

# **CROCKETT COUNTY SOLID WASTE PLANNING REGION**

## **Solid Waste Needs Assessment Update**

August 2014

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



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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. Considering the trends, discuss the affect on the solid waste infrastructure needs over the next five (5) years.*

#### **Population Trends in Crockett County**

Crockett County's population has been very steady between the 2000 U.S. Census and the 2010 U.S. Census. The population in 2000 was 14,549, and the population in 2010 was 14,586, showing only a 0.4% increase.

**TABLE 1.1 Historic and Projected Population Trends (2004 thru 2020)**

<b>Year</b>	<b>County Population</b>	<b>Alamo</b>	<b>Bells</b>	<b>Friendship</b>	<b>Gadsden</b>	<b>Maury City</b>	<b>Unincorporated</b>
2004	14,324	2,352	2,272	601	548	699	7,852
2005	14,279	2,336	2,268	599	548	697	7,831
2006	14,175	2,329	2,256	596	542	692	7,760
2007	14,183	2,326	2,259	596	539	693	7,770
2008	14,186	2,327	2,260	594	535	695	7,775
2009	14,603	2,330	2,262	597	537	698	8,179
2010	14,586	2,461	2,437	668	470	674	7,876
2011	14,553	2,456	2,432	666	468	672	7,859
2012	14,575	2,460	2,436	667	469	673	7,870
2013	14,591	2,465	2,440	668	470	674	7,874
2014	14,625	2,470	2,445	670	471	676	7,893
2015	14,650	2,473	2,449	671	472	677	7,908
2016	14,675	2,475	2,452	672	473	678	7,920
2017	14,700	2,478	2,455	673	474	680	7,931
2018	14,715	2,485	2,460	674	475	682	7,939
2019	14,730	2,495	2,470	676	476	683	7,930
2020	14,740	2,498	2,473	678	477	684	7,930

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

The U.S. Census Bureau is projecting that Crockett County's population will increase from 2010 to 2020.

Based on the latest U.S. Census Bureau statistics, 17.3% of Crockett County's population is 65 years of age and older and 24.1% is under the age of 18. These figures account for more than 41% of Crockett County's total population.

If the population does increase in Crockett County, the solid waste disposal by the residents should also increase accordingly. Crockett County is investigating the possibility of offering curbside pick-up service to the residents in the unincorporated areas.

Each year, Crockett County expands its recycling program. Paper, cardboard, scrap metal, and electronic waste recycling have all continued to be recycled during the past five years. The county will continue to promote recycling and reuse to maintain the real-time waste diversion goal.

## SECTION 2:

### ECONOMIC ACTIVITY WITHIN THE REGION

Provide a table and chart showing the region's economic profile for the county and its 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

**TABLE 2.1 Crockett County Historic and Projected Economic Indicators**

Year	Total Employment	Unemployed	Unemployment Rate	Per Capita Income	Retail Sales
2004	6,660	530	7.9%	\$ 23,243	\$ 52,210,542
2005	6,470	510	7.8%	\$ 24,671	\$ 54,762,527
2006	6,500	450	6.9%	\$ 25,727	\$ 54,682,693
2007	6,510	420	6.4%	\$ 27,412	\$ 75,819,662
2008	6,470	580	8.9%	\$ 28,985	\$ 84,745,930
2009	6,490	860	13.2%	\$ 29,132	\$ 77,447,915
2010	6,700	860	12.9%	\$ 29,336	\$ 92,366,226
2011	6,760	800	11.9%	\$ 32,309	\$ 107,876,700
2012	6,790	700	10.3%	\$ 34,867	\$ 116,759,107
2013	6,630	700	10.5%	\$ 35,125	\$ 125,929,535
2014	6,570	570	8.7%	\$ 35,580	\$ 128,652,589
2015	6,580	590	9.0%	\$ 35,625	\$ 130,259,635
2016	6,600	600	9.1%	\$ 35,910	\$ 132,359,472
2017	6,620	610	9.2%	\$ 36,425	\$ 133,564,892
2018	6,640	610	9.2%	\$ 36,850	\$ 134,635,247
2019	6,650	620	9.3%	\$ 37,250	\$ 135,222,514
2020	6,660	620	9.3%	\$ 37,600	\$ 136,589,444

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.

### Economic Profile of Crockett County

As shown on Table 2.1, the Crockett County economy is weak when compared to the state and national averages. Unemployment rates have ranged from a low of 6.4% in 2007 to a high of 13.2% in 2009.

The current unemployment rate in Crockett County is 8.7% through the month of June. It is estimated that the unemployment rate will remain consistently in the 9% range for the next five years due to the slow economy in Northwest Tennessee and the rest of the nation.

The average total wages in all industries in Crockett County was \$37,241, which is significantly lower than the state average of \$44,077. The average industry wage is also less than the industry average in the nation of \$49,804.

## **SECTION 3:**

### **SOLID WASTE STREAM CHARACTERIZATION**

*Elaborate on the region's solid waste stream. Compare the current waste stream with trend anticipated over the next five (5) years, and discuss how this new total will be handled. 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**

Crockett County is one of three counties within the CDG Solid Waste Region. The other two counties are Dyer and Gibson. In the most recent CDG Solid Waste Annual Progress Report (2013), the total MSW stream for Crockett County was reported as 24,568 tons. This amount consisted of 5,540 tons disposed in Class I landfills, 18 tons being disposed in a Class III/IV landfill, 10,835 tons being recycled, and 8,175 being composted.

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

**TABLE 3.1 Regional Solid Waste Stream Disposal for 2014 – 2019**

Class I Disposal Site	Reported Year (APR 2013)	Projected Year					
	2013	2014	2015	2016	2017	2018	2019
MSW disposed in NW TN Disposal Corp. Class I Landfill located in Obion County	1,035	1,050	1,100	1,150	1,200	1,250	1,300
MSW disposed in West Camden Class I Landfill located in Benton County	424	450	475	500	525	550	575
MSW disposed in Madison County Class I Landfill located in Madison County	1,352	1,375	1,400	1,425	1,450	1,475	1,500
MSW disposed in Dyersburg Municipal Class I Landfill located in Dyer County	2,729	2,800	2,850	2,900	2,950	3,000	3,050
<b>Total Regional Waste Disposal</b>	<b>5,540</b>	<b>5,675</b>	<b>5,825</b>	<b>5,975</b>	<b>6,125</b>	<b>6,275</b>	<b>6,425</b>

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

Crockett County will continue to try and expand its current recycling programs at the four convenience centers. Currently, the county offers cardboard, metals, used oil, and e-waste recycling at all four convenience centers.

### Regional Solid Waste Management

The table below describes how the region’s total waste stream is managed currently and how it will be managed in the next 5 years. Crockett 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	Other Problem Waste Types
<b>Crockett County</b>	<p><b>Residential solid waste</b> 4 County Convenience Centers Available to all residents of the County</p> <p><b>Local businesses</b> Not permitted to use the convenience center</p>	Dyersburg Municipal Class I Landfill located in Dyer County as primary waste disposal facility for unincorporated residents of Crockett County and local businesses	<p><b>Waste tires:</b> Private Hauler <b>Used oil:</b> Convenience Centers <b>Automobile fluids:</b> Private Businesses <b>Latex paint:</b> HHW Event <b>Electronics:</b> Convenience Centers</p>	<p><b>Waste tires:</b> Private Hauler <b>Used oil:</b> Convenience Centers <b>Used oil filters:</b> Convenience Centers <b>Automobile fluids:</b> Private Businesses <b>Latex paint:</b> HHW Event <b>Electronics:</b> Convenience Centers</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.
<b>Alamo</b>	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 Alamo and local businesses	Provided by Crockett County	Provided by Crockett County	Provided by Crockett County
<b>Bells</b>	Solid waste curbside collection fee service for city residents.	Jackson/Madison County Class I Landfill located in Madison County as primary waste disposal facility for residents of Bells and local businesses	Provided by Crockett County	Provided by Crockett County	Provided by Crockett County
<b>Friendship</b>	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 Friendship and local businesses	Provided by Crockett County	Provided by Crockett County	Provided by Crockett County
<b>Maury City</b>	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 Maury City and local businesses	Provided by Crockett County	Provided by Crockett County	Provided by Crockett County
<b>Business</b>	<p>Subscription service provided by:</p> <p>Contracts with private haulers, and direct haul by business.</p>	Dyersburg Municipal Class I Landfill located in Dyer County as primary waste disposal facility for residents of Crockett 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

Crockett County does not operate nor own a Class I landfill. No wastes from other areas enter the county. In 2013, a total of 5,540 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 Crockett County**

<b>Class I Landfill</b>	<b>County Location</b>	<b>Tonnage</b>
Northwest TN Disposal Corp.	Obion County	1,035
West Camden Landfill	Benton County	424
Jackson/Madison County Landfill	Madison County	1,352
Dyersburg Municipal Landfill	Dyer County	2,729
<b>Total</b>		<b>5,540</b>

Source: TDEC 2013 Solid Waste Origin Report

## **SECTION 4:**

### **REGIONAL COLLECTION SYSTEMS**

*Describe in detail the waste collection system in the county and each municipality, including 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 governments throughout the United States are struggling to develop efficient and cost-effective plans for managing their MSW. Crockett County has started recycling various commodities and plans to continue to expand its programs.

#### **Crockett County**

Crockett County operates four convenience centers located throughout the county. There is no charge for the residents of Crockett County to take their MSW to these convenience centers. All four convenience centers accept MSW, cardboard, metals, e-waste, waste tires, and used oil. The operating hours of the convenience centers are illustrated in the table below:

**TABLE 4.1 Convenience Center Schedules**

<b>Convenience Center</b>	<b>Mon.</b>	<b>Tues.</b>	<b>Wed.</b>	<b>Thurs.</b>	<b>Fri.</b>	<b>Sat.</b>
Alamo CC	8am-12pm	8am-12pm	1pm-5pm	1pm-5pm	Closed	8am-5pm
Friendship CC	1pm-5pm	1pm-5pm	Closed	8am-12pm	1pm-5pm	8am-5pm
Fruitvale CC	8am-12pm	Closed	8am-12pm	1pm-5pm	8am-12pm	8am-5pm
Maury City CC	8am-12pm	8am-12pm	1pm-5pm	1pm-5pm	Closed	8am-5pm

#### **Municipalities**

Crockett County has five municipalities. Four of the municipalities contract with either Waste Management or Barker Brothers for curbside solid waste collection for their residents. The Town of Gadsden does not have curbside pickup service available and these residents depend on the convenience center for solid waste disposal. There are no public recycling options offered by any of the municipalities.

Table 4.2 illustrates all locations where wastes are collected and stored along with the name of operators and transporters for these sites.

**TABLE 4.2 Regional Collection Systems**

<b>Jurisdiction</b>	<b>Transporter</b>	<b>Class I Landfill</b>
Crockett County	Waste Management, Inc.	Dyersburg Municipal Landfill
Alamo	Waste Management, Inc.	Dyersburg Municipal Landfill
Bells	Waste Management, Inc.	Jackson/Madison County Landfill
Friendship	Barker Brothers, Inc.	Dyersburg Municipal Landfill
Maury City	Barker Brothers, Inc.	Dyersburg Municipal Landfill

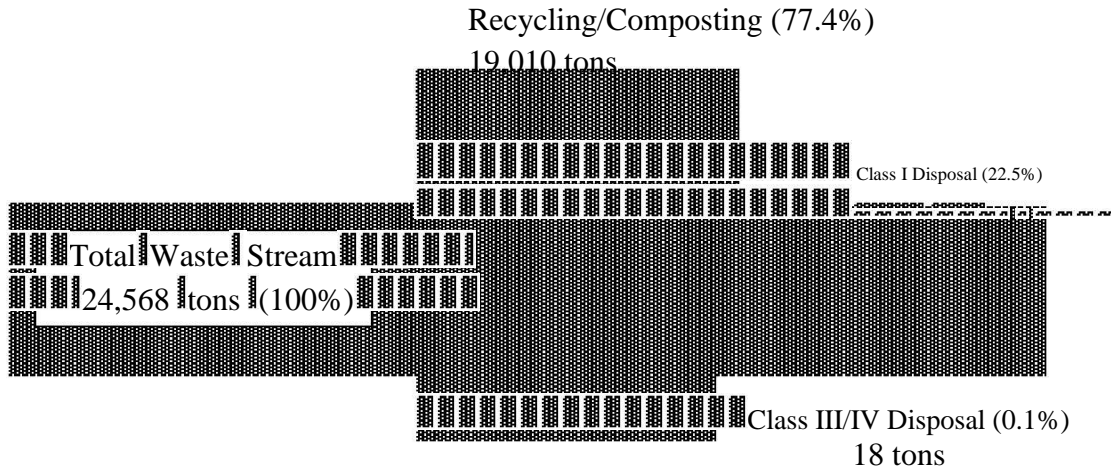
Crockett County recycles several different commodities. The table below illustrates these commodities and what processors are utilized.

**TABLE 4.3 Crockett County Commodities and Processors**

Commodities	Processor	Location
Cardboard	Hub City	Jackson, TN
Metals	Dales Recycling	Milan, TN
Tires	Dales Recycling	Milan, TN
E-Waste	Scotts Recycling	Knoxville, TN

**Flow Diagram of Crockett County Total Annual Regional Waste Stream**

The figures shown in the flow diagram below were taken from the 2013 Crockett County Solid Waste Annual Progress Report.



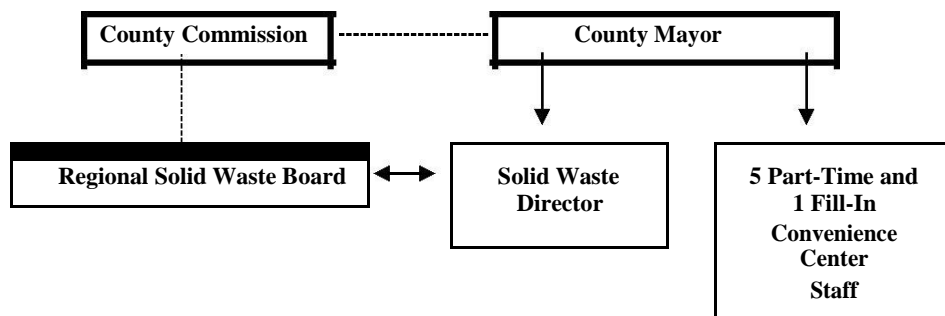
**SECTION 5:**

**SOLID WASTE MANAGEMENT INFRASTRUCTURE**

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 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 any shortcomings in service and note what might be needed to fill this need.

**Crockett County**

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



**Future Solid Waste Infrastructure Development Needs**

Table 5.1 provides a list of the future needs for Crockett County to continue to operate and expand an integrated solid waste management program. The costs listed are estimates only and should be considered a baseline for future planning.

**TABLE 5.1 Future Solid Waste Management Needs for Crockett County**

Equipment	Estimated Cost	Potential Revenue Sources
Facility what kind?	\$ 200,000	Grants/General Fund
Pickup Truck	25,000	Grants/General Fund
Box Truck	60,000	Grants/General Fund
30 & 40 Yard Roll Off Containers	20,000	Grants/General Fund
Enclosed Ton Truck (1 ton truck?)	60,000	Grants/General Fund
Enclosed Trailers	20,000	Grants/General Fund
16 Foot Trailers	5,000	Grants/General Fund
Goose Neck Dump Trailers (more than one?)	30,000	Grants/General Fund
Fork Lift	22,000	Grants/General Fund
Skid Steer	25,000	Grants/General Fund
Shredder	12,000	Grants/General Fund
Vertical Baler	12,000	Grants/General Fund

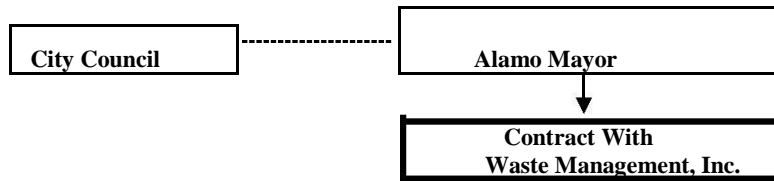
Horizontal Baler	75,000	Grants/General Fund
Conveyors	20,000	Grants/General Fund
Recycling Containers	20,000	Grants/General Fund
Carts and Bins	25,000	Grants/General Fund
Pallet Jack	5,000	Grants/General Fund
Roll Off Truck	120,000	Grants/General Fund
Compactor	12,000	Grants/General Fund
Portable Ramp	5,000	Grants/General Fund

**Municipalities**

All but one of the municipalities contract directly with either Barker Brothers, Inc. or Waste Management for waste disposal. The Town of Gadsden utilizes the convenience centers and does not contract with a private hauler. Since none of the municipalities in Crockett County are required by Tennessee statute to provide collection assurance, no recycling efforts are conducted by any of the municipalities.

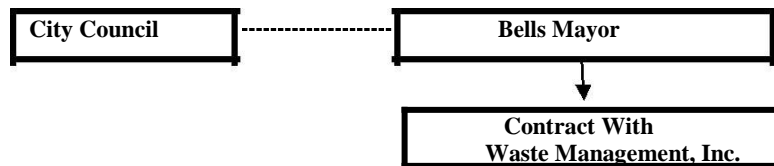
**Alamo**

The Town of Alamo provides residential curbside collection and commercial subscription service for approximately 2,470 customers. The city does not provide recycling collection services. An organizational chart for the Town of Alamo is provided below.



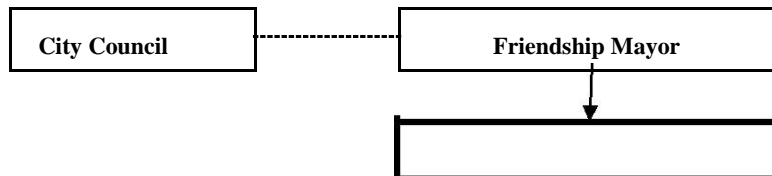
**Bells**

The City of Bells provides residential curbside collection and commercial subscription service for approximately 2,445 customers. The city does not provide recycling collection services. An organizational chart for the City of Bells is provided below.



**Friendship**

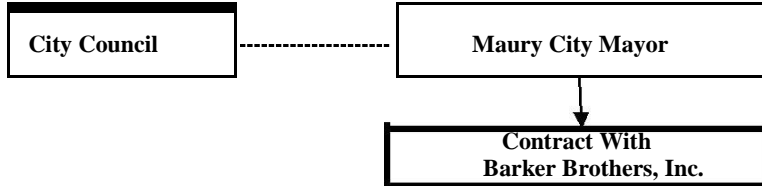
The City of Friendship provides residential curbside collection and commercial subscription service for approximately 670 customers. The city does not provide recycling collection services. An organization chart for the City of Friendship is provided below.



**Contract With  
Barker Brothers, Inc.**

**Maury City**

The Town of Maury City provides residential curbside collection and commercial subscription service for approximately 675 customers. The city does not provide recycling collection services. An organizational chart for the Town of Maury City is provided below.



**Locations of Solid Waste Facilities**

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





## **SECTION 6:**

### **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 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 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 Solid Waste Director has been instrumental in keeping the public apprised on current issues. Crockett County provides educational materials to the schools and at business fairs.

The Convenience Centers have seen an increase in recycling during the past few years. Both metals and cardboard recycling numbers have increased and waste disposal in Class I landfills continues to decrease each year. In particular, recycling increased from 6,119 tons in 2012 to 10,835 tons in 2013. Also during this same time period, 50 fewer tons of MSW went to the Class I landfills.

#### **Education Measures**

Crockett County does an excellent job of educating the public about recycling and waste diversion. The county utilizes the Litter Grant to provide the funds for these educational programs.

The table below illustrates the programs that were conducted in 2013.

**TABLE 6.1 Public Education and Information Activities**

<b>Program Name</b>	<b>Sponsor</b>	<b>Effectiveness</b>	<b>Program Type</b>	<b>Target Group</b>	<b># Served</b>
Poster Day Contest	Litter Grant	Positive	Classroom	Children/teachers	1,500
<b>Information is handed out to the students, who in turn draw posters about recycling and/or anti-littering.</b>					
Amazing Ag Day	Litter Grant	Positive	Classroom	Children/Teachers	600
<b>Booths were set up to provide education about waste reduction, recycling, and anti-littering.</b>					
Business Expo	Litter Grant	Positive	Community Outreach	General Public	1,200
<b>A booth was set up at the Business Expo and literature was distributed.</b>					
County-Wide Clean Up	Litter Grant	Positive	Community Outreach	General Public	1,200
<b>Crockett County coordinated with Keep Crockett County Clean for an event held at the National Guard Armory. Garbage bags, hand sanitizer, T-shirts, and awards were given out to the public.</b>					

## SECTION 7:

### REGIONAL SOLID WASTE REDUCTION GOAL

*The Solid Waste Management Act of 1991 requires all regions to 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 the reduction rate by each of these goal calculation methodologies. 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 7.1 Measurement of Regional Waste Reduction Goal**

County	Waste Reduction Goal Calculation Method			
	Compared to Base Year	Population Ratio	Economic-Population Ratio	Qualitative - Real Time
Crockett County	20.1%	24%	6%	77%
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 Crockett 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.

Crockett County did meet the Qualitative – Real Time Method of waste reduction by showing a real time diversion rate of 77%. Most of the recycling was completed by private entities but the county did collect more than 114 tons of recyclables at the convenience centers in 2013. The Disposal per Capita Ratio in Crockett County is 0.38. The CDG Solid Waste Director has been instrumental in helping Crockett County with its recycle program.

### Future Regional Waste Reduction Program

Crockett County will continue to expand its recycling program. A storage facility is needed to store the e-scrap and the paper/cardboard that are collected at the convenience

centers. A compactor and canopy are needed at the Friendship convenience center so more recycling can be done. One way to expand the program will be to apply for available grants.

Educational material about waste reduction will continue to be distributed to all schools and at business fairs.

**SECTION 8:****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 8.1 10-Year Regional Disposal Assurance in Crockett County**

Site Name(s)	Annual Tons Disposed by Crockett County*	Solid Waste Permit #	Current Disposal (daily throughput)	Maximum Disposal Capacity (daily throughput)	Projected Life of Facility
West Camden Sanitary Class I Landfill located in Benton County	424	SNL 03-0247	2,300 tons per day	5,000 tons per day	25+ years remaining life
Madison County Class I Landfill located in Madison County	1,352	SNL 57-0239	2,000 tons per day	4,000 tons per day	25+ years remaining life
NW Tennessee Disposal Corporation Class I Landfill located in Obion Co.	1,035	SNL 66-0143	2,200 tons per day	5,000 tons per day	25+ years remaining life
Dyersburg Municipal Class I Landfill located in Dyer County	2,729	SNL 23-0218	170 tons per day	500 tons per day	25+ years remaining life
Dyersburg Municipal Class III/IV Landfill located in Dyer County	18	DML 23-0107	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, January 2014

\*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 8.2 Public and Private Collection Service in Crockett County in 2013**

<b>Service Provider</b>	<b>Service Area*</b>	<b>Frequency of Service (Weekly, Bi-weekly, on call, etc.)</b>	<b>Estimated Average Annual Tons Collected*</b>	<b>Type Service (Curbside, Convenience Center, Green Box)</b>
<b>Crockett County Unincorporated and Gadsden</b>	County-wide Local business subscriptions	6 days per week (Drop Off)	3,000	4 Convenience Centers
<b>Alamo</b>	City residents Local business subscription	Weekly	1,000	Residential curbside Local business subscription
<b>Bells</b>	City residents Local business subscription	Weekly	1,000	Residential curbside Local business subscription
<b>Friendship</b>	City residents Local business subscription	Weekly	270	Residential curbside Local business subscription
<b>Maury City</b>	City residents Local business subscription	Weekly	270	Residential curbside Local business subscription
		<b>Total</b>	<b>5,540</b>	

**SECTION 9:****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 9.1 Expenditures and Revenues for Crockett County for 2013-2014**

<b>EXPENDITURES</b>			
Description	Present Need \$/year	Unmet Needs \$/year	Total Needs (Present + Unmet) \$/year
Salary and Benefits			
Transportation/hauling			
Collection and Disposal Systems			
Equipment			
Sites			
Convenience Center	\$ 317,095		\$ 317,095
Transfer Station			
Recycling Center			
MRF			
Landfills			
Site			
Operation			
Closure			
Post Closure Care			
Administration (supplies, communication costs, etc.)			
Education			
Public			
Continuing Ed.			
Capital Projects			
<b>REVENUES</b>			
Host agreement fee			
Tipping fees			
Property taxes			
Local option taxes	\$ 220,350		\$ 220,350
Surcharges			
Disposal Fees			
Collection charges			
Industrial or Commercial charges			
Residential charges			
Convenience Centers charges	\$ 8,500		\$ 8,500
Transfer Station charges			
Sale of Methane Gas			
Other sources: (Grants, bonds, interest, sales, etc.)	\$ 48,600	\$ 39,645	\$ 88,245

Crockett County expends a lot of funds for the disposal of solid waste. It costs the county more than \$300,000 per year to operate its 4 convenience centers. In this fiscal year, the county will have to transfer \$39,645 to the solid waste fund to balance that . Doing this every year continued to deplete the reserve fund. The county is looking into the possibility of having private haulers provide curbside pickup service to reduce the financial burden on the county.

**SECTION 10:****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.*

**TABLE 10.1 Current Revenue Sources**

<b>Locality</b>	<b>Revenue Source</b>
Crockett County	Local Option Taxes
	Convenience Center Collection Charges
	Beer/Alcoholic Beverage Taxes
Alamo	Collection Fees
Bells	Collection Fees
Friendship	Collection Fees
Maury City	Collection Fees

**Crockett County**

The current Crockett County Solid Waste Fund has several sources of revenue. These sources are: County Local Option Taxes (including Local Option Sales Tax, Wholesale Beer Tax, and Interstate Phone Communications), Convenience Waste Centers Collection Charges, Beer Tax, and Alcoholic Beverage Tax.

The 2013 Crockett County property tax rate was set at \$2.64. The local option sales tax is at the maximum rate of 2.75%. Unemployment rates are still increasing and local option sales tax may decrease as a result. 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, Crockett County will continue to be able to implement a fully integrated solid waste program.

Crockett County is strongly considering the possibility of offering curbside pickup service for the unincorporated sections of the county. This action would enable the citizens to have the opportunity to subscribe with private waste haulers to transport their solid waste. The county would save money because fewer citizens would take their solid waste to the convenience centers and the county would save on waste disposal fees.

**Municipalities**

Each of the municipalities collect fees from the residents that are equal to the costs of the collection and disposal services offered by the private contracted MSW haulers? .

**SECTION 11:****REGIONAL SOLID WASTE PLAN**

*Discuss this region's plan for managing its solid waste management system during 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 Crockett County's existing programs, future programs, and the Tennessee Solid Waste Management Plan.

**TABLE 11.1 Regional Solid Waste Management Plan**

<b>Solid Waste Program</b>	<b>Existing Solid Waste Programs</b>	<b>Future Solid Waste Programs</b>	<b>Tennessee Mandated Plan</b>
<b>Residential Solid Waste Collection</b>	Crockett County has 4 convenience centers throughout the county.	Implement curbside subscription service for residents.	County to provide CCC's for residents according to population or service area, maintain required design and operational standards.
<b>Recycling</b>	Crockett County offers recycling at all 4 convenience centers.  Private recycling companies are also available.	Expand current recycling services.	County to provide at least one (1) drop-off site for collection of residential recyclable materials.
<b>Waste Reduction</b>	Crockett County met reduction goal by the Real-Time Method.	Continue to meet the 25% Waste Reduction Goal.	Region to achieve 25% Waste Reduction Goal.
<b>Problem Waste Management</b>	Crockett County collects electronics, waste tires, automobile fluids, and batteries at the Convenience Centers.	Continue to collect electronics, waste tires, automobile fluids, and batteries at the Convenience Centers.	County to provide at least one (1) site to accept automobile fluids, batteries, and waste tires.
<b>Public Education and Information</b>	Crockett 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.
<b>Disposal</b>	Crockett County contracts with Waste Management, Inc. to provide disposal services.	Continue to contract disposal services with a private hauler at the lowest cost.	Region to assure 10-year disposal capacity.
<b>Planning</b>	The CDG 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 the CDG Solid Waste Board involvement,
- Continue the activities of the Solid Waste Director,
- Continue the activities at the Convenience Centers,
- 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 inclusive 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

Tennessee Department of Environment and Conservation

2013 CDG Annual Progress Report

TDEC 2013 Solid Waste Origin Report