

GIBSON COUNTY SOLID WASTE PLANNING REGION

Solid Waste Needs Assessment

November, 2010

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
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INTRODUCTION

In an effort to coordinate and plan for safe, efficient solid waste disposal in the state, the Tennessee General Assembly enacted several pieces of legislation, which are compiled in Title 68, Chapter 211 of the *Tennessee Code Annotated*. To comply with the requirements of this chapter, all local governments must engage in specified planning and organizational activities (See the Solid Waste Management Act of 1991, T.C.A. §§ 68-211-801 through 68-211-874).

Regional Solid Waste Management Planning

To begin implementation of the Solid Waste Management Act, counties were instructed to form solid waste regions (single or multi-county) and establish a solid waste board. Each region was required to formulate a 10-year plan for collection and disposal of solid waste in the area and submit this plan to the Tennessee Department of Environment and Conservation. Each municipal solid waste region must submit an annual progress report and 5-Year Plan Update (T.C.A. § 68-211-814). The plan, and any revised plan, submitted by each region must be consistent with the state solid waste plan and with all relevant state laws and regulations.

At a minimum, each plan must contain the following items:

- Demographic information and projections;
- Analysis of economic activity in the Region;
- Characterization of the waste stream;
- Projection of solid waste generation;
- Evaluation of collection systems within the Region;
- Current system analysis of waste streams, collection capability, disposal capability, costs, and revenues;
- Description of waste reduction activities designed to attain the required 25 percent reduction in solid waste;
- Description of education initiatives designed to achieve the goals stated in the statute; and
- Any other information the commissioner of the Department of Environment and Conservation deems relevant.

In order that the regional planning effort is implemented on a solid foundation of relevant and objective knowledge of local conditions, the Act requires the Development Districts to coordinate, conduct and maintain a Needs Assessment for each solid waste region. This Assessment shall be revised every five years.

SECTION 1:

DEMOGRAPHIC INFORMATION AND PROJECTION

Provide a table and chart showing the region's population for the last ten (10) years with a projection for the next five (5) years. Provide a breakdown by sub-table and sub-chart, or some similar method to detail all county and municipality populations. Discuss projected trends and how it will affect solid waste infrastructure needs over the next five (5) years.

Population Trends in Gibson County

Since the last U.S. Census in 2000, Gibson County's population has increased approximately 2.7%. The population in 2000 was 48,152 and the estimated population in 2009 was 49,468. As shown in Table 1.1 on the following page, Gibson County's population is very steady. Between 2001 and 2003, the population decreased slightly each year, but began to gradually recover and increase slightly each following year.

The U.S. Census Bureau is projecting that Gibson County's population will increase slightly in the next five years. The projection is less than 100 persons. Since the unemployment rate in Gibson County has increased dramatically in the last year, this projection should be accurate.

Based on the latest U.S. Census Bureau statistics, 17% of Gibson County's population is 65 years of age and older and 23.2% is under the age of 18. These figures account for just over 40% of Gibson County's total population. More than 50% of the total population is between the ages of 25 – 64.

If the population projections hold true, Gibson County's solid waste disposal should only increase very slightly. As funding allows, Gibson County has plans to open a convenience center for citizens to dispose of their MSW. The county also has plans to either rent or construct a facility to provide more recycling avenues to the citizens.

Each year, Gibson County expands its recycling program. Currently, the Gibson County Convenience Center on Manufacturers Row collects metals, paper, cardboard, and electronic waste. Just down the street, the Gibson County Highway Department collects used oil. Each year, Gibson County applies to the State to host a Household Hazardous Event. The county will continue to promote recycling and reuse to maintain the real-time waste diversion goal.

TABLE 1.1 Historic and Projected Population Trends (1999 thru 2015)

Year	County Population	Bradford	Dyer	Gibson	Humboldt	Medina	Milan	Rutherford	Trenton	Yorkville	Unincorporated
1999	48,030	1,165	2,227	348	9,696	669	7,501	1,285	4,972	367	19,800
2000	48,152	1,111	2,403	420	9,439	987	7,889	1,271	4,704	293	18,884
2001	48,001	1,100	2,382	423	9,379	981	7,845	1,263	4,662	292	18,922
2002	47,908	1,090	2,421	423	9,326	976	7,799	1,253	4,632	291	18,949
2003	47,690	1,078	2,401	422	9,259	969	7,828	1,245	4,589	289	18,868
2004	47,792	1,074	2,390	420	9,237	1,113	7,787	1,245	4,577	289	18,919
2005	47,856	1,067	2,399	418	9,181	1,299	7,765	1,236	4,554	288	18,909
2006	48,022	1,060	2,394	417	9,128	1,505	7,799	1,226	4,521	287	18,945
2007	48,435	1,064	2,388	415	9,064	1,856	7,816	1,240	4,493	286	19,072
2008	49,148	1,067	2,404	416	9,113	2,107	7,892	1,250	4,512	288	19,356
2009	49,468	1,068	2,402	416	9,136	2,267	7,928	1,253	4,510	289	19,455
2010	49,284	1,065	2,395	414	9,140	2,269	7,920	1,252	4,515	291	20,023
2011	49,264	1,062	2,386	410	9,158	2,272	7,885	1,252	4,529	295	20,015
2012	49,294	1,059	2,362	409	9,176	2,274	7,857	1,251	4,538	297	20,071
2013	49,330	1,057	2,340	408	9,194	2,276	7,836	1,251	4,542	298	20,128
2014	49,355	1,056	2,332	407	9,219	2,278	7,824	1,250	4,548	298	20,143
2015	49,375	1,054	2,324	406	9,238	2,280	7,811	1,250	4,550	300	20,162

Sources: Historic data and projections are based on data from the U.S. Census Bureau.

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

Economic Profile of Gibson County

As shown on Table 2.2 on the following page, the Gibson County economy is weak when compared to the state and national averages. Unemployment rates have ranged from a low of 6.4% in 1999 to a high of 14.8% in 2009. The highest unemployment rate for any given month was in January 2010 when the rate was 16.2%.

As of August 2010, the unemployment rate in Gibson County was 12.7%. It is estimated that the unemployment rate will increase because one of the largest employers in the county has announced plans to move its operations.

The average total wages in all industries in Gibson County was \$29,621, which is significantly lower than the state average of \$36,146 and the national average of \$40,259.

The top ten county manufacturers are listed in the following table:

TABLE 2.1 Gibson County Top 10 Manufacturers

Manufacturer	Product	# Employed
Ceco	Steel doors and frames	600
American Ordnance	Missile warheads	522
Kongsberg Automotive Inc.	Furniture; motor vehicle parts	320
Smurfit Stone Container Corp.	Corrugated containers	211
DURA Automotive Systems	Motor vehicle brake systems & parts	200
Dana Corporation	Truck Axles	200
America Woodmark	Cabinets	120
Esterline Defense Co.	Flares	115
Con-Agra	Ice Cream Toppings	75
Chicago Metallics	Cookware	50

TABLE 2.2 Gibson County Historic and Projected Economic Indicators

Labor Force Data					Non-Farm Wage and Salary Employment									Per Capita Income	Total Retail Sales
Year	Total	Emp.	Unemployed		Total	Goods Producing			Service Producing						
			Total	Rate(%)		Total	Mfg	Other	Total	Trade	Health	Govt.	Other		
1999	21,320	19,960	1,360	6.4%	18,020	8,400	7,600	800	9,620	2,660	1,350	2,500	3,110	\$21,574	\$349,712,830
2000	21,350	19,900	1,450	6.8%	18,150	7,940	7,240	700	10,210	3,060	1,470	2,560	3,120	22,341	347,281,723
2001	20,920	18,940	1,980	9.5%	16,860	6,640	6,010	630	10,220	3,170	1,400	2,600	3,050	22,492	344,300,565
2002	20,530	18,610	1,920	9.4%	16,170	6,010	5,410	600	10,160	2,990	1,430	2,630	3,110	22,823	367,468,640
2003	21,950	20,030	1,920	8.7%	15,840	5,570	4,940	630	10,270	3,060	1,550	2,610	3,050	24,609	366,061,947
2004	21,570	19,810	1,770	8.2%	15,870	5,350	4,760	590	10,520	3,220	1,520	2,660	3,120	24,697	377,669,482
2005	20,910	19,130	1,780	8.5%	15,040	4,750	4,140	610	10,290	3,220	1,500	2,610	2,960	25,299	369,503,577
2006	21,080	19,450	1,630	7.7%	14,970	4,380	3,680	700	10,590	3,430	1,520	2,650	2,990	25,833	423,199,755
2007	20,850	19,340	1,510	7.2%	14,820	4,200	3,530	670	10,620	3,370	1,500	2,790	2,960	27,919	460,504,939
2008	21,180	19,140	2,040	9.6%	14,710	3,950	3,290	660	10,760	3,390	1,500	2,890	2,980	28,780	458,905,029
2009	21,380	18,220	3,160	14.8%	14,100	3,470	2,840	630	10,630	3,390	1,510	2,880	2,850	28,800	421,420,047
2010	20,550	17,550	3,000	14.6%	13,490	2,995	2,360	635	10,495	3,085	1,480	2,870	3,060	28,810	420,555,475
2011	20,545	17,535	3,010	14.7%	13,480	2,990	2,355	635	10,490	3,080	1,480	2,870	3,060	28,820	419,650,350
2012	20,540	17,525	3,015	14.7%	13,470	2,985	2,350	635	10,485	3,075	1,480	2,870	3,060	28,830	419,101,225
2013	20,440	17,422	3,018	14.8%	13,460	2,980	2,345	635	10,480	3,070	1,480	2,870	3,060	28,840	418,228,280
2014	20,430	17,415	3,015	14.8%	13,450	2,975	2,340	635	10,475	3,065	1,480	2,870	3,060	28,850	418,000,985
2015	20,425	17,410	3,015	14.8%	13,440	2,970	2,335	635	10,470	3,060	1,480	2,870	3,060	28,860	417,850,500

Sources: Historic employment data are from the Tennessee Department of Labor and Workforce Development, per capita income data is from the U. S. Bureau of Economic Analysis, and retail data is from the Tennessee Department of revenue. All projections are by the NWTDD staff.

SECTION 3:

SOLID 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.

Current MSW Stream

Gibson County is one of three counties within the CDG Solid Waste Region. The other two counties are Crockett and Dyer. In the most recent CDG Solid Waste Annual Progress Report (2009), the total MSW stream for Gibson County was reported as 72,115 tons. This amount consisted of 30,736 tons disposed in Class I landfills, 16 tons being disposed of in III/IV landfills, and 41,363 tons being recycled.

A large portion of the MSW stream is due to the residents of Gibson County. It is estimated that the citizens make up 40% of the MSW stream. The remaining MSW stream is estimated to be 20% commercial, 15% institutional, and 25% industrial.

TABLE 3.1 Regional Solid Waste Stream Disposal for 2010 – 2015

Class I Disposal Site	Reported Year (APR 2009)	Projected Year					
	2009	2010	2011	2012	2013	2014	2015
MSW disposed in NW TN Disposal Corp. Class I Landfill located in Obion County	11,947	11,953	11,956	11,959	11,962	11,965	11,968
MSW disposed in West Camden Class I Landfill located in Benton County	1,541	1,543	1,545	1,546	1,547	1,549	1,550
MSW disposed in Madison County Class I Landfill located in Madison County	16,224	16,227	16,230	16,232	16,235	16,236	16,238
MSW disposed in Dyersburg Municipal Class I Landfill located in Dyer County	1,024	1,025	1,026	1,027	1,028	1,029	1,030
Total Regional Waste Disposal	30,736	30,748	30,757	30,764	30,772	30,779	30,786

The five-year projections for waste disposal in Gibson County are provided in the table above. These estimates are based on minimal annual increases to coincide with the slight population increases that were projected in Section 1 of this assessment.

Gibson County will continue to try and expand its current recycling programs at the convenience center. Currently, the county offers cardboard, paper, metals, and electronic

recycling at the center. Used oil is collected at the Gibson County Highway Department. Gibson County has shown a reduction in MSW going to Class I landfills for the past three years. The county hopes to continue to reduce this amount of Class I disposal.

Regional Solid Waste Management

The table on the next page describes how the region's total waste stream is managed currently and how it will be managed in the next 5 years. Gibson County and its municipalities and the businesses are all listed separately.

TABLE 3.2 Waste Stream Management

Jurisdiction or Sector	Solid Waste Stream Collection	Solid Waste Disposal Options	Present Problem Waste Handling	Future Problem Waste Handling 2010-2015	Other Problem Waste Types
Gibson County Including Yorkville	<p>Residential solid waste Door-to-door waste pickup available throughout county</p> <p>Local businesses Subscription service</p>	Northwest TN Disposal Corp., Inc. Class I Landfill located in Obion County as primary waste disposal facility for unincorporated residents of Gibson County and local businesses	<p>Waste tires: Waste tire contract</p> <p>Used oil: Highway Department</p> <p>Automobile fluids: Local Businesses</p> <p>Latex paint: HHW Event</p> <p>Electronics: Convenience Center</p>	<p>Waste tires: Waste tire contract</p> <p>Used oil: Highway Department</p> <p>Used oil filters: Local Businesses</p> <p>Automobile fluids: Local Businesses</p> <p>Latex paint: HHW Event</p> <p>Electronics: Convenience Center</p>	HHW collected at mobile collection events. Due to limited statewide mobile collection site scheduling, no regional approach has been developed to handle HHW. A regional approach to handle HHW could be evaluated by the Northwest Development District. Planned program discussions can be scheduled in the near future.
Bradford	Solid waste curbside collection fee service for city residents.	West Camden Class I Landfill located in Benton County as primary waste disposal facility for residents of Bradford and local businesses	Provided by Gibson County	Provided by Gibson County	Provided by Gibson County
Dyer	Solid waste curbside collection fee service for city residents.	Northwest TN Disposal Corp., Inc. Class I Landfill located in Obion County as primary waste disposal facility for residents of Dyer and local businesses	Provided by Gibson County	Provided by Gibson County	Provided by Gibson County
Gibson	Solid waste curbside collection fee service for city residents.	Madison County Class I Landfill located in Madison County as primary waste disposal facility for residents of Gibson and local businesses	Provided by Gibson County	Provided by Gibson County	Provided by Gibson County
Humboldt	Solid waste curbside collection fee service for city residents.	Madison County Class I Landfill located in Madison County as primary waste disposal facility for residents of Humboldt and local businesses	Provided by Gibson County	Provided by Gibson County	Provided by Gibson County
Medina	Solid waste curbside collection fee service for city residents.	Madison County Class I Landfill located in Madison County as primary waste disposal facility for residents of Medina and local businesses	Provided by Gibson County	Provided by Gibson County	Provided by Gibson County
Milan	Solid waste curbside collection fee service for city residents.	Madison County Class I Landfill located in Madison County as primary waste disposal facility for residents of Milan and local businesses	Provided by Gibson County	Provided by Gibson County	Provided by Gibson County
Rutherford	Solid waste curbside collection fee service for city residents.	Northwest TN Disposal Corp., Inc. Class I Landfill located in Obion County as primary waste disposal facility for residents of Rutherford and local businesses	Provided by Gibson County	Provided by Gibson County	Provided by Gibson County
Trenton	Solid waste curbside collection fee service for city residents.	Dyersburg Municipal Class I Landfill located in Dyer County as primary waste disposal facility for residents of Trenton and local businesses	Provided by Gibson County	Provided by Gibson County	Provided by Gibson County
Business	<p>Subscription service provided by:</p> <p>Contracts with private haulers, and</p> <p>Direct haul by business.</p>	Northwest TN Disposal Corp., Inc. Class I Landfill located in Obion County as primary waste disposal facility for residents of Gibson County and local businesses	<p>Available service provided by:</p> <p>In-house business programs and Contractors</p>	<p>Available service provided by:</p> <p>In-house business programs and Contractors</p>	Hazardous waste generated from commercial and industrial businesses is regulated by TDEC, Division of Solid Waste Management, and Hazardous Waste Section.

Wastes Entering or Leaving the County

Gibson County does not operate nor own a Class I landfill. No wastes from other areas enter the county. In 2009, a total of 30,736 tons of MSW was sent to four different Class I landfills. The table below illustrates where the MSW was disbursed.

TABLE 3.3 Wastes Leaving Gibson County

Class I Landfill	County Location	Tonnage
Northwest TN Disposal Corp.	Obion County	11,947
West Camden Landfill	Benton County	1,541
Madison County Landfill	Madison County	16,224
Dyersburg Municipal Landfill	Dyer County	1,024
Total		30,736

Source: TDEC 2009 Solid Waste Origin Report

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.

County and city government throughout the United States are struggling to develop efficient and cost-effective plans for managing their MSW. County has an excellent system in place and plans to continue this system into the future.

Gibson County

Gibson County has door-to-door waste pick up service contracted through Barker Brothers. This service is available to 100% of the rural residents. Through this contract, the rural citizens pay a price of \$15.31 per household.

Gibson County has one convenience center but MSW is not collected there. Only electronic waste, paper, metals, and tires are collected at this location. The operating hours of the convenience center are 8 a.m. to 4 p.m. Monday through Friday. There are also several other private recyclers that operate within Gibson County.

Municipalities

There are nine municipalities in Gibson County. Eight of the municipalities contract with either Barker Brothers or Waste Management for door-to-door solid waste collection for their residents. The Town of Yorkville is covered under the county's contract with Barker Brothers. The fees each municipality charges vary from a low of \$10.25 per month to a high of \$19 per month. The Town of Trenton is the only municipality to offer public recycling options.

The table below illustrates all locations where wastes are collected and stored along with the name of operators and transporters for these sites.

TABLE 4.1 Regional Collection Systems

Jurisdiction	Transporter	Class I Landfill
Gibson County	Barker Brothers, Inc.	Northwest TN Disposal Corp.
Bradford	Waste Management, Inc.	West Camden Landfill
Dyer	Barker Brothers, Inc.	Northwest TN Disposal Corp.
Gibson	Waste Management, Inc.	Madison County Landfill
Humboldt	Barker Brothers, Inc.	Madison County Landfill
Medina	Waste Management, Inc.	Madison County Landfill
Milan	Waste Management, Inc.	Madison County Landfill
Rutherford	Barker Brothers, Inc.	Northwest TN Disposal Corp.
Trenton	Waste Management, Inc.	Dyersburg Municipal Landfill

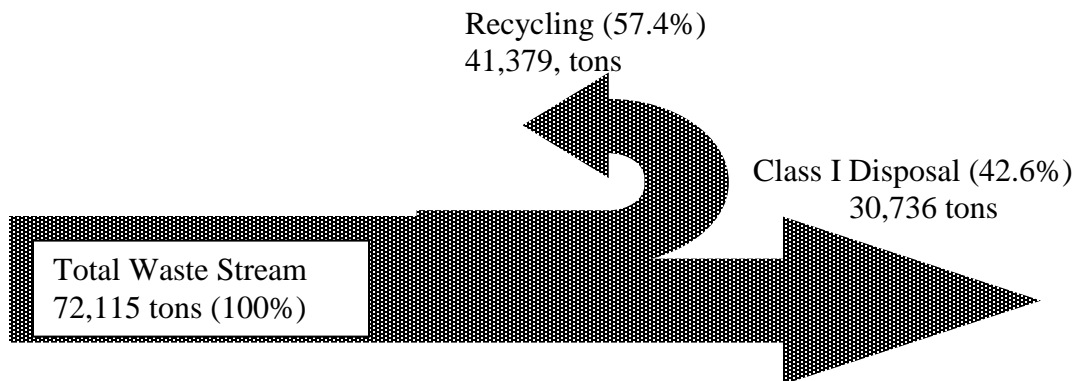
Gibson County recycles several different commodities. The table below shows these commodities and what processors are utilized.

TABLE 4.2 Gibson County Commodities and Processors

Commodities	Processor	Location
Paper/Aluminum Cans	Hub City	Jackson, TN
Cardboard/Books	Yorkville Recycling	Trenton, TN
Mixed Metals	Trenton Recycling	Trenton, TN
Tires	Mac Tires	Nashville, TN
E-Waste	Creative Recycling	Nashville, TN

Flow Diagram of Gibson County Total Annual Regional Waste Stream

The figures shown in the flow diagram below were taken from the 2009 Gibson County Solid Waste Annual Progress Report.



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
Gibson County	-158%	-158%	-212.4%	57.4%
25% Waste Reduction Goal Achieved	No	No	No	Yes

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

Variables Affecting Regional Waste Reduction Efforts

The main reason Gibson County cannot meet three of the four waste reduction goal calculation methods is because the base year figures cannot be accurate. There are several reasons these figures are inaccurate.

1. Most existing disposal contracts in the 1990’s established fees based on cubic yards and reporting tonnage figures required estimating how many cubic yards of waste weighed a ton.
2. The landfill operators depend on the customer to accurately report the origin of the MSW. There was no system in place in 1995 to determine if the origin was accurate. Currently, the customer is still the first source of information for the landfill operators to initiate the reporting process to TDEC.

Gibson County did meet the Qualitative – Real Time Method of waste reduction by showing a real time diversion rate of 57.4%. Most of the recycling was completed by private entities but the county and two municipalities did divert almost 3,000 tons of materials from the Class I landfills. The CDG Solid Waste Director has been instrumental in helping Gibson County with its recycle program.

Future Regional Waste Reduction Program

Gibson County will continue to expand its recycling program. One way to expand the program will be to apply for available grants. In 2009 and again in 2010, the CDG Solid

Waste Director applied for a Recycling Equipment Grant for a skid steer to be utilized in all three counties to load and unload recyclable materials.

A building is needed to store recyclable materials. Currently, the materials are stored outside. Even though this area is covered, the weather plays a large factor in the collection of these materials. This need is current but funding is not available at the current time.

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 through put. 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 Gibson County in 2009/10

Site Name(s)	Annual Tons Disposed by Gibson County*	Solid Waste Permit #	Current Disposal (daily throughput)	Maximum Disposal Capacity (daily throughput)	Projected Life of Facility
West Camden Sanitary Landfill located in Benton County	1,541	SNL 03-0247	2,300 tons per day	5,000 tons per day	25+ years remaining life
Madison County Landfill located in Madison County	16,224	SNL 57-0239	2,000 tons per day	4,000 tons per day	25+ years remaining life
NW Tennessee Disposal Corporation located in Obion Co.	11,947	SNL 66-0143	2,200 tons per day	5,000 tons per day	25+ years remaining life
Dyersburg Municipal Landfill located in Dyer County	1,024	SNL 23-0218	170 tons per day	500 tons per day	25+ years remaining life

Source: West Camden Landfill, Madison Co. Landfill, NW Tennessee Disposal Corp., Dyersburg Municipal Landfill, October 2010

*Note: Annual tonnage disposed includes Municipalities and Businesses

No potential shortfalls in materials management capacity at the collection or processor level are foreseen.

Provide a chart or other graphical representation showing public and private collection service provider area coverage within the county and municipalities. Include provider's name, area of service, frequency of collection, yearly tons collected, and the type of service provided.

TABLE 6.2 Public and Private Collection Service in Gibson County in 2009

Service Provider	Service Area*	Frequency of Service (Weekly, Bi-weekly, on call, etc.)	Estimated Average Annual Tons Collected*	Type Service (Curbside, Convenience Center, Green Box)
Gibson County Unincorporated & Yorkville	County-wide	Weekly	12,262	Residential curbside Local business subscription
Bradford	City residents Local business subscription	Weekly	762	Residential curbside Local business subscription
Dyer	City residents Local business subscription	Weekly	1,589	Residential curbside Local business subscription
Gibson	City residents Local business subscription	Weekly	258	Residential curbside Local business subscription
Humboldt	City residents Local business subscription	Weekly	5,764	Residential curbside Local business subscription
Medina	City residents Local business subscription	Weekly	1,406	Residential curbside Local business subscription
Milan	City residents Local business subscription	Weekly	5,015	Residential curbside Local business subscription
Rutherford	City residents Local business subscription	Weekly	880	Residential curbside Local business subscription
Trenton	City residents Local business subscription	Weekly	2,800	Residential curbside Local business subscription
Total			30,736	

SECTION 7:**UNMET FINANCIAL NEEDS**

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.

TABLE 7.1 Expenditures and Revenues for Gibson County for 2010/11

Expenditures	
Description	Amount
Sanitation Management	\$ 46,277
Other Waste Disposal	44,000
Total Expenditures	\$ 90,277
Revenues	
Tipping Fees	\$ 3,600
Waste Tire Grant	44,000
Other Governments	23,501
Transfer from General Fund	19,176
Total Revenues	\$ 90,277

Gibson County receives funds from Crockett County and Dyer County to pay part of the CDG Solid Waste Director's salary. Gibson County pays the rest of his salary and other budget items such as travel, supplies, etc. Since the county does not have a convenience center that accepts MSW, no funds are expended for waste disposal. Gibson County contracts with Barker Brothers, Inc. for waste disposal. The residents are responsible for paying the fee for this service. During this fiscal year, residents are charged \$15.31 per month for weekly collection service. A skid steer is needed in order for Gibson County to expand its recycling efforts. The county has applied twice for a recycling equipment grant for this equipment.

TABLE 7.2 Expenditures and Revenues for the Town of Bradford for 2010/11

Expenditures	
Description	Amount
Waste Disposal	\$ 70,080
Total Expenditures	\$ 70,080
Revenues	
Collection Charges	\$ 70,080
Total Revenues	\$ 70,080

Bradford provides residential curbside collection and commercial subscription service for approximately 1,070 residents. The Town of Bradford charges the citizens \$10.25 per month for weekly waste collection and contracts with Waste Management for waste disposal.

TABLE 7.3 Expenditures and Revenues for the City of Dyer for 2010/11

Expenditures	
Description	Amount
Waste Disposal	\$ 163,560
Total Expenditures	\$ 163,560
Revenues	
Collection Charges	\$ 163,560
Total Revenues	\$ 163,560

The City of Dyer provides residential curbside collection and commercial subscription service for approximately 2,400 residents. Dyer charges the citizens \$11 per month for weekly waste collection and contracts with Barker Brothers, Inc. for waste disposal.

TABLE 7.4 Expenditures and Revenues for the Town of Gibson for 2010/11

Expenditures	
Description	Amount
Waste Disposal	\$ 30,000
Total Expenditures	\$ 30,000
Revenues	
Collection Charges	\$ 40,000
Total Revenues	\$ 40,000

Gibson provides residential curbside collection and commercial subscription service for approximately 415 residents. The Town of Gibson charges the citizens \$19 per month for weekly waste collection and contracts with Waste Management for waste disposal.

TABLE 7.5 Expenditures and Revenues for the City of Humboldt for 2010/11

Expenditures	
Description	Amount
Waste Disposal	\$ 761,483
Total Expenditures	\$ 761,483
Revenues	
Collection Charges	\$ 761,538
Total Revenues	\$ 761,538

The City of Humboldt provides residential curbside collection and commercial subscription service for approximately 9,140 residents. Humboldt charges the residents \$18 per month for weekly waste collection and contracts with Barker Brothers, Inc. for waste disposal.

TABLE 7.6 Expenditures and Revenues for the Town of Medina for 2010/11

Expenditures	
Description	Amount
Waste Disposal	\$ 283,670
Total Expenditures	\$ 283,670
Revenues	
Collection Charges	\$ 276,500
Total Revenues	\$ 276,500

Medina provides residential curbside collection and commercial subscription service for approximately 2,270 residents. The Town of Medina charges the residents \$15 per month for weekly waste collection and contracts with Waste Management for waste disposal.

TABLE 7.7 Expenditures and Revenues for the City of Milan for 2010/11

Expenditures	
Description	Amount
Sanitation Salaries/Benefits	\$ 110,600
Sanitation Contracts	672,000
Sanitation Other Expenses	249,200
Landfill Salaries/Benefits	78,964
Landfill Other Expenses	112,100
Landfill I Closure	21,000
Landfill II Closure	4,600
Total Expenditures	\$ 1,248,464
Revenues	
Sanitation Collection Charges	\$ 938,000
Sanitation Interest Earned	1,850
Landfill Refuse Disposal	100,000
Landfill Interest Earned	900
Landfill Transfer from other funds	100,000
Total Revenues	\$ 1,140,750

The City of Milan provides residential curbside collection and commercial subscription service for approximately 7,930 residents. Milan charges the residents \$16 per month for weekly waste collection and contracts with Waste Management for waste disposal.

The City of Milan also operates a C&D Landfill. Metals are recycled at this landfill and compost is offered to the public.

TABLE 7.8 Expenditures and Revenues for the Town of Rutherford for 2010/11

Expenditures	
Description	Amount
Solid Waste Disposal	\$ 85,000
Total Expenditures	\$ 85,000
Revenues	
Collection Charges	\$ 85,000
Total Revenues	\$ 85,000

Rutherford provides residential curbside collection and commercial subscription service for approximately 1,250 residents. The Town of Rutherford charges the residents \$11.54 per month for weekly waste collection and contracts with Barker Brothers, Inc. for waste disposal.

TABLE 7.9 Expenditures and Revenues for the City of Trenton for 2010/11

Expenditures	
Description	Amount
Salaries/Benefits	\$ 270,474
Landfill Charges	165,000
Utilities	13,100
Other Expenses	60,150
Total Expenditures	\$ 508,724
Revenues	
Collection Charges	\$ 520,000
Interest Earned	100
Miscellaneous Revenues	36,000
Total Revenues	\$ 556,100

Trenton provides residential curbside collection and commercial subscription service for approximately 4,510 residents. The City of Trenton charges the residents \$13.50 per month for weekly waste collection and contracts with Waste Management for waste disposal. The Trenton Sanitation Department provides the door-to-door collection service, and Waste Management picks up the MSW all at one time.

The City of Trenton has a contract with Doxicom Consulting for recycling purposes. Once a week, the City of Trenton goes door-to-door to collect recyclable materials.

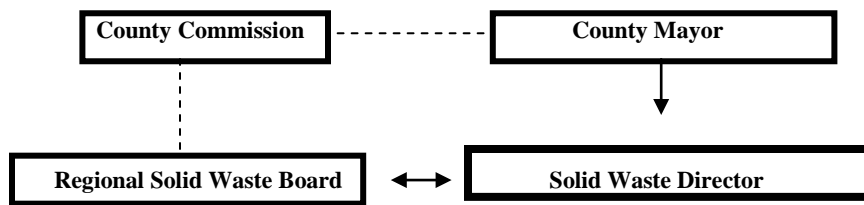
SECTION 8:

SOLID WASTE MANAGEMENT INFRASTRUCTURE

Provide organizational charts of each county and municipality’s solid waste program and staff arrangement. Provide a scale county level map indicating location of all existing facilities including convenience centers, transfer stations, recycling centers, waste tire drop-off sites, used oil collection sites, paint recycling centers, all landfills, etc. Identify all current revenue sources by county and municipality that are used for materials and solid waste management. Identify needed positions, facilities, and equipment that a fully integrated solid waste system would have to provide at a full level of service. Project future revenue needs from these categories and discuss how this need will be met in the future.

Gibson County

An organizational chart is provided below for operations of the Gibson County Solid Waste Department.



Future Solid Waste Infrastructure Development Needs

As stated throughout this document, Gibson County needs a skid steer to load and unload the recyclable materials that are currently being collected.

Gibson County needs to have a convenience center that will accept MSW. Currently, the only option to legally dispose of MSW is to have a subscription with one of the waste haulers. Some people do not want to subscribe with anyone, so the MSW is either dumped beside the roads or taken to another county. If a convenience center is built, part of it could be used for recycling purposes.

The table listed below provides a list of the future needs for Gibson County to continue to operate an integrated solid waste management program. The costs listed below are estimates only and should be considered a baseline for future planning.

TABLE 8.1 Future Solid Waste Needs

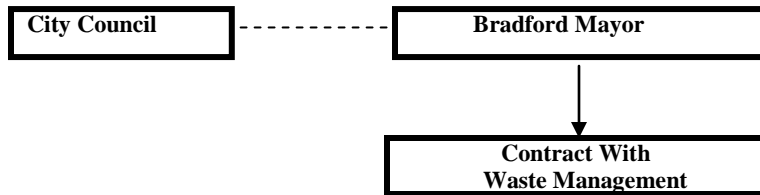
Need	Estimated Cost	Potential Revenue Source
Skid Steer	\$ 25,000	Grants
Roll Off Containers	\$ 10,000	Grants
Convenience Center/Warehouse	\$ 125,000	Grants

Municipalities

All of the municipalities contract directly with either Barker Brothers, Inc. or Waste Management for waste disposal. Two of the municipalities offer recycling services. The City of Trenton offers door-to-door collection for recyclables, and the City of Milan will accept metals at the C&D landfill.

Bradford

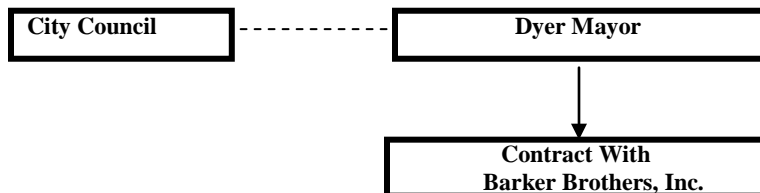
The Town of Bradford provides residential curbside collection and commercial subscription service for approximately 1,070 customers. The city does not provide recycling collection services. An organizational chart for the Town of Bradford is provided below.



No positions are funded out of the Bradford Solid Waste Budget. The city contracts directly with Waste Management for waste disposal. Bradford residents pay \$10.25 per month for collection service and the commercial rates vary.

Dyer

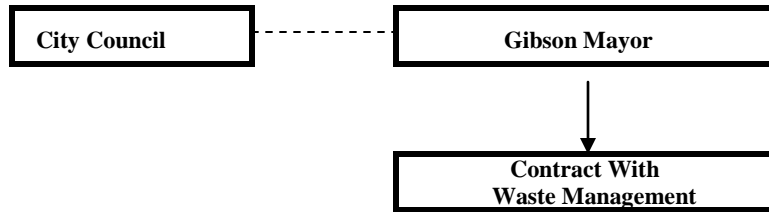
The City of Dyer provides residential curbside collection and commercial subscription service for approximately 2,400 customers. The city does not provide recycling collection services. An organizational chart for the City of Dyer is provided below.



No positions are funded out of the Dyer Solid Waste Budget. The city contracts directly with Barker Brothers, Inc. for waste disposal. Dyer residents pay \$11 per month for collection service and the commercial rates vary.

Gibson

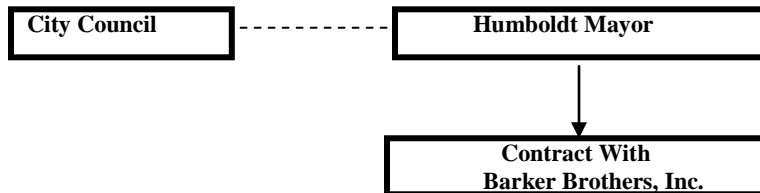
The Town of Gibson provides residential curbside collection and commercial subscription service for approximately 415 customers. The city does not provide recycling collection services. An organization chart for the Town of Gibson Sanitation Department is provided below.



The Town of Gibson funds no positions out of the Solid Waste Budget. Gibson residents pay \$19 per month for collection service and the commercial rates vary.

Humboldt

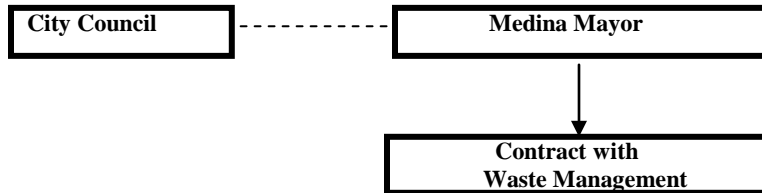
The City of Humboldt provides residential curbside collection and commercial subscription service for approximately 9,140 customers. The city does not provide recycling collection services. An organizational chart for the City of Humboldt is provided below.



No positions are funded out of the Humboldt Solid Waste Budget. The city contracts directly with Barker Brothers, Inc. for waste disposal. Humboldt residents pay \$18 per month for collection service and the commercial rates vary.

Medina

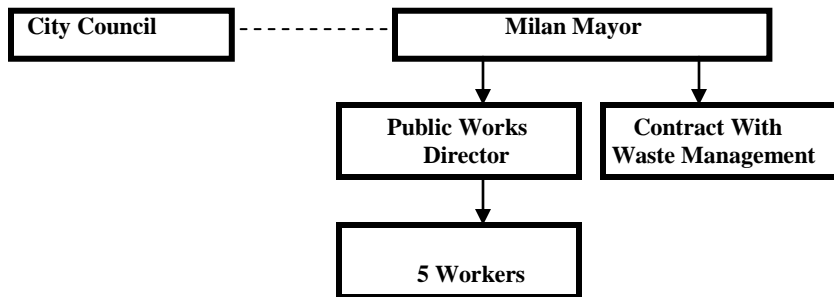
The Town of Medina provides residential curbside collection and commercial subscription service for approximately 2,270 customers. The city does not provide recycling collection services. An organizational chart for the Town of Medina is provided below.



No positions are funded out of the Medina Solid Waste Budget. The city contracts directly with Waste Management for waste disposal. Medina residents pay \$15 per month for collection service and the commercial rates vary.

Milan

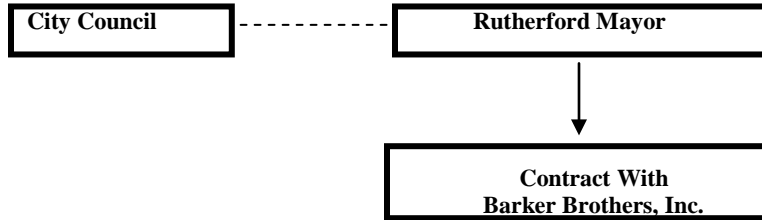
The City of Milan provides residential curbside collection and commercial subscription service for approximately 7,930 customers. The city provides recycling collection services at the C&D Landfill. An organizational chart for Milan is provided below.



Milan contracts directly with Waste Management for MSW collection and disposal. The residents pay \$16 per month for collection service and the commercial rates vary. The City of Milan does operate a C&D Landfill. This landfill accepts C&D materials and recycles metals. Compost is offered to the public.

Rutherford

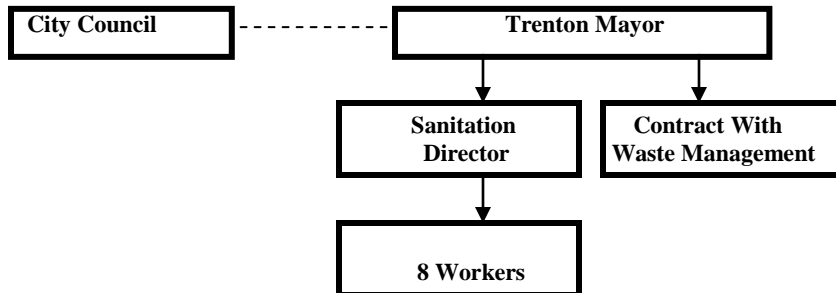
The Town of Rutherford provides residential curbside collection and commercial subscription service for approximately 1,250 customers. The city does not provide recycling collection services. An organizational chart for Rutherford is provided below.



The city contracts directly with Barker Brothers, Inc. for waste disposal. Rutherford residents pay \$11.54 per month for collection service and the commercial rates vary.

Trenton

The City of Trenton provides residential curbside collection and commercial subscription service for approximately 4,510 customers. The city provides door-to-door recycling collection services. An organizational chart for Trenton is provided below.

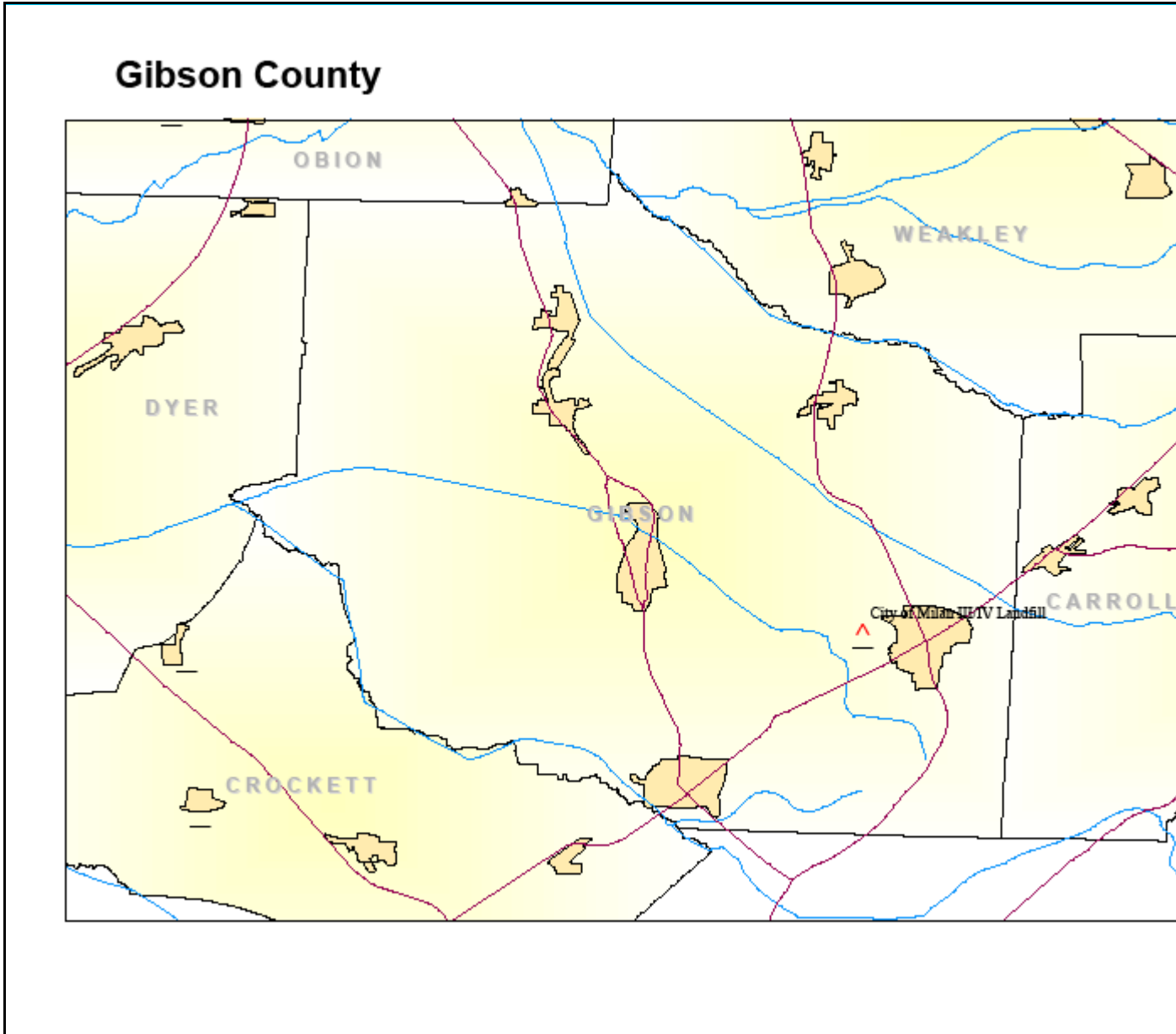


Trenton sanitation workers provide door-to-door collection services both for MSW and recycling. The city contracts directly with Waste Management for MSW disposal. The residents pay \$13.50 per month for collection service and the commercial rates vary. The City of Milan contracts with Doxicom Consulting for recycling purposes.

Locations of Solid Waste Facilities

A Gibson County map is provided on the following page with the locations all solid waste facilities in the county.

Gibson County Solid Waste Facilities



SECTION 9:

CURRENT REVENUE SOURCES

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.

Gibson County

The current Gibson County Solid Waste/Sanitation budget is funded through tipping fees, the waste tire grant, and payments from Crockett County and Gibson County to fund the CDG Solid Waste Director's salary. The remaining funds are transferred from the General Fund, which is the county's primary operating fund. It accounts for all financial resources of the general government, except those that are required to be accounted for in another fund.

The 2009 Gibson County property tax rate ranges from a low of \$2.52 to a high of \$4.21 depending on where you live in the county. The property tax rate is based on which Special School District the resident is located. The local option sales tax is at the maximum rate of 2.75%.

Due to the current recession, unemployment rates are expected to increase and local option sales tax to decrease. Monies are very tight within the county at the present time.

The only revenue sources for the county to utilize in these hard economic times are grants for solid waste management and/or waste diversion. Hopefully, if these grants are offered, Gibson County will be able to fund a fully integrated solid waste program.

The Waste Tire Grant is sufficient to fund the county's waste tires. There were problems in the past with this grant, but the differences have been worked out.

Bradford

Bradford provides residential curbside collection and commercial subscription service for approximately 1,070 residents. The Town of Bradford charges the citizens \$10.25 per month for weekly waste collection and contracts with Waste Management for waste disposal. The only revenue sources are the fees the city collects from the residents.

Dyer

The City of Dyer provides residential curbside collection and commercial subscription service for approximately 2,400 residents. Dyer charges the citizens \$11 per month for weekly waste collection and contracts with Barker Brothers, Inc. for waste disposal. The only revenue sources are the fees the city collects from the residents.

Gibson

Gibson provides residential curbside collection and commercial subscription service for approximately 415 residents. The Town of Gibson charges the citizens \$19 per month for weekly waste collection and contracts with Waste Management for waste disposal. The only revenue sources are the fees the city collects from the residents.

Humboldt

The City of Humboldt provides residential curbside collection and commercial subscription service for approximately 9,140 residents. Humboldt charges the residents \$18 per month for weekly waste collection and contracts with Barker Brothers, Inc. for waste disposal. The only revenue sources are the fees the city collects from the residents.

Medina

Medina provides residential curbside collection and commercial subscription service for approximately 2,270 residents. The Town of Medina charges the residents \$15 per month for weekly waste collection and contracts with Waste Management for waste disposal. The only revenue sources are the fees the city collects from the residents.

Milan

The City of Milan provides residential curbside collection and commercial subscription service for approximately 7,930 residents. Milan charges the residents \$16 per month for weekly waste collection and contracts with Waste Management for waste disposal. The collection fees that the city collects from the residents are the bulk of the revenue sources for the Solid Waste/Sanitation Department.

Rutherford

Rutherford provides residential curbside collection and commercial subscription service for approximately 1,250 residents. The Town of Rutherford charges the residents \$11.54 per month for weekly waste collection and contracts with Barker Brothers, Inc. for waste disposal. The only revenue sources are the fees the city collects from the residents.

Trenton

The City of Trenton provides residential curbside collection and commercial subscription service for approximately 4,510 residents. Trenton charges the residents \$13.50 for weekly waste collection and recyclables collection. The City Sanitation/Solid Waste Department provides these collection services. The city contracts with Waste Management for solid waste disposal.

FUTURE REVENUE NEEDS

No additional funds from the county budget are expected to be allocated for solid waste or recycling purposes due to the dire economic conditions of the county. Solid waste grants will be necessary for the future success of the program.

The municipalities will continue to adjust their collection fees in proportion to the increases of the private hauler fees and other costs.

SECTION 10:

PUBLIC PARTICIPATION

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 on-going 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 Attitudes Concerning Recycling, Waste Diversion, and Waste Disposal

Trends are continuing to improve through education on solid waste, recycling, and environmental issues. Industries are finding recycling a viable tool to reduce expenditures while meeting State and Federal environmental mandates. The CDG Regional Solid Waste Director has been instrumental in keeping the public apprised on current issues.

Since 2007, the amount of MSW disposed in Class I landfills has significantly decreased. In 2007, the amount of MSW disposed in Class I landfills was 37,909 tons. This figure dropped to 35,998 in 2008. In the most recent Annual Progress Report (2009), the amount of MSW disposed in Class I landfills was only 30,752 tons. These reductions reflect how peoples' attitudes about recycling, waste diversion, and waste disposal have changed for the better.

The county has started collecting electronic waste, metals, and paper. Gibson County would like to expand the recycling program but funds are not available. Two of the municipalities within Gibson County are involved in recycling. The City of Trenton is the only municipality in northwest Tennessee to offer door-to-door collection of recyclables.

Education Measures

The Solid Waste Director goes to county fairs and business and agricultural expos to provide information about recycling, waste diversion, and waste disposal. The Litter Grant is utilized to fund county outreach projects. The table below illustrates the programs that were conducted in 2009.

TABLE 10.1 Public Education and Information Activities

Program Name	Sponsor	Effectiveness	Program Type	Target Group	# Served
Poster Day	Litter Grant	Positive	Classroom	Children/teachers	All elementary schools
Students from the elementary schools made posters about littering and recycling. These posters were hung in the Gibson County Courthouse and winners were chosen.					
Handouts	Litter Grant	Positive	Classroom	Children/Teachers	All elementary schools
Various handouts about littering and reducing waste were distributed to the elementary school students.					

The Solid Waste Director has always utilized the services of TNSWEP for educational purposes. It was a huge detriment to the program to lose this service in 2009.

SECTION 11:

REGIONAL SOLID WASTE PLAN

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 table below summarizes Gibson County’s existing programs, future programs, and the Tennessee Solid Waste Management Plan.

TABLE 11.1 Regional Solid Waste Management Plan

Solid Waste Program	Existing Solid Waste Programs	Future Solid Waste Programs	Tennessee Mandated Plan
Residential Solid Waste Collection	Gibson County has door-to-door collection service available to 100% of the county.	Continue door-to-door collection service and construct a convenience center that collects MSW.	County to provide CCC’s for residents according to population or service area, maintain required design and operational standards.
Recycling	Gibson County offers recycling at the Convenience Center and Highway Department. Private recycling companies are also available.	Expand the current recycling services.	County to provide at least one (1) drop-off site for collection of residential recyclable materials.
Waste Reduction	Gibson County met reduction goal by the Real-Time Method.	Continue to meet the 25% Waste Reduction Goal.	Region to achieve 25% Waste Reduction Goal.
Problem Waste Management	Gibson County collects electronics and waste tires at the Convenience Center. The Highway Department collects used oil. Private companies collect automobile fluids. Gibson County hosts a HHW collection event to collect paint.	Expand waste collection at the Convenience Center. Continue to host a HHW collection event to collect paint.	County to provide at least one (1) site to accept automobile fluids, batteries, and waste tires.
Public Education and Information	Gibson County provides educational activities to the schools through the Litter Grant.	Continue to provide educational activities to the schools through the Litter Grant.	Region to develop and implement solid waste management action plan for adults and children.
Disposal	Gibson County contracts with Barker Brothers, Inc. to provide disposal services.	Continue to contract disposal services with Barker Brothers, Inc. or other private hauler.	Region to assure 10-year disposal capacity.
Planning	The CDG Regional Solid Waste Board meets as needed throughout the year to discuss solid waste issues. All reporting requirements are up to date.	Continue meetings throughout the year to discuss solid waste issues. Keep reporting requirements up to date.	Region to provide Annual Progress Reports, Needs Assessments, and other reporting requirements as needed.

Sustainability of the Solid Waste Plan must include, at the minimum:

- Continue CDG Regional Solid Waste Board involvement,
- Continue the activities of the Solid Waste Director,
- Continue the activities at the Convenience Center,
- Continue to pursue all grant funds for equipment and facilities,
- Continue to utilize technical assistance providers,
- Continue to research technologies and other program options,
- Continue to promote waste reduction efforts, and
- Continue public outreach and educational programs

This list is neither conclusive nor listed in priority. Expansion and sustainability will depend on the economy and funding sources.

SOURCES

U. S. Census Bureau
Tennessee Department of Labor and Workforce Development
U. S. Bureau of Economic Analysis
Tennessee Department of Revenue
2009 CDG Annual Progress Report
Tommy Edmonds, CDG Solid Waste Director
Gibson County Budget Document
Bradford Budget Document
Dyer Budget Document
Gibson Budget Document
Humboldt Budget Document
Medina Budget Document
Milan Budget Document
Rutherford Budget Document
Trenton Budget Document