



# Wayne County Tennessee



## **SOLID WASTE NEEDS ASSESSMENT**

Prepared by  
The South Central Tennessee Development District  
May 31, 2013

May 2013

## INTRODUCTION

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

### **Wayne County History**

Wayne County is located on the extreme western side of the Highland Rim, with its northwest corner extending into the Tennessee River basin. It is made up of ridges and hollows and is on a plateau of about eight hundred feet in elevation in the southwest corner of the Middle Tennessee division. Heavily wooded, the county contains deposits of iron that were still being worked into the early twentieth century.

The general assembly created Wayne County in 1817, but the engrossing clerk failed to sign the act, and it had to be passed again when the legislature next met in 1819. The county was named to honor General "Mad" Anthony Wayne of the Revolutionary War. Created from parts of Hickman and Humphreys Counties, it encompasses 338,291 acres. The first settlers in Wayne County arrived from Middle Tennessee and North and South Carolina to claim military grants, occupants' claims, and warrants.

The first county court met at the home of Benjamin Hardin on Factor's Fork where the old Natchez Trace crosses Shoal Creek. The next meeting was held at William Barnett's house on old Town Branch, where the court continued to meet until 1822. The first elected county officers were William Barnett, clerk; Benjamin Hardin, sheriff; J. M. Barnett, circuit court clerk; John McClure, registrar; John Meredith, trustee; John Hill, ranger; and William B. Payne, coroner.

In 1821 the general assembly appointed commissioners James Hollis, John Hill, Nathan Biffle, and Charles Burns to establish a county seat. The men purchased 40 acres from William Burns for the town of Waynesboro. They sold lots and used the proceeds to build a courthouse, jail, and stocks. A century later, Waynesboro had a population of 600, several schools and churches, a bank, and a number of businesses. In 2000 the town's population reached 2,228 residents. More than a dozen manufacturing plants, including Lincoln Brass Works, provide employment to several hundred workers.

## **Demographic Information & Projections**

As of the census of 2010, there were 17,021 people, 5,822 households, and 4,321 families residing in the county. The population density was 23 people per square mile (9/km<sup>2</sup>). There were 6,701 housing units at an average density of 9 per square mile (4/km<sup>2</sup>). The racial makeup of the county was 92.3% White, 5.7% Black or African American, 0.3% Native American, 0.2% Asian, 0.01% Pacific Islander, 0.19% from other races, and 1.0% from two or more races. 1.6% of the population was Hispanic or Latino of any race.

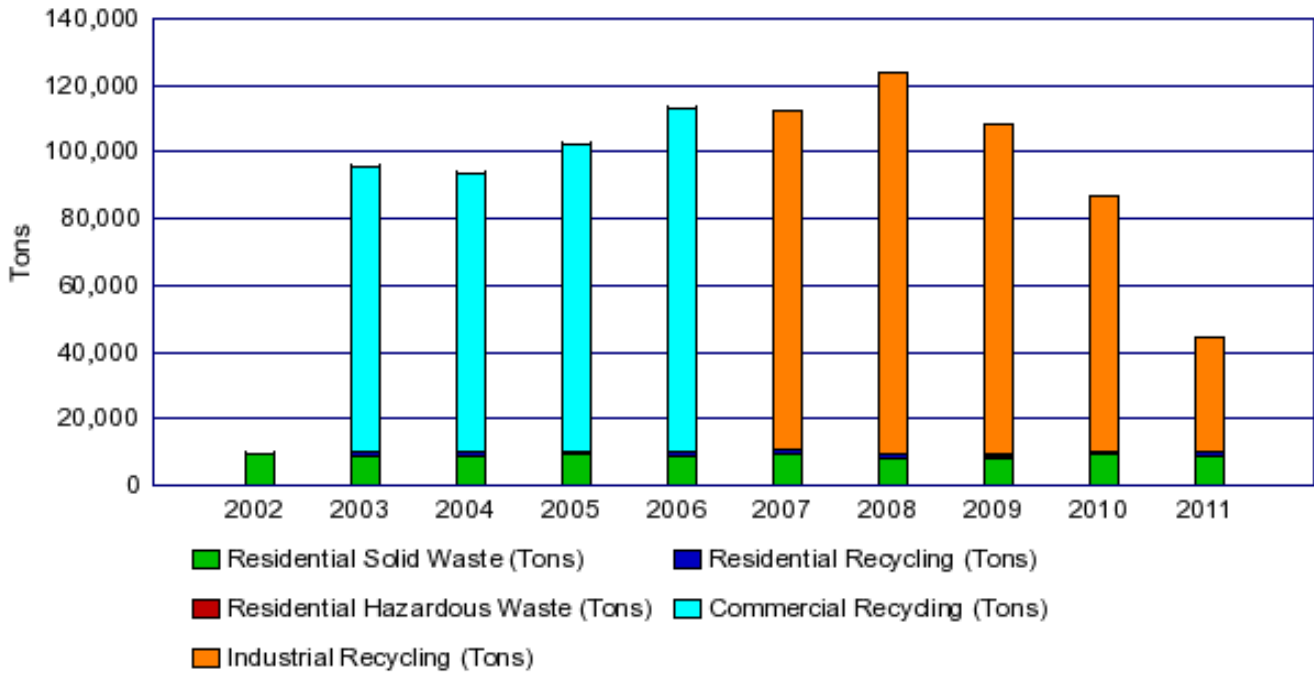
There were 5,936 households out of which 31.00% had children under the age of 18 living with them, 59.10% were married couples living together, 10.10% had a female householder with no husband present, and 27.20% were non-families. 24.40% of all households were made up of individuals and 10.90% had someone living alone who was 65 years of age or older. The average household size was 2.47 and the average family size was 2.93.

In the county, the population was spread out with 21.40% under the age of 18, 9.10% from 18 to 24, 31.70% from 25 to 44, 24.20% from 45 to 64, and 13.60% who were 65 years of age or older. The median age was 37 years. For every 100 females there were 121.70 males. For every 100 females age 18 and over, there were 125.50 males.

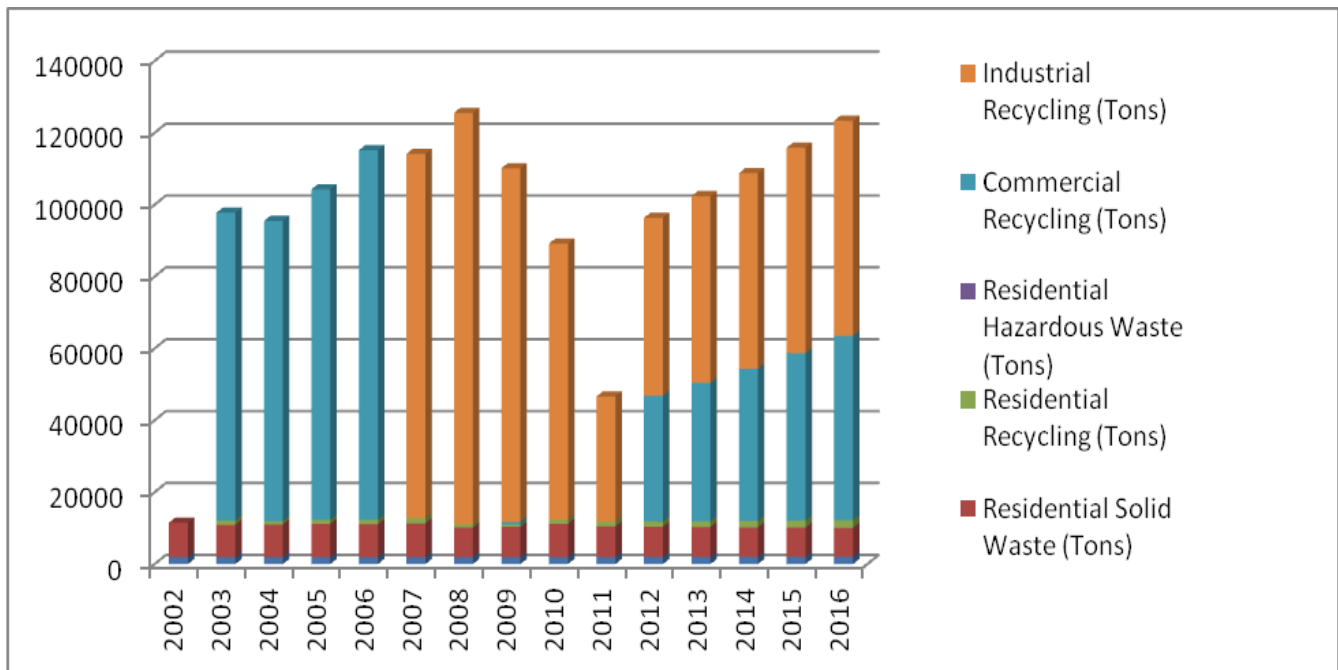
### **Wayne County Population (2010 US Census Data)**

<b>Year</b>	<b>Unincorporated</b>	<b>Clifton</b>	<b>Collinwood</b>	<b>Waynesboro</b>	<b>Wayne</b>
<b>2001</b>	10268	2685	905	2412	16270
<b>2002</b>	13952	2688	913	2400	16352
<b>2003</b>	14046	2690	922	2388	16434
<b>2004</b>	14140	2693	930	2376	16517
<b>2005</b>	14211	2696	939	2388	16600
<b>2006</b>	14283	2698	947	2400	16683
<b>2007</b>	14355	2701	956	2412	16767
<b>2008</b>	14427	2704	964	2425	16851
<b>2009</b>	14499	2707	973	2437	16936
<b>2010</b>	14572	2709	982	2449	17021
<b>2011</b>	14625	2712	987	2498	17123
<b>2012</b>	14609	2715	992	2548	17157
<b>2013</b>	14593	2717	997	2599	17192
<b>2014</b>	14575	2720	1002	2651	17226
<b>2015</b>	14557	2723	1007	2704	17261
<b>2016</b>	14537	2726	1012	2758	17295

## Solid Waste Total Tons Generated, Wayne County, 2002 to 2011



The chart above indicates that the residential solid waste stream has remained stable at ~8-10k tons per year over a 9 year history. The five (5) year projections would essentially reveal that with population growth remaining stable with very modest gains that the residential solid waste stream will remain at the 8-10k net ton level.



The chart above indicates that a more accurate breakdown between the industrial and commercial recycling will refocus efforts to increase the residential recycling which in turn reduces the tonnage going to landfills.

## Analysis of Economic Activity within the Region

As of the census of 2010, there were 17,021 people, 5,822 households, and 4,321 families residing in the county. The population density was 23 people per square mile. There were 6,701 housing units at an average density of 9 per square mile. The racial makeup of the county was 92.3% White, 5.7% Black or African American, 0.3% Native American, 0.2% Asian, 0.01% Pacific Islander, 0.19% from other races, and 1.0% from two or more races. 1.6% of the population were Hispanic or Latino of any race.

There were 5,936 households out of which 31.00% had children under the age of 18 living with them, 59.10% were married couples living together, 10.10% had a female householder with no husband present, and 27.20% were non-families. 24.40% of all households were made up of individuals and 10.90% had someone living alone who was 65 years of age or older. The average household size was 2.47 and the average family size was 2.93.

In the county, the population was spread out with 21.40% under the age of 18, 9.10% from 18 to 24, 31.70% from 25 to 44, 24.20% from 45 to 64, and 13.60% who were 65 years of age or older. The median age was 37 years. For every 100 females there were 121.70 males. For every 100 females age 18 and over, there were 125.50 males.

The median income for a household in the county was \$26,576, and the median income for a family was \$30,973. Males had a median income of \$27,879 versus \$19,034 for females. The per capita income for the county was \$14,472. About 12.90% of families and 16.30% of the population were below the poverty line, including 18.60% of those under age 18 and 19.60% of those ages 65 or over.



## **Principal Private Employers in Wayne County**

<b>Corporation</b>	<b>Product</b>	<b>Employees</b>
CCA	Prison	365
Maury Regional Medical Center		227
Tennessee Apparel	Military Clothing	208
Hassell and Hughes	Hardwood Flooring	180
Turney Center Annex	Prison	132
Mueller Gas Products	Fittings for Gas Products	106
Buffalo River Services		102
Tennessee Farmers Insurance	Insurance Claims Center	75
Wayne County Bank		55
Bank of Waynesboro		51
American Whirlpool	Fiberglass Bath Tubs	42
Peoples Bank		34
Brown-Foreman Cooperage	Staves for Barrels	34
C'Wood Lumber Company	Lumber	31
Hughes Sawmill	Lumber	24
Eagle Truss	Wood and Metal Truss	21
Grace Industries	Truck Converter	20
Tennessee Container	Cleans Metal and Plastic Barrels	20
Beaver Tie and Lumber Company	Lumber	19
Dicus Lumber Company	Lumber	16
Modern Way Manufacturing	Medical X-ray Equipment	15
Green Way Lumber	Lumber	13
Mak Tool and Gauge Company	Precision gauges	13
Barnett Iron Works	Structural Steel	8
4 Mac Machining	Precision gauges, fixtures, jig grindings	7
Marion Beecham Wood Products	Handmade Rockers	6
Hughes Hardwood International	Specialty Wood Products	5
Dixie Handles	Handles of all kinds	4
Alvin's Spring Water	Water, Tea, and Lemonade	4

Collinwood Machine Works	Custom Machining and Welding	3
Casteel Solutions	Tool and Die	2
Plastics Unlimited	Pedigraph Immobilizer	2
Collinwood Springs	Bottled Water	2

Category	Per capita income	Median Household Income	% Unemp	Mgmt, business, science	Service occupation	Sales & Office	Natural resources, const	Production, transp	Total
2003	14710	30414	3.8	1210	1144	1062	604	1405.7	5426
2004	14784	30722	4.2	1216	1150	1068	607	1412.8	5453
2005	14858	31032	5.0	1222	1156	1073	610	1419.9	5481
2006	14933	31345	5.1	1228	1162	1078	613	1427	5508
2007	15008	31662	4.6	1234	1167	1084	616	1434.2	5536
2008	15083	31982	6.5	1241	1173	1089	619	1441.4	5564
2009	15159	32305	7.3	1247	1179	1095	622	1448.7	5592
2010	15235	32631	8.2	1253	1185	1100	626	1455.9	5620
2011	15312	32961	7.5	1259	1191	1106	629	1463.3	5648
2012	15389	33294	7.1	1266	1197	1111	632	1470.6	5676
2013	15466	33630	6.6	1272	1203	1117	635	1478	5705
2014	15582	33882	6.5	1288	1218	1131	643	1496	5734
2015	15699	34136	6.4	1304	1233	1145	651	1515	5762
2016	15817	34392	6.3	1320	1249	1159	659	1534	5791
2017	15935	34650	6.2	1337	1264	1174	667	1553	5820
2018	16055	34910	6.1	1354	1280	1189	676	1573	5849

### **Wayne County Solid Waste Stream**

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

- Residential 19.0%
- Commercial 0.0%
- Institutional 3.0%
- Industrial: 78.0%

Wayne County continues to strive to meet diversion / waste reduction goals set forth by the State of Tennessee. Predicted generation percents will remain unchanged for the next five years barring an influx of industrial sites starting up during the next five years. Population trends do not give reason to expect and or anticipate that Wayne County will increase solid waste tonnage over the next 5 years. In fact, with increased offsets by the recycling program the tonnage to landfills should continue to decrease at a modest rate over the next 5 years.

The bulk of solid waste recycling is wood byproducts sold or sent outside the county. These wood byproducts are used in paper mills and at energy producing facilities governed by TVA or private industry. These byproducts are typically transported by truck to the recipient.

## **Solid Waste Collection System**

### **Wayne County**

According to the U.S. Census Bureau, as of 2010, the population was 17,021. The county has a total area of 736 square miles, of which 734 square miles is land and 2 square miles is water. The population density was 23 people per square mile.

Solid waste pickup is not a function of the Wayne County government. Household & Commercial Garbage picks up trash throughout the county and the three municipalities and transports it to the Wayne County Transfer Station & Recycle Center (WCTS&RC) located at 412 Hog Creek Road, Waynesboro, TN 38483. Recyclables are received / collected at fifteen (15) mobile convenience center locations which operate from 6 AM to 9 AM and 3 PM to 6 PM. The comingled recyclables are then transported to the WCTS&RC. Special collections are provided to the Wayne County School System and local banks for paper products.

### **Clifton**

According to the United States Census Bureau, the city of Clifton has a total area of 7.0 square miles, of which, 6.4 square miles of it is land and 0.5 square miles of it (7.75%) is water. As of the census of 2000, there were 2,699 people, 353 households, and 223 families residing in the city. The population density was 420.1 people per square mile.

Household & Commercial Garbage picks up solid wastes for the city of Clifton and transports it to the Wayne County Transfer Station & Recycle Center (WCTS&RC) located at 412 Hog Creek Road, Waynesboro, TN 38483.

Wayne County provides recyclable curbside pickup for the city of Clifton on Thursday of each week. The recyclables are comingled and sorted at the Wayne County Transfer Station and Recycle Center. Special collections are provided to the Wayne County School System and local banks for paper products.

### **Collinwood**

According to the United States Census Bureau, the city of Collinwood has a total area of 2.8 square miles, all of it land. As of the census of 2000, there were 1,024 people, 428 households, and 297 families residing in the city. The population density was 365.9 people per square mile.

Household & Commercial Garbage picks up solid wastes for the town of Collinwood and transports it to the Wayne County Transfer Station & Recycle Center (WCTS&RC) located at 412 Hog Creek Road, Waynesboro, TN 38483.

Wayne County provides recyclable curbside pickup for the town of Collinwood on Tuesday of each week. The recyclables are comingled and sorted at the Wayne County Transfer Station and Recycle Center. Special collections are provided to the Wayne County School System and local banks for paper products.



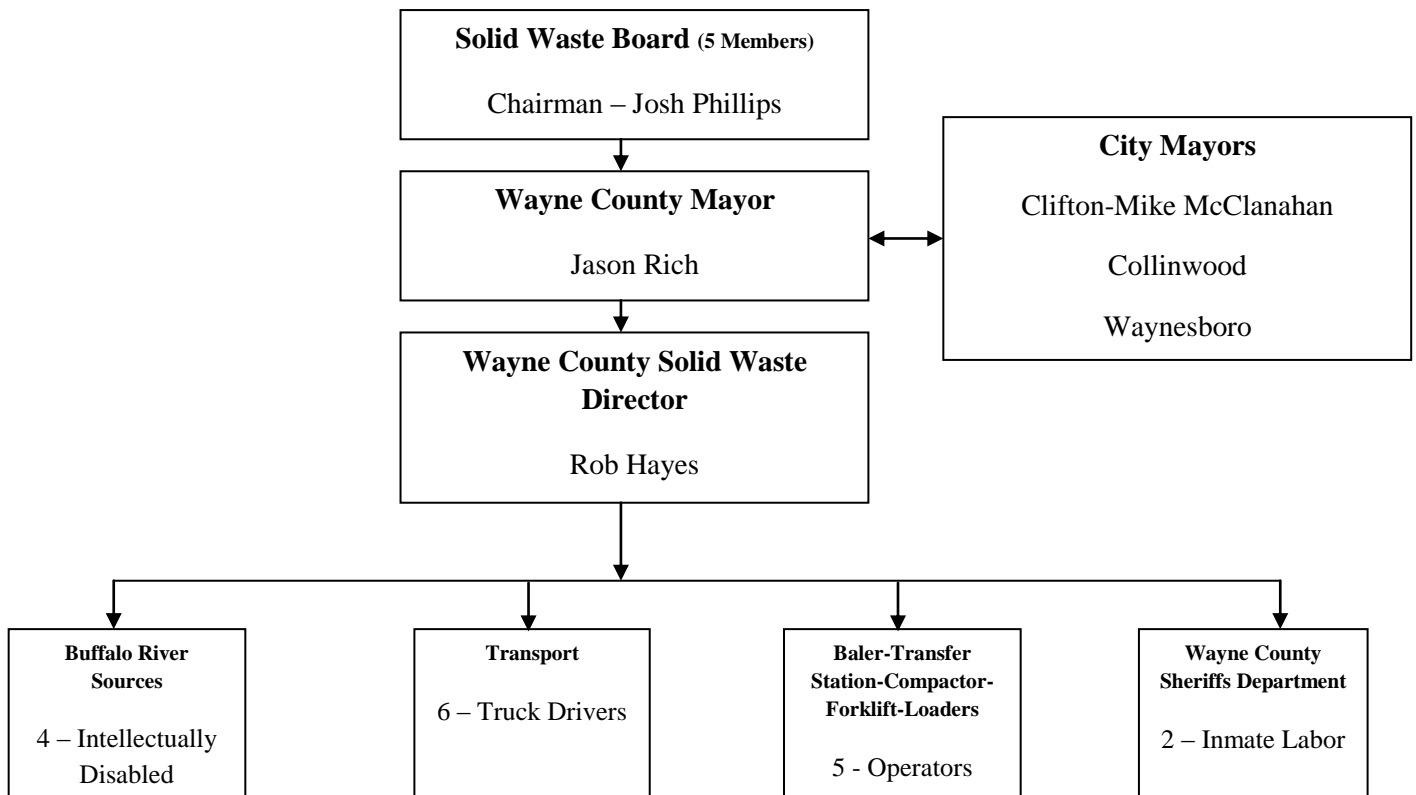
**Waynesboro**

Waynesboro is located at the junction of State Route 13 and U.S. Route 64, 105 miles from Nashville, and 135 miles from Memphis. According to the United States Census Bureau, the city has a total area of 2.5 square miles, all of it land. As of the census of 2010, the population was 2,449 at the 2010 census. There were 2,228 people, 954 households, and 601 families residing in the city. The population density was 904.2 people per square mile.

Household & Commercial Garbage picks up solid wastes for the city of Waynesboro and transports it to the Wayne County Transfer Station & Recycle Center (WCTS&RC) located at 412 Hog Creek Road, Waynesboro, TN 38483.

Wayne County provides recyclable curbside pickup for the city of Waynesboro on Monday (1/2 day) & Tuesday (1/2) of each week. The recyclables are comingled and sorted at the Wayne County Transfer Station and Recycle Center. Special collections are provided to the Wayne County School System and local banks for paper products.

**Organization Chart for Wayne County Solid Waste Department**



Wayne County is unique in that it is the second largest county in Tennessee in square miles, but ranks near the bottom in people per square mile. Wayne County has many remote sparsely inhabited areas.

Wayne County could benefit from more control over the solid waste collection end. The vendor, Household & Commercial Garbage has a monopoly in the county as the primary trash collector. H&C Garbage has contracts with the three municipalities in Wayne County. Residential rates could not be obtained from H&C Garbage.

If Wayne County was able to structure the Solid Waste Department similar to a “metropolitan” form of government department, they would have complete control over the solid waste and recyclable stream in the county. In order to do that the department positions would need to be upgraded with degree/experience requirements for the Solid Waste Director and adding positions to coordinate, collect, and transport the solid waste and recyclables. A recycle coordinator position reporting to the Solid Waste Director could prove to be beneficial in reducing solid waste to the landfill and generating revenue for the county with marketing recyclables.



# Map of Wayne County Solid Waste & Recyclable Locations

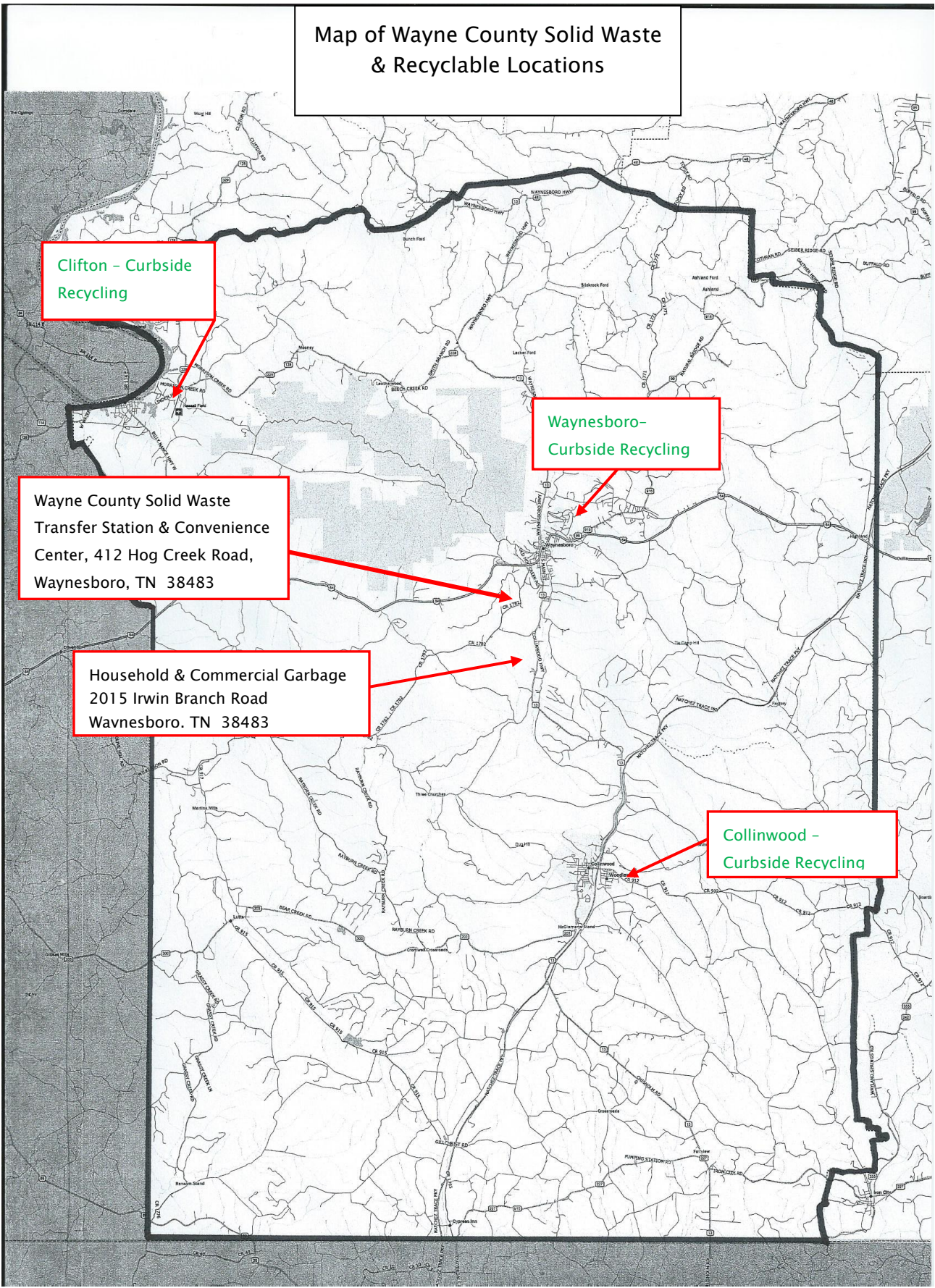
Clifton - Curbside Recycling

Waynesboro- Curbside Recycling

Wayne County Solid Waste Transfer Station & Convenience Center, 412 Hog Creek Road, Waynesboro, TN 38483

Household & Commercial Garbage 2015 Irwin Branch Road Wavnesboro. TN 38483

Collinwood - Curbside Recycling



**Attitudes of Wayne County Residents to Solid Waste Disposal**

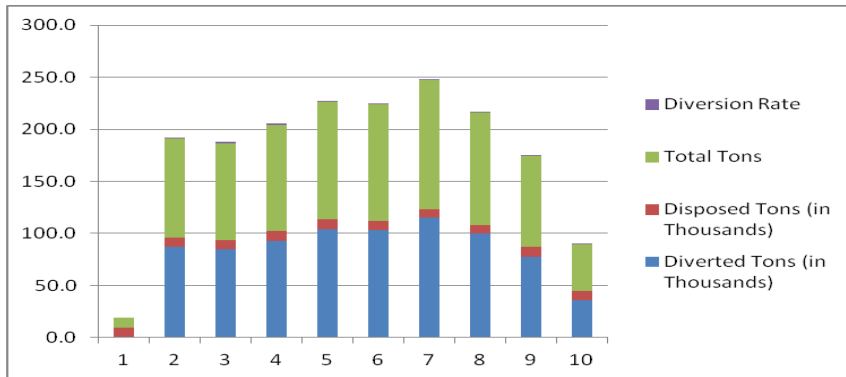
Wayne County is a rural county with a largely indifferent attitude towards solid waste disposal. Burning trash in a 55-gallon drum or in just a pile, often in the backyard, is still a too common method of solid waste disposal in Wayne County. National surveys have revealed between 25 and 50 percent of rural residences and farms continue to do backyard burning. The clusters of population in Clifton, Collinwood, and Waynesboro have taken to the idea of curbside recycling, however, the county remains very rural in nature and culture change will be a long and difficult task for Wayne County officials.

Recycling is provided in the three municipalities. Curbside pickup is offered in Collinwood, Clifton, and Waynesboro. Recycling is not mandatory but is encouraged as a means of reducing items going to the landfill along with generating revenue for the county. Comingled recyclables are collected on designated days as discussed previously in the assessment.

Education of the recycling needs in the school system is largely conducted by the school officials and there is not a specific plan in place that is sponsored by Wayne County. The county could become more interactive with the school system by implementing a recycling program similar to other surrounding counties.

**Evaluation of the Waste Reduction Systems for Counties & Municipalities in Region**

Year	Diverted (Tons)	Disposed (Tons)	Total Generated (Tons)	Diversion Rate
2002		9,511.0	9,511.0	
2003	86,834.0	8,932.0	95,766.0	90.7
2004	84,424.6	9,037.0	93,461.6	90.3
2005	93,023.7	9,239.0	102,262.7	91.0
2006	104,096.3	9,064.0	113,160.3	92.0
2007	102,829.0	9,315.5	112,144.5	91.7
2008	115,343.3	8,190.5	123,533.8	93.4
2009	99,730.6	8,405.3	108,135.9	92.2
2010	77,968.9	9,180.5	87,149.5	89.5
2011	36,168.0	8,451.8	44,619.8	81.1



Wayne County has been able to achieve the 25% diversion rate due to the recycling efforts put forth in the industrial sector. Also, Wayne County has curbside pickup in the three municipalities which has significantly contributed to the reduction rate being as high as it is.

**Collection/Disposal Capacity and Projected Life of Solid Waste Sites**

Site Name(s)	Current Capacity	Maximum Capacity	Projected Life of Facility
Wayne County Transfer Station & Recycle Center	360 NT / Day	360 NT / Day	Indefinite
<b>Total:</b>	<b>360 NT / Day</b>	<b>360 NT / Day</b>	<b>Indefinite</b>

**Service Providers**

Provider of Service	Service Area	Population Total Under This Service	Frequency of Service	Annual Tonnage Capacity	Type Service
Wayne County	Waynesboro	2449	Weekly	1040	Curbside Recycle
Wayne County	Clifton	2699	Weekly	1040	Curbside Recycle
Wayne County	Collinwood	1024	Weekly	520	Curbside Recycle
Household & Commercial Garbage	Wayne County (including municipalities)	17021	Weekly	15000	Solid Waste Collection
Wayne County	Wayne County	17021	Drop off	100000	Solid Waste & Recyclables



## Unmet Financial Needs and Cost Summary

<b>EXPENDITURES</b>			
Description	Present Need \$/year	Unmet Needs \$/year	Total Needs (Present + Unmet) \$/year
Salary and Benefits			
Transportation/hauling			
Collection and Disposal Systems	731297	0	0
Equipment			
Sites			
Convenience Center			
Transfer Station			
Recycling Center			
MRF			
Landfills			
Site			
Operation	11500	0	0
Closure			
Post Closure Care			
Administration (supplies, communication costs, etc.)			
Education			
Public			
Continuing Ed.			
Capital Projects			
<b>REVENUE</b>			
Host agreement fee			
Tipping fees			
Property taxes	720722	0	0
Sales tax			
Surcharges			
Disposal Fees			
Collection charges			
Industrial or Commercial charges			
Residential charges			
Convenience Centers charges			
Transfer Station charges			
Sale of Methane Gas			
Other sources: (Grants, bonds, interest, sales, etc.)	25000	0	0

Wayne County is operating with a budget surplus. At this time there are no unmet needs as revenue is keeping up with costs. Increases will be absorbed with increases in tax revenues. Under the current system of collection activities fuel costs and salary increases are the most pressing expenditures projected.

## **Sustainable Goals Consistent with the State Plan**

Wayne County government seems to be satisfied at this time in regards to the Solid Waste Plan. Improvements in recycling efforts could further reduce the amount of material going to landfills. Wayne County is a member of the Shiloh Solid Waste Region. Recommendations are for Wayne, Lawrence, Lewis, and Perry counties to form a region to better utilize resources in one of the most sparsely populated areas of the state and with the smallest amount of population per square mile.

Wayne County is currently running a diversion rate of 90% well within the 25% reduction mandated by state law.



### ***Sources:***

US Census Bureau, Wayne County Government, Rob Hayes-Wayne County SWD, MTIDA, City of Collinwood, City of Waynesboro, City of Clifton, Clifton Mayor, Wikipedia