent both incorporated and unincorporated areas of the county, any community which desires to transfer its collection operations to the region will be able to do so assuming terms are agreeable to both parties.

All other programs will be managed by the Henderson County Municipal Solid Waste Regional Board in coordination with communities, agencies, or organizations as may be required, to meet the goals and objectives stated above.

Implementation Schedule for Selected Key Items:

- | | |
|----------------|---|
| July 1, 1994 | Submit ten-year plan to the Department of Environment and Conservation. |
| August 1, 1994 | Initiate industrial diversion, reduction, and recycling programs coordinated with UT. |

October 1, 1994	Initiate rural household collection services.
November 1, 1994	Complete used tire storage area.
March 1, 1995	Annual progress review and report due per T.C.A. 68-211-871.
April 1, 1995	Conduct annual county wide sweep of household hazardous wastes pending schedule with state contractor.
January 1, 1996	Meet T.C.A. 68-211-851 (amended) solid waste collection requirements.

Estimated Costs:

Total annual costs during the ten-year plan period are estimated to range from \$706,000. to \$800,000. with an average of about \$740,000.per year. Current costs based on the 1993-94 budget is \$545,000. The bulk of the approximate \$200,000. annual cost increase is related to proposed forthcoming rural solid waste collection. All estimates are based on current dollars with no allowance for inflation.

Responsibility Allocation:

Responsibility for program implementation, management, and cost control will remain with the Henderson County Municipal Solid Waste Region Board. The City of Lexington, via the Board, will continue to operate the baler and landfills. Rural collection will be under county supervision. Private collection provided to industry and businesses will continue as at the present time.

CHAPTER I. DESCRIPTION OF HENDERSON COUNTY

A. General Description:

Henderson County contains some 520 square miles in area of which 48% is wooded, while 24% is devoted to row crop and livestock related uses. The county is predominantly rural with several small towns and unincorporated communities. The current (1994) population is estimated at 21,945 giving an average density of 42.20 persons per square mile. Rural areas contain 73.4% of the population with urban areas having 26.6%. The county seat is located in the City of Lexington (pop. 5,831). Figure I-1 on Page 1-4 presents a generalized map of Henderson County.

The county contains a number of lakes offering diverse recreational and scenic enjoyment to residents and tourists alike. Natches Trace State Park contains some 48,000 acres of land of which about one half lies within northern Henderson County.

The county has been successful in creating a diverse manufacturing and industrial distribution base, and future industrial expansions will need to be considered in developing a ten year solid waste management plan.

B. Rational for Region Formation:

Henderson County elected to develop the ten year solid waste plan as a single county region because the Board of Commissioners believed it to be in the best interest of the citizens of the county. In 1990 the county proceeded to develop a bale facility and a new Class I balefill operation with a life expectancy in excess of twenty years. Commitments to city and county taxpayers while citing this facility were that only solid waste from Henderson County would ever be accepted at this balefill. Truck scales were placed into operation in 1993 at the bale facility, which serves as a central receiving point for all solid wastes generated within the county.

The region also operates a Class III/IV disposal site located within the City of Lexington. County wide solid waste collection has long been a goal and is believed to be the best method to handle solid wastes while keeping the county attractive for its citizens, tourists, as well as any prospective industry seeking to develop within the area.

C. Institutional Structure:

The county is governed by a County Commission composed of fourteen district members and chaired by a full time County Executive. On October 12, 1992 the County Commission established the Henderson County Municipal Solid Waste Region by Resolution No. 1012 (reference Appendix A). This solid waste planning board assumed the duties of the former Lexington/Henderson County Landfill Committee, as well as the planning and related functions required under the Solid Waste Act of 1991.

The resolution established a seven member board containing three representatives from the county, three from the City of Lexington, and one at large member. The committee meets monthly and coordinates with the public through open meetings, periodic public announcements, and input from its regional advisory committee or other interested citizens. Current board members and their affiliation are listed below:

Henderson County Municipal Solid Waste Region Board

Henderson County: Bruce White
Dale Robins
Dan Hughes, Chairman

City of Lexington: Carl Overman
Noel Blankenship
Bobby Dyer

At Large Member: Jerry Mills

Advisory Committee Members: Richard Holland (Sardis)
Fran Burton (Lexington)

D. Demographics:

The key impact to future solid waste generation rates will be continued success in attracting new growth industries and expansion of job opportunities, both within Henderson County and the surrounding area. An additional impact will be that of population growth which is related to job opportunities. Past census figures have shown ten year population changes from -6% (1950-60) to +23.7% (1970-80) within the county and these changes were related to employment opportunities as well as other factors.

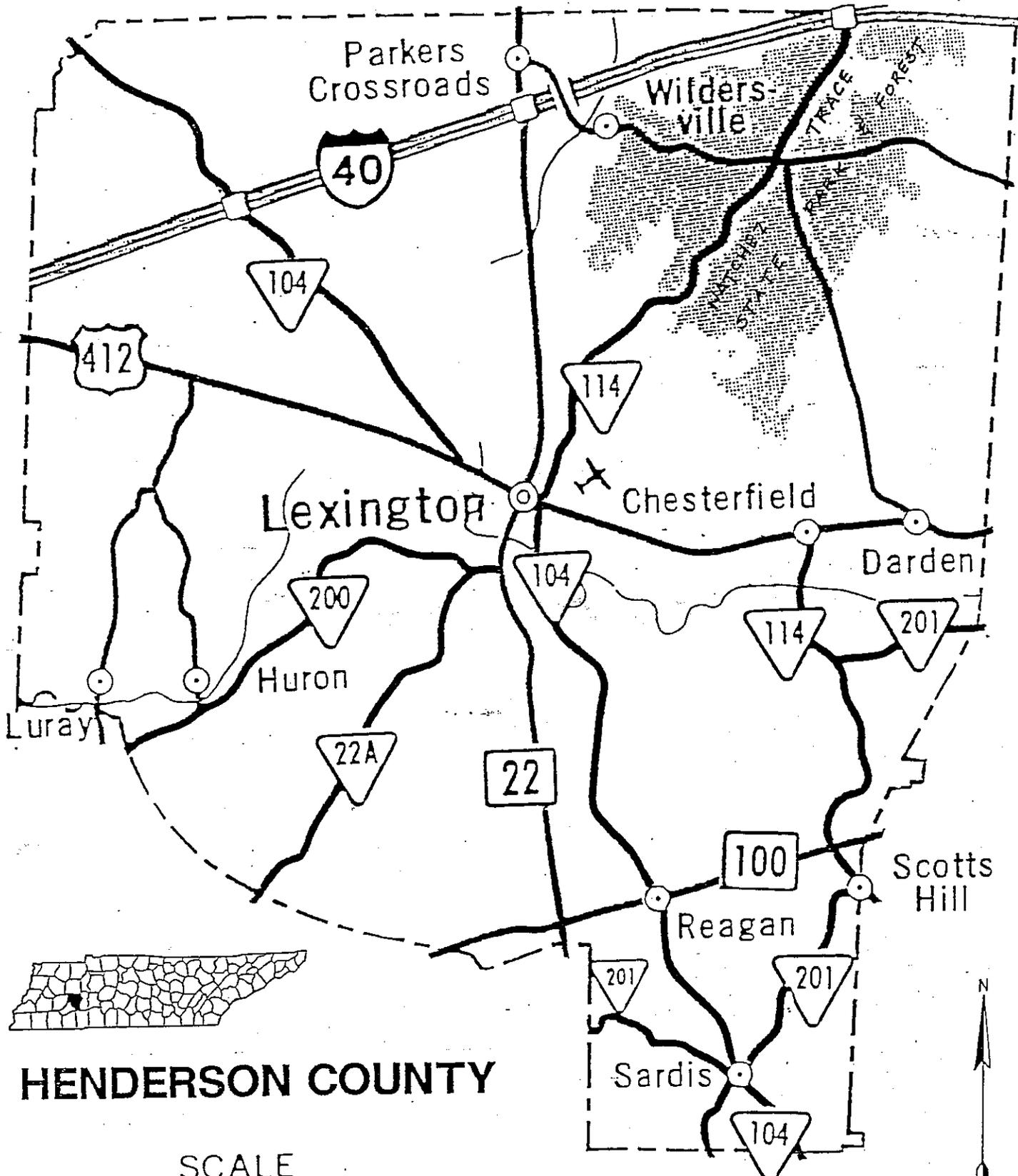
Demographic statistical data are presented in Tables I-1 through I-12 located at the end of this chapter. The source for much of this information was the Solid Waste Needs Assessment for Henderson County dated September 30, 1992. This information is used to assist in identifying target populations for the educational and public outreach portions of this plan.

Since over 55,000 people live within 25 miles of the centrally located City of Lexington, the trend of the county will also relate to the trend of the surrounding areas. Estimates of solid waste generation during the ten year planning period include allowances for modest population growth based on census data.

E. Economic Activity:

The ten year solid waste generation estimate for the planning period allowed for an annual 3.2 % economic growth factor as presented in the Needs Assessment. In late 1992, the Middle Tennessee State University completed a business retention and expansion report which stated that 70 % of county business managers surveyed indicated they would probably expand employment within the next 3 to 5 years. While full employment and per capita earnings remain a major concern in both west Tennessee and Henderson County, there are many positive factors supporting continued economic growth. Included among these factors were a total retail sales increase of 2.5 % during the 1990-91 period compared to the Tennessee average of 1.5 % for the same period.*

*source: "Economic Indicators - Tennessee"
Sept.92 by
Tn Dept Economic and Community Development
370 Sixth Ave.,North
Nashville, Tn 37213-0405



HENDERSON COUNTY

SCALE

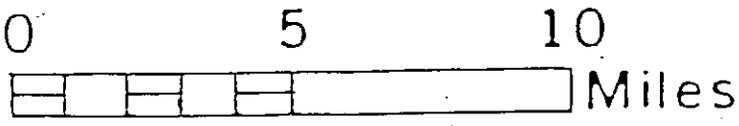


Figure I-1
Henderson County
(General Map)

Table I-1

Henderson County Demographic Summary:

Area	520	Square Miles
Population Est.(1994)	21945	
Population Density	42.20	Persons/Sq.Mi.

Table I-2

Population Distribution:
(Estimated for 1993)

	Population	Percent
Rural	15300	69.8
Urban	6620	30.2

Table I-3

Population Distribution by Sex and Age:
(Source: Needs Assessment)

Age	Total	Male	%	Female	%
0-4	1357	702	51.7	655	48.3
5-17	4114	2096	51.0	2018	49.0
18-44	8449	4148	49.1	4301	50.9
45-64	4690	2236	47.7	2454	52.3
65+	<u>3310</u>	<u>1367</u>	<u>41.3</u>	<u>1943</u>	<u>58.7</u>
Totals	21920	10549	48.1	11371	51.9

Table I-4

(Source: Needs Assessment)
Population Distribution by Education: (Age 25+)

	Number	Percent
Grade 8 or less	3604	37.2 %
High School (1-4)	4590	47.4 %
College	1201	12.4 %
Post Grad/Prof.(>4)	<u>286</u>	<u>3.0 %</u>
Totals	9681	100.0 %

Table I-5

Distribution by Type Housing and Occupancy:
(per UT 1990 Census Summary dated 7/25/91)

	Total Persons	Occupied		Vacant Units
		Owner	Rental	
Single Family:				
1, Detached	15793	13569	2224	475
1, Attached	186	104	82	8
Multi-Family:				
2	456	45	411	62
3-4	287	18	269	39
5-9	64	11	53	9
10-19	36	1	35	14
20-49	0	0	0	0
50+	0	0	0	0
Institutional	214	0	0	unk.
Mobile/Trailer	4617	3605	1012	204
Other	<u>191</u>	<u>130</u>	<u>61</u>	<u>2</u>
County Totals	21844	17483	4147	751

Total Number of Households in County = 8527

Table I-6

Population Projections:
(Source: Needs Assessment)

Year	Est. Population
1993	21920
1994	21945
1995	21970
1996	21966
1997	22021
1998	22046
1999	22072
2000	22097
2001	22121
2002	22145
2003	22169

Table I-7

Basic Economic Information:
(Source: Needs Assessment)
Henderson County (1991)

Population	21844
MSA	No
Total Employment	11292
Total Earnings	\$269.3mm
Per Capita Income	\$12328.
Population % Below Poverty Line	15.8%
Non-Agricultural Employment by Sector (1993):	6590

Table I-8

Employment Distribution by Sector:
(Source: Needs Assessment - modified)

Sector	Number Employed	%
Manufacturing	4748	42.9
Construction	368	3.3
Trade	1781	16.1
Finance/Insur/Real Estate	352	3.2
Services	1210	10.9
Transp/Commun/Public Util.	409	3.7
Government	1083	9.8
Agricultural	<u>1114</u>	<u>10.1</u>
Totals	11065	100.0

Table I-9

(Agr. Employees incl in Table I-8 above)

Table I-10

Major Generator Waste Generation:

Number of Employees	Number of Generators	Est. Quantity Solid Waste
250+	5	336 T
100-249	5	149 T
10-99	71	1025 T
1-9	<u>301</u>	<u>354 T</u>
Totals	382	1864 T *

* Est. based on 30% of total wastes.

**Table I-11
(Not Applicable)**

There are no institutions housing more than 100 persons within Henderson County.

Table I-12

**Summary of Major Health Care Facilities (50+ beds)
Within Henderson County:
(Source:Needs Assessment)**

No. of Facilities	No. of Beds	Infectious Waste Mgmt. On/Offsite	Type	Quant.
3	231	Offsite	Incin. Pvt.	290 T/Y

Table I-13

Henderson County Sources of Revenue Utilized:

Property Tax	Yes
Local Sales Tax	Yes
Wheel Tax	Yes
Local Waste Collection Fee	Yes
User/Tipping Fee	Yes
Other (various grants)	Yes

Table I-14

Fiscal 1993 Data for Henderson County:

Total Appraised Valuation (1/1/93)	\$ 467,323,172.
Total Assessed Property Value	\$ 129,765,825.
Total Property Tax Revenue	\$ 2,358,075.
Total Sales Subject to Sales Tax	\$ 51,588,444.
Total Local Sales Tax Revenue	\$ 1,160,740.
No. of Registered Vehicles	16,878
Total Wheel Tax Revenue @\$20/vehicle.	\$ 337,560.
Total County Revenues	\$ 3,856,375.

CHAPTER II. CURRENT SOLID WASTE MANAGEMENT SYSTEM

A. Waste Stream Characterization:

The national default values presented in the Needs Assessment were used for this plan also. During 1996 the total waste composition will be evaluated and the plan adjusted if results warrant. By 1996 the county will have a period of record established from the truck scale which became operational during August of 1993. Prior to the scale becoming operational, quantities available were estimates only. In addition, the establishment of convenience centers and/or an expanded or county wide collection system will be in effect enabling a truer picture of the total waste stream to be developed. During 1996 a resurvey of industrial and commercial waste sources will also be considered.

A listing of estimated solid waste materials disposed of during 1992 is listed below. The listing is taken from Table II-4 revised to list materials in descending order of quantity by weight.

Description of Waste Stream by Materials:

Waste Category	National %	Calculated Tons
Paper & paperboard	40.0	4174
Yard waste	17.7	1846
Plastics	8.0	835
Food waste	7.4	772
Glass	7.0	730
Ferrous metals	6.5	678
Wood	3.6	376
Rubber & leather	2.5	261
Textiles	2.1	219
Other	1.7	177
Misc. inorganic	1.5	157
Aluminum	1.4	146
Other non-ferrous metals	<u>0.6</u>	<u>63</u>
Totals	100.0 %	10434 T

B. Waste Collection and Transportation Systems:

Current collection and transportation systems remain as presented within the Needs Assessment. The county does not utilize green boxes. Curbside pickup of residential wastes is conducted within Lexington, Parkers Crossroads, Reagan, Sardis, and Scotts Hill. There are also private collections of non-municipal households and businesses made by Waste Management or others. Most of the rural areas of the county remain unserved.

The current collection services and households served is listed below:

	Estimated No. households
City of Lexington	2420
Parkers Crossroads	75
Town of Sardis	125
Town of Scotts Hill *	80
Waste Management	10
Private (Reagan)	40
Other	<u>20</u>
Total	2770

* Scotts Hill lies within both Henderson and Decatur Counties and has passed a resolution to utilize Decatur County for solid waste disposal per T.C.A. 68-211-813(d). Reference Appendix A.

Of the currently estimated 8600 households, approximately 5830 or 68 percent remain unserved and these are targeted within the ten year plan presented herein. Transportation by all haul units is direct to the baler facility located within the City of Lexington.

C. Source Reduction and Recycling Systems:

Some source reduction and or recycling by industry has been documented but a more formal county wide program needs to be considered. Public recycling has been in progress at the bale facility since it became operational in 1990. Results have been less than encouraging due primarily to small quantities, and fluctuations in both price and demand. There is one commercial recycler located in Lexington. This company ceased the recycling of plastics in 1990 due to low prices and is currently dealing in scrap metals only. Both reduction and recycling efforts need guidance with well planned and well coordinated programs for industry, commercial outlets, and the general public. Future guidance of efforts with the State Office of Cooperative Marketing for Recyclables should be utilized by both public and private sectors.

D. Processing, Composting, Energy/Incineration Systems:

Other than limited recycling and the baling of solid wastes prior to disposal, no public solid waste processing systems are in place within the county. Due to small quantities and the high capital costs involved, none of these systems are considered except that composting potential will be reviewed in the year 2000. Yard waste and other diversions totaled an estimated 1741 T in 1992, or some 16.7% of the total waste stream. The Class III/IV landfill is located within the city limits of Lexington ruling the use of a pit burner as undesirable. (Reference Figure II-3).

E. Disposal Facilities:

The Class I balefill opened in 1990 and has a remaining life in excess of 20 years. This balefill is located 10 miles south of Lexington off State Highway 22. The 83 acre site is fenced and is not open to the public at any time. Class III/IV material is disposed of at a newly permitted facility within the City of Lexington which has a life expectancy of approximately 15 years. Disposal capacity is not a major concern during the plan period but frugal use of available capacity needs to be assured.

F. Current Estimated Costs:

Collection, Transportation, and Disposal Costs

City of Lexington	\$ 293,360.
City of Parkers Crossroads	19,000.
City of Sardis	6,900.
Henderson County (incl.litter prog.)	<u>\$ 100,000.</u>
Est. Total Costs	\$ 419,260./Year

G. Current Estimated Revenues:

City of Lexington	\$ 3,720,100.
City of Parkers Crossroads	105,000.
City of Sardis	152,000.
Henderson County	<u>\$ 3,856,400.</u>
Est. Total Revenues	\$ 7,833,500./Year

Figure II-1

Percentage of Estimated Solid Waste Costs

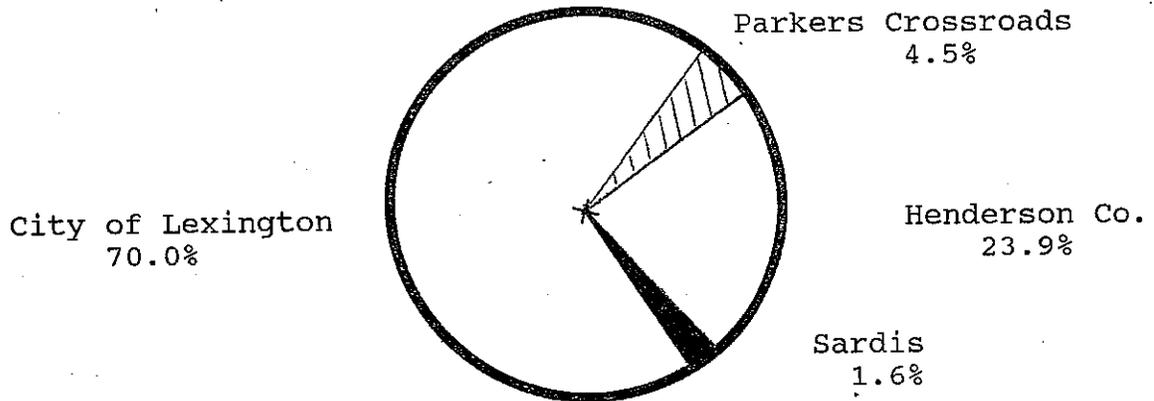
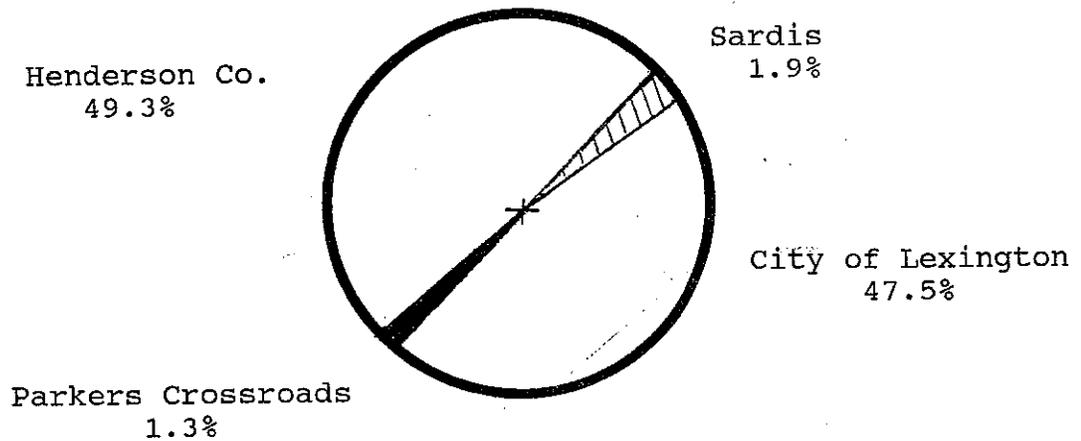


Figure II-2

Percentage of Estimated Total Revenues



THE CITY OF LEXINGTON, TENN.

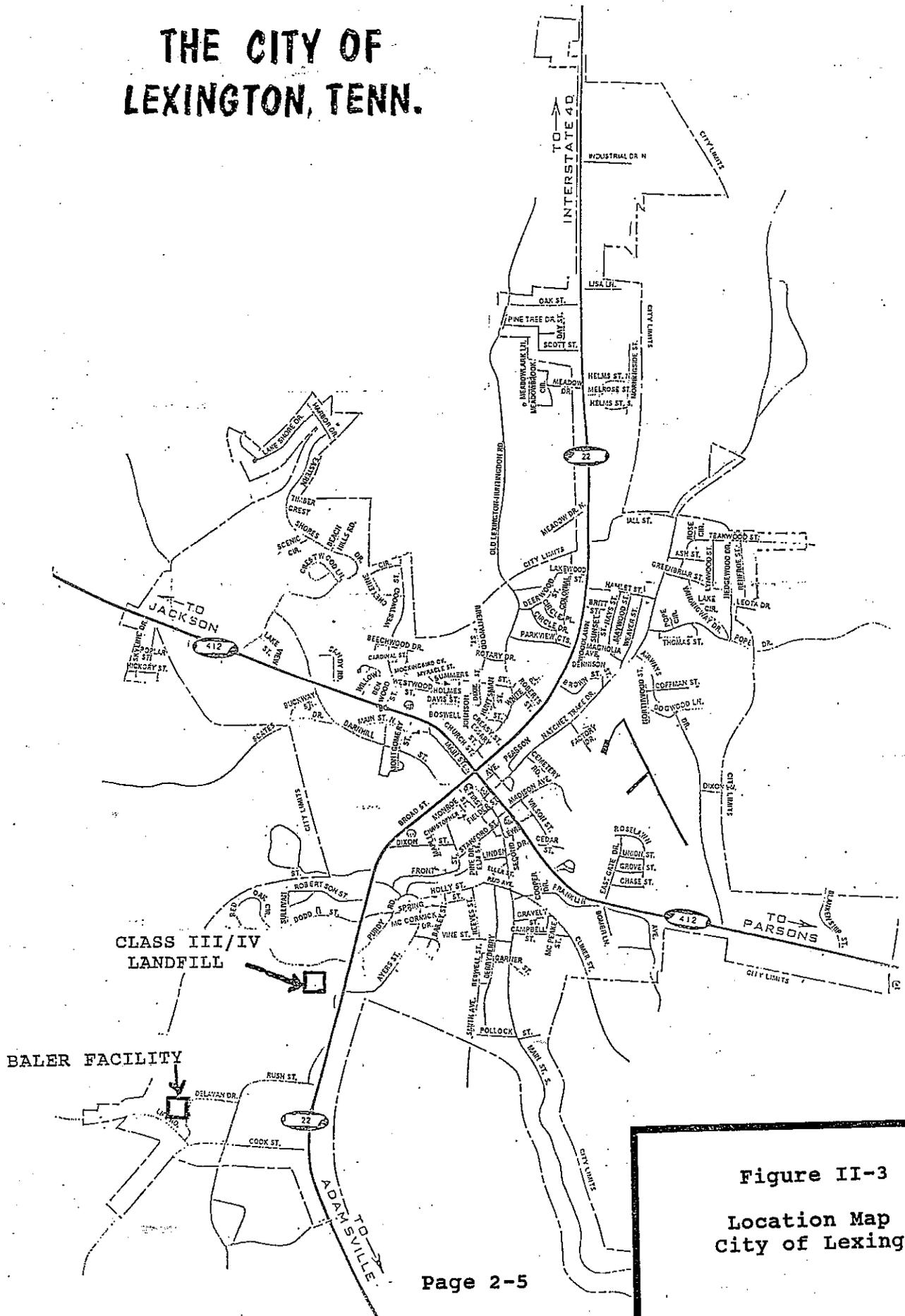


Figure II-3
Location Map
City of Lexington

H. Public Information and Education Programs:

There are no formal solid waste management informational nor educational programs in place within Henderson County. Periodic newspaper articles, radio, and television news releases or public service announcements are the main sources of information available to the general public. During the development of this plan, the solid waste planning commission issued several news releases to local media to inform the general public.

This ten year plan identifies steps to correct these deficiencies which are is presented in Chapter IX.

I. Problem Wastes:

Problem wastes are identified as waste tires, used oils, lead acid batteries, and house-hold hazardous wastes (such as solvents, paints, etc., which exhibit flammable, corrosive, reactive, or toxic characteristics). The county currently has no program in place to deal effectively with these wastes, except that a tire storage facility is to be developed at the Class III/IV landfill. Chapter X. of this plan identifies proposed plans to inform the public and to deal with these problem wastes in accordance with requirements of the Solid Waste Act of 1991.

J. 1993 Base Year Map:

A general map of Henderson County (Figure I-1) was presented in the previous chapter. This map is modified in subsequent chapters to locate specific component items such as the Class I landfill location, school locations, and generalized solid waste flow patterns.

K. Strengths and Weaknesses of Existing System:

The most notable strength of the existing system is having both a Class I and a Class III/IV disposal facility in operation with sufficient capacity to exceed projected ten year waste generation needs. Adherence to budgeted plans and method of operation may prove difficult within limits of equipment and manpower. Good record keeping will be essential to the long term management of both facilities.

The bale facility contains a new truck scale whose computerized data tracking system can facilitate collection of information desired for future system needs. The bale facility is well located within an adequate yard area of approximately 10 acres. Drop off boxes for recyclables by the general public are located behind the building housing the baler. Sufficient area is available should modification or additional features be desired.

On a county wide basis, collection services are fragmented between cities, towns, individuals, and private collection firms. Frequency of service and scheduling is largely uncontrolled resulting in arrival times at the baler being more or less random. Transportation by various collection agencies (towns, cities, industrial, and private) may result in inefficiencies and higher than necessary total hauling costs, but without more data this must await further review. Transportation from the baler to the Class I balefill is controlled by utilizing county truck crews only.

The recycling and baling labor costs have fluctuated with different labor sources being utilized in the past such as jail inmate labor, JTPA (Job Training Partnership Act) employees, as well as both temporary and regular county/city employees. White goods are stored outside at the baler site and periodically hauled away by an individual who keeps the minor revenue for his service while freeing employees for other tasks. While this may currently be an economic necessity, other marketing options will need to be explored as recycled volumes are increased in the future.

TABLE II-1

Quantity of Solid Waste Received (1992):

Tons Disposed (Class I and III/IV)	. . . . .	10434
Population Est.	. . . . .	21895
Waste Disposed per Capita	. . . . .	0.47655 T/C/Y

TABLE II-2

Origin of Solid Waste in 1992 (Estimated):

Residential	. . . . .	3477 T	(40%)
Institutional/Commercial	. . . . .	2608	(30%)
Industrial (Non-Hazardous)	. . . . .	<u>2608</u>	<u>(30%)</u>
County Total	. . . . .	10434 T	(100%)

TABLE II-3
(Source: Needs Assessment)
Acceptance of Solid Waste Categories for Disposal:

	Yard Wastes	Sewage Sludge	Constr. Demo.	Tires	White Goods
Class I	No	No	No	No	No
Class III/IV	Y	No	Y	Y	Y

TABLE II-4
Description of Waste Stream by Materials: (1992)

Waste Category	National %	Est. Tons
Paper & paperboard	40.0	4174
Glass	7.0	730
Ferrous Metals	6.5	678
Aluminum	1.4	146
Other Non-Ferrous Metals	0.6	63
Plastics	8.0	835
Rubber & Leather	2.5	261
Textiles	2.1	219
Wood	3.6	376
Food Waste	7.4	772
Yard Waste	17.7	1846
Misc. Inorganic Waste	1.5	157
Other	<u>1.7</u>	<u>177</u>
Total Municipal Solid Waste	100.0%	10434 T

TABLE II-5

Unmanaged Solid Waste * (1992):

Potential Waste Generation	17264 T
Solid Waste Disposed (Class I and III/IV) . .	10434 T
Unmanaged Waste Potential	6830 T
Percent of Potential Generation	39.6%

* Potential waste generation made using 1992 population estimate (21895) and per capita generation of 0.7885 T/C/Y from the UT report "Managing Our Waste: Solid Waste Planning in Tennessee" dated February 1991.

Based on the above, the potential unmanaged waste is 39.6% of potential generation. This may be higher than is actually occurring in Henderson County. An undocumented number of rural residences and businesses conduct open burning. All private hauls to the Class III/IV facility may not have been recorded.

TABLE II-6

There are no operating or planned compost facilities within Henderson County. Table II-6 is not applicable.

TABLE II-7

There are no municipal solid waste incinerators or waste to energy facilities within the county nor are any plans known. Table II-7 is not applicable.

TABLE II-8

CLASS I LANDFILLS IN ADJACENT COUNTIES:

County	Approx. Distance	Comment
Carroll	n/a	Near capacity
Decatur	35 mi.	New landfill
Chester	n/a	No landfill
Madison	40 mi.	Balefill
Benton	45 mi.	New private

**TABLE II-9 and
TABLE II-10**

These tables not utilized as they are applicable only to multi-county planning regions.

TABLE II-11

EXISTING & PLANNED CLASS I CAPACITY:

(Refer to Table VIII-1)

**CHAPTER III. GROWTH TRENDS, WASTE PROJECTIONS
AND
PRELIMINARY STRUCTURE**

A. Growth Trends:

Population forecasts and the 3.2% annual economic growth trend presented in the Needs Assessment were extended through the year 2003. The Needs Assessment however indicated the county to have disposed of 6213 T of solid waste during 1991. Available source data indicates that one haulers records (Waste Management of Jackson) was probably excluded from this total.

The Tennessee Waste Audit Report transmitted by letter dated March 27, 1992 (ref. Appendix B) stated Henderson County to have disposed of 2631 T during the three month period July 1, 1991 through September 30, 1992. This quantity if extended over a full twelve month period equates to 10524 T/Y. A similar report transmitted by letter dated May 6, 1993 (ref. Appendix B) states a total of 10434 T for the "Transporter Year". As these two values compare closely, the 10434 T/Y value is considered as correct for 1992. This value was used in calculating Table III-1 and Table III-2 for this plan.

B. Waste Projections:

Solid waste management requirements for the ten year planning period are presented in Tables III-3 and III-8. These tables are based upon estimated population growth and economic growth as presented earlier in Chapter I. No imported or exported waste adjustments will be made.

C. Preliminary System Design:

Increased recycling by public, industrial, and commercial sectors will be the target of initial efforts to reach the 25% reduction goal in 1995. Specific initial goals include solid waste materials which are the largest in total weight according to the national default averages. These include paper products, ferrous and aluminum metals, and yard wastes.

Establishment of a county-wide solid waste collection system for rural residences will be targeted for January 1, 1995. Upon final review of county-wide collection alternatives (private, public, or joint systems) and associated cost estimates, a final plan will be selected. A minimum 90% of all county residents will be targeted to be served by January 1, 1996 per T.C.A. 68-211-851 as amended.

Use of convenience centers may be limited to possible modifications at the bale facility yard area. Rural household collection service is viewed as more adaptable to future rural residential growth patterns such as the more recent developments at the numerous small lakes within the county. Studies by others have suggested total annual costs for convenience centers escalate rapidly for low population density areas such as exist in rural Henderson County (*). The establishment of one or two convenience centers may however, be incorporated into the public educational and recycling portions of the 10-year plan.

* reference: "Comparative Cost Analysis of Alternative Collection Systems in Rural Tennessee Counties"
 UT Agri. Experiment Station Research
 Report # 86-20, dated December 1986.

TABLE III-1

**PER CAPITA SOLID WASTE GENERATION
 (1992)**

Henderson County:	
Total Waste Disposed	10434T
Est. Population (1992)	21895
Annual per Capita Generation	0.47655 T/C/Y

TABLE III-2

**PROJECTED SOLID WASTE GENERATION PER YEAR
(Adjusted for Population Growth)**

Henderson County:

Year	Tons
1993	10446
1994	10458
1995	10470
1996	10482
1997	10494
1998	10506
1999	10518
2000	10530
2001	10542
2002	10553
2003	10565

TABLE III-3

**PROJECTED SOLID WASTE GENERATION PER YEAR
(Adjusted for population growth and
3.2% annual economic growth)**

Henderson County:

Year	Tons
1993	10780
1994	10793
1995	10805
1996	10817
1997	10830
1998	10842
1999	10855
2000	10867
2001	10879
2002	10891
2003	10903

TABLES III-4 THROUGH III-7

(Not Applicable)

TABLE III-8

QUANTITY OF WASTE REQUIRING DISPOSAL

(Adjusted for population and economic growth, waste reduction, diversion and recycling *)

Year	Tons
1993	10241
1994	9174
1995	8104
1996	8113
1997	8123
1998	8132
1999	8141
2000	7610
2001	7615
2002	7624
2003	7632

* Recycling, reduction, and diversion rates :
1993=5%, 1994=15%, 1995-99=25%, 2000-2003=30%

CHAPTER IV. WASTE REDUCTION

A. General Requirements:

The requirement of the State of Tennessee is to reduce by twenty-five percent (25%) the amount of solid waste disposed of at municipal solid waste disposal facilities and incinerators, as measured on a per capita basis within Tennessee by weight, by December 31, 1995, using 1989 as the base year from which reductions are to be measured.

The Henderson County Needs Assessment data for 1991 indicated the county to have disposed of 6213 tons of solid waste. The UT report entitled "Managing Our Waste: Solid Waste Planning in Tennessee" estimated 18096 tons were disposed of in 1989, or approximately three times as much only two years earlier.

As stated earlier in Chapter III, the corrected 1991 data and a review of 1992 data point to the more documented value of 10434 T for 1992 as being the most reasonably correct value available.

Base Year Quantity:

Per T.C.A. 68-211-861, using data presented in the UT report "Managing Our Waste: Solid Waste Planning in Tennessee" dated February 1991, the base year quantity is determined as shown below:

1989 Population = 22950
1989 Solid Waste = 18096T
tons/capita/year = $18096/22950 = 0.78850$ T/C/Y

B. 1995 Target Waste Reduction Goal:

25% of 0.78850 (Base Year Quantity) = 0.19712 T/C/Y
1995 Reduction Goal in Tons:
Est. 1995 Population = 21970
Reduction Goal = $21970 \times 0.19712 = 4331$ T

C. Methods To Meet Reduction Goal:

The plan objective is to meet the 25% reduction goal in 1995 and reach 30% minimum by the end of the year 2000.

Target reductions for 1995 are as follows: (in tons)

1. By Diversion...Class III/IV	=	1940 T	
By Source Reductions	=	200	
By Recycling: Paper products	=	1890	
Ferrous metals	=	350	
Aluminum	=	<u>60</u>	
Total	=	4440 T	

2. By Sector . . Residential	=	1140 T	26%
Industrial	=	1650	37%
Commercial	=	<u>1650</u>	<u>37%</u>
Total	=	4440 T	100%

In 1996 these goals will be evaluated and expanded to reach 30% by the year 2000. Other recycling efforts may be added (such as plastics or glass) during 1996 if program management, marketing, public participation, and cost reviews indicate them to become likely to succeed.

The total planning period solid waste stream listed earlier in Table III-3 was unadjusted for reduction, recycling, diversion, or other means of reducing the quantity disposed of at the Class I balefill site.

To meet these goals a combination of programs will be initiated including:

1. Education (General Public/ K-12 /Commercial):

Emphasis on waste avoidance strategies and recycling program needs. Included will be identification of Class III/IV materials , recyclable, house-hold hazardous wastes, and Class I materials.

2. Recycle Program:

An ongoing slowly expanding program is envisioned. After rural household collection routes are established, a blue bag program will be evaluated. The baler yard area will be improved to serve as a convenience center for recyclables and may be used in the educational programs. Other drop off centers may be established. Included will be a review of marketing options with the State Office of Cooperative Marketing.

3. Industrial Program:

This will be developed with assistance of UT-CIS personnel and experience. County wide organization will be sought via existing manufacturing organizations. Special waste approvals will be sought where appropriate to divert from Class I categories to Class III/IV.

4. Household Hazardous Waste Program:

This annual program to be combined with educational programs.

D. Refer to Chapter 11 for staffing and budget estimates for the ten year planning period.

E. For milestone chart on Waste Reduction refer to Table IV-2.

F. The assistant manager will be responsible for meeting the plan waste reduction milestones as identified in Table IV-2. This responsibility will be shared as other programs outside of the baler recycling activities become activated.

G. Data collection will be prepared from developing and contacting a listing of all persons, institutions, companies, or groups involved in solid waste reduction and compiled prior to submitting annual progress reports.

TABLE IV-1

(Not Applicable)

TABLE IV-2

**Estimated Quantities of Waste Removed or Diverted
From Waste Stream (T)**

Year	Source Reductions	Recovered & Recycled	Diverted to Alt. Disposal	Other *	Total Tons
1993	0	530	1750	0	2280
1994	0	1540	1820	0	3360
1995	200	2290	1950	0	4440
1996	200	2290	1950	0	4440
1997	200	2290	1950	0	4440
1998	200	2300	1950	0	4450
1999	200	2300	1950	0	4450
2000	300	2700	2000	0	5000
2001	310	2700	2000	0	5010
2002	310	2700	2000	0	5010
2003	310	2700	2000	0	5010

* Includes economic incentives or bans which are not considered at this time. This table will serve as a milestone chart for annual progress reporting and progress measurement towards achieving the 25% statewide solid waste reduction goal.

CHAPTER V. WASTE COLLECTION AND TRANSPORTATION

A. Requirements:

As stated in Chapter II, approximately 68% of Henderson County residents do not have solid waste collection services. The county does not have a green box system. The minimum requirement of the Solid Waste Act of 1991, requires that by January 1, 1996 collection services be provided for at least 90% of all county residents, or a minimum of three manned convenience centers established.

Unserved portions of the county consist of those rural residences or unincorporated areas as indicated within Figure V-1, Collection Services Map on page 5-7.

B. Methods:

Per T.C.A. 68-211-851, total county needs could be met in either of several methods or combinations thereof by:

1. Providing county wide rural residential collection services.
2. Establishing three or more convenience centers.

Expansion to county wide collection services could be met by contracting with private haulers and/or expanding the existing system to provide a minimum of weekly collection services to all residential homes. Transportation will remain direct from curbside or rural pickup to the sorting floor at the baler facility. Because the baler is centrally located, and annual volumes low, the construction of a transfer station is not required. Direct haul to the baler facility will average some 8 miles with a maximum of 20 miles. Hauling of baled solid waste to the balefill will continue as at present by city-county crews only.

Establishing three or more convenience centers without rural collection services is not considered a desirable choice. Utilization by rural citizens would remain voluntary and not lend itself to elimination of illegal dumping or continued burning by those not wishing or unable to drive to a convenience center during normal hours of operation.

C. Plan:

The selected option is to expand collection services to serve a minimum of 90% of all county residents. The adopted strategy is to combine and/or coordinate all collection activities under one management agency. This agency being the existing Henderson County Municipal Solid Waste Region Board whose members represent both rural and incorporated areas of the county. Advantages include having one agency responsible for plan implementation, more efficient use of collection vehicles, standardized equipment, better training, closer revenue and cost control, plus the flexibility to meet unforeseen needs in the future.

Specifically, the plan will accomplish the mandated goals in the following manner:

1. Collection goals and objectives can be met through expansion and integration of all collection systems. This does not rule out private collection systems. It suggests that existing communities owning collection vehicles, or private commercial vehicles merge their operations in some fashion under control and management of the Henderson County Solid Waste Region Board. Per T.C.A. 68-211-851 any county system shall compliment and supplement those provided by any municipality.
2. The entire county will be broken down into five service areas for collection purposes. Each of these route areas will be scheduled with weekly collection by county crews. Such routes will be periodically modified as needs or experience deems necessary. By the end of year 1994, the entire county will be served. Figure V-2, Collection Route Map (Preliminary), is presented at the end of this chapter on page 5-8.
3. The addition of rural collection vehicles will occur during the latter half of calendar year 1994. Final scheduling will depend upon cost studies, review of options by private contract, evaluation of available equipment for the system needs, and whether some communities would choose to merge their existing operations and equipment into the total county wide system managed by the Henderson County Solid Waste Regional Board.

4. Integration of the collection system with recycling, problem waste collection, and storage of recyclables is not required as all initial recycling will take place at the bale facility. Tire storage will be provided at the Class III/IV landfill area. Auto fluids (oils and antifreeze), and lead-acid batteries will be received at and processed by existing retail outlets under written agreement.
5. The option of adding additional convenience centers will be reviewed in 1996, with the dual purpose of improving the recycling and educational programs by use of convenience center attendant contacts with the public.

D. Ten Year Staffing and Training:

Staffing needs are summarized below for the waste collection, recycling, baling, transportation and landfill operation portions of the ten year plan for Henderson County. (Subject to modification during annual review).

Position: Title	Year Of Plan									
	94	95	96	97	98	99	00	01	02	03
Manager	1	1	1	1	1	1	1	1	1	1
Asst.Mgr.	0	1	1	1	1	1	1	1	1	1
Collection:										
Foreman	1	1	1	1	1	1	1	1	1	1
Driver	4	5	5	5	5	5	5	5	5	5
Bale Facility:										
Foreman	1	1	1	1	1	1	1	1	1	1
Scale Oper. *	1	1	1	1	1	1	1	1	1	1
Operators	2	2	2	2	2	2	2	2	2	2
Laborer	2	3	3	4	4	4	4	4	4	4
Landfills:										
Gate Attendant *	1	1	1	1	1	1	1	1	1	1
Equip. Oper.	2	2	2	2	2	2	2	2	2	2
Maintenance:										
Sr.Mechanic	0	1	1	1	1	1	1	1	1	1
Mechanic/Service	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
Total Personnel	16	20	20	21	21	21	21	21	21	21

* Additional persons to be trained for weekend/vacation and sick leave operations as required.

Person Needing Training Are Listed Below:

(Training will be made available per T.C.A. 68-211-853).

- Class I LF Operator
- Class III/IV LF Operator
- Baler Operator
- Scale Attendant
- Gate Attendant
- Equipment Operators
- Drivers
- Laborers

All persons engaged in collection, transporting, recycling, bailing, or disposal of solid wastes will require training for their specific responsibility as well as regulatory, policy, and safety training.

E. Rural Residential Collection Budget:

Year	Capital Expense	Operation & Maint.	Replacement Sinking Fund	Prin. & Interest	Total Expense
1994 *	\$240000.	\$ 45000.	\$ 12500.	\$ 10500.	\$ 68000.
1995	--	181000.	50000.	42300.	273300.
1996 **	43000.	181000.	50000.	42300.	273300.
1997	--	181000.	50000.	42300.	273300.
1998	--	181000.	50000.	42300.	273300.
1999	200000.	181000.	50000.	42300.	273300.
2000	--	181000.	50000.	42300.	273300.
2001	--	181000.	50000.	31700.	262700.
2002	--	181000.	50000.	--	231000.
2003	200000.	181000.	50000.	--	231000.

Note: Above assumes initial loan of \$240000. for seven years at 6%. Collection vehicles replaced every four years from sinking fund at net 90% of initial cost.

* Assumed start up in last quarter of 1994.

** Allowance for county vehicle service and storage area tentatively planned at baler yard area. Funds taken from sinking fund.

Above expenses based on preliminary cost estimate outlined in Table V-I, page 5-6.

F. Implementation Timetable: (by quarters)

	1994	1995	1996	1997	1998
Equip. Purchase	X				
Hire Staff	XX	X	X		
Train Staff	X	X	X		
Funding Source	XX				
Annual Report		X	X	X	X
Annual Review		X	X	X	X

Table V-1

Preliminary Cost Estimate *
Rural Residential Collection Program

I. Initial Capital Costs

a. Compactor trucks, 6@ \$35000.each	\$ 210000.
b. Pick up Truck, 1@ \$15000.	15000.
c. Communication System	5000.
d. Planning and Implementation	10000.
Total Initial Capital Cost Est.	<u>\$ 240000.</u>

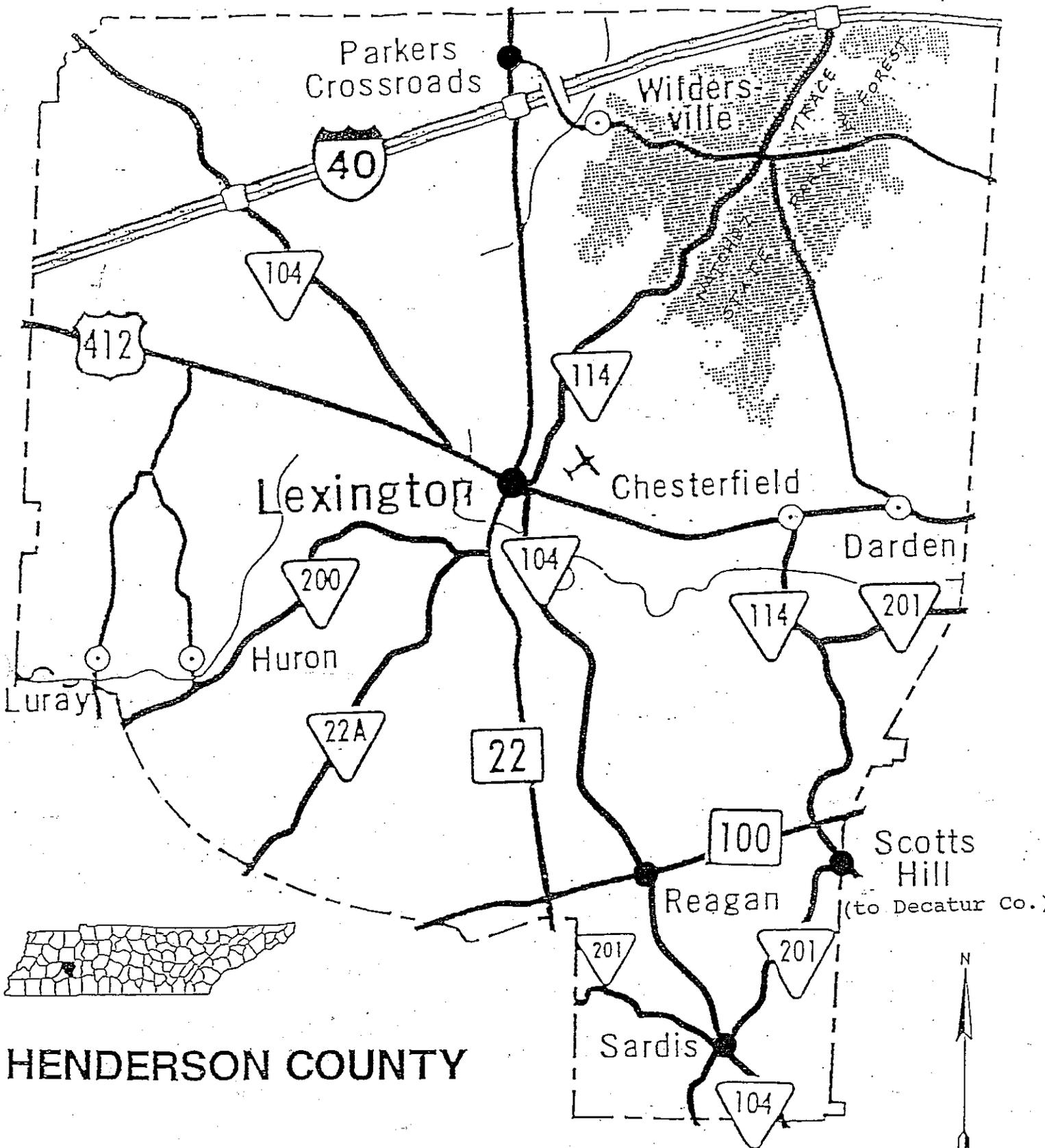
II. Annual Oper. & Maint. Costs

a. Personnel (includes 27% fringe benefits)	
1.) Asst. Mgr., 1 @ \$9.00/hr	\$ 23800.
2.) Billing clk. 1 @ \$5.50/hr	14500.
3.) Drivers, 5 @ \$6.00/hr	79600.
b. Vehicle operation cost	35000.
c. Major repair & Maint. allowance	7500.
d. Office facilities	4800.
e. Supplies & utilities	4800.
f. Insur. and legal fees	6000.
g. Misc. expense	5000.
Total Annual Oper. & Maint. Cost Est.	<u>\$ 181000.</u>

III. Annual Principal and Interest Costs

a. Prin. & Interest Payments	\$ 42300.
(Assumes 7 yr loan @ 6% of \$240000.)	

* Modified after TVA, " Preliminary Cost Estimate", dated December, 1991.



HENDERSON COUNTY

SCALE

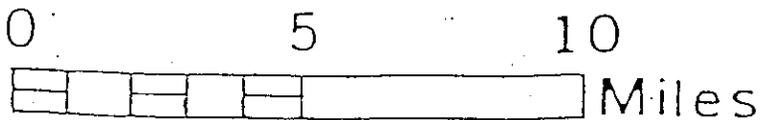
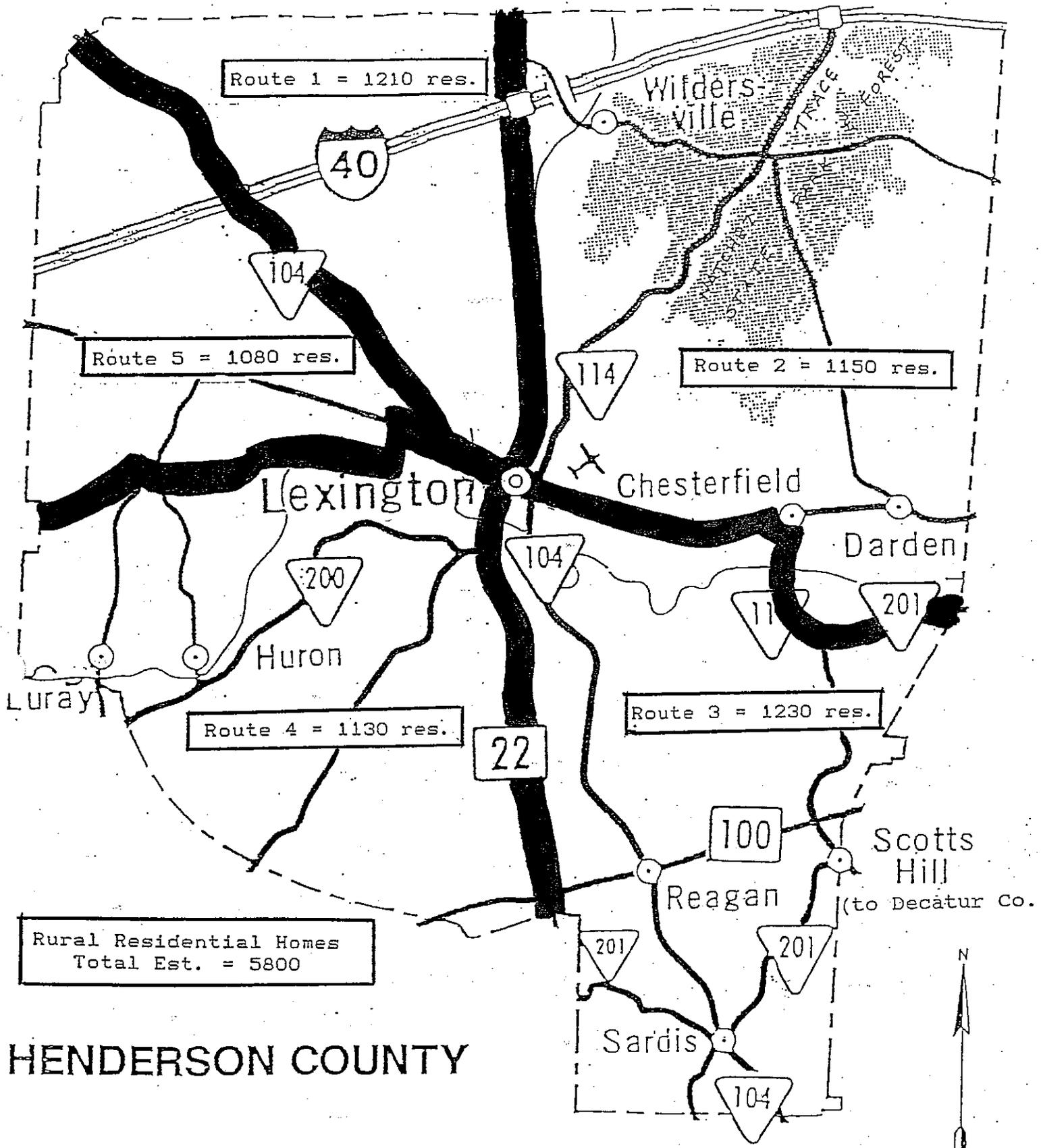


Figure V-1
Collection Services

- Collection
- No Collection



Rural Residential Homes
Total Est. = 5800

HENDERSON COUNTY

SCALE

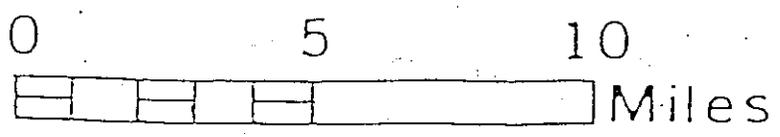


Figure V-2
Collection Route Map
(Preliminary)

CHAPTER VI. RECYCLING

A. County Needs:

Records to document current recycling efforts are scattered and fragmentary. Some industries have partial records but most information sources are from estimated quantities only. Similarly, recycling records at the baler facility are incomplete. Marketing at times has been limited to free pickup only where quantities are small or value low. Likewise, costs of recycling at the baler are not separable from other operational costs.

B. Actions Required:

To meet specific and mandated requirements by the end of 1995, the following minimum program is required:

1. Industrial diversion and documentation of an additional 200 T/Y to Class III/IV disposal.
2. Increased recycling of paper products to reach 1890 T/Y. This quantity is approximately 17% of the total waste stream volume anticipated but less than 45% of the total paper products within the waste stream according to national averages.
3. Increased recycling and marketing of ferrous metals, including white goods to 350 T/Y.
4. Increase and document aluminum recycling (including cans) to 50 T/Y by all efforts within the county, both public and private.

The center for recycling will remain at the baler facility. The drop off center at the yard area may be expanded for dual use by the public as a convenience center also. The seeking of available grants for recycling equipment should be undertaken whenever specific material needs are identified.

After the rural collection system is established in the county, use of dedicated container carts will be reviewed in 1996 to facilitate collection by the driver only. At this time, the use of similar carts may be evaluated for use by the various communities as well. Since a uniform system will not evolve in the early plan years, recyclable collection will continue to be co-mingled unless one or two convenience centers are established in outlying areas specifically to improve the recycling program. This option will be evaluated during the plan review in 1996.

C. Objectives:

To meet or exceed the targeted 25% reduction in quantities disposed of within the Class I landfill facility the milestone quantities targeted per year are indicated below:

Quantities to be recycled per year in tons.
(per Table IV-2)

1994	1540 T
1995	2290
1996	2290
1997	2290
1998	2300
1999	2300
2000	2700
2001	2700
2002	2700
2003	2700

D. General:

Costs to recover and recycle vary widely. Data available indicates a range from \$15 to over \$200 per ton. Prices for recycled materials also vary widely but range from zero to under \$30 per ton for most materials. Transportation costs are a function of distance and quantity which can limit the options available to the county. It will be essential that the county participate in joint efforts at education and marketing if any significant progress is to be made. The State Office of Cooperative Marketing and UT (CIS) programs will be used and encouraged to the private sector as well.

CHAPTER VII.

COMPOSTING, SOLID WASTE PROCESSING, WASTE-TO-ENERGY AND INCINERATION CAPACITY

A. General:

The need for additional composting, waste-to-energy, or incinerating facilities does not exist within the Henderson County region. The quantity of solid wastes generated is not sufficient to warrant the capital expense required to develop such systems.

B. Waste Processing Facilities:

The county currently bales its wastes (except for some recyclable and Class III/IV wastes) at its baler located in the City of Lexington. The baler can operate at some 10+ ton per hour and can easily process the current and projected waste stream quantity.

C. Composting:

Yard wastes and wood wastes are currently disposed of at the Class III/IV landfill. Based on national default percentages the county disposes of 1840 tons of yard waste per year. As part of the education program, information will be given to the general public to encourage home composting efforts to assist in extending the life of the Class III/IV landfill.

CHAPTER VIII. DISPOSAL CAPACITY

A. Demand vs. Capacity:

Estimated disposal capacity is presented below in Table VIII-1 and Table VIII-2. As shown previously within Table IV-2, diversion from Class I to Class III/IV will comprise some seven percent of the total waste stream removed or diverted. For this reason, capacity for the Class I balefill and the Class III/IV landfill are considered of equal importance in the preparation of this plan. Demand quantities for the plan period are from Table III-8. No shortfalls are forecast during the life of this plan. No waste imports or exports are known or reported.

TABLE VIII-1

**Class I Balefill Capacity
in Tons ***
(Phase I and II only)

Year	Initial Capacity	Demand	Remaining Capacity	Shortfall
1990	394876*	685	394191	0
1991	394191	7474	386717	0
1992	386717	8155	378562	0
1993	378562	9193	369369	0
1994	369363	9174	360195	0
1995	360195	8104	352091	0
1996	352091	8113	343978	0
1997	343978	8123	335855	0
1998	335855	8132	327723	0
1999	327723	8141	319852	0
2000	319852	7610	311972	0
2001	311972	7615	304357	0
2002	304357	7624	296733	0
2003	296733	7632	289101	0

* Initial capacity based on 376072 bales @ 1.05 T/bale.
Location of balefill indicated on Figure XI-I.

TABLE VIII-2

Class I Balefill Capacity
in Bales *
(Phase I and II only)

Year	Initial Capacity	Demand	Remaining Capacity	Shortfall
1990	376072	652	375420	0
1991	375420	7118	368302	0
1992	368302	7767	360535	0
1993	360535	8755	351780	0
1994	351780	8737	343043	0
1995	343043	7718	335325	0
1996	335325	7727	327598	0
1997	327598	7736	319862	0
1998	319862	7745	312117	0
1999	312117	7753	304364	0
2000	304364	7248	297116	0
2001	297116	7252	289864	0
2002	289864	7261	282603	0
2003	282603	7269	275334	0

* Capacity based on Sheet 10A of 31, dated 9-29-89 prepared by Water Management Services, Nashville, Tn. Design data based upon bales of 1.39 CY (cubic yards) each. Data modified herein for current baler which produces bales of 1.98 CY each. Bales average approximately 1.05 T/bale which was used herein. Values presented herein do not include the potential Phase III development of the present site and thus are conservative.

Annual bale production based upon operating records (1990-93) was increased by 4% to allow for limited disposal of non-baled material.

TABLE VIII-3

Class III/IV Landfill Capacity
(Tons)

Year	Initial Capacity	Demand	Remaining Capacity
1994			
1995			
1996			
1997			
1998			
1999			
2000			
2001			
2002			
2003			

Values in tons are not currently available. Based upon previous experience the current newly permitted site has an anticipated life in excess of 15 years...

B. General:

The Henderson County Region has no plans or agreements to import or export solid wastes to or from the county. Commitments to county citizens when purchasing and permitting the balefill site were that only Henderson County wastes would be accepted. Operational cost increases required to meet new regulations suggest that protecting the projected revenues from tipping fees be considered after this ten year plan is approved.

CHAPTER IX. PUBLIC INFORMATION AND EDUCATION

A. County Needs:

At present, no organized solid waste public information or education programs exist within the county. Some periodic news articles occur but the frequency is left largely to the media itself. Recent radio messages urging the reporting of littering when sighted has been used with some degree of success.

As presented within Chapters II and III, solid waste generation within the county is expected to gradually increase during the plan period. As active programs and steps are put into place involving all segments of society, the total per capita volumes generated can be reduced in both an environmentally sound and frugal manner.

B. Public Information and Education:

1. Regional Goals and Objectives.

- a. Inform, educate, and engage Henderson County residents, businesses, commercial and industrial establishments to become active participants in program development and implementation with the objective of volume reduction as outlined herein.
- b. Reduce, reuse, or recycle to the maximum extent practical with the objective of meeting solid waste reduction goals presented herein.
- c. Manage the solid waste collection, processing, recycling, and ultimate sale or disposal in an economic and environmentally sound manner with the objective of maintaining and enhancing the quality of life for present and future citizens of Henderson County.
- d. Inform tax payers of the costs and benefits of the total solid waste management programs enacted with the objective of sustaining and improving the results attained.

2. Target Groups and Audiences.

- a. All public school students. Refer to Table IX-1 which lists all schools within the county, and to Figure IX-1 which locates all schools.
- b. All public officials
- c. Local commercial and industrial organizations
- d. Civic and fraternal organizations
- e. Boy/Girl Scouts, 4-H, PTO, etc.
- f. General public

3. Amount and Kind of Information to be Provided.

Information will consist of verbal, written, and visual materials. Sources commercially available include industrial and trade association materials, as well as those available and under development by various state and federal governments. Specific sources used will be dependent upon the user and the target audience. Several representative samples of source materials are included at the end of this chapter.

The Tennessee Department of Education curriculum guides and materials for grades K-12 will be a prime source for school based programs. Use of in-service training for classroom teachers will be encouraged and funding assistance may be provided if required.

4. Methods to be Utilized.

- a. School directed instruction will include curriculum prepared by local teachers. Schools will be invited to schedule field trips to the convenience center, baler, and landfill facilities.
- b. Use of workshops, guest speakers, and conferences will be encouraged for commercial and industrial generators.
- c. Use of audio visual materials and guest speakers will be promoted and made available to civic and social clubs.

- d. A media program will be developed to provide timely and informative facts to the general public.
- e. Use of publications, including periodicals will be promoted and made available through public and school libraries.

5. Staff and Budget Needs.

Projected staff and budget needs are presented within Chapter 11.

6. Funding Plan.

Projected funding and budget requirements are indicated within Chapter 11.

7. Evaluation and Reporting.

The Solid Waste Manager will provide annual evaluation reports to the Henderson County Municipal Solid Waste Board. Such reports shall include a summary of educational programs utilized and their effectiveness.

C. Implementation Schedule:

A ten year implementation schedule is included within Chapter 11, "Implementation Schedule, Staffing, and Funding".

Table IX-1

HENDERSON COUNTY SCHOOLS

Mr. Jerry Graves
Henderson Co. Supt. of Education
P.O.Box 190
Lexington, Tn 38351
ph: (901) 968-6041

Caywood Elem. School (K-8)
162 Monroe Ave.
Lexington, Tn 38351
Mr. Charles Meals, Principal
ph: (901) 968-8457

South Haven Elem. (K-8)
5455 Highway 2A
Lexington, Tn 38351
Mr. Joe Tate, Principal
ph: (901) 968-6890

Westover Elem. School (K-8)
300 Crucifer Rd (Rt.1)
Huron, Tn 38345
Ms. Nancy Wilson, Principal
ph: (901) 968-9846

Bargerton Elem. School (K-8)
6141 Poplar Springs-Bargerton Rd.
Lexington, Tn 38351
Mr. Howard Coffman, Principal
ph: (901) 968-7484

Beaver Elem. School (K-8)
19830 Hwy 22 N
Wildersville, Tn 38388
Mr. Ken Reed, Principal
ph: (901) 968-2109

Lexington High School (9-12)
284 White St.
Lexington, Tn 38351
Mr. Steve Wilkerson, Principal
ph: (901) 968-2961

Southside Elem. School (K-8)
29855 Hwy 104 South
Reagan, Tn 38368
Mr. Neil Wright, Principal
ph: (901) 549-3718

Pin Oak Elem. School (K-8)
19925 Hwy 412 E.
Lexington, Tn 38351
Mr. Mike Todd, Principal
ph: (901) 968-7341

Scotts Hill School (K-12)*
Hwy 114 S.
Scotts Hill, Tn 38374
Mr. Dale Crews, Principal
ph: (901) 549-3145

*Note: As stated in Chapter.
2., Scotts Hill has elected
to join with Decatur County
for solid waste planning per
T.C.A. 68-211-813(d).
Reference Appendix A.

Additional Resources

The CLEAN TENNESSEE PROGRAM established in 1983, serves as a state resource center for litter prevention and proper solid waste management education. As a department of Memphis State University's Division of Extended Programs, Clean Tennessee is funded via a two-year performance contract with the Tennessee Department of Transportation. Clean Tennessee's primary outreach activities are marketing of the Keep America Beautiful (KAB) System, to support services for Tennessee's 24 KAB affiliates, to promote volunteer activities throughout the state, and to promote litter reduction and solid waste education across the state.

KAB local affiliates work with their community to identify local needs for litter prevention and solid waste reduction, develop innovative programs involving all segments of the community and assist in development of plans of action. Among the planning activities undertaken are photographic surveys of litter distribution, litter/solid waste surveys to assess extent of educational programs, technologies, ordinance and enforcement procedures. KAB sponsors leadership workshops, public outreach presentations, public service announcements, media placements, and provides awards recognizing community efforts.

For more information, contact:

Clean Tennessee Program
Memphis State University
Building One, Suite 113
Memphis, TN 38152
(901) 678-4101

The Tennessee DEPARTMENT OF EDUCATION is compiling a curriculum activity guide which is consistent with Tennessee's overall education objectives. The curriculum activity guide will be county specific and free to teachers participating in training workshops offered through the Department of Education. Topic and county specific in-services are directly connected to the curriculum activity guide. The total environmental educational aspect of solid waste management/recycling and its ability to be integrated into all school subjects will be covered in these in-service workshops. Teacher training will be available in the Spring of 1994 with the activity guides available in the Fall of 1994.

The Tennessee Department of Education will provide a list of reviewed curriculum activity guides and source material for grades K-12. This list will chart the contents of each and include a recommendation for use based on its strengths and weaknesses.

The Department of Education maintains a database and library of materials available on solid waste topics.

All of these services will be provided without charge to youth educators in Tennessee.

For more information, contact:

Department of Education, Conservation Education
8th Floor, Gateway Plaza
710 James Robertson Parkway
Nashville, TN 37243-0379
(615) 532-6260 or 532-6262

The **RECYCLING MARKETING COOPERATIVE FOR EAST TENNESSEE (RMCET)**, is a non-profit grass roots organization that helps East Tennessee recycling programs market materials to end-users. RMCET conducts workshops and training dealing with recycling issues such as material collection, processing and handling. Programs on business and industry recycling efforts, on city and county recycling, and on private recycling companies and their participation in the market are offered by the cooperative. Where technical support is needed, RMCET is able to coordinate the resources necessary to provide the support needed. RMCET will also participate with other organizations which can benefit from RMCET's understanding of recycling and recycling markets.

Specifically, RMCET:

Builds cooperative networks among recycling collectors across the region and provides them with information, training and technical support to ensure proper collection and quality control procedures;

Identifies what recycling materials and amounts are available and where the materials are being collected and processed;

Seeks markets for the materials, enters into contracts with end users when appropriate, or facilitates collectors contracting directly with end-users; and,

Conducts public education and promotional programs to support the cooperative marketing effort.

For more information, contact:

RMCET
P. O. Box 2701
Knoxville, TN 37901-2701
(615) 632-3160

The **TENNESSEE SOFT DRINK ASSOCIATION (TSDA)** has been a long time supporter of recycling. The association offers a recycling coordinator to manage, advise, represent and implement recycling and solid waste management programs adopted by the board of directors of TSDA and in conjunction with Committee for a Clean Tennessee (**C-FACT**) to assist in the successful implementation of the Solid Waste Management Act of 1991. Believing in the recyclability of all soft drink containers, TSDA's members are blending leadership with action to become a part of Tennessee's solid waste solution.

C-FACT is a coalition of soft drink and malt beverage companies, grocers as well as aluminum, plastic, glass and steel industries. **C-FACT** provides technical assistance, field work and educational materials regarding solid waste issues.

For more information, contact:

Tennessee Soft Drink Association and/or **C-FACT**
511 Union Street, Suite 900
Nashville, TN 37219
(615) 780-2122

TENNESSEE VALLEY AUTHORITY, COMMUNITY INFRASTRUCTURE SERVICES is a resource of waste management people providing information to public officials, industrial and agricultural managers, and private citizens to assist them in making decisions regarding waste. In addition to waste disposal, assistance is given on how to maintain economic competitiveness, how to protect human and animal health, how to improve the environment and aesthetic quality of the landscape.

Community Infrastructure Services focuses on proper development and maintenance of public works systems essential to the social and economic development of communities. These public works systems include municipal solid waste collection, processing, and disposal facilities as well as water and wastewater systems. Informational resources and financial assistance is provided for waste reduction and pollution prevention, comprehensive planning, cost efficient and appropriate management of wastes and job creation and economic development.

For more information contact:

Tennessee Valley Authority
Community Infrastructure Services
400 West Summit Hill Drive
Knoxville, TN 37902
(615) 632-3023

The UT AGRICULTURAL EXTENSION SERVICES' purpose is to provide people with useful and practical information on subjects relating to Agriculture and Home Economics and to encourage the application of the same. The Davidson County Extension Service has six program areas in the county including: Agriculture and Natural Resources, Home Economics, 4-H Youth Development, Food Marketing, Expanded Food and Nutrition and Community Resource Development. Agents teach through a variety of methods--organized clubs, workshops, seminars, special interest classes, printed information, exhibits, and one-on-one consultation. All of the information provided by the Extension Service is research-based by one of the two land-grant universities--The University of Tennessee and Tennessee State University. Residents of Davidson county may receive help from the Extension Service free of charge by calling the office. Special requests for programs are taken and filled by the agents as schedules permit. Through their 4-H Youth Development, special programs are provided on solid waste issues.

For more information contact:

UT Agricultural Extension Service
Davidson County Extension Service
800 Second Avenue North, Suite 3
Nashville, TN 37201-1084
(615) 862-5995

The UT COUNTY TECHNICAL ASSISTANCE SERVICE (CTAS) works with local governments (county and municipal), regional solid waste planning boards and various departments of Tennessee state government. Solid waste education and outreach provided covers many subjects. Subject areas include: general solid waste-landfills, legislative updates, availability of financial assistance ; waste reduction-industrial workshops, diversion, composting and recycling; collection systems-convenience centers, door-to-door, equipment specifications, regulations and layouts; transfer stations-types of equipment, day-to-day operation and maintenance; and landfills-daily operation and maintenance, storm water management, erosion control, liner management plan reading, leachate management, and litter abatement.

For more information contact:

UT County Technical Assistance Service
226 Capital Boulevard, Suite 400
Nashville, TN 37219
(615) 242-0358

The UT CENTER FOR INDUSTRIAL SERVICES' (CIS) primary client group is Tennessee industry. Secondary client groups include local officials concerned with industrial solid waste, commercial/institutional concerns and to some small degree, environmental groups.

Programs and training are presented on industrial solid waste reduction, reuse and recycling to their clients. The programs can be as brief as 1/4 hour or as long as two hours. The training sessions are as brief as 1/2 day or as long as 5 days. The training is offered on industrial waste reduction techniques. This covers hazardous waste as well as solid waste. Mock industrial exercises are sometimes employed. Program presentations are supported by overheads, slides, flip charts and videos.

CIS offers a five day course approximately once per year known as "Waste Reduction Assessment and Technology Transfer." The course requires a fee and teaches engineers and some non-engineers how to do economically based waste reduction for industry. The course for 1994 is scheduled for March 1994.

For more information contact:

UT Center for Industrial Services
226 Capitol Boulevard Building, Suite 606
Nashville, TN 37219-1804
(615) 532-8657

The Tennessee DEPARTMENT OF ENVIRONMENT & CONSERVATION, DIVISION OF SOLID WASTE ASSISTANCE was established to assist in planning and implementing effective solid waste programs statewide. The Division regards public education and outreach as very much a part of implementing successful solid waste programs. Division staff prepare published materials for general distribution, serve as speakers on various solid waste management topics, and act as technical resources to groups involved in implementing, expanding and/or revising solid waste management programs. The Division coordinates the statewide waste tire shredding program, household hazardous waste collection program, the used oil collection program, cooperative marketing of recyclables and provides technical assistance and grants. The Division will have monies for public education and outreach programs in fiscal years 1995 and 1996.

For more information or assistance contact:

Tennessee Department of Environment & Conservation
Division of Solid Waste Assistance
L & C Tower, 14th Floor
401 Church Street
Nashville, TN 37243-0455
(615) 532-0091

The Tennessee DEPARTMENT OF TRANSPORTATION has been involved with litter prevention and prevention education since 1981. The main thrust has been to change the public's attitude toward litter. Through the Clean Tennessee program housed at Memphis State University, the Department has sponsored two litter prevention curriculums; "Frog Pond" for grades K-6 in both public and private schools and "Let's Reduce and Recycle", the EPA curriculum for solid waste awareness, for grades K-12 in both public and private schools.

All Tennessee counties may apply for a non-matching grant to remove litter from roadsides. Funding for these grants is derived from additional taxes placed on the malt beverage and soft drink industries located within the state. The Department has designated that a percentage of the funds received by a county be spent on education. Target areas identified include public education, student education, media education, government education and business education.

The Department also administers the Adopt-A-Highway program. Started in 1989, this program allows local citizens and volunteer groups to take pride in their community by cleaning up litter along state highways.

The Department is also a contributing partner in the mobile solid waste exhibit van along with the Tennessee Soft Drink Association, Tennessee Valley Authority and Department of Environment and Conservation. This mobile exhibit is available to travel across the state to teach adults and children about solid waste management and recycling.

For more information, contact:

Tennessee Department of Transportation
Highway Beautification Office
Suite 400, James K. Polk Building
Nashville, TN 37243-0333
(615) 741-2877

Tennessee's nine DEVELOPMENT DISTRICTS' staff help forge cooperation between cities and counties. Staff provide technical assistance in preparing publications, assimilating information and planning public meetings. The districts have been assigned specific duties under the Solid Waste Management Act of 1991 including gathering essential solid waste information for each county and updating that information every five years. Although their primary focus is to assist local governments, district staff will, upon request, work with civic groups as speakers at meetings as time and resources permit.

For more information, contact the development district nearest you:

First TN Dev. District
207 North Boone Street
Johnson City, TN 37604
(615)928-0224

South Central TN Dev. District
P. O. Box 1346
Columbia, TN 38402
(615)381-2040

East TN Dev. District
P. O. Box 19806
Knoxville, TN 37939
(615)584-8553

Northwest TN Dev. District
P. O. Box 963
Martin, TN 38237
(901)587-4215

Upper Cumberland Dev. District
1225 Burgess Falls Road
Cookeville, TN 38501
(615) 432-4111

Memphis Area Assn. of Govts.
157 Poplar Ave, B150
Memphis, TN 38103
(901)576-4610

Southeast TN Dev. District
P. O. Box 4757
Chattanooga, TN 37405-0757
(615) 266-5781

Southwest TN Dev. District
27 Conrad Drive, Suite 150
Jackson, TN 38305
(901)668-7112

Greater Nashville Regional Council
P. O. Box 233
Nashville, TN 37201
(615) 862-8840

The UT MUNICIPAL TECHNICAL ADVISORY SERVICE (MTAS) is an agency of the University of Tennessee and the Institute for Public Service with the responsibility of providing technical assistance to municipalities across the state. MTAS promotes better local government and helps cities develop and sustain effective management and leadership. Organizationally, MTAS is divided into several functional areas. These areas are finance and accounting, law, engineering/public works, resource and information management, general municipal management and personnel. MTAS utilizes engineering/public works consultants, legal consultants and finance consultants to advise municipal officials on solutions to solid waste management issues. Training courses are available through the UT Center for Government Training (CGT). CGT utilizes MTAS consultants to instruct courses for municipal officials on the legal and financial aspects of solid waste management.

For more information, contact the office nearest you:

Municipal Technical Advisory Service
600 Henley Street, Suite 120
Knoxville, TN 37996-4105
(615) 974-0423

Municipal Technical Advisory Service
605 Airways Road, Suite 109
Jackson, TN 38301
(901) 423-3710

Municipal Technical Advisory Service
226 Capitol Blvd., Suite 402
Nashville, TN 37219-1804
(615) 532-6827

Teri Wildt
Conservation Education
Department of Education
8th Floor, Gateway Plaza
710 James Robertson Pkwy
Nashville, TN 37243-0379
Phone: (615)632-6250/6252

**PROJECT SWEEP
SOLID WASTE ENVIRONMENTAL EDUCATION PROGRAM
TENNESSEE DEPARTMENT OF EDUCATION**

As directed by TCA 68-211-845, the Tennessee Department of Education will "review available curricula guides and source materials for grades K-12 and publish an approved list. In addition, the Department of Education is to provide in-service training for classroom teachers and organize a peer assistance program for teachers within each Planning Region" (Fact Sheet #9, Rev 9/93).

The reviewing of available curricula and subsequent publication of an approved list is dependent upon accurate notification of existing published state and/or corporate curricula. The approval list is also contingent upon determining what elements are present in an acceptable solid waste management curriculum. Therefore, Conservation Education's first goals were to determine a) which states have adopted solid waste management/recycling curricula and then secure a copy for the office and b) what constituted acceptable criteria in a curriculum. After attempting to do such, it became apparent that the curricula and learning activity packets had extreme variations because of the intentions of the writers and publishers. Developing a new curriculum, based on the best of each, specifically directed toward the needs of Tennessee and gradually introducing it across the state seemed to be the prudent decision.

In addition to this task, Conservation Education is developing a solid waste management/recycling database of both in-state and out-of-state resources for youth educators. With these projects underway, the program (Project SWEEP - Solid Waste Environmental Education Program) has begun the step by step development which will achieve the goals set forth in the Solid Waste Management Act of 1991 and grow with the needs of the youth educators of Tennessee.

EPA Publications

The following publications are available at no charge from the EPA RCRA/Superfund Hotline. Call (800) 424-9346.

General

Bibliography of Solid Waste Management Alternatives	530/SW-89-055
Characterization of Municipal Solid Waste in the United States; 1990 Update; Executive Summary	530/SW-90-042a
Decision-Makers Guide to Solid Waste Management	530/SW-89-072
Environmental Fact Sheet: SWICH: EPA's National Solid Waste Information Clearinghouse	530/SW-91-025
Sites for Our Solid Waste: A Guidebook for Public Involvement	530/SW-90-019
Solid Waste Dilemma: An Agenda for Action	530/SW-89-019
Unit Pricing: Providing an Incentive to Reduce Waste	530/SW-91-005
Variable Rates in Solid Waste: Handbook for Solid Waste Officials; Executive Summary	530/SW-90-084a

Source Reduction

Characterization of Products Containing Lead and Cadmium in Municipal Solid Waste in the United States, 1970 to 2000; Executive Summary	530/SW-89-015c
Household Hazardous Waste: Bibliography of Useful References and List of State Experts	530/SW-88-014
Survey of Household Hazardous Waste and Related Collection Programs	530/SW-86-038

Recycling

Recycle	530/SW-88-050
Recycling in Federal Agencies	530/SW-90-082
Recycling Works! State and Local Success Stories	530/SW-89-014

Incineration

Characterization of Municipal Waste Combustion Ash, Ash Extracts, and Leachates; Executive Summary	530/SW-90-029b
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Landfilling

Environmental Fact Sheet: Municipal Landfill Regulations Mean Safer Disposal of Solid Waste	530/SW-91-068
Environmental Fact Sheet: Small Communities and the Municipal Landfill Regulations	530/SW-91-067
Solid Waste Disposal Facility Criteria: Final Rule (October 9, 1991)	OSWFR91004

Used Oil

How to Set Up a Local Program to Recycle Used Oil	530/SW-89-039a
Recycling Used Oil: 10 Steps to Change Your Oil	530/SW-89-039c

Recycling Used Oil: For Service Stations and Other Vehicle-Service Facilities	530/SW-89-039d
Recycling Used Oil: What Can You Do?	530/SW-89-039b

Educational Materials

Adventures of the Garbage Gremlin: Recycle and Combat a Life of Grime (Comic Book)	530/SW-90-024
Let's Reduce and Recycle: A Curriculum for Solid Waste Awareness	530/SW-90-005
Recycle Today: Educational Materials for Grades K-12 (Pamphlet)	530/SW-90-025
Ride the Wave of the Future: Recycle Today! (Poster)	530/SW-90-010
School Recycling Programs: A Handbook for Educators	530/SW-90-023

Newsletters

Native American Network	
Reusable News	
Used Oil Recycling	
<i>(Free subscriptions are available, as well as back issues, through the Hotline.)</i>	

Other

Environmental Fact Sheet: Yard Waste Composting	530/SW-91-009
Procurement Guidelines for Government Agencies	530/SW-91-011
Report to Congress: Methods to Manage and Control Plastic Wastes; Executive Summary	530/SW-89-051a
Summary of Markets for Scrap Tires	530/SW-90-074b

The following publications are available for a fee from the National Technical Information Services (NTIS). Call (703) 487-4650.

Addendum for the Regulatory Impact Analysis for the Final Criteria for Municipal Solid Waste Landfills	PB92-100 858
Analysis of U.S. Municipal Waste Combustion Operating Practices	PB89-220 578
Charging Households for Waste Collection and Disposal: The Effects of Weight- or Volume-Based Pricing on Solid Waste Management	PB91-111 484 PB92-115 252
Markets for Scrap Tires	PB92-115 252
Municipal Waste Combustion Study: Report to Congress	PB87-206 074
Office Paper Recycling: An Implementation Manual	PB90-199 431
Promoting Source Reduction and Recyclability in the Marketplace	PB90-163 122
Regulatory Impact Analysis for the Final Criteria for Municipal Solid Waste Landfills	PB92-100 841
Solid Waste Dilemma: An Agenda for Action; Background Document	PB88-251 137
Solid Waste Dilemma: An Agenda for Action; Background Document; Appendices	PB88-251 145
States' Efforts to Promote Lead-Acid Battery Recycling	PB92-119 965
Variable Rates in Solid Waste: Handbook for Solid Waste Officials	PB90-272 063
Yard Waste Composting: A Study of Eight Programs	PB90-163 114



KEEP AMERICA BEAUTIFUL, INC.
EDUCATIONAL CATALOG

Summer/Fall 1993



Educating Americans of every age about solid waste, litter prevention, and public lands stewardship has never been more important. In partnership with national waste management experts, educators, and membership of its National Advisory Council, Keep America Beautiful, Inc. offers a variety of materials to meet this need.

An order form is attached for your convenience. Please call or write if you have a question about any of the materials described.

KEEP AMERICA BEAUTIFUL, INC.

Mill River Plaza
9 West Broad Street
Stamford, CT 06902
(203) 323-8987
FAX (203) 325-9199

AWARDS INFORMATION

NATIONAL AWARDS PROGRAM FLIER -- Free. Entry form explains the National Awards Program. Available each April and until entry deadline in August.

ANDREW DAVISON AWARD -- Free. Entry form explains the Andrew H. Davison Award for outstanding public lands stewardship projects. Available year-round for October deadline.

EDUCATION

WASTE IN PLACE -- \$40. Curriculum supplement for K-6 teachers. Introduces children to responsible waste handling. Over 30 lesson plans with hands-on format covering litter prevention to waste reduction.

WASTE: A HIDDEN RESOURCE -- \$40. Curriculum for teachers in grades 7-12. An overview of solid waste that encourages students' investigation and decision-making. "Crisis in Center City" involves students in role-playing to solve mock crisis.

PLASTICS RECYCLING BY THE NUMBERS -- \$.50 each. Covers plastics' uses, the Plastic Container Coding system, and how to separate plastics for recycling. Grades 3-4.

MISTER ROGERS' ACTIVITY BOOK FOR YOUNG CHILDREN -- \$1.50. Teaches children lessons on re-use and recycling. Has words and music to songs in companion video.

POLLUTION POINTERS FOR ELEMENTARY STUDENTS -- First copy free, additional copies \$.20 each. 24 simple things children can do.

LITTER PREVENTION

TIPS FOR PREVENTING LITTER IN YOUR COMMUNITY -- First copy free, additional copies \$.20 each. Identifies behaviors causing littering, seven sources of litter, and provides 12 ways to address the problem.

PROMOTIONAL ITEMS

KAB EMBROIDERED LOGO PATCH -- \$1.50 (includes postage). Iron-on backing.

KAB BUTTON -- \$.40 each

KAB WATCH (men's & ladies models) -- \$39.00

KAB ENAMELED LAPEL PIN -- \$4.00

KAB KEY CHAIN -- \$8.00

KAB ADULT T-SHIRT -- \$6.00. Inventory close-out. 100% pre-shrunk cotton. White. Small only.

KAB SWEATSHIRT -- \$10.00. Inventory close-out. Cotton/poly blend. Navy: M only. White: M only.

KAB SWEATPANTS -- \$10.00. Inventory close-out. Cotton/poly blend. Available in Navy: L, XL. White: L, XL.

TIMBERLAKE NOTECARDS -- \$7.95/box. Featuring three paintings by KAB's official artist, Bob Timberlake - "Cobbler Berries," "Covered Wagon" and "Somewhere in Time" capturing moments in the world around us. Size 5"x 7". 10 notecards/box (same).

POSTERS

"180 MILLION TONS OF TRASH: WHAT CAN WE DO WITH IT?" -- Free - Call for postage. Full-color poster depicts management options for municipal solid waste. Rear offers four classroom activities.

KEEP AMERICA BEAUTIFUL MONTH -- First copy free, additional copies \$1.50. Poster promotes KAB Month in April with 30 environmental tips for youths and adults. Project ideas and a sample KAB Month proclamation on back.

PUBLIC LANDS STEWARDSHIP

PRESERVING OUR NATIONAL HERITAGE -- First copy free, additional copies \$1.00 each. Promotes activities enhancing public lands and educating Americans about their care. 15 pages.

SCOUT PROGRAMS

KAB ACTIVITIES FOR GIRL SCOUTS -- \$1.50 (includes postage). KAB and Girl Scouts of the USA have a patch program to help scouts work for a cleaner environment.

KAB HOMETOWN USA AWARD HANDBOOK -- \$1.50 (includes postage). Boy Scouts can receive a Hometown USA patch from KAB and Boy Scouts of America by completing a community service project.

SOLID WASTE

RECYCLING REALITIES: FACTS, MYTHS & CHOICES -- First copy free, additional copies \$.65. A 16-page booklet that discusses recycling's capabilities and limitations, and its role in waste management.

OVERVIEW: SOLID WASTE DISPOSAL ALTERNATIVES -- Free - Call for postage. 26-page guide covers source reduction and all waste management options in clear, concise terms. Includes information on scrap tires and used oil.

FOCUS FACT SHEETS -- First copy of each free, each additional copy \$.20. Each is devoted to a different waste management topic. Current titles: Introduction to Municipal Solid Waste, Degradability, Marketing Recyclables, Composting, Sanitary Landfills, Waste-to-Energy, Commercial Waste, Household Appliance Recycling and Tire Disposal & Recovery Options.

WASTE IN THE WORKPLACE -- \$4.50. A guidebook to enable small businesses to minimize waste and lower disposal costs. A step-by-step approach that begins with a waste analysis. Offers ways to recycle and reduce commercial waste.

OFFICE PAPER RECYCLING TIPS -- First copy free, additional copies \$.20. Fact sheet devoted to the collection and marketing of high-grade office paper.

MULTI-MATERIAL RECYCLING MANUAL -- \$50. Comprehensive guide for starting or expanding a community recycling program. Helps identify markets and organize involvement. 122 pages in a 3-ring binder.

THE ABC'S OF GARBAGE -- Free. This text of a speech given by KAB President Roger Powers at a Citizens for the Environment forum can be used as a point of reference when addressing waste management issues.

VIDEOS

OVERVIEW: SOLID WASTE DISPOSAL ALTERNATIVES -- \$19.95. 33-minute video reviews options for managing waste. Explains options in clear, concise terms. Excellent for libraries, schools, and civic groups.

MISTER ROGERS' RECYCLING VIDEO -- \$19.95. 30-minute video produced by the acclaimed PBS series "Mister Rogers' Neighborhood" for children. Ideal for libraries and pre-schools.

BEYOND THE BINS - SUSTAINING A RECYCLING PROGRAM IN YOUR COMMUNITY -- \$7.50. Describes steps in recycling beyond separation and put out by households. Covers programs set-up and hurdles. Appearance by KAB Executive Coordinator Connie Wiggins of Gwinnett Clean & Beautiful.

HOW DID THIS GET HERE? -- \$8. New for 1993. A 10-minute video to educate the public about litter and the adverse impacts that result when people mishandle waste. Identifying seven sources of litter and strategies to prevent it.

RECYCLING REALITIES: A NATIONAL TOWN MEETING -- \$20. New for 1993. A VHS tape of KAB's 1993 live interactive videoconference addressing the perceptions vs. realities of recycling and other options for community waste management. Emphasizing the integrated approach to managing waste. Length: 120 minutes.

LITTER GRANT PROGRAM
TENNESSEE DEPT. OF TRANSPORTATION

TN Dept. of Transportation
Highway Beautification Office
Suite 400, James K. Polk Bldg.
505 Deaderick Street
Nashville, Tennessee 37243-0333

Martin Kennedy
(615) 741-2877

PROPOSED PROJECT LIST
FOR
LITTER GRANT EDUCATIONAL REQUIREMENTS

Human behavior and environmental protection have a direct relationship. Research and experience have proven that behavioral science approaches, especially using positive prompters, does change the mind-set. The constant and consistent message throughout the community, coupled with positive action programs produces individual change. Individual actions reinforce and are role models for the actions of others and a new "culture" is instituted in the community. Negative littering habits become positive actions, i.e. collecting recyclables.

Litter Grant Programs need to target their educational efforts toward the public, media, students, government and business sectors of their community. Funds and programs must be directed toward a minimum of three of these areas for category I and II counties. Category III counties must target four of five areas. Those Litter Grant Programs receiving over \$100,000 (category IV) must address all five areas of the community.

The following is only a guide to several suggestions of activities that counties may use to expend educational funds. Please remember that this list is not inclusive of all the activities a county may participate in during the year.

PUBLIC EDUCATION

- Logo
- Mascot
- Litter/Illegal Dump Hotline
- Amnesty Day Disposal of white good & large items
- Annual campaign slogan
- Portable display
- Consumer brochures
- Litter/Solid Waste pamphlets
- Bumper Stickers
- General posters
- Litterbags
- Speakers bureau for civic meetings
- Buttons/patches/stickers
- Flyers/Door hangers
- Bill stuffers
- Public event exhibits
- Parades
- KAB System office set up/equipment
- Awards programs
- Public awareness campaign
- Junked auto pick-up day
- "How many" contest - cans in cotton trailer
- Time & Temperature sign messages at banks
- Waste Exchange Bulletin Board
- Litter-free public event, i.e. athletic event, concert, etc.
- Lake Councils to sponsor shore clean-ups
- Restaurant Menus/Tray liners
- Ice bag messages to promote not littering in/around lakes
- Messages for local church signs
- Encourage "stewardship" sermons

STUDENT EDUCATION

- Poster contests
- Science fair/recycling fair
- Assembly programs
- Litter prevention/solid waste/recycling curricula
- Curriculum supplements for students
- Teacher training and workshops
- Teaching materials for teachers
- PTA/PTO presentations
- Classroom materials (fun sheets, booklets, coloring books, bookmarks, posters, flyers, film strips, puppets, etc.)
- Quarterly newsletters
- Litter receptacles and signage
- In-school media campaign (video, loud speaker announcements)
- Production/play for other classes and/or parents
- Take-home flyers
- Community outreach programs, i.e. recycling drive or "green" consumer shopping guides
- Presentations to youth groups

Custodian & cafeteria worker training on reuse
recycling
Environmental career fair
Trash barrel painting contest

GOVERNMENT EDUCATION

Portable display for loan to various departments
"green" purchasing brochures
Quarterly newsletters to employees
Bumper Stickers
General posters
Proclamations & resolutions
Litterbags in county vehicles
Tarps for county trucks
"Roll Call" presentations for employees
Public Lands cleanup campaign
Buttons/patches/stickers
Flyers
Paycheck stuffers
Courthouse exhibits
Recycling trucks and Sanitation trucks in parades
Equipment, materials and staff for KAB Photometric
Index liter survey
Litter receptacles on public property
Contest for "cleanest Convenience Centers"
Public awareness campaign
Ordinance brochure for public
Training program for enforcement officers and
inspectors
Awards program for litter/solid waste and enforcement
personnel
How to/Where to dispose brochure
Incentives for tarped trucks; reduced tipping fees

BUSINESS EDUCATION

General posters
Clean Business competition
Litterbag distribution program
Point-of-sale materials
Recycling guides/manuals/directories
In-house company publications "snipes" and articles
On-pack advertising
Speakers bureau for business meetings
Training workshops for business, retail, industry
Waste audit guides
Purchasing recommendations for truck tarps, recycling
equipment, parking lot litter receptacles
Clean loading dock contests
Clean parking lot contests
Clean alley rally
Clean farm competitions

MEDIA EDUCATION

Newsletters

Letters to the Editor

Writers Tours - Outdoor and travel writers to feature beauty of your [cleaned up] natural area for regional magazines

Broadcast PSA's

News kits/releases

Print PSA's [minimum paid advertising allowable]

Outdoor Advertising

A-V aids

"Channel One" promos

Weekly fishing & lake level reports-include water information

Movie intro snipes

Signage

Drop-In ads in newsletters, magazines, community mailings and newspaper flyers

Newspaper supplements

"Remote Broadcast" from illegal dump or cleanup event

On-pack advertising

Transit advertising

Media tours of problem areas/dumps

Monthly news column on "environmental heroes"

On site "lunch" for media at illegal dump and return visit after cleanup

Local celebrity change his/her oil in public place, oil taken to be recycled

CHAPTER X. PROBLEM WASTES

GENERAL :

The Solid Waste Management Act of 1991 identifies four problem wastes areas. These are wastes common to most citizens and include the following:

1. Used tires.
2. Automotive fluids. ie; used motor oil, anti-freeze, and hydraulic oils.
3. Lead acid batteries.
4. Household hazardous wastes.

Subsequent to passing the Solid Waste Management Act of 1991, the Tennessee Used Oil Collection Act of 1993 was passed into law in April 1993. This act mandates certain additional requirements and provides for ongoing funding for certain provisions of the act.

Key elements for the management of these problem wastes are summarized below:

1. A used tire storage facility will be developed at the Class III/IV landfill site located within the city of Lexington. The county will arrange for the states tire shredding contractor to shred stored tires at a minimum frequency of every six months.

2. On or before January 1, 1995, the county will not accept for disposal any whole waste tires, lead-acid batteries, or used automotive fluids.

3. Suitable locations for the receipt and storage of automotive fluids and lead acid batteries will be established by contract with at least two private businesses, and the public will be informed as to the locations, days and hours of operation, and general requirements.

4. The county will arrange for annual household hazardous waste sweeps, advertise, inform, and provide for a suitable location. The county will provide a representative to assist the states contractor with coordinating the actual collection event.

A. HOUSEHOLD HAZARDOUS WASTE

Per T.C.A. 68-211-829 the State of Tennessee has contracted to provide for a mobile household hazardous waste collection program. The county is required to locate a suitable site, advertise the location and time of the collection and inform the public as to the general nature of what constitutes a household hazardous waste. In addition the county will provide a local representative to assist the contractor.

Such collection events are to be held at least once annually per county. State funding for the contractor will expire under sunset provisions of the law, after which counties may be required to increase their cost share to provide a mobile collection contractor.

Based on the state guidelines dated August 1993, the yard area behind the existing baler facility will meet all requirements and be designated as the collection site. Advertising will be conducted and documented per the guidelines and a local representative provided during each collection event.

Each household participating will be required to deliver their materials in quantities not to exceed 100 pounds per vehicle.

Costs and staffing requirements for this program are presented within Chapter 11.

B. WASTE TIRES:

Used tires are currently collected at several retail outlets within the area and their methods of ultimate disposition vary widely.

The actual quantity of waste tires generated or stored within the county is unknown. County tire sales per the State Department of Revenue pre-disposal fees was 16,193 for fiscal year 1993. The county has some 16,878 registered motor vehicles from which a used tire generation rate of some 17,000 tires per year is estimated. This quantity can be temporarily stored within the area contemplated at the Class III/IV landfill.

The waste tires will be shredded twice annually by the states contractor. After shredding, the waste will be disposed of within the Class III/IV landfill located within the City of Lexington. At present no market for this material is known within a reasonable hauling distance.

Budget costs for construction, vector control and staffing for this program are included in Chapter 11.

C. WASTE OIL

Waste automotive oil and fluids are currently collected by at least one Lexington service station. There are likely a few others but no organized system is in place to assure collection services are available throughout the county.

Per T.C.A. 68-31-866 the county will arrange for several sites within the county to receive automotive fluids under written agreement or by constructing one such facility to be operated by the county.

D. LEAD ACID BATTERIES

Used automotive batteries are currently handled by local vendors who sell them to recyclers.

The county will survey vendors to appraise the need for establishing additional storage sites. If required, the county will develop a site or contract to provide one for the general public. In either case, informing the public of available sites will be included within public education efforts.

Annual operating costs and personnel requirements for both waste oil and lead acid batteries are included within Chapter 11.

E. LITTER

The county cleans up roadside litter on a monthly basis. State funded litter grants will continue to be managed by the county executive. With the establishment of rural residential collection services, collection crews will serve as an additional reporting system for problem areas which are observed during scheduled route travels. The current adopt-a-highway policing methods will be continued. The county salvages metals, cardboard, and Al cans during cleanups and will continue to do so.

CHAPTER XI. IMPLEMENTATION: SCHEDULE, STAFFING AND FUNDING

A. System Definition

The components and structure of the Henderson County waste management system will follow those identified in previous Chapters IV thru X. No major solid waste processing facility will be constructed within the ten year planning period. An illustration of the most probable proportional waste flow under the proposed system is shown on Figure XI-1. Key elements are summarized below:

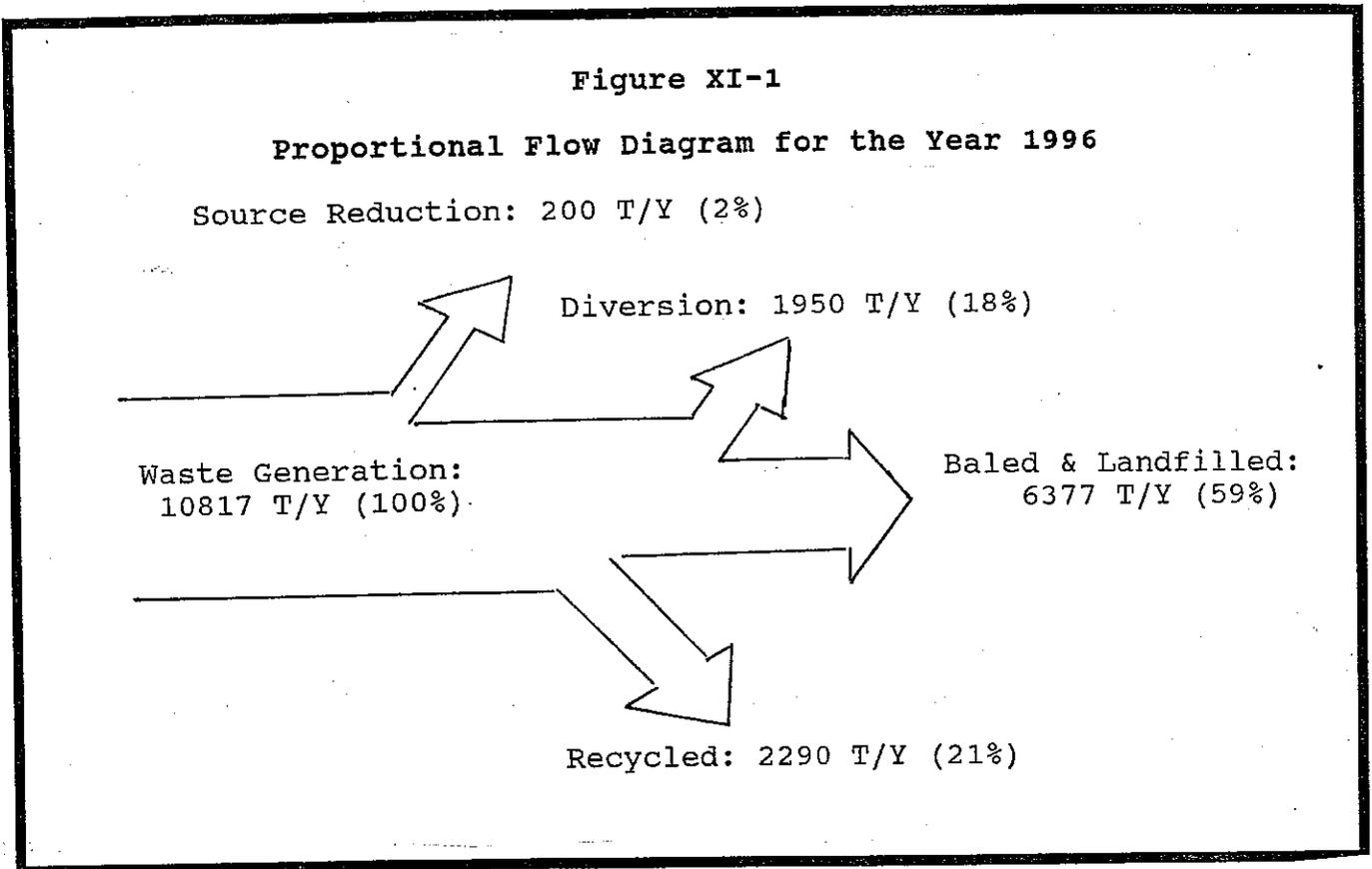
Henderson County Solid Waste Board Goals:

1. Provide waste collection services to all residents of the county.
2. Reduce, recycle, divert, and/or reuse as much of the counties solid waste as is practical.
3. Assist and encourage all citizens, institutions, businesses and industries to become active participants in waste reduction, reuse, recycling, diversion, collection, and overall management of solid wastes through ongoing educational and informational programs.
4. Operate and/or manage all public solid waste services within the county in an environmentally sound, efficient, and economic manner as practical.

Henderson County Solid Waste Board Objectives:

1. Initiate rural collection services in 1994. Purchase or lease required vehicles, provide service facilities, hire and train operating personnel.
2. Provide for the proper management of, and ultimate disposal of problem wastes such as used tires, used automotive oils and fluids, lead-acid batteries, and household hazardous wastes.

3. Appoint or hire an assistant manager whose duties will include the recycling, marketing, waste reduction diversion, and problem waste programs.



B. Implementation Schedule:

March 19, 1994	Certification of landfill operators must be implemented. (or any subsequently designated date) per T.C.A. 68-211-853. Requirements have not yet been announced.
July 1, 1994	Deadline for ten-year solid waste plan to be submitted per T.C.A. 68-211-814 as amended.
August 1, 1994	Develop whole waste tire storage area at Class III/IV landfill site.
August 1, 1994	Begin industrial diversion, reduction, recycling programs coordinated with the University of Tennessee.
September 1, 1994	Acquire collection vehicles, hire and train drivers to initiate rural residential solid waste collection services. (Pending contractual alternatives.)
October 1, 1994	Initiate billing system for rural residential customers. (Pending actual start date.)
October 1, 1994	Establish contracts with retailers etc. for the receipt of used automotive fluids and lead-acid batteries. Inform general public of locations, hours, and requirements.
November 1, 1994	Complete used tire storage area at Class III/IV landfill, submit waste tire grant application. Inform general public of location, hours, and general requirements.
January 1, 1995	Whole waste tires not accepted for disposal; waste tire storage site operational per T.C.A. 68-211-866.
January 1, 1995	Contracts with private vendors to accept lead-acid batteries and used motor oils and automotive fluids in effect. Not accept these items for disposal per T.C.A. 18-211-866.

February, 1, 1995	Initiate public information program to encourage home composting.
March 1, 1995	Annual program review and progress report due per T.C.A. 68-211-871 and T.C.A. 68-211-814(a)(3).
April 1, 1995	Conduct annual sweep of household hazardous wastes pending schedule with state contractor.
June 1, 1995	Review, modify, expand if required, the baler yard area designated recyclable collection site. Submit recycle equipment grant application.
December 31, 1995	Meet 25% solid waste reduction goal per T.C.A. 18-211-861.
January 1, 1996	Collection sites for recyclables becomes effective per T.C.A. 68-211-863.
January 1, 1996	Meet collection requirements of T.C.A. 68-211-851 (Amended) per rural residential collection program.
March 1, 1996	Annual progress reports due per T.C.A. 68-211-871. Review possible use of carts to facilitate rural collection program if not in use.
June 30, 1996	Tipping fee surcharge expires per T.C.A. 68-211-835.
March 1, 1997	Annual progress reports due per T.C.A. 68-211-871.

Table XI-1
Projected Quantities of
Solid Waste Management
(Tons)

YEAR	Projected Generation	Source Reduction	Recycled	Diverted	Balefill
	*				
1994	10793	0	500	1500	8793
1995	10805	50	1000	1600	8155
1996	10817	100	1500	1700	7517
1997	10830	150	2000	1800	6880
1998	10842	200	2100	1900	6642
1999	10855	200	2200	1950	6505
2000	10867	250	2300	2000	6317
2001	10869	250	2400	2000	6219
2002	10891	300	2500	2000	6091
2003	10903	300	2600	2000	6003

* per Table III-3.

C. Staffing and Implementation Requirements:

Staffing requirements are listed below for the rural residential collection program, convenience center and baler operation, recycling, and both the construction/demolition landfill and balefill operations.

Position: Title	Year Of Plan										
	93	94	95	96	97	98	99	00	01	02	03
Gen. Mgr.	1	1	1	1	1	1	1	1	1	1	1
Asst. Mgr.	0	0	1	1	1	1	1	1	1	1	1
Collection:											
Foreman	0	1	1	1	1	1	1	1	1	1	1
Driver	0	4	5	5	5	5	5	5	5	5	5
Bale Facility:											
Foreman	1	1	1	1	1	1	1	1	1	1	1
Scale/Billing	1	1	1	1	1	1	1	1	1	1	1
Operators	2	2	2	2	2	2	2	2	2	2	2
Laborers	2	2	3	3	4	4	4	4	4	4	4
Landfills:											
Gate Attendant	1	1	1	1	1	1	1	1	1	1	1
Equip. Oper.	2	2	2	2	2	2	2	2	2	2	2
Maintenance:											
Sr. Mechanic	0	0	1	1	1	1	1	1	1	1	1
Mech/Service	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
TOTALS	11	16	20	20	21	21	21	21	21	21	21

All persons engaged in collection, transporting, recycling, baling, or disposal of solid wastes will require training for their specific responsibility. Cross training will also be required for most positions to cover for week end, sick leave, or vacation needs.

All personnel will be qualified for several functions. Training will include regulations, operations, policy, safety, and emergency response requirements.

Scheduled training sessions as required under T.C.A.68-211-853 must await the state announcing requirements and availability of scheduled sessions. In addition the Henderson County Board may train personnel via existing SWANA (Solid Waste Association of North America) or similar programs which are periodically available.

The assistant manager will be responsible for implementation of the public information and education programs, managing the marketing phase of the recycling efforts, and to coordinate rural billing activities and problem waste programs described in chapter ten previously.

D. Budget:

Based upon estimated costs, a ten year budget is presented in Figure XI-2. No adjustment for inflation was made. The budget is separated according to key elements of the ten year plan but does not include incorporated areas, whose annual costs were listed in Chapter II previously.

Capital funding sources for the rural household collection vehicles and allied equipment has not been finalized. The county however, has no intention of billing rural residents for solid waste collection services before such services are in effect. A grant or short term low interest loan will be sought during calendar year 1994 to meet the schedules presented earlier. Should rural household collection be accomplished under private contract, budget values used herein would be modified as required.

As presented within Table XI-2, both expenses and revenues are identified to indicate how the region will meet the projected costs. Minor revenues resulting from recyclable material sales were not estimated separately but considered in estimating costs of the recycling program.

Table XI-2

Henderson County Municipal Solid Waste Region Plan Budget

Expenses

Year	Baler	Recycle & Mktg.	Balefill	Class III/IV	Prob. Wastes	Public Info/Educ.	Totals
1994	229400.	7500.	162900.	67400.	5000.	500.	\$472700.
1995	242200.	15000	175400.	55500.	14000.	1000.	503100.
1996	242200.	22500	175400.	55500.	7000.	1000.	503600.
1997	242200.	30000	172000.	55500.	2500.	1000.	503200.
1998	242200.	31500	172000.	55500.	2500.	1000.	504700.
1999	242200.	33000	172000.	40500.	2500.	1000.	491200.
2000	242200.	34500	172000.	40500.	2500.	1000.	492700.
2001	242200.	36000	172000.	40500.	3000.	1000.	494700.
2002	242200.	37500	172200.	40500.	3000.	1000.	496200.
2003	242200.	39000	172200.	40500.	3000.	1000.	497700.

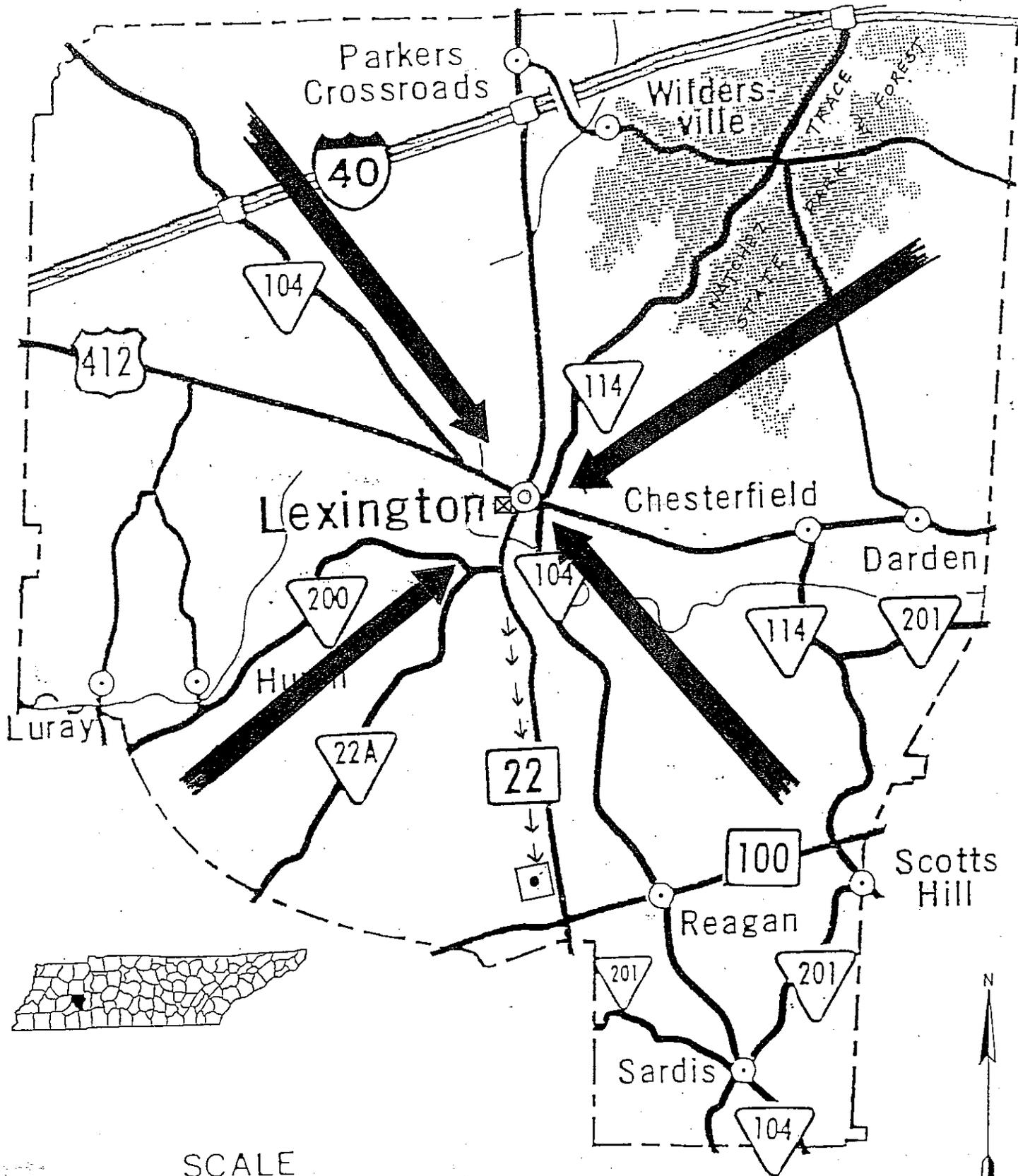
Revenues

Year	County	City of Lexington	Tipping Fees Class I	Fees Class III/IV	Grants (*)	Totals
1994	75000.	75000.	245700.	62000.	15000.	\$472700.
1995	75000.	75000.	302600.	62000.	5000.	519600.
1996	75000.	75000.	302800.	62000.	10000.	524800.
1997	75000.	75000.	303100.	62000.	-	515100.
1998	75000.	75000.	303300.	62000.	-	515300.
1999	75000.	75000.	303500.	62000.	-	515500.
2000	75000.	75000.	290300.	62000.	-	502300.
2001	75000.	75000.	290400.	62000.	-	502400.
2002	75000.	75000.	290600.	62000.	-	502600.
2003	75000.	75000.	290800.	62000.	-	502800.

(*) 94-Planning
 95-Waste tire
 96-Recycle equipment

Note: This budget does not include provision for inflation. It does not include cost provisions for rural collection being considered by the county, or costs of collection by incorporated cities within the county. (Reference Chapter V).

HENDERSON COUNTY



SCALE



CHAPTER XII.

**ALLOCATION OF IMPLEMENTATION RESPONSIBILITIES:
PLAN ADOPTION AND SUBMISSION**

A. One-County Regions:

On April 6, 1994 the Henderson County Municipal Solid Waste Board approved this ten year plan and voted to submit it to the Henderson County Board of Commissioners for adoption. A copy of the April 6, 1994 minutes as approved is contained in Appendix E.

Henderson County has no planning commission. Notification letters were sent to the City of Lexington and Parkers Crossroads Planning Commissions and copies are included within Appendix E.

On May 23, 1994 the Henderson County Board of Commissioners approved the adoption of this plan. A copy of the minutes of this meeting is included within Appendix E.

CHAPTER XIII.

FLOW CONTROL AND PERMIT APPLICATION REVIEW

A. Out-of-Region Ban:

The region does not wish to consider an out of region ban at this time but reserves the right to consider such action after this plan is approved.

B. Intra-Region Flow Control:

Intra-region flow control is permitted under the Solid Waste Management Act of 1991 after approval of the ten-year plan by the Department of Environment and Conservation. Factors for consideration of such flow control include public health, safety, transportation management, and to guarantee a flow of waste as a revenue source.

The region therefore, cannot enact an intra-region flow control ban at this time. However, it is critical that revenues from regional tipping fees not be diminished if future operations within this ten year plan are to be successful. Therefore the region will hold a public hearing after approval of this plan and consider adoption of an intra-region flow control resolution. Should such a resolution be adopted by the region, the county and incorporated communities within the county will be encouraged to adopt similar supportive ordinances in order that such a resolution may be fully effective and enforced as may be required.

C. Plan Review Process:

Under T.C.A. 68-211-814, the region is required (after approval of this plan) to review plans for any new or modified solid waste disposal facility or incinerator for approval as being consistent with the regions disposal needs before any permit is issued by the Commissioner of the Tennessee Department of Environment and Conservation or his authorized representative.

An applicant for a permit to construct or expand a solid waste disposal facility or incinerator within Henderson County Municipal Solid Waste Region shall submit a complete copy of the Part I, and/or Part II application to the chairman of the region at the same time such application is submitted to the commissioner.

Upon receipt of a complete copy of such application the chairman shall:

1. Call a meeting of the complete regional board within thirty days of receipt of a copy of such application.
2. Set a date for a public hearing on the plan to be held within Henderson County after public notice has been given in accordance with title 8, chapter 44 of T.C.A.

The region shall review and determine if the proposed facility is consistent with the regions solid waste plan within ninety (90) days of receipt of a complete Part II application.

The region shall immediately notify the commissioner of its acceptance or rejection of the application. If the application is rejected the region shall submit to the commissioner in writing, documentation as to the specific grounds wherein the application is inconsistent with the solid waste plan.

Appeal of final action of the region may be taken by an aggrieved person within thirty (30) days to the chancery court of Davidson County. For purposes of the above section of the act, an "aggrieved person" is limited to persons applying for permits, persons who own property or live within a three (3) mile radius of the facility or site that is proposed for permitting, or cities and counties in which the proposed facility is located.

Appendix A.

Legal Documentation and Organization of the Region

RESOLUTION 1012

A RESOLUTION CREATION HENDERSON COUNTY'S MUNICIPAL SOLID WASTE PLANNING REGION

WHEREAS, the adoption of the Subtitle d landfill regulations by the United State Environmental Protection Agency and companion regulations adopted by the Tennessee Solid Waste Control Board will impact on both the cost and method of disposal of municipal solid waste; and

WHEREAS, at the urging and support of a coalition of local government, environmental, commercial, and industrial leaders, the 97th Tennessee General Assembly enacted T.C.A 68-211-801 et seq., "Solid Waste Management Act of 1991"; and

WHEREAS, with the view that better planning for solid waste will help control the additional costs that will be imposed by the new landfill regulations, help protect the environment, provide an improved solid waste management system, better utilize our natural resources, and promote the education of the citizens of Tennessee in the areas of solid waste management including the need for and desirability of reduction and minimization of solid waste, local governments in tennessee supported and worked for the passage of this Act; and

WHEREAS, one of the stated public policies of this Act is to institute and maintain a comprehensive, integrated, statewide program for solid waste management; and

WHEREAS, as per T.C.A 68-211-811, the nine development districts in the State of Tennessee have completed a district needs assessment which are inventories of the solid waste systems in Tennessee; and

WHEREAS, Henderson County's Board of county Commissioners has given consideration to the needs assessment prepared by the Southwest development district; and

WHEREAS, T.C.A. 68-211-813, requires that counties in the State of Tennessee form municipal solid waste regions no later than December 12,1992; and

WHEREAS, the Act's stated preference is the formation of multi-county regions with counties having the option of forming single or multi-county municipal solid waste regions; and

WHEREAS, the State of Tennessee will provide grant monies of varying amounts to single county, two county, and three or more county municipal solid waste regions to assist these regions on developing their municipal solid waste region plans; and

WHEREAS, the primary and prevailing purpose of the municipal solid waste regions are the preparation of municipal solid waste regional plans which among other requirements must identify how each region will reduce its solid waste disposal per capita by twenty-five percent(25%) by December 31,1995, and a planned capacity assurance of its disposal needs for a ten(10) year period; and

WHEREAS, the development of a municipal solid waste regional plan that results in the most cost effective and efficient management of municipal solid waste is in the best interest of the citizens of Henderson County.

NOW, THEREFORE BE IT RESOLVED, by the Board of County Commissioners of Henderson County, Tennessee, acting pursuant to T.C.A. 68-211-801 et seq., that there is hereby established a Municipal solid Waste Region for and by Henderson County, Tennessee; and

BE IT FURTHER RESOLVED, that pursuant to T.C.A 68-211-8139(a) (2), that the Board of County Commissioners of Henderson County, Tennessee finds and determines that Henderson County shall be and shall constitute a single county municipal solid waste region due to the following: Lexington and Henderson County has a new landfill (2yrs. old) permitted with a 20(twenty) year capacity. we also have a baler and have successfully managed our solid waste during this period. commitments from the city and county to the taxpayers while citing this facility were that only solid waste from Henderson County would ever be accepted at this balefield, and

BE IT FURTHER RESOLVED, that pursuant to T.C.A. 68-211-813(b)(1), a Municipal solid Waste Region Board is hereby established to administer the activities of this Region; and

BE IT FURTHER RESOLVED, that this Municipal Solid Waste Region Board shall be composed of seven(7) members; and

BE IT FURTHER RESOLVED, that pursuant to T.C.A. 68-211-813(b)(1) three board members shall be appointed by the County Executive and approved by this Board of county Commissioners and, due to the fact that the City of Lexington collects or provides disposal services through its own initiative or by contract, the City of Lexington shall have three board members appointed by the Mayor of Lexington and approved by Board of Aldermen of the City of Lexington; and the County Executive and the Mayor of the City of Lexington shall jointly appoint One(1) additional Board member; and

BE IT FURTHER RESOLVED, that Two(2) members of the Board of the Municipal Solid Waste Region shall serve an initial term of two(2) members shall serve an initial term of four(4) years, and Three(3) members shall serve an initial term of six(6) years. At the expiration of the initial term, all members of the Board of Municipal Solid Waste Region shall serve a six(6) year term.

BE FURTHER RESOLVED, that Henderson County shall serve as the fiscal agent for the Municipal Solid Waste Region.

BE IT FURTHER RESOLVED, that this Municipal Solid Waste Region Board shall have all powers and duties as granted it by T.C.A. 68-211-813 et seq. and in addition, in the performance of its duty to produce a municipal solid waste region plan, it shall be empowered to utilize existing City/County governmental personnel, to employ or contract with persons, private consulting firms, and/or governmental, quasi-governmental, and public entities and agencies and to utilize City/County services, facilities and records in completing this task; and

BE IT FURTHER RESOLVED, that at the Municipal Solid Waste Region Board's initial organization meeting it shall select from its members a chair, vice-chair, and secretary and shall cause the establishment of a municipal solid waste advisory committee ;whose membership shall be chosen by the Board and whose duties are to assist and advise the Board; and

BE IT FURTHER RESOLVED, that the Municipal Solid Waste Region Board, in furtherance of its duty to produce a municipal solid waste region plan, is authorized to apply for and receive funds from the State of Tennessee, the federal government, Henderson County, and City of Lexington, and donations and grants from private corporations and foundations; and

BE IT FURTHER RESOLVED, that Henderson County shall receive, disburse and act as the fiscal agent for the administration of the funds of the Municipal solid Waste Region and the Region's Board; and

BE IT FURTHER RESOLVED, that upon the passage of this Resolution and at no later date than December 31,1992, the County Clerk of Henderson County shall transmit a copy of this Resolution to the tennessee State Planning Office.

RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF HENDERSON COUNTY, TENNESSEE, THIS 12TH DAY OF OCTOBER, 1992, THE WELFARE OF THE CITIZENS OF HENDERSON COUNTY REQUIRING IT.

SPONSER:



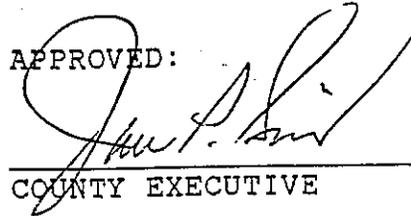
COUNTY COMMISSIONER

ATTEST:



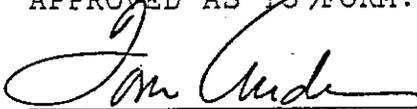
COUNTY CLERK

APPROVED:



COUNTY EXECUTIVE

APPROVED AS TO FORM:



COUNTY ATTORNEY

TOWN OF SCOTTS HILL

OFFICE OF THE MAYOR
ROUTE 1, BOX 6N
SCOTTS HILL, TENNESSEE 38374

OFFICE CITY HALL

TELEPHONE: 901-549-3175

RESOLUTION NO. 11

WHEREAS, at the urging and support of a coalition of local government, environmental, commercial, and industrial leaders, the 97th Tennessee General Assembly enacted Tennessee Code Annotated, Section 68-211-801 et seq., known as the Solid Waste Management Act of 1991; and

WHEREAS, better planning for solid waste will help control the additional costs that will be imposed by the new Subtitle D landfill regulations, adopted by the United State Environmental Protection Agency and companion regulations adopted by the Tennessee Solid Waste Control Board, help protect the environment, provide and improved solid waste management system, better utilize our natural resources, and promote the education of the citizens of Tennessee in the areas of solid waste management including the need for and desirability of reduction and minimization of solid waste; and

WHEREAS, Tennessee Code Annotated, §68-211-811 authorizes the nine development districts in the State of Tennessee to complete district needs assessments, which are inventories of the solid waste systems in Tennessee, and suggest the formation of regions; and

WHEREAS, T.C.A. §68-211-813, requires that counties in the State of Tennessee form municipal solid waste regions no later that December 12, 1992; and

WHEREAS, the City of Scotts Hill, Tennessee, provides solid waste collection services or solid waste disposal services; and

WHEREAS, the City of Scotts Hill, lies within the County of Henderson and the County of Decatur under Tennessee Code Annotated, Section 68-211-813(d), must designate the region/county it agrees to participate with for the purpose of regional planning.

NOW THEREFORE BE IT RESOLVED by the Board of Mayor and Aldermen/ City Council/ City Commission of the City of Scotts Hill, Tennessee, as follows:

The City of Scotts Hill, Tennessee, has considered the regions proposed by the County of Henderson, Tennessee, and the County of Decatur, Tennessee, and desires to participate with the County of Decatur, Tennessee for the purpose of regional planning and to designate a representative to that county's regional board.

ADOPTED THIS 2 DAY OF November, 1992.

David K. Rhodes
Mayor

Janet Miller
Recorder

Regional Advisory Committee

Description and function of the Regional Advisory Committee as required per T.C.A. Section 68-211-813(e).

A. Membership:

Mr. Richard Holland (Sardis)

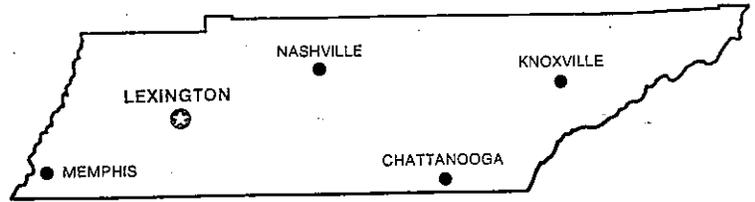
Ms. Fran Burton (Lexington)

B. Task:

The Regional Advisory Committee shall serve at the pleasure of the Henderson County Regional Solid Waste Board. The Committee shall assist the Board (and/or others as the Board may appoint or otherwise engage) to further develop and implement; (1) educational, (2) informational, (3) recycling and marketing, (4) waste reduction, and (5) other special studies or programs as the Board may require.

C. Activities:

During the development and implementation of this 10-year plan the advisory committee shall assist in the planning of the above tasks, assist with public information efforts, and obtain input from the citizens at large.



Lexington, Tennessee

"Central City of Southern Industry"

DAVID JOWERS, Mayor
JIMMY CREASY, Vice-Mayor
DAVID HOPPER, Recorder

ALDERMEN:
Jimmy Creasy Bobby Dyer
Roy Miller Carl D. Overman
L. M. Powers Ernest Ray Thomas
A. D. Ward

April 19, 1994

To Whom It May Concern:

This letter is to inform you that the City of Lexington is in financial compliance with Solid Waste Regulation T.C.A. 68-31-874(a) as amended. A letter is on file with the appropriate solid waste officials. The name of the special revenue fund is the State Shared Sales Tax, as permissable by state law.

Any further questions concerning this letter, please call me at 901-968-6657.

Sincerely,

David Jowers
Mayor

DBJ/fdb

Appendix B.

Documentation for Adjustments to the Base Generation



TENNESSEE DEPARTMENT OF CONSERVATION

Division of Solid Waste Management
Customs House - Fourth Floor
701 Broadway
Nashville, TN 37243-1535
615-741-3424

Chester County
Decatur County
Hardeman County
Hardin County
Haywood County
Henderson County
Madison County
McNairy County

March 27, 1992.

Mr. Barry Matthews, Executive Director
Southwest Tennessee Development District
416 East Lafayette Street
Jackson, TN 38301

Dear Mr. Matthews:

Enclosed are preliminary reports regarding the municipal solid waste haulers and the disposal/processing facilities within your district.

Please note that the information contained in these reports is for a three-month period (July 1 - September 30, 1991). Also, keep in mind that the data may not be completely accurate. We have attempted to clarify information from the Transporter Registration Forms, but we have not had the staff available to conduct a thorough follow-up to assure quality and complete data.

We are now in the process of hiring additional staff to do the needed follow-up. Also, we are working with our Division of Information Systems to develop a more detailed and better formatted computer program that will give you a better picture of the solid waste situation in your district.

As soon as we are able, we will provide you with more information of a more reliable nature. We appreciate your patience as we continue working to develop this new program.

Sincerely,

Bobby W. Morrison, Manager
Waste Activity Audit
Division of Solid Waste Management

BWM/F2102083

Enclosures

cc: Dr. Ruth Neff, Tennessee State Planning Office
Charles Brown, Tennessee State Planning Office
Sally Lewis, TDEC - Information Systems
Greg Harris, TDEC - Information Systems
Randy Harris, TDEC - Jackson Field Office

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF SOLID WASTE MANAGEMENT

WASTE DISPOSED OF IN HENDERSON COUNTY

HAULER	VOLUME T/Y	WASTE DISPOSAL SITE
HLR-39-000-0573 HENDERSON COUNTY LANDFILL DAVID JOWERS P. O. BOX 87 LEXINGTON, TN 38351	1,950 T	SNL 39-101-0236 HENDERSON COUNTY LANDFILL P.O. Box 87 Lexington, TN 38351
HLR-27-000-0289 WASTE MANAGEMENT OF JACKSON 137 LAWRENCE SWITCH ROAD P. O. BOX 1642 JACKSON, TN 38301	681 T	SNL 39-101-0236 HENDERSON COUNTY LANDFILL P.O. Box 87 Lexington, TN 38351



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Division of Solid Waste Management
5th Floor, L & C Tower
401 Church Street
Nashville, TN 37243-1535

May 6, 1993

Mr. Barry Matthews
Executive Director
Southwest Tennessee Development District
416 East Lafayette Street
Jackson, Tennessee 38301

RE: Municipal Solid Waste Reports

Dear Mr. Matthews:

Enclosed, you will find the municipal solid waste reports for the current transporter registration year. Each report contains information reported for all counties in the state.

If you have questions please call me at (615) 532-0780.

Sincerely,

Teri James
Division of Solid Waste Management

/tj

Enclosure

5/04/93

PAGE: 84

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF SOLID WASTE MANAGEMENT

WASTE DISPOSED OF IN HENDERSON COUNTY

HAULER	TYPE	VOLUME (TONS)	WASTE DISPOSAL SITE
HLR-27-000-0289 WASTE MANAGEMENT OF JACKSON 137 LAWRENCE SWITCH ROAD PO BOX 1642 JACKSON, TN 38301	OTHER	2,724	SNL 39-101-0236 HENDERSON COUNTY LANDFILL JAN SMITH PO BOX 87 LEXINGTON, TN 38351-
HLR-39-000-1993 HENDERSON CTY MSW-PROCESSED WA DAVID JOWERS PO BOX 87 LEXINGTON, TN 38351		7,710	SNL 39-101-0236 HENDERSON COUNTY LANDFILL JAN SMITH PO BOX 87 LEXINGTON, TN 38351-

Appendix C.

Public Participation Activities

Lexington
Progress

Legal Notices

Notice

There will be a Public Hearing on Wednesday, April 6, 1994, at 6:30 p.m., at City Hall for the purpose of reviewing plans for the Lexington-Henderson County Solid Waste Region. This is a 10 Year Plan and it is mandated by the Federal Government.

All interested parties are invited to attend.

Dan Hughes, Chairman
Solid Waste Committee

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Request for Proposals for Henderson County Curb Side Pick-up and Transfer of Household Solid Waste

Proposals may be picked up at the County Executive's Office between the hours of 8:00-4:30, Monday-Friday.

Proposals shall be submitted on the form provided by the county. All proposals must be submitted by 10:00 a.m., April 8, 1994, at which time bids will be opened. The county reserves the right to reject any or all proposals or waive any irregularities. Should you have any questions contact Mr. Jan P. Smith at (901) 968-0122.

All proposals must be sealed and clearly marked "Solid Waste Curb Side Pick Up Proposals".

Proposals are to be mailed or delivered to:

Jan P. Smith
Henderson County Executive
P. O. Box 528
Lexington, TN 38351
(901) 968-0122

Invitation to Bid

The Lexington-Henderson County Solid Waste Department will be accepting sealed bids on a sixty (60) mil. plastic liner for the landfill. Material must be sufficient to cover 33,750 square feet. Sealed bids must be received at City Hall by 12:00 noon, on April 6, 1994.

The Solid Waste Department reserve the right to reject any and all bids.

©Lexington Progress 1993 N33094C

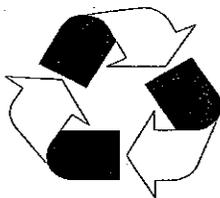
HENDERSON COUNTY

**Public invited to hearing
on solid waste plan**

LEXINGTON — A public hearing to discuss a 10-year plan for dealing with solid waste will be at 6:30 p.m. Wednesday at city hall.

The Lexington-Henderson County Solid Waste Region is developing the plan, because of mandates handed down by the federal government.

Residents with questions regarding solid waste are encouraged to attend the meeting.



HENDERSON COUNTY MUNICIPAL SOLID WASTE REGION

PUBLIC INFORMATION MEETING
10-YEAR SOLID WASTE PLAN
1994-2003

April 6, 1994 6:30 P.M. at Lexington City Hall

AGENDA: 1. Welcome and Introduction

Jan Smith, Henderson County Executive
David Jowers, Lexington Mayor

Board Members:

Dan Hughes, Chairman
Bruce White
Dale Robins
Carl Overman
Noel Blankenship
Bobby Dyer
Jerry Mills

2. Solid Waste Management Act of 1991

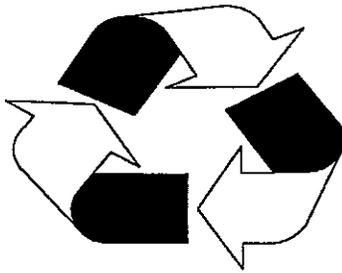
3. Summary and Plan Overview:

- a. Balefill Capacity
- b. Class III/IV Capacity
- c. Waste reduction
- d. Problem wastes
- e. Household hazardous wastes
- f. Rural collection / Convenience centers
- g. Education requirements
- i. Plan adoption and submission

4. Questions and Comment

Further comment or questions are welcome by contacting any of the above or:

Karel Pekarek ph:(901) 668-7112
Southwest Tn Development District
27 Conrad Dr., Suite 150
Jackson, Tn 38305-2850



April 6, 1994 Attendee List

David B. Dow

Louise Duke

James J. Jones

James P. Mason

Kenneth Houston

Martha Peckarek

MARSHALL TYLER

Bruce Matthews (SWTDD)

Karel Peckarek

A. D. Ward

Carl D. Quinn

Tom B. Mills

Frank Buntor

Dan Hughes

Dale Roberts

Bruce White

Walter Green

L.M. Powers

Jim L. Smith

Appendix D.

Exports and Imports

(Not Used)

Appendix E.

Review by Appropriate Municipal or Regional Planning Commission

LANDFILL MEETING MINUTES
April 6, 1994

The Lexington-Henderson County Solid Waste Committee met in a regular session on Wednesday, April 6, 1994, at 6:30 p.m., at City Hall, with the following members present: Dan Hughes, Jerry Mills, Carl D. Overman, L. M. Powers, Dale Robins, A. D. Ward, and Bruce White. Fran Burton, David Jowers, and Jan Smith were also present.

Chairman Hughes called the meeting to order.

A. D. Ward made a motion to approve the minutes of 3/2/94, 3/14/94, and 3/21/94, seconded by L. M. Powers. Motion carried 7 yes.

Carl D. Overman made a motion to approve the expenditures for March, 1994, seconded by Jerry Mills. Motion carried 7 yes.

Bids were opened on 5,200 tons of gravel. Bids were as follows:

Tinker Sand & Gravel	-	\$7.10 per ton
Vulcan Materials	-	\$7.25 per ton
Lavon Duke Trucking	-	\$6.50 per ton
Yates Construction	-	\$6.90 per ton
McClerking Trucking	-	\$7.75 per ton

It has been determined that at this time, approximately 60% of the gravel will be needed. Jerry Mills made a motion to negotiate with the low bidder, Lavon Duke Trucking, for 50%, or possibly more, seconded by Carl D. Overman. Motion carried 7 yes. After explaining this to Mr. Duke, he agreed to deliver the amount of gravel needed at the bid price. Jerry Mills made a motion to accept the low bid of \$6.50 per ton with Lavon Duke Trucking for the amount of gravel needed at the balefill, seconded by Carl D. Overman. Motion carried 7 yes.

Bids were opened on a 60m liner. Bids were as follows:

Environmental Protection	-	\$13,162.50
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Dale Robins made a motion that no action be taken on the liner at this time, seconded by Bruce White. Motion carried 7 yes.

Karel Pekarek, Solid Waste Planner with the Southwest Development District, presented to the committee and interested parties attending the Public Hearing the Solid Waste Region Ten Year Solid Waste Plan. After reviewing this plan, Bruce White made a motion to approve the Solid Waste Region Ten Year Solid Waste Plan and to send it to the County Commission for approval, seconded by Dale Robins. Motion carried 7 yes.

Jimmy Maness brought to the committee's attention that Cummings Diesel agreed to rebuild the engine and fix the hydraulics on the dirtpan for approximately \$4,000.00. Bruce White made a motion that this work be done and for it not to exceed \$4,000.00, seconded by A. D. Ward. Motion carried 7 yes.

There being no further business to be transacted, Chairman Hughes entertained a motion to adjourn. A motion to this effect was made by Carl D. Overman, seconded by Jerry Mills. Motion carried 7 yes.

HENDERSON COUNTY COMMISSION
SPECIAL SESSION
MAY 23, 1994

Be it remembered that the Henderson County Commission met for a Special called session at 7:00 P.M. on May 23, 1994.

On roll call the following Commissioners answered present: Jimmy Lewis, Bill Anderson, Dale Daws, Roy Lee Maness, Jacky Maness, Dan Hughes, Randy Lynn Wood, Roy Reeves and Dale Robins. Chair was present.

Motion made by Dan Hughes, seconded by Roy Reeves to approve the minutes of the April 11, 1994 meeting. Motion carried.

Motion made by Dale Robins, seconded by Jimmy Lewis to approve the transfers and amendments as submitted. Motion carried.

Motion made by Dale Daws, seconded by Dale Robins to adopt the Resolution for a \$120,000 Capital Outlay note for the courthouse renovations. Motion carried.

Motion made by Dale Daws, seconded by Roy Lee Maness to go out for bids on a 12 x 14 portable building for the Public Service Commission to be set up on the interstate. Motion carried by a vote of eight (8) ayes - one (1) nay.

Motion made by Roy Lee Maness, seconded by Roy Reeves to accept \$12,500 net to the County for Parham Funeral Home. No action requires 2/3 of the Commission to vote.

Motion made by Dan Hughes, seconded by Dale Robins to adopt the Solid Waste plan as submitted. Motion carried.

Motion made by Dale Daws, seconded by Roy Lee Maness to approve Lizzie Dee Lane as a new road. Motion carried.

Motion made by Bill Anderson, seconded by Roy Maness to approve Cathie Hampton, Martha J. Pekarek, Nadine R. Garner, Christene Flanagan and Charlie Walker as notaries. Motion carried.

Motion made by Dale Daws, seconded by Roy Lee Maness that this meeting stand adjourned. Motion carried.



JAN P. SMITH, CHAIRMAN



JOHN L. MCPEAKE, CLERK

SOUTHWEST TENNESSEE DEVELOPMENT DISTRICT

Chester Decatur Hardeman Hardin Haywood Henderson Madison McNairy

27 CONRAD DRIVE • SUITE 150 • JACKSON, TENNESSEE 38305-2850
(901) 668-7112 • FAX (901) 668-6971

BARRY K. MATTHEWS
Executive Director

JAN P. SMITH
Chairman

DON W. CLIFFT
Vice Chairman

CHARLES H. FARMER
Secretary-Treasurer

May 25, 1994

Mr. David Bledsoe, Chairman
City of Lexington Planning Commission
539 Teakwood Drive
Lexington, TN 38351

Dear Mr. Bledsoe:

On May 23, 1994, the Henderson County Board of Commissioners approved the ten-year solid waste plan submitted by the Henderson County Municipal Solid Waste Board.

This letter is to inform the City of Lexington Planning Commission that a copy of the plan is available for your review at either the mayors office or at the county executives office.

The law does not require that planning commissions approve or comment on the plan. You are invited however, to review and or comment on this plan should you wish to do so.

The plan will be submitted to Nashville for approval by the TDEC-Division of Solid Waste by June 30, 1994.

Sincerely,



Karel Pekarek, Solid Waste Planner

SOUTHWEST TENNESSEE DEVELOPMENT DISTRICT

Chester Decatur Hardeman Hardin Haywood Henderson Madison McNairy

27 CONRAD DRIVE • SUITE 150 • JACKSON, TENNESSEE 38305-2850
(901) 668-7112 • FAX (901) 668-6971

BARRY K. MATTHEWS
Executive Director

JAN P. SMITH
Chairman

DON W. CLIFFT
Vice Chairman

CHARLES H. FARMER
Secretary-Treasurer

May 25, 1994

Mayor Billy Olive
City of Parkers Crossroads
P.O.Box 115
Wildersville, TN 38388

Dear Mayor Olive:

On May 23, 1994, the Henderson County Board of Commissioners approved the 10-year solid waste plan submitted by the Henderson County Municipal Solid Waste Board.

This letter is to inform the City of Parkers Crossroads Planning Commission that a copy of the plan is available for review at the Lexington city hall or at the county executives office.

The law does not require that planning commissions approve nor comment on the plan. You are invited however to review and/or comment on this plan should you choose to do so.

The plan will be submitted to Nashville prior to June 30, 1994 for approval by the TDEC-Division of Solid Waste.

Sincerely,



Karel Pekarek, Solid Waste Planner