

Fentress County, Tennessee Solid Waste Planning Region



Solid Waste Needs Assessment

**Prepared by:
The Upper Cumberland County Development District, and
Fentress County, Tennessee
December 2010, updated January 2011**

as required by The Solid Waste Management Act (T.C.A. §68-211-811).

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Division of Solid Waste Management
401 Church Street, 8th Floor
Nashville, TN 37243-1533

INTRODUCTION

The Solid Waste Management Act of 1991 requires that local governments comprehensively plan to manage their solid waste through modern, integrated, efficient systems. In order to assure that such planning is carried out on the solid waste foundation of relevant and objective knowledge of local conditions, the Act requires that staff of the Development District coordinate, conduct and maintain a Needs Assessment of each municipal solid waste planning region. This assessment shall be revised every five years [T.C.A. 68-211-811].

The Upper Cumberland Development District staff have compiled the following data to provide an assessment of the solid waste needs in Fentress County. Highlighted in this report are the factors that prohibited the county from increasing its diversion rate. The county was able to divert 35.56% of the total waste created within the region. Also, noted in this report is the strong educational programming that the county has implemented to increase public awareness of the need to reduce the amount of material that is placed in the landfill.

SECTION 1:

DEMOGRAPHIC INFORMATION AND PROJECTION

Fentress County, Demographics, Statistics and General Information:

Fentress County is located approximately 100 miles northeast of Nashville in the northeast section of Central Tennessee. Jamestown and Allardt are the only incorporated towns in Fentress County with Jamestown being the county seat.

TABLE 1.1 Fentress County Historic and Projected Population Trends (2000 thru 2015)

Year	Unincorporated	Allardt	Jamestown	Fentress County
2000	14,145	642	1,838	16,625
2001	14,221	641	1,834	16,696
2002	14,334	644	1,840	16,818
2003	14,366	644	1,838	16,848
2004	14,370	644	1,832	16,848
2005	14,521	650	1,848	17,019
2006	14,795	661	1,878	17,334
2007	14,856	664	1,886	17,406
2008	15,045	672	1,907	17,624
2009	15,090	674	1,913	17,677
2010	15,174	685	1,958	17,817
2011	15,287	692	1,978	17,957
2012	15,398	700	1,999	18,097
2013	15,502	715	2,020	18,237
2014	15,616	720	2,041	18,377
2015	15,730	725	2,062	18,517

Sources: Historic data are from the U.S. Census Bureau. Projections are based on data from the University of Tennessee CBER Data compiled by the Upper Cumberland Development District, 2010.

Fentress County's population growth has been moderate for the past several years. This is primarily due to the large manufacturing job losses. The growth that has occurred has been largely related to retirement. Fentress County is rated #33 on the list of "Top 101 Counties" with the lowest percentage of residents relocating to other counties in 2006.

Read more: http://www.city-data.com/county/Fentress_County-TN.html#ixzz18qoPpPAD

Economic Impact of Increasing Retiree Population

The State of Tennessee has developed a strong program to entice people to retire to the state and Fentress County has many attractive features that will appeal to retirees. According to the U.S. Census Bureau, while the number of people between the ages of 55 and 64 will grow by about 11 million between 2005 and 2025, the number of people who are 25 to 54 years old will grow by only 5 million. Tennessee and the Upper Cumberland should grow in a similar manner, especially for the retiree age population. Although climate is still important, cost of living and health care are now the most important factors for where a retiree will retire.

Using an input-output economic model to analyze the expenditures that each retiree makes and its impact on jobs, it is estimated that a retiree creates one-half to one new job in a community. Planning for and anticipating the increase in a retiree population can address the demands for housing, transportation, health care and retail infrastructure within the county.

Tourism Industry in Fentress County

In 2009, tourism in Fentress County generated \$10.82 million in direct tourist spending; thus, producing \$1.83 million in worker income and creating \$760,000.00 in local tax revenues. (University of Tennessee-Knoxville, Tourism Institute, 2010)

Fentress County is a "Gateway Community" for the Big South Fork National River and Recreational Area, which receives close to 700,000 visitors a year. The county is also known internationally as the birth place of Sergeant Alvin C. York. There are several buildings on the Register of Historic Places located in Fentress County.

Several equestrian communities have been developed in and around **Jamestown, Tennessee** in the past several years, accommodating a burgeoning population of trail riders attracted by the unparalleled riding in the Big South Fork National River and Recreational Area. [East Fork Stables](#) is a horse campground south of Jamestown, renowned for the variety of terrain and topography offered on its own 135 miles of trails, spread out over 12,000 acres.

SECTION 2:

ECONOMIC ACTIVITY WITHIN THE REGION: *Provide a table and chart showing the region's economic profile for all county and municipalities for the last ten (10) years with a projection for the next five (5) years. This can be accomplished by using the following economic indicators: Taxable sales, property tax generation, and per capita income, Evaluation by break down of each economic sector County or municipal budgeting information, Other commonly accepted economic indicators*

SEE ATTACHED ITEM # 2: FENTRESS COUNTY HISTORIC AND PROJECTED ECONOMIC INDICATORS: As the data in Item #2 shows, the Fentress County economy has been and remains weak. The county lost a large number of manufacturing jobs and other sectors have been sluggish. Retail sales and bank deposit growth have been relatively weak and fiscal capacity growth of area governments has been limited.

Item #2

FENTRESS COUNTY HISTORIC AND PROJECTED ECONOMIC INDICATORS

Year	Labor Force Data		Non-farm Wage and Salary Employment						Per Capita Income (\$'s)	Property Tax Collections (\$000's)	Taxable Sales (\$000's)	Total Bank Deposits (\$000's)					
	Total	Emp	Goods Producing		Service Producing		Other	Total					Trade	Health			
			Total	Mfg	Other	Total									Gvt		
2000	6,920	6,390	530	7.7	3,910	1,050	840	210	2,860	860	640	820	520	19,279	2,881	82,394	163,242
2001	6,760	6,150	610	9.0	3,740	810	570	240	2,930	890	670	800	570	20,392	2,860	82,240	176,846
2002	6,950	6,420	530	7.6	3,840	840	600	240	3,000	900	670	820	610	20,224	2,993	87,502	188,601
2003	7,080	6,520	560	7.9	3,880	860	640	220	3,020	890	650	830	650	20,564	3,070	93,274	200,751
2004	7,220	6,730	490	6.8	4,130	960	690	270	3,170	970	690	830	680	22,536	3,231	99,284	198,893
2005	7,120	6,620	500	7.0	4,090	920	630	290	3,170	1,010	650	880	630	23,924	3,382	101,820	219,978
2006	7,620	7,120	500	6.6	4,360	910	600	310	3,450	1,150	740	920	640	23,965	3,506	110,535	233,634
2007	7,740	7,230	510	6.6	4,530	850	530	320	3,680	1,250	790	930	710	25,539	3,671	117,735	256,446
2008	8,040	7,270	770	9.6	4,550	730	460	270	3,820	1,450	750	950	670	26,154	3,786	122,350	263,261
2009	7,940	6,870	1,070	13.5	4,310	560	330	230	3,750	1,480	690	970	610	26,950	3,671	116,933	285,546
2010	7,950	6,900	1,050	13.2	4,340	580	350	230	3,760	1,500	700	970	590	27,652	4,004	116,428	281,448
2011	7,980	6,940	1,040	13.0	4,370	600	370	230	3,770	1,520	720	970	560	28,497	4,128	119,921	298,657
2012	8,010	6,980	1,030	12.9	4,400	620	390	230	3,780	1,540	730	970	540	29,342	4,251	123,519	310,810
2013	8,040	7,020	1,020	12.7	4,430	640	410	230	3,790	1,560	750	970	510	30,186	4,375	127,224	322,963
2014	8,070	7,060	1,010	12.5	4,460	660	430	230	3,800	1,580	770	970	480	31,031	4,499	131,041	335,116
2015	8,100	7,100	1,000	12.3	4,490	680	450	230	3,810	1,600	790	970	450	31,876	4,622	134,972	347,269

Note: Labor force data are based on county of residence. Non-farm wage and salary data are based on county of employment.

Sources: Historic employment data are from the Tennessee Department of Labor and Workforce Development; per capita income data are from the U. S. Bureau of Economic Analysis; retail data are from Tennessee Department of Revenue, and bank deposits are from the FDIC. All projections are by the UCDD staff.

Fentress County Solid Waste
Needs Assessment December 2010

Exhibit A

Fentress County, Tennessee
Statement of Net Assets
June 30, 2009

	Component Units		
	Primary	Fentress	Fentress
	Government	County	County
	Governmental	School	Emergency
	Activities	Department	Communications
		District	
ASSETS			
Cash	\$ 13,048	\$ 0	\$ 577,935
Equity in Pooled Cash and Investments	5,218,871	3,048,545	0
Accounts Receivable	648,926	0	40,861
Allowance for Uncollectibles	(176,173)	0	0
Due from Other Governments	555,496	887,798	0
Prepaid Items	0	0	13,072
Property Taxes Receivable	3,062,349	872,582	0
Allowance for Uncollectible Property Taxes	(118,576)	(31,253)	0
Deferred Charges - Debt Issuance Charges	0	54,559	0
Other Current Assets	0	0	86,262
Capital Assets:			
Assets Not Depreciated:			
Land	5,293,759	411,763	0
Assets Net of Accumulated Depreciation:			
Buildings and Improvements	4,477,477	12,777,265	132,132
Other Capital Assets	1,599,132	1,134,043	199,680
Infrastructure	23,406,199	0	0
Total Assets	<u>\$ 43,980,508</u>	<u>\$ 19,155,302</u>	<u>\$ 1,049,932</u>
LIABILITIES			
Accounts Payable	\$ 0	\$ 0	\$ 23,726
Accrued Payroll	0	0	7,708
Payroll Deductions Payable	0	388,386	3,140
Contracts Payable	0	2,174	0
Accrued Interest Payable	13,845	10,070	0
Cash Overdraft	0	110,552	0
Deferred Revenue - Current Property Taxes	2,779,562	801,797	0
Noncurrent Liabilities:			
Due Within One Year	932,615	436,643	15,012
Due in More Than One Year (net of unamortized premium on debt)	7,851,688	2,704,978	0
Total Liabilities	<u>\$ 11,577,710</u>	<u>\$ 4,454,600</u>	<u>\$ 49,586</u>
NET ASSETS			
Invested in Capital Assets, Net of Related Debt	\$ 33,628,226	\$ 12,308,905	\$ 331,812
Restricted for:			
Debt Service	2,506,295	0	0
Solid Waste/Sanitation	612,380	0	0
Drug Control	38,453	0	0
Highway/Public Works	544,102	0	0
Capital Projects	11,081	0	0
School Federal Projects	0	5,366	0
Central Cafeteria	0	265,117	0
Other Purposes	65,980	1,751,547	0
Unrestricted	<u>(5,003,719)</u>	<u>369,767</u>	<u>668,534</u>
Total Net Assets	<u>\$ 32,402,798</u>	<u>\$ 14,700,702</u>	<u>\$ 1,000,346</u>

The notes to the financial statements are an integral part of this statement.

SECTION 3: WASTE STREAM CHARACTERIZATION: *Elaborate on the entire region's solid waste stream. Compare today's waste stream with anticipated waste stream over the next five (5) years. How will the total waste stream be handled in the next five (5) years? Include in this discussion how problem wastes like waste tires, used oil, latex paint, electronics and other problem wastes are currently handled and are projected to be handled in the next five (5) years. What other waste types generated in this region require special attention? Discuss disposal options and management of these waste streams as well as how these waste streams will be handled in the future. Include in this discussion how commercial or industrial wastes are managed. Also provide an analysis noting source and amounts of any wastes entering or leaving out of the region.*

Regional Solid Waste Stream

The estimated percentages of the total material placed into the waste stream are:

Residential: 92.12%

Commercial: 7.87%

Institutional: 0%

Destination	Tons	(%)
Volunteer Class I Landfill 300 Roberta Lane Oneida, TN 37841-5702	10,051.69	100%
Total	10,051.69	100.0

Recycling Tonnage by Name, Sector, Source, 2009

Material Name	Residential All Programs	Commercial All Programs	Industrial All Programs	Other All Programs	Total
Corrugated	2,008.4	1,146			3,154.4
Class III/IV landfill	300				300
Electronics	25				25
Ferrous	844				844
Glass-mixed	35				35
Industrial By-Products					0
Landscape and Agriculture	360				360
Lead-Acid	12.2	80.1			92.3
Mixed #1 and #2 plastic	68				68
Mixed Metals					0
Mulch	4				4
Newspaper	145				145
Office Paper	1.0				1.0
Other Plastics - #5	6				6
Pallets	38				38
Sewer Sludge	45				45
Tires	386				386
Used Oil	40.9	2.3			43.2
Totals	4,318.5	1,228.4			5,546.9

Fentress County Solid Waste
Needs Assessment December 2010

The Fentress County Solid Waste Department has implemented a plan that addresses the solid waste needs for the region. The plan includes the collection and processing of solid waste, collection and processing of recycling, the collection and processing of litter and the education of citizens and business representatives to ensure that mandatory diversion rates are met.

Solid Waste Program	Existing Regional Solid Waste Programs	Future Regional Solid Waste Programs	Tennessee Mandated Plan
Residential Solid Waste Collection	Fentress County provides eight (8) Convenient Centers to residents	Maintain efficient collection equipment and facilities	County to provide CC Sites for residents according to population or service area, maintain required design and operational standards.
Recycling	Cardboard, newsprint, aluminum and steel cans, mixed paper, electronics, used oil, waste tires, glass bottles, batteries	Increase business and school recyclables collection and expand operations to handle larger volumes	County to provide six (6) CC Sites and Class I landfill and Class III landfill.
Waste Reduction	In 2009 the Fentress County Solid Waste Department did meet their 25% reduction goal.	The County SW department will continue to meet and exceed the 25% reduction goal.	Continue achieving 25% waste reduction goal.
Problem Waste Management	Waste tires continue to be a drain on the resources of the solid waste department. Each year the total amount of tires received increases, in 2009 the County spent over \$30,000 on tire disposal. Also, glass is heavy and time consuming when processing. The department participates in the HHW collection event.	At this time the County does not require a tipping fee for tires, but this issue must be addressed and a plan must be implemented.	County has restrictions related to disposal of tires, paint cans, refrigerators, freezer, fluids, and batteries. County to provide HHW collection events, when state scheduling is provided.
Public Education & Information	The department participates in State and Nationally sponsored events, speaks at local civic group meetings, conducts educational programs within the school system and utilizes local media. In 2009 the department reached approximately 17,600 adults, 2,500 business and industry representatives, 4,000 government and institutional workers and 5,700 children.	The department plans to continue to develop new and innovative programs that will promote their efforts. The department will also continue to participate in State and National events.	Region to develop and implement solid waste management action plan for adults and children.
Disposal	The Fentress County SW department transports waste to the Volunteer Class I Landfill in Oneida, TN	The Fentress Co. SW department will continue to dispose of waste at the Volunteer Class I Landfill	Region to assure 10-year disposal capacity.
Planning	The Fentress County SW department maintains good records and conforms to all mandatory rules concerning	The Fentress Co. SW department plans to hire 2 individuals through a special permit and will allow the	Region to provide Annual Progress Reports, 5-Year Plan Updates, other

Fentress County Solid Waste
Needs Assessment December 2010

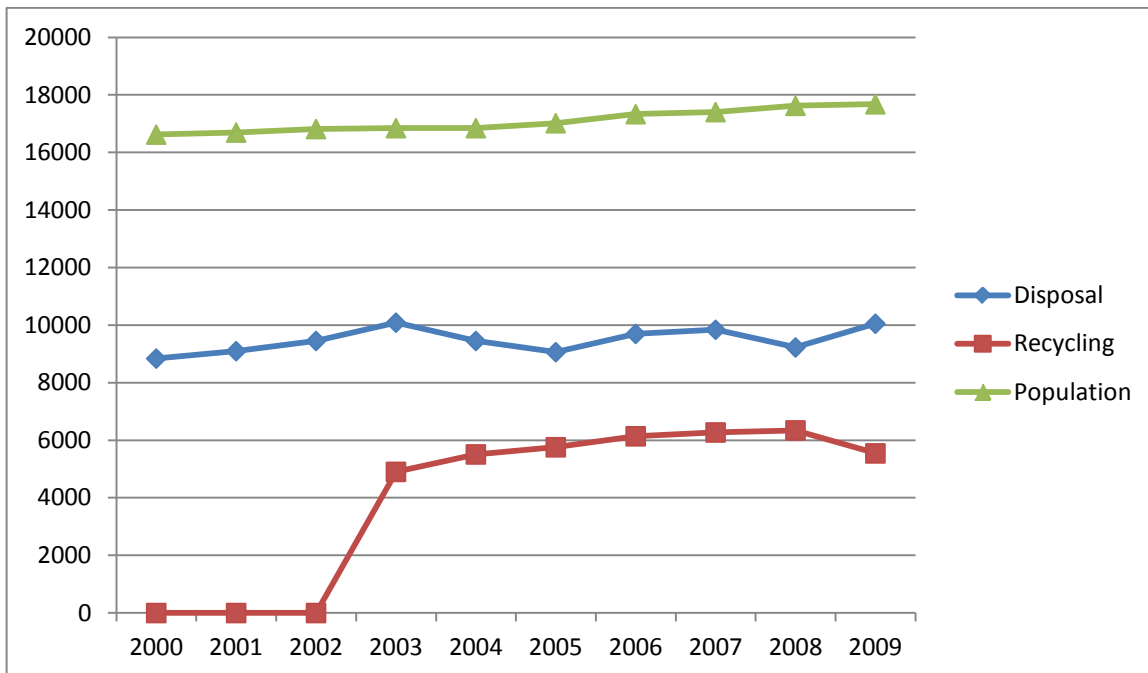
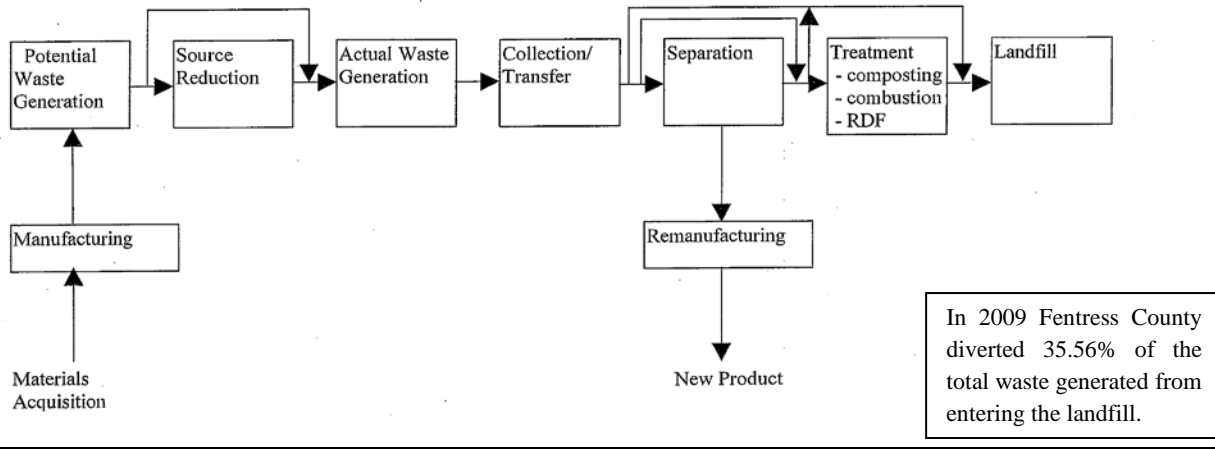
	<p>required reports and updates. Currently the department is planning for an increase in recycling, by applying for a grant to receive (2) additional developmentally challenged workers.</p>	<p>county to operate with lower salaries, thus providing more service to the residents of Fentress County.</p>	<p>reporting requirements as needed.</p>
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------	------------------------------------------

The Fentress County Solid Waste Department will continue to build their solid waste management plan over the next five years to optimize the level of material diverted from the landfill. The county would like to add an addition of 10,000 sq ft to their recycling center in which to store more recyclables and equipment. Also, adding updated equipment such as a baler, 1 ton roll-off truck, ventilated shipping containers for oil base paint storage, a new dump bucket for the forklift, a new bobcat with claw attachment and three 30-yard open-top containers. Estimation for these upgrades will be approximately \$600,000.00, however, these upgrades will improve the efficiency of the program and increase recycling. Their motto is “Plant Pride not Litter”, it drives their program and their efforts to educate their citizens about the need take an active role in diverting material from the landfill. Currently free recycling pick-up is available for businesses, schools, government departments and high volume citizens. As the department educates the residents, the demand for this service will continue to grow and the use of community service workers to sort the material will help increase the total diversion rate. The department will continue to utilize mass media, printed material, participation in national recycling and waste clean-up programs, and positive reinforcement through the use of prizes.

SECTION 4: REGIONAL COLLECTION SYSTEMS

Describe in detail the waste collection system of the region and every county and municipality. Provide a narrative of the life cycle of solid waste from the moment it becomes waste (loses value) until it ceases to be a waste by becoming a useful product, residual landfill material or an emission to air or water. Label all major steps in this cycle noting all locations where wastes are collected, stored or processed along with the name of operators and transporters for these sites.

Solid Waste and Recycling Collection Services/ Fentress County Regional Solid Waste Life-Cycle



Convenience Centers and Roadside Dumps

Woodyard Transfer Station #1
3275 South York Hwy.
Jamestown, TN 38556
931-879-5988, Scotty Crouch
Monday – Saturday
6:00am – 6:00pm
Transfer Station, collects recyclables

Fairgrounds Convenience Center #2
515 Fairgrounds Road
Jamestown, TN 38556
931-879-3838, Mickey Brown
Sunday 1:00pm – 4:00pm
Monday – Saturday - 6:00am – 6:00pm
Collects recyclables

Clarkrange Convenience Center #3
6800 South York Hwy.
Clarkrange, TN 38553
931-863-3303, Billy Richards
Monday, Friday & Sat. – 7:00am – 6:00pm
Wednesday – 11:00am – 6:00pm
Collects recyclables

Grimsley Convenience Center #4
119 Conatser Road
Grimsley, TN 38565
931-863-5349, Ricky Price
Tuesday, Thursday & Fri. 6:00am – 6:00pm
Saturday – 9:00am – 6:00pm
Collects recyclables

Mt. Helen Convenience Center #5
4029 Stockton Road
Jamestown, TN 38556
931-879-1177, Danny Beaty
Tuesday, Thursday & Sat. – 7:00am – 6:00pm
Collects recyclables

Highway 154 Convenience Center #6
2075 Pickett Park Highway
Jamestown, TN 38556
931-879-6580, Freddie Carter
Tuesday, Thurs. & Sat. – 7:00am – 6:00pm
Collects recyclables

West Fentress Convenience Center #7
3128 Livingston Highway
Jamestown, TN 38556
931-879-1089, Tollie King
Tuesday, Thursday & Sat. – 11:00am – 6:00pm
Collects recyclables

Pall Mall Convenience Center # 8
3280 North York Highway
Pall Mall, TN 38577
931-879-1712, Keith Counatser
Tuesday, Thurs. & Sat. – 11:00am – 6:00pm
Collects recyclables

GREEN BOX LOCATION: 3 BOXES
1017 Vines Ridge Road, Wilder, TN

RECYCLING DROP OFF LOCATIONS:

Wal-Mart (store 167), Jamestown – paper, glass, plastic & metals
Burnett’s Groceries, Allardt – paper, glass, plastic & metals
Save-A-Lot Foods, Jamestown – paper, glass, plastic, metals

Roadside Dumps Reported

<u>Location</u>	<u>List of Materials that makeup these roadside dumps</u>	<u>Tons</u>
Powerline Road	Construction and shingles	Recently Discovered
City Lake Road	construction debris, shingles and TV’s	Recently Discovered

The Fentress County Solid Waste Department has seven convenience centers, one transfer station, one green box location and three recycling drop off locations. Each convenience center and the transfer station accept recycling during regular business hours. For residents who wish to recycle after hours,

the recycling drop off locations are always accessible. Residential solid waste collected at the County Sanitation Department sites is hauled by front-end loading trucks for disposal at the Volunteer Class I Landfill located in Oneida, a privately owned and operated landfill. Fentress County pays \$36.80/ton for disposal. Annual disposal costs are over 21% of the county’s annual solid waste budget. Fentress County relies on all waste reduction efforts, with special emphasis on recycling, to help reduce landfill disposal costs.

SECTION 5: REGIONAL SOLID WASTE REDUCTION GOAL

The Solid Waste Management Act of 1991 states that all regions must reduce the amount of waste going into Class I landfills by 25%. Amendments to the Act allow for consideration of economic growth, and a “qualitative” method in which the reduction rate is compared on a yearly basis with the amount of Class I disposal. Provide a table showing reduction rate by each goal calculation methodology. Discuss how the region made the goal by each methodology or why they did not. If the Region did not meet the 25% waste reduction goal, what steps or infrastructure improvements should be taken to attain the goal and to sustain this goal into the future.

TABLE 5.1 Measurement of Regional Waste Reduction Goal

County	Waste Reduction Goal Calculation Method			
	Compared to Base Year	Population Ratio	Economic-Population Ratio	Qualitative- Real Time
Fentress	2%	2%	-5%	36%

Source: TDEC, Division of Solid Waste Management, Division of Solid Waste Assistance Program, 4/2010.

Variables Affecting Successful Regional Waste Reduction Efforts in Fentress County:

The Solid Waste Department of Fentress County has implemented many programs to increase the amount of waste being diverted from the landfill. In this rural area, with its economic and educational challenges they should be commended for the level of participation by the residents.

In 2009, several factors caused an increase in the amount of material being placed in the landfill. The largest being the construction on the York Institute school building. An historic preservation grant was awarded to perform a renovation on the school to ensure that it will remain structurally sound. This caused an increase in construction material to be delivered to the landfill. A portion of this construction material was Asbestos, which required special handling and disposal.

Although the county did not meet their personal goals, they did meet the state’s mandated reduction goals. Their educational efforts and their comprehensive solid waste diversion plan have increased in scope and have garnered statewide attention. The plan addresses several areas of collection that the typical rural solid waste department does not, including baling of clothing, the chipping of organic debris and the reuse of C & D material.

Future Regional Waste Reduction Program in Fentress County:

The Fentress County Solid Waste Department will continue to build their solid waste management plan to optimize the level of material diverted from the landfill. Their motto of “Plant Pride not Litter” is the key to their program and their efforts to educate their citizens about the need take an active role in diverting material from the landfill.

Currently free recycling pick-up is available for businesses, schools, government departments and high volume citizens. As the department educates the residents, the demand for this service will continue to grow and the increase in community service worker labor to sort the material will help increase the total diversion rate.

The department will continue to utilize mass media, printed material, participation in national recycling and waste clean up programs, and positive reinforcement through the use of prizes. As the department continues to saturate the community with the “Plant Pride not Litter” message their hope is to affect the change needed to increase diversion rates in the county.

SECTION 6: SOLID WASTE DISPOSAL CAPACITY

Provide a chart indicating current collection and disposal capacity by facility site and the maximum capacity the current infrastructure can handle at maximum throughput. Provide this for both Class I and Class III/IV disposal and recycled materials. Identify and discuss any potential shortfalls in materials management capacity whether these are at the collection or processor level.

Table 6.1: 10-year Regional Disposal Assurance in Fentress County in 2009

Site Name(s)	Annual Tons Disposed by Fentress County Region	Current Landfill Capacity (daily throughput)	Maximum Capacity	Projected Life of Facility
Volunteer Class I Landfill 300 Roberta Lane Oneida, TN 37841-5702	10,051.69	1,000	N/A	29 years remaining

Recycling Tonnage by Name, Sector, Source, 2009

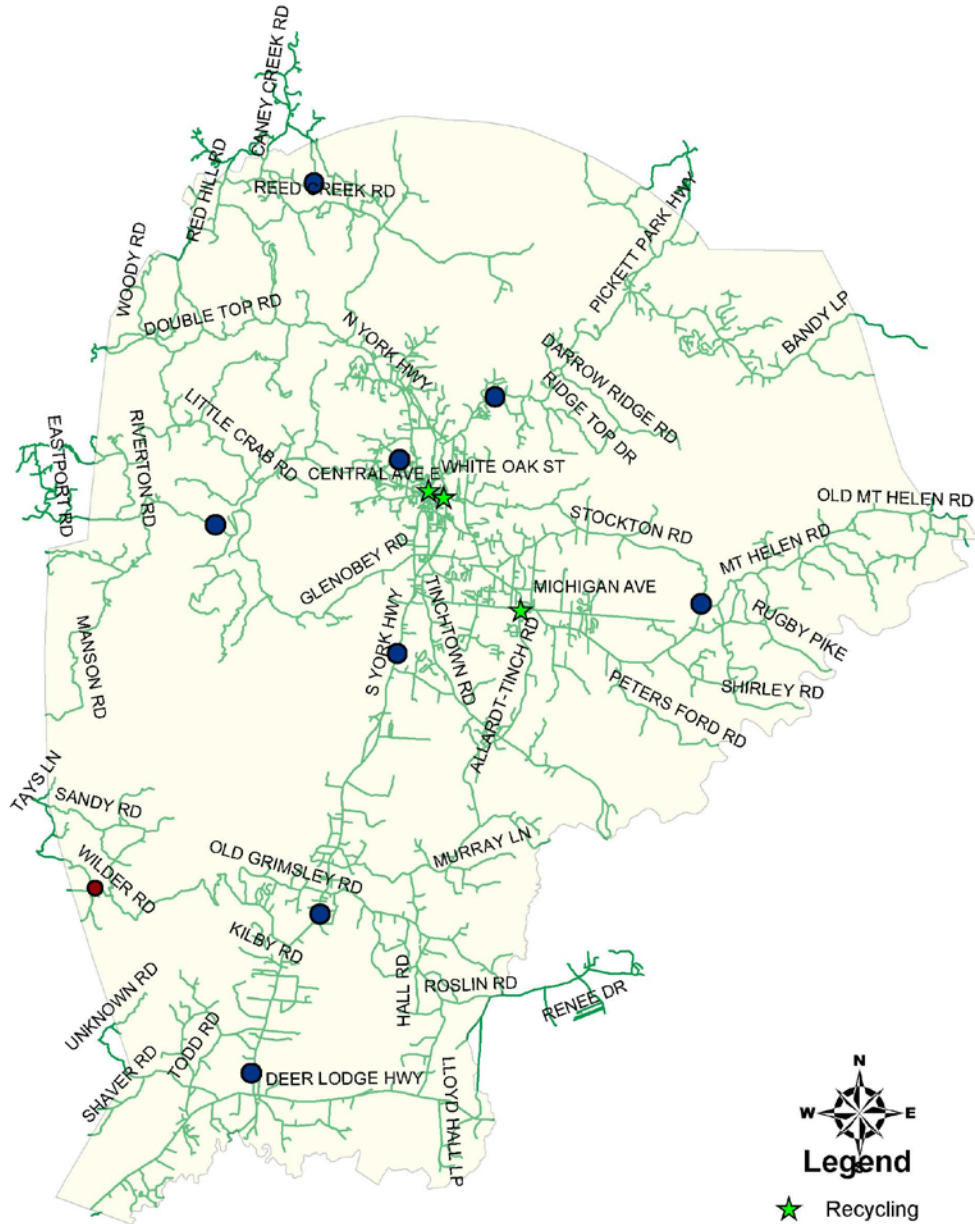
Material Name	Residential All Programs	Commercial All Programs	Industrial All Programs	Other All Programs	Total
Corrugated	2,008.4	1,146.0	0	0	3,154.4
Pallets	38.0	0	0	0	38.0
Electronics	25.0	0	0	0	25.0
Ferrous	844.0	0	0	0	844.0
Recycled C & D (not landfilled)	300.0	0	0	0	300.0
Landscape and Agriculture	360.0	0	0	0	360.0
Latex Paint	0	0	0	0	
Lead-Acid	12.2	80.1	0	0	92.3
Mixed #1 and #2	68.0	0	0	0	68.0
Mixed Metals	0	0	0	0	
Mulch	4.0	0	0	0	4.0
Newspaper	145.0	0	0	0	145.0
Office Paper	1.0	0	0	0	1.0
Other Plastic (#5)	6.0	0	0	0	6.0
Mixed Glass	35.0	0	0	0	35.0
Sewer Sludge	45.0	0	0	0	45.0
Tires	386.0	0	0	0	386.0
Used Oil/Automotive Fluids	40.9	2.3	0	0	43.2
Totals	4,318.4	1,228.4	0	0	5,546.9

The Fentress County Solid Waste Department diverted 5,546.9 of potential waste from the landfill in 2009. This constituted 35.56% of potential waste generated within Fentress County. Residential recycling was 27.68% of total waste diverted, while 7.88% of waste diverted was from the commercial sector in Fentress County.

Fentress County Solid Waste Department	Fentress County and the City of Jamestown, TN	Population: 17, 677	Convenience Centers, Transfer Station, Green Boxes, Recycling Drop-off & Pick up	Total Solid Waste and Recycling, 2009 15,598.59	Recycling 35.56%
-----------------------------------------------------------	----------------------------------------------------------------------	-------------------------------------	-------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------	-----------------------------

Due to the unexpected remodeling of the York Institute Historical Building, the amount of waste entering the landfill was increased for the 2009 calendar year. This was an anomaly and the Fentress County Solid Waste Department expects to return to projected totals in 2010.

Fentress County Solid Waste System



0 1.5 3 6 Miles



Map produced by: Upper Cumberland Development District
December 28, 2010

- Legend**
-  Recycling
 -  Green_Box
 -  Conv_Center
 -  county
 -  fentress_rds

TABLE 6.2: Population Served for City and County Convenience Center Site, Provider, Service Area, Population Service, Tons Collected

2009					
Fentress County, TN					
Provider of Service	Service Area	Available Service for 2009 Population Total	Frequency of Service (Weekly, Bi-weekly, on call, etc.)	Estimated Annual Tons Collected	Type Service (Curbside, Convenience Center, Green Box) or Door to Door
Woodyard Transfer Station #1	Jamestown	17,677	Drop-off	4506	Transfer Station
Fairgrounds Convenience Center #2	Jamestown	4,800	Drop-off	2490	Convenience Center
Clarkrange Convenience Center #3	Clarkrange	3,500	Drop-off	676	Convenience Center
Grimsley Convenience Center #4	Grimsley	2,200	Drop-off	364	Convenience Center
Mt.Helen Convenience Center #5	Jamestown	1,800	Drop-off	180	Convenience Center
Highway 154 Convenience Center #6	Jamestown	1,000	Drop-off	90	Convenience Center
West Fentress Convenience Center #7	Jamestown	1,000	Drop-off	90	Convenience Center
Pall Mall Convenience Center # 8	Pall Mall	877	Drop-off	27	Convenience Center
GREEN BOX ES: (3) Wilder Tennessee 1017 Vines Ridge Road	Jamestown	400	Drop-off	27	Green Boxes
TOTAL TONNAGE				8,480	
<u>RECYCLING DROP OFF</u> Wal-Mart (store 167), Jamestown Burnett's Groceries, Allardt Save-A-Lot Foods, Jamestown All collect the following: paper, glass, plastic, metals	5,547	17,677	Drop-off		Recycling Drop-off only
Pickett State Park	Pickett County	(not in Fentress County)	Upon call	1,500	Pick-up
Private Haulers	None				

SECTION 7: SOLID WASTE MANAGEMENT INFRASTRUCTURE: 2009

Complete the chart below and discuss unmet financial needs to maintain current level of service. Provide a cost summary for current year expenditures and projected increased costs for unmet needs.

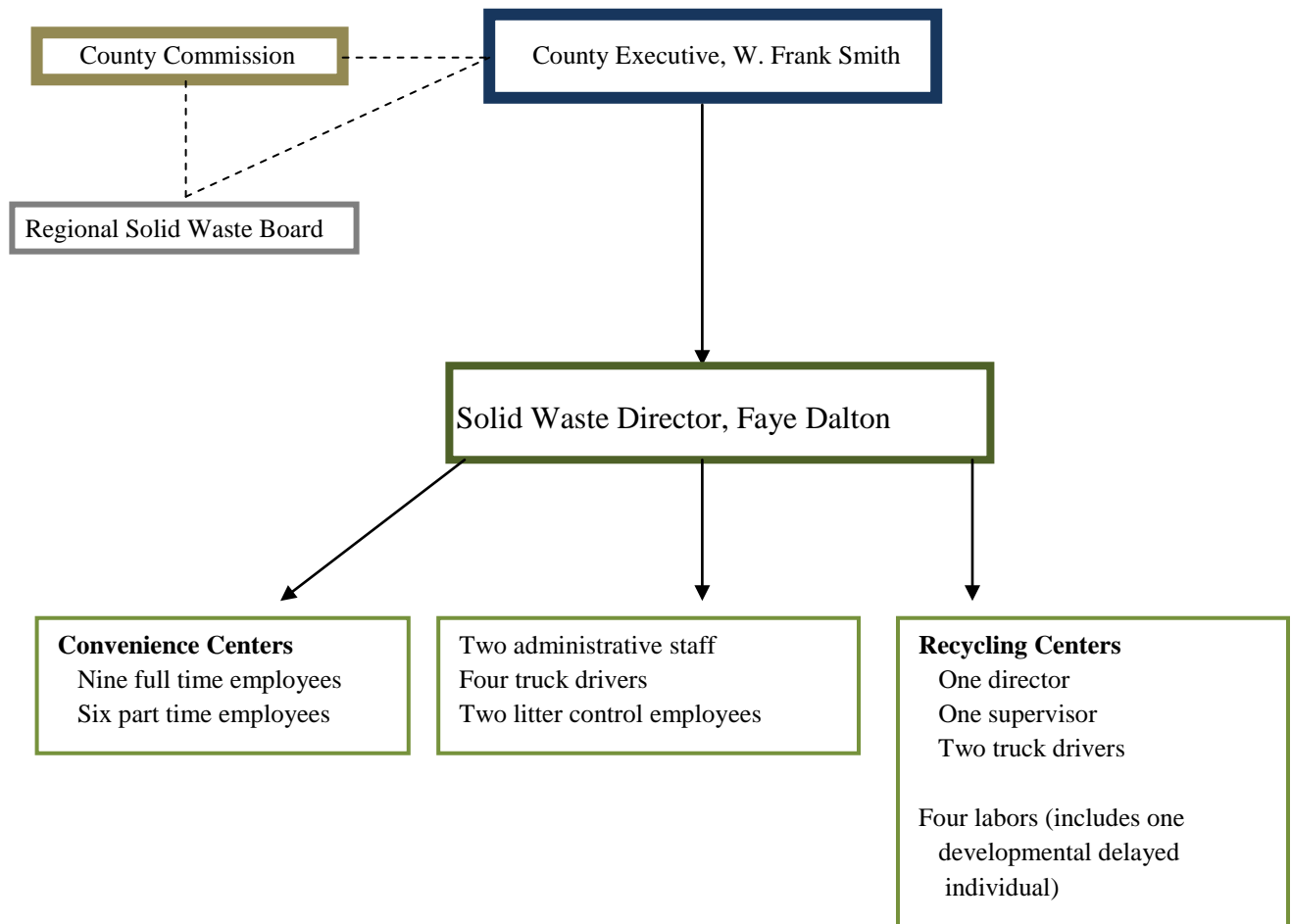
The chart below lists present needs and expenses as well as projected unmet needs and expenses for the Fentress County Solid Waste Department. The county has projected solid waste needs over the next five years to include the following: Horizontal Baler \$50,000.00, an additional 10,000 sq. ft. building that would supply the extra storage space for recycling materials as well as equipment for a cost of \$450,000. Also, a one ton roll-off truck, \$75,000. Due to the collection of oil base paint, county would need ventilated shipping containers at \$3,000, and a dump bucket for the forklift at \$2,000. Other equipment needs are a new bobcat with claw attachment at \$65,000, remotes for the pull up doors at the MRF facility at \$1,500 and 3 (30) yard open top containers at \$18,000. Also needed are office equipment to include a computer, printer and copy machine at \$4,500.00.

Description	Present Need \$/year	Total Needs (Present + Unmet) \$/year
Salary and Benefits	93,279.00	93,279.00
Transportation/hauling	558,092.00	558,092.00
Collection and Disposal Systems		
Equipment		219,000.00
Sites		450,000.00
Convenience Centers & Transfer Station	417,029.00	417,029.00
Recycling Center	294,778.00	294,778.00
Problem Waste Centers	5,500.00	5,500.00
Landfills		
Site		
Operation	398,000.00	398,000.00
Closure		
Post Closure Care	10,200.00	10,200.00
Administration (supplies, communication costs, etc.)	12,380.00	12,380.00
Education	11,000.00	11,000.00
Highways litter/Trash Collection	5,000.00	5,000.00
Contracted Services	55,217.00	55,217.00
Host agreement fee		
Tipping fees	192,000.00	192,000.00
Property taxes	325,184.00	325,184.00
Sales tax	630,000.00	630,000.00
Surcharges		
Disposal Fees		
Collection charges		
Industrial or Commercial charges		
Residential charges		
Convenience Centers charges		

Transfer Station charges		
Fines, Forfeitures and Penalties	38,200.00	38,200.00
Other sources: Sale of recyclables	45,000.00	45,000.00
Other Sources: Solid Waste Grant	292,500.00	292,500.00
Other Sources: Litter Program Grant	29,000.00	29,000.00
TOTALS	3,412,359.00	4,081,359.00

SECTION 8: Provide organizational charts of each county and municipality's solid waste program and staff arrangement. Identify needed positions, facilities, and equipment that a fully integrated solid waste system would have to provide at a full level of service. Provide a scale county level map indicating location of all facilities including convenience centers, transfer stations, recycling centers, waste tire drop-off sites, used oil collection sites, paint recycling centers, all landfills, etc. Identify any short comings in service and note what might be needed to fill this need.

Regional Solid Waste Organizational Structure



SECTION 9: Identify all current revenue sources by county and municipality that are used for materials and solid waste management. Project future revenue needs from these categories and discuss how this need will be met in the future. Use example in Chart 7 as an example to present data.

Revenues

Local Taxes	\$630,000.00
Property Taxes	\$325,184.00
Tipping Fees	\$192,000.00
Sale of Recyclable Materials	\$ 45,000.00
Solid Waste Grants	\$321,500.00
TOTAL	\$1,513,684.00

Equipment Table 9.1

Equipment Description	A. Amount	B. Total Number Needed	C. Total Amount A x B = C
Van/Box Truck	\$30,000.00	1	\$30,000.00
E-Z Roll Off Truck	\$60,000.00	1	\$60,000.00
Roll-Off Containers	\$20,000.00	1	\$20,000.00
Fork Lift	\$35,000.00	1	\$35,000.00
TOTAL AMOUNT:	\$145,000.00	4	\$145,000.00

Facilities

TABLE 9.2 Future Waste Management Facility Construction and Upgrades

FENTRESS COUNTY			
Facility	Facility Betterments	Estimated Cost (2011)	Potential Revenue Source
Convenience Center Collection Site Development			
All eight convenience centers	Small Structures with metal roof and no sides for recyclables.	\$1,600.00	grant
Recycling and Existing Convenience Center Sites			
n/a			

TABLE 9.3 Planned Solid Waste Management System

Solid Waste Program	Existing Regional Solid Waste Programs	Future Regional Solid Waste Programs	Tennessee Mandated Plan
Residential Solid Waste Collection	Fentress County provides eight (8) Convenient Centers to residents	Maintain efficient collection equipment and facilities	County to provide CC Sites for residents according to population or service area, maintain required design and operational standards.
Recycling	Cardboard, newsprint, aluminum and steel cans, mixed paper, electronics, used oil, waste tires, glass bottles, batteries	Increase business and school recyclables collection and expand operations to handle larger volumes	County to provide six (6) CC Sites and Class I landfill and Class III landfill.
Waste Reduction	In 2009 the Fentress County Solid Waste Department did not meet their 25% reduction goal, due to a large building rehabilitation project	Waste reduction will be lower than 2009. The 25% reduction goal was not met last year due to asbestos present in a county building.	Continue achieving 25% waste reduction goal.
Problem Waste Management	Waste tires continue to be a drain on the resources of the solid waste department. Each year the total amount of tires received increases, in 2009 the County spent over \$30,000 on tire disposal. Also, glass is heavy and time consuming when processing. The department participates in the HHW collection event.	At this time the County does not require a tipping fee for tires, but this issue must be addressed and a plan must be implemented.	County has restrictions related to disposal of tires, paint cans, refrigerators, freezer, fluids, and batteries. County to provide HHW collection events, when state scheduling is provided.
Public Education & Information	The department participates in State and Nationally sponsored events, speaks at local civic group meetings, conducts educational programs within the school system and utilizes local media. In 2009 the department reached approximately 17,600 adults, 2,500 business and industry representatives, 4,000 government and institutional workers and 5,700 children.	The department plans to continue to develop new and innovative programs that will promote their efforts. The department will also continue to participate in State and National events.	Region to develop and implement solid waste management action plan for adults and children.
Disposal	The Fentress County SW department transports waste to the Volunteer Class I Landfill in Oneida, TN	The Fentress Co. SW department will continue to dispose of waste at the Volunteer Class I Landfill	Region to assure 10-year disposal capacity.
Planning	The Fentress County SW department maintains good records and conforms to all mandatory rules concerning required reports and updates. Currently the department is planning for an increase in recycling, by applying to receive two additional developmentally challenged workers.	The Fentress Co. SW department plans to hire 2 individuals through a special permit and will allow the county to operate with lower salaries, thus providing more service to the residents of Fentress County.	Region to provide Annual Progress Reports, 5-Year Plan Updates, other reporting requirements as needed.

SECTION 10: *Describe current attitudes of the region and its citizens towards recycling, waste diversion, and waste disposal in general. Where recycling is provided, discuss participation within the region. Indicate current and ongoing education measures to curb apathy or negative attitude towards waste reduction. Are additional measures needed to change citizen's behaviors? If so, what specific behaviors need to be targeted and by what means?*

Current and On-Going Education Measures to Increase Public Participation:

The Fentress County Solid Waste Education Program hosts many events throughout the year which includes the following examples for 2009:

Pinehaven Elementary students collected 5 pounds of “top caps” from aluminum cans. This was presented to Farm Bureau Insurance Company, who will donate these caps to the Ronald McDonald House.

The County held their 12th annual Aluminum Can Drive and collected 1,984 pounds from 16 classes at local schools.

The Solid Waste Director held a presentation at the local library in which she read to the children about how the “Little Green Monster” learns to reduce, reuse and recycle.

The department partnered with the Jamestown Head-Start centers to hand out litter materials, in an attempt to train the younger children to develop good recycling habits.

The County Solid Waste Department conducts clothing drives yearly and donates items collected to the Good Samaritans.

The Clarkrange High School and the Fentress County School System hosted the annual TNACHE Bus tour to hand out Stop Litter back packs, hats and calendars.

The local radio stations, WDEC and WCLC, both broadcasted a recycling trivia event that provided prizes of Stop Litter T-Shirts.

The use of multiple media sources to deliver the message of the importance to reduce, recycle and reuse is one step towards developing a comprehensive solid waste strategy. The plan includes reaching all age groups from pre-school to adults. Each program is designed for its targeted audience, with multiple activities overlapping to ensure that participants are fully immersed in the message.

The department participates in many national programs that enhance their own efforts, through printed material, media spots and brand identification. These events include: The Great American Clean Up, Earth Day, The Aluminum Can Drive, Recycling Awareness Month, America Recycles Day and the Household Hazardous Waste Collection Day. This year Wal-Mart provided a grant to the department to utilize for the America Recycles Day. The Solid Waste Department paid students at participating schools .55 cents per pound for aluminum can and the class that collected the most cans received an additional \$100.00 donation.

Education will continue to be the cornerstone of the Fentress County Solid Waste Plan. Through their efforts, the citizens will become more receptive to their responsibility of diverting material from the landfill.

SECTION 11: *Discuss this region's plan for managing their solid waste management system for the next five (5) years. Identify any deficiencies and suggest recommendations to eliminate deficiencies and provide sustainability of the system for the next five (5) years. Show how the region's plan supports the Statewide Solid Waste Management Plan.*

The Fentress County Solid Waste Department, with input from the governing board and the County Commission evaluate their past accomplishments and failures during planning sessions each year. Each month the department provides a report to the Fentress County Commission to ensure that the yearly goals are being met or re-evaluated. After several years of steady progress in diverting material, educating their residents and finding new markets for their recyclable they do not believe the setback of the York Institute rehabilitation will affect future efforts.

Over the last few years the Fentress County Solid Waste Department has received several grants that have enabled them to build a new recycling building and purchase new equipment. These items have enhanced their recycling capabilities and it is their hope that they will be able to acquire the following equipment in the future.

Future Waste Management Equipment Needs

FENTRESS COUNTY			
Equipment	Operational Use	Estimated Cost (2009)	Potential Revenue Source
Van/Box Truck	All Conv. Ctr. Sites	\$30,000.00	Grants/Recyclable Sales
E-Z Roll Off Truck	All Conv. Ctr. Sites	\$60,000.00	Grants/Recyclable Sales
Roll-Off Containers	All Conv. Ctr. Sites	\$20,000.00	Grants/Recyclable Sales
Fork Lift	All Conv. Ctr. Sites	\$35,000.00	Grants/Recyclable Sales
			\$145,000.00

The Fentress County Solid Waste Department plans to hire two additional individuals through a program that allows developmentally challenged individuals to be worked at a lower salary. This will allow the department to process more material at their recycling center.

Conclusion:

After reviewing prior solid waste data and speaking with key stakeholders, it is the opinion of the Upper Cumberland Development Districts that the Fentress County Solid Waste Department has implemented a sound plan to address the important solid waste issues in their region.

According to several national studies on how to encourage citizens to participate in recycling, education is the key. It is more important than socio-economic, demographic, and urbanization factors when determining whether a community will recycle. It is the opinion of the UCDD staff that Fentress County's educational program will be the key to increase waste diversion and will determine if they continue to meet their mandated goals.