

**Loudon County**

**Municipal Solid Waste Region**

**2011 Qualitative Review**



**Tennessee Department of Environment and Conservation**  
**Division of Solid Waste Management**  
**Solid Waste Assistance Programs**  
**401 Church Street, 5th Floor**  
**Nashville, Tennessee 37243**

## Introduction

Tennessee's *Solid Waste Management Act of 1991* (SWMA) required solid waste regions to achieve a twenty-five percent (25%) waste reduction/diversion goal for solid waste going into Class I landfills by December 31, 2003. Under T.C.A. § 68-211-861, the basis for determining compliance with this goal was based on a per capita reduction measurement that may be adjusted for economic or population trends, or by a qualitative assessment that evaluates whether the region had comparable progress to those of similar regions that made the goal based on the per capita methodology. Until 2003, the need to define the qualitative assessment was not necessary since there were no regions out of compliance. After the 2003 reporting period, 34 regions failed to meet the 25% waste reduction/diversion goal, which necessitated the promulgation of rules describing the methodology for qualitative assessment of regions failing to meet the per capita base year reduction/diversion. These rules became effective August 6, 2006.






The first step in the qualitative assessment process is to determine if the failing region met the 25% waste reduction/diversion goal using the real-time methodology. This method is calculated annually by dividing the total amount recycled or diverted from Class I landfills by the total generated waste stream. If the region did not meet the goal through this process, the region is then reviewed in order to determine if a "good faith" effort was made toward compliance and if their programs and solid waste infrastructure are qualitatively equivalent to like regions of similar population and economic characteristics who have achieved the goal.

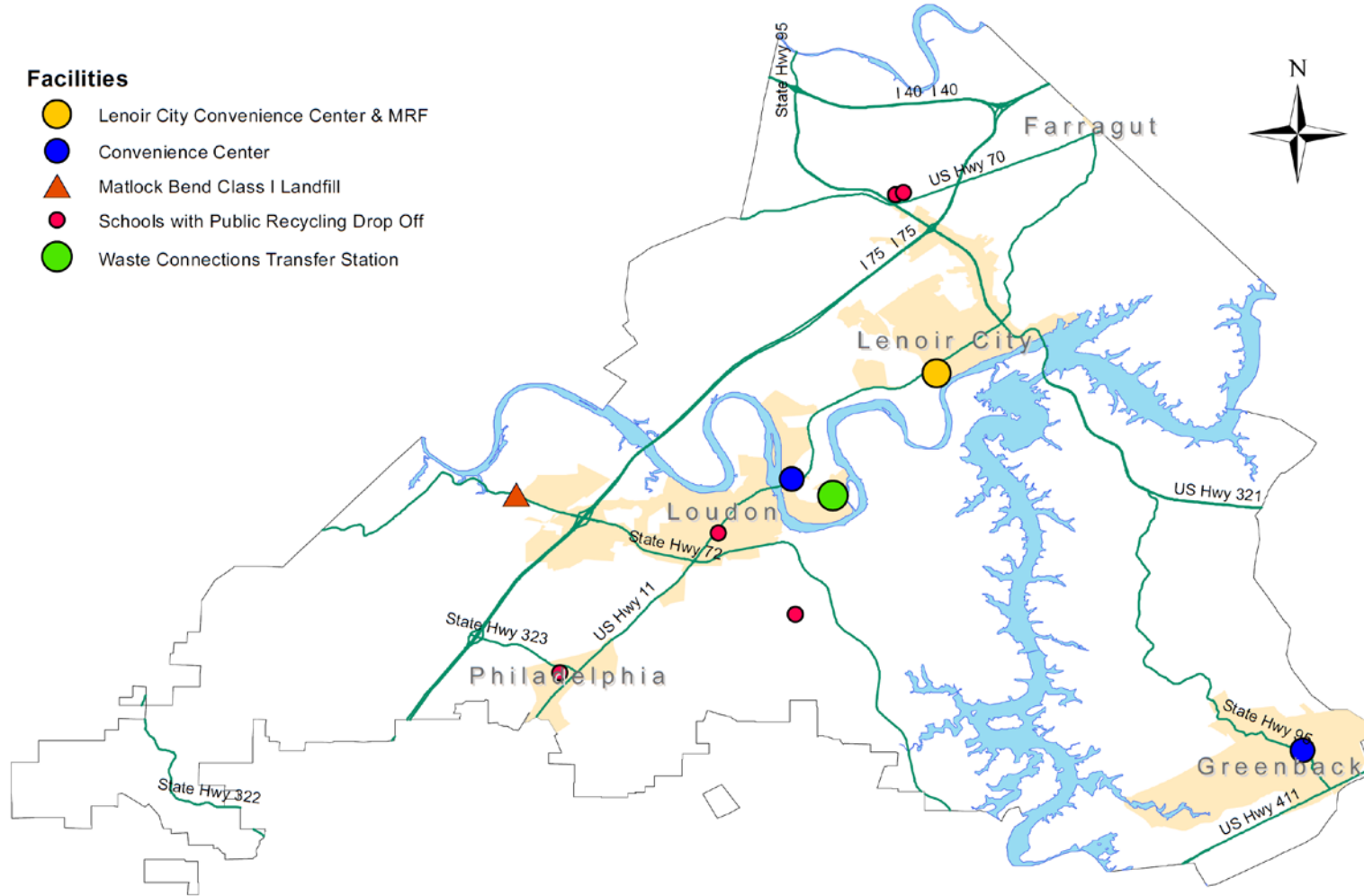
In 2011, four regions failed to meet the goal by either base year or real-time methods. With a base year reduction of -35% and a real-time comparison of 19%, Loudon County was one of those regions. Loudon County, along with the three other regions that failed to meet the goal, was compared to regions that met the goal and have similar population size and economic characteristics. The regions selected for Loudon's comparison were Dickson and McMinn.

On October 5, 2012, Division of Solid Waste Management's Matt Maynard visited with Loudon County Municipal Solid Waste Board Chair Steve Field, Loudon County Mayor Estelle Herron, Loudon County Convenience Center Director Gordon Harless, Loudon City Manager Lynn Mills, and Lenoir City Administrator Dale Hurst to discuss all facets of the solid waste management programs. Visits were made to Matlock Bend Landfill and the county's convenience centers. The equipment at these facilities was examined and noted.

# Loudon County Solid Waste System

## Facilities

-  Lenoir City Convenience Center & MRF
-  Convenience Center
-  Matlock Bend Class I Landfill
-  Schools with Public Recycling Drop Off
-  Waste Connections Transfer Station



As of December 31, 2012

## Solid Waste Facilities and Infrastructure

Every county in Tennessee is required by law to provide a minimum level of waste reduction and waste collection assurance. Loudon's solid waste collection and recycling programs serve a population of 49,237 and an area of 229 square miles. The minimum number of convenience center sites required by state statute, based on Loudon County's population, is calculated as one location. The county has three convenience centers located in Loudon, Lenoir City and the Greenback community. The Loudon center, located on Rock Quarry Road, and Lenoir City center, located on Hall's Ferry Road, are open 7 am to 6 pm Monday through Saturday. The Greenback center, located on Highway 95, is open 7 am to 6 pm Tuesday through Saturday.

The convenience centers are well maintained and equipped with multiple compactors and receptacles to handle residential waste. After compaction, the county hauls the waste to the Matlock Bend Landfill.

Each convenience center collects corrugated cardboard (OCC) directly in a vertical baler where it is baled once the machine is full. Bales are transported to the Lenoir City convenience center where they are held until a full load is assembled and then sold to Rock-Tenn in Knoxville. Mixed container plastics are collected at each center before they are also transported to the Lenoir City convenience center for compaction and pick up by Spectra Recycling in Maryville. Spectra Recycling picks up mixed paper and newspaper directly from each of the three convenience centers. Lankford Salvage collects all metal, including bulk and containers, from each center. Electronic scrap (E-scrap) is collected at each convenience center, and then transported to the Lenoir City convenience center before being sent to UNICOR in Marianna, Fl. Each convenience center also collects and recycles fluorescent lamps, batteries, used oil, antifreeze, and plastic film.



Photo 1: Greenback Convenience Center

To inform the public of its programs, Loudon County does have its convenience center locations, hours and acceptable items located on its webpage; however, it is not prominently highlighted on the county's main page.

Five of the county's twelve schools have segregated, open top trailers for the collection of OCC, aluminum cans, paper and plastic. These are predominately used by students and faculty at these locations, but they can also be accessed by the general public. The locations are Eaton, Philadelphia and Steekee elementary schools, North Middle and Loudon High. When full, trailers are towed by county staff to the Lenoir City Convenience Center for consolidation.

Lenoir City, Loudon County's largest municipality, provides once a week curbside collection of residential waste for all of its 8,642 residents. Collection is handled with by city employees and city equipment to Matlock Bend Landfill. Waste collection is financed through a monthly fee which is collected on each household's utility bill. The city provides dumpsters to multi-family dwellings and businesses. Weekly collection of these receptacles is handled by contract with a private hauler. Lenoir City provides brush collection once a week. Due to limitations of the city's chipping equipment, about 90% of the collected brush is hauled to the landfill. The brush that is chipped is mixed with leaves and used for city projects and occasionally given to the public.

The city collects OCC from four or five local businesses and delivers it to the Lenoir City Convenience Center. Lenoir City also has a weekly curbside recycling pilot program in a 140 home subdivision. Approximately 90 homes participate by placing aluminum and steel cans, plastic and newspaper in clear bags which are collected and taken to the Lenoir City Convenience Center. Upon collection, the city replaces the bag.

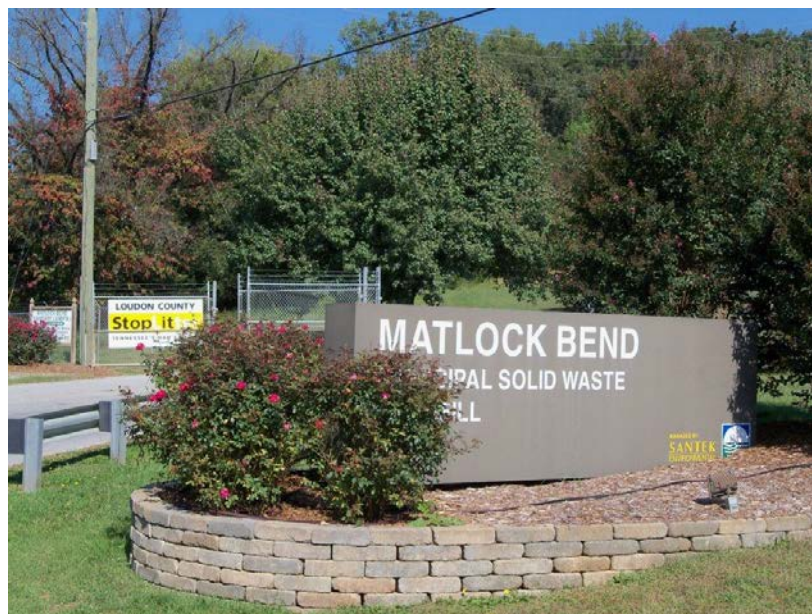


**Photo 2: Baled OCC at Loudon Convenience Center**



The city of Loudon provides twice a week curbside waste collection by city employees. Waste collection is financed through property taxes. If residents leave OCC beside the waste containers, it is collected and delivered to the Loudon Convenience Center. Brush is collected as needed and chipped. The city uses approximately 60% of the wood chips on city property while the rest is given away to residents. Leaves are collected with vacuums and delivered to several local farms.

Matlock Bend Landfill is a publically owned class I landfill located in Loudon County. The Loudon County Solid Waste Disposal Commission oversees the operation of the landfill. Host fees for the landfill are used by the commission to contract with Santek Environmental, Inc. to manage the day to day operations. As part of the host agreement, the county and municipalities pay a reduced landfill tipping fee.



**Photo 3: Entrance to Matlock Bend Landfill**

### **Municipal Solid Waste Board**

The Solid Waste Management Act states that every Municipal Solid Waste Region in the state must appoint a municipal solid waste board, composed of representatives of each county and each city which participates in the region. The regional Municipal Solid Waste Board is responsible for accurately reviewing and approving annual progress reports and is instrumental in the approval process for any new solid waste permits for the region. At a minimum, having an active board that meets with regularity is vital to complete these tasks. The board is also responsible for developing MSW solid waste plans, assessing disposal capacity and collection assurance, providing for solid waste education, and assisting in other aspects of integrated solid waste management. Duties and powers of the solid waste planning board are spelled out in T.C.A. § 68-211-813 thru 815.

The Loudon County Solid Waste Disposal Commission (the Commission) acts as the region's Municipal Solid Waste Board. The Commission meets once a month to discuss and make decisions concerning Matlock Bend Landfill and other elements of the solid waste program. Recently, the commission purchased parcels adjacent to the landfill for possible future expansion to secure long material management needs.

## Financial Information

T.C.A. § 68-211-874(a) states that each county, solid waste authority and municipality shall account for financial activities related to the management of solid waste in either a special revenue fund or an enterprise fund established expressly for that purpose. According to the Fiscal Year 2011 Annual Financial Report of Loudon County Tennessee performed by the Tennessee Comptroller of the Treasury, Loudon County operates a special revenue fund to account for collection and transportation of the solid waste program.

The solid waste financial information of Loudon County was examined by department staff. From a solid waste management standpoint, the expenditures and revenues appear to be in line with state mandates. Loudon County's solid waste revenues and expenditures were found to be financially solvent.

### Revenues

Local Taxes (local option sales tax)	\$688,937
Sale of Recycled Commodities	\$126,209
Miscellaneous	\$720
Sale of Equipment	\$1,860
Litter Grant	\$23,247
Other State Money	\$7,390
<b>Total</b>	<b><u>\$848,368</u></b>

### Expenditures

Education/Information	\$23,551
Convenience Centers	\$586,488
Miscellaneous	\$7,920
<b>Total</b>	<b><u>\$617,959</u></b>

\* Excess (Deficiency) of Revenues..... \$230,409

Loudon County's estimated total expenditures for Fiscal Year 2010-2011 were \$28,123,433 and the total revenues were \$22,302,377. The county's solid waste

expenditures were \$617,959 and the solid waste revenues were \$848,368. The solid waste expenditures were 2.2% of the total county expenditures and the solid waste revenues were 3.8% of the total county revenues.

In addition, the Loudon County Solid Waste Disposal Commission (a joint venture of the county and cities) operates an agency fund to cover the operation of the landfill. Transactions of the Commission are channeled through the Trustee's Office and the county accounts for those transactions in an agency capacity.

**Revenues**

Surcharges and Closure Fees	\$324,133
Tire Grant and Interest	\$25,492
<b>Total</b>	<b><u>\$349,625</u></b>

**Expenditures**

Facility Operation	\$571,914
Depreciation	\$5,831
<b>Total</b>	<b><u>\$577,745</u></b>

\* Excess (Deficiency) of Revenues..... (\$228,120)

The Commission shows a negative change in net assets due primarily to an increase in the utilized capacity of the landfill, which in turn required a larger adjustment to the estimated liability for closure and post closure costs than in previous years. The increased utilization of the landfill during the year resulted in a \$203,145 increase to the estimated liability for closure and post closure costs over the previous year's estimated costs of \$242,407. This increase in the estimated costs was offset by a \$7,877 positive variance in other operating expenses for the year to net an increase in total operating expenses of \$195,268 for the year.

One of the causes of the increased estimate of closure and post closure operating costs was a slope failure at the landfill that occurred in November of 2010.

As of June 30, 2011, the Commission completed its third full year of operations under its 20-year operations contract with Santek Environmental, Inc. that commenced on October 1, 2007 and provides for the turn-key operation of Matlock Bend Landfill by the operator instead of the Commission. In accordance with the current agreement, Santek Environmental, Inc. receives all revenue from tipping fees, pays operating costs of the landfill, and pays a host fee and closure/post-closure fees to the Commission.



## **Analysis of Local Conditions**

In 1995, the State of Tennessee averaged 1.3 tons per capita of municipal solid waste placed into Class I landfills. By contrast, in 1995, the Loudon County Municipal Solid Waste Region reported 109,602 tons of waste going into Class I landfills, or 3.05 tons per person. A 25% reduction of this value would require a disposal rate of 0.37 tons per person/per year. In 2003, the goal's effective year, the Region reported 75,881 tons of Class I waste or 1.82 tons per person. Loudon's reported Class I waste was 197,850 tons for a state high of 4.02 tons per person in 2011. In 2011, the State of Tennessee averaged 0.91 tons per capita.

The Loudon County Municipal Solid Waste Region's Solid Waste Annual Progress Report (APR) is completed each year by Santek Environmental, Inc. as part of the contract it has with the Commission. While the company has an excellent knowledge and understanding of the operation of Matlock Bend Landfill, it does not run the Region's or the local government's solid waste and material management programs or have knowledge of the vitally important planning sections of the APR which are necessary for the Region to be eligible for grants and to plan methods of recycling and diverting materials away from the landfill to help in meeting the waste reduction/diversion goal.

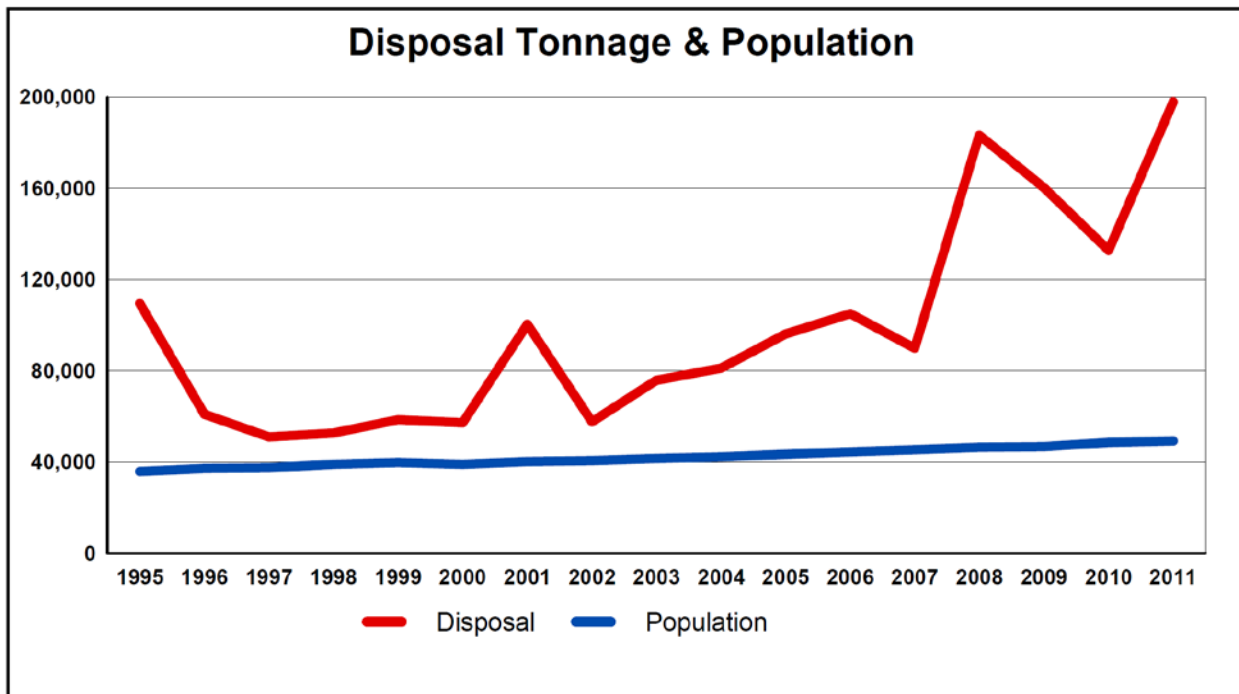
Matlock Bend Landfill receives approximately 630 tons of waste a day from Loudon County sources, based on a 6 day work week. It is the opinion of Loudon County Solid Waste Disposal Commission Chair Steve Field that 70% of the waste entering the landfill is from industrial sources. Approximately 300 tons a day are industrial byproducts from one industry alone, while another industry can contribute up to 100 tons a day of industrial byproducts. If waste from these two industrial sources were diverted, then the per capita disposal drops from 4.02 tons per person to 1.46 tons per person.

In 2011, the public collection systems of Loudon County and its municipalities reported that they recycled 1,322 tons of fiber, metal, plastic and glass products, or 54 pounds per person. In 2011, all public collection systems in the State of Tennessee recycled 189,509 tons of fiber, metal, plastic and glass products, or 59 pounds per person.

Though the municipalities of Loudon and Lenoir City have some waste diversion efforts, they are not robust. Lenoir City's pilot curbside recycling program and business OCC collection reach a limited few. More importantly, 90% of the weekly collected brush in Lenoir City is sent to the Matlock Bend Landfill instead of being mulched. While the city of Loudon does have a successful brush chipping program, the curbside collection of waste twice a week discourages recycling by making disposal a much more convenient option.

## Statistics

Year	Population	Disposal	Tons Per Capita
1995	35,927	109,602	3.05
1996	37,240	61,007	1.64
1997	37,427	51,062	1.36
1998	39,023	52,745	1.35
1999	39,892	58,520	1.47
2000	39,086	57,195	1.46
2001	40,240	100,430	2.50
2002	40,631	57,659	1.42
2003	41,624	75,881	1.82
2004	42,237	81,213	1.92
2005	43,387	96,211	2.22
2006	44,566	105,008	2.36
2007	45,448	89,922	1.98
2008	46,445	183,244	3.95
2009	46,725	160,305	3.43
2010	48,556	132,758	2.73
2011	49,237	197,850	4.02



## Environmental Field Office Report

The Knoxville Environmental Field Office inspects each of the three Loudon County convenience centers once a year. In the last five years, only one minor violation was documented relating to a television which had been placed by a resident in the metal recycling container.

The Matlock Bend Landfill experienced a slope failure in November 2010 and a subsequent inspection by the Tennessee Department of Environment and Conservation, Division of Solid Waste Management (TDEC) observed inadequate leachate capture. TDEC determined that the Commission and Santek Environmental, Inc. violated the terms of the Tennessee Solid Waste Disposal Act and issued a Notice of Non-Compliance.

In connection therewith, TDEC sent a Compliance Agreement which stated actions to be taken in order to become compliant with the Tennessee Solid Waste Disposal Act. The order assessed damages of \$2,158 to be paid within thirty days of receipt of the order, plus a civil penalty of \$25,000, \$5,000 to be paid within thirty days of the order and the remaining \$20,000 to be paid within 180 days after the date the order was received. The \$2,158 in damages and \$5,000 civil penalty were paid by Santek Environmental, Inc.; however, the remaining \$20,000 in civil penalties was waived by the Division Director based on the timely completion of the order's requirements.

In 2011, the Matlock Bend Landfill was inspected 17 times. On six of those occasions, minor violations were identified, primarily involving inadequate leachate capture, inadequate cover, gas migration and dust control. All inadequacies were addressed in subsequent inspections.



Photo 4: E-scrap Collection at Lenoir City Convenience Center

## Comparison Counties

Based on Loudon County's reported Class I disposal and tons diverted, the Region failed to meet the 25% waste reduction/diversion goal in 2011. Therefore, the Department is required to assess the activities and expenditures of the Region, and local governments in that region, to determine whether the region's programs are qualitatively equivalent to other regions that met the goal, or whether the failure was due to factors beyond the control of the Region. This qualitative assessment method, prescribed by the Department and approved by the Municipal Solid Waste Advisory Committee, was promulgated as a rule in accordance with the provisions of the Uniform Administrative Procedures Act, compiled in Title 4, Chapter 5. The two counties selected for the comparison were Dickson and McMinn.

DICKSON COUNTY achieved the goal in 2011 with a base year reduction of 0% and a real-time comparison of 71%. Over the past five years the county has averaged 0.93 tons per capita of municipal solid waste placed into Class I landfills.

Dickson County maintains 10 convenience centers located strategically throughout the county, each with active recycling collection services. These centers are open and manned 6 am to 6 pm Monday, Wednesday and Friday; 9 am to 6 pm Saturday; and 1 pm to 6 pm Sunday. All convenience centers collect solid waste in compactors before being transported to the county's transfer station, located at the Dickson County Class III/IV Landfill, for consolidation. Waste is then transported to West Camden Landfill in Benton County.

Each convenience center collects plastics, aluminum, white goods and cardboard for recycling; and all but two accept paper products. Glass, E-scrap, batteries, oil, paint and antifreeze are accepted at the transfer station. In addition, the county services a recycling drop-off location in the Dickson County Library parking lot. This location accepts paper, cardboard and plastics. The recycling program is featured prominently on the county's webpage. Residents can easily find what can be recycled, where and when.

The County Solid Waste Department employs a full time solid waste director and a recycling coordinator. By employing both a solid waste director and a recycling coordinator, Dickson County is able to have a greater level of management over the day-to-day operations of all aspects of their solid waste systems. Direct oversight of locations, collection schedules, materials marketing and public education allows the program to operate more efficiently and aids in financial stability.

These Dickson County programs are paid for by a monthly fee charged to each resident in the county. In 2011, the county's solid waste expenditures were \$4,202,602 and the solid waste revenues were \$3,779,856. The solid waste expenditures were 11.3% of the total county expenditures and the solid waste revenues were 9.6% of the total county revenues.

Three of Dickson County's six municipalities handle solid waste directly. The cities of Charlotte and Dickson provide curbside collection of solid waste by their public works departments. The city of White Bluff contracts with a private company to provide curbside collection of solid waste. The services in all of these municipalities are paid for through property taxes. No recycling programs are offered by the municipalities of Charlotte, Dickson or White Bluff. The municipalities of Burns and Vanleer partner with Dickson County's solid waste collection and waste reduction efforts by allowing county convenience centers to be located on city property.

In 2011, the public collection systems of Dickson County and its municipalities reported that they recycled 613 tons of fiber, metal, plastic and glass products, or 25 pounds per person.

Dickson's Regional Municipal Solid Waste Board holds meetings once a month to discuss issues ranging from fee collection to facility operation to long range planning.

McMINN COUNTY, along with the other 9 counties of the Southeast Municipal Solid Waste Region, achieved a base year reduction of 9% in 2011. Individually, McMinn achieved a real-time comparison of 40%. Over the past five years the county has averaged 0.97 tons per capita of municipal solid waste placed into Class I landfills.

McMinn County maintains one convenience center located on the site of the McMinn County Landfill. The center is open and manned 7:30 am to 6 pm Monday through Saturday and 1 pm to 6 pm Sunday. All customers bringing waste to the convenience center and landfill are charged a fee by weight to dispose. This user fee covers the daily expenses of the active cells of the landfill.

Prior to crossing the scales at the landfill and convenience center and paying associated fees, customers have the ability to recycle cardboard, paper, plastics, aluminum and mixed metals, as well as used oil and batteries. This provides an immediate monetary incentive to recycle. The recycling program is featured prominently on the county's webpage.

The County Solid Waste Department employs a full time solid waste director. By employing a solid waste director, McMinn County is able to have a greater level of management over the day-to-day operations of all aspects of their solid waste system.

In 2011, the county's solid waste expenditures were \$1,456,971 and the solid waste revenues were \$1,128,210. The solid waste expenditures were 7.7% of the total county expenditures and the solid waste revenues were 5.8% of the total county revenues.

All five of McMinn County's municipalities handle solid waste directly. The cities of Athens, Calhoun, Englewood, Etowah and Niota provide curbside collection of solid waste by their public works departments paid for through fees. The city of Athens utilizes a Pay-As-You-Throw system where customers are charged different amounts

depending on whether they use one, two or three carts. No recycling programs are offered by the municipalities of Calhoun, Englewood, Etowah or Niota.

The city of Athens, however, has a recycling center for its residents. The center is open 8 am to 10 pm Monday through Friday and 8 am to 1 pm on Saturday. All cardboard, paper, plastic, glass and tin cans are collected comingled in large bins. Separate collection containers are available to accept aluminum cans, E-scrap, used oil, antifreeze and cooking oil. Latex paints and white goods are collected curbside for recycling. The city also collects cardboard at five of its schools.

In 2011, the public collection systems of McMinn County and its municipalities reported that they recycled 853 tons of fiber, metal, plastic and glass products, or 33 pounds per person.

McMinn County is part of the ten county Southeast Municipal Solid Waste Region. The Region's board holds meetings quarterly to discuss solid waste issues and planning.



Photo 5: Paper Collection at Loudon Convenience Center

### Qualitative Equivalency

As stated earlier, T.C.A. § 68-211-861 requires each Municipal Solid Waste Region to achieve a 25% waste reduction/diversion goal for solid waste going to Class I landfills. Loudon's failure to realize this goal caused the Department to assess the Region's solid waste reduction program activities and expenditures to determine if it was qualitatively equivalent to other comparative regions that did reach the reduction goal.

While Loudon County's three convenience center locations are fewer than Dickson County's ten, Loudon does have more than McMinn County's one location. Loudon



County does accept more commodities for recycling than either Dickson or McMinn counties. While the cities of Loudon and Lenoir City offer far less recycling opportunities than Athens, both offer as much or more than the other McMinn cities of Calhoun, Englewood, Etowah and Niota and Dickson's Charlotte, Dickson and White Bluff. In a direct comparison of the public collection systems of fiber, metal, plastic and glass products for each county and its municipalities; Dickson reported that they recycled 25 pounds per person, McMinn reported that they recycled 33 pounds per person, and Loudon reported that they recycled 54 pounds per person.

During this qualitative assessment and visit to Loudon County and its municipalities by Department staff, all areas of the Region's waste reduction programs were determined to be qualitatively equivalent to those of the comparative regions. Loudon County and its municipalities have viable waste collection and disposal systems with an adequate number and location of collection facilities. However, Department staff noted several areas of the system that should be improved. These areas are discussed further in the "Recommendations for Improvement" section of this document.

## **Needs Assessment**

T.C.A. § 68-211-811 required the development districts to submit a district needs assessment for each county in the district by September 30, 1992. These needs assessments, to be conducted by the development district staff, shall be revised to reflect subsequent developments in the district by April 1, 1999, and every five (5) years thereafter. Loudon County's Needs Assessment was completed by the East Tennessee Development District. The assessment, revised in 2010, reports that the county has continued to see modest growth since 2000 in large part because of its emergence as an economic force in east Tennessee.

The assessment indicates that Loudon County is experiencing a significant amount of new commercial and industrial development and that currently, over sixty manufacturing plants call the county home. This industrial development has led to a 100,000 ton class I disposal increase since 2005.

The East Tennessee Development District reports that while the Region of Loudon County has made great strides in providing new services to its residents in terms of recycling, there are still things the Region can do to improve its waste reduction efforts. The report states that the county will need to consider adding a convenience center in the future based on growth patterns. The county should also develop and encourage a more robust school recycling program and look to start a paint recycling program.

The assessment indicates that the Region needs to find ways to get the cities more involved in the future. The most effective method being that the cities begin door-to-door collection of recyclables. The report states that in order for the program to be cost efficient for the cities, the Region would need to allow for single-stream collection, which would necessitate that the Region develop a recycling processing center.

## Recommendations for Improvement

The Loudon County Municipal Solid Waste Region has consistently met the waste reduction and diversion goal over the last ten years. However, the reported Class I solid waste disposal tonnage and per capita disposal rate has increased significantly over this period. As a whole, the Region is qualitatively equivalent, but there are several areas that should be improved.

- Loudon County should hire a full-time solid waste director. As evidenced by both of the comparison counties, having a dedicated position in charge of the county's waste management program greatly enhances the ability to plan and direct improvements and changes; manage daily operations; maintain and report required information involving waste collection and disposal; promote recycling; and market recyclables.
- The Region should take the lead in completing the Municipal Solid Waste Annual Progress Report (APR) as an update to the ongoing 10 year solid waste plan. The APR is a vitally important planning document which details how materials are currently handled and how they expect to be managed in the future. This document should be completed by someone who is very aware of all of the current programs within the Region and of those that are needed moving forward. Santek Environmental, Inc. should contribute information for the plan update, but in part, not in whole.
- The Region should engage the two industries who bring the majority of waste to the Matlock Bend Landfill, to find recycling or waste diversion options for their industrial byproducts. At a minimum, these materials should be listed on the Tennessee Material Exchange and continue research for new diversion opportunities until a suitable solution is found.
- Public convenience center and recycling drop off locations within Loudon County are limited when compared to convenience of recycling opportunities within Dickson County. The county should explore a partnership with the city of Philadelphia to provide service in the southwestern portion of the county as well as provide additional recycling opportunities in high population areas.
- The Region should expand the school recycling program to every school in the county. No matter how modest the tonnage returns are from the smaller schools, waste reduction education programs today help create recycling tax payers of tomorrow. If students have the opportunity to participate in recycling at school, they frequently become invested and encourage their parents to recycle at home.
- As one of the largest generators of residential waste in the Region, Lenoir City should provide more recycling opportunities to its residents. The city should begin to expand its single stream curbside recycling collection program. Local

business partners and stakeholders should be sought to help sponsor and raise awareness of the program.

- Lenoir City should establish a recycling drop off center similar to the one operated by the comparison city of Athens. This center should be located some distance away from the county's convenience center for maximum coverage. The city would then be able to market the commodities themselves or partner with the county to do so.
- Due to limitations of Lenoir City's brush chipping equipment, about 90% of the weekly collected brush must be landfilled. The city should invest in equipment that can handle this material, saving air space at the Region's landfill and disposal costs for the city. This may be accomplished through local government partnerships.
- The city of Loudon currently provides curbside collection of waste to its residents twice a week. The city should seriously consider dropping one of these waste collection cycles and instead provide curbside collection of recyclables. Single stream collection of commodities would reduce the need of twice a week waste collection. This would lower the disposal costs for the city, while at the same time provide a revenue stream from the sale of the commodities. The city of Loudon would be able to use the same trucks and staff for waste and recycling collection.
- All local governments should work with all local business and industry to provide, at a minimum, corrugated cardboard collection.
- The Region should increase waste reduction education in the Region. All local governments should begin using its newspapers, websites and free social networking sites to help educate and inform residents of the waste reduction efforts such as available recycling programs, facility locations and hours, and other program related information.



**Photo 6: Aluminum Can Collection at Greenback Convenience Center**

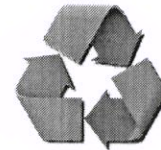
## **Conclusion**

T.C.A. § 68-211-861 requires each Municipal Solid Waste Region to achieve a twenty-five percent (25%) waste reduction/diversion goal for solid waste going to Class I landfills by December 31, 2003. Loudon County Municipal Solid Waste Region failed to meet the required goal in 2011. This failure caused the Department to qualitatively assess the Region's solid waste reduction program activities and expenditures to determine if it was qualitatively equivalent to other comparative counties that did reach the goal.

After reviewing the Region's programs, finances, infrastructure, education and staffing; it is the opinion of the Department that the Loudon County Municipal Solid Waste Region has similar waste reduction and disposal programs in design and implementation, and are, therefore, qualitatively equivalent to the comparative regions and are making a "good faith" effort toward meeting the waste reduction and diversion goal.



# **LOUDON COUNTY SOLID WASTE DISPOSAL COMMISSION**



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Planning, Reporting, and Waste Reduction  
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401 Church St  
Nashville, TN 37243

RECEIVED  
DIV SOLID WASTE MGT

MAY 09 2013

May 1, 2013

Dear Mr. Maynard,

As Chairman of the Loudon County Solid Waste Disposal Commission, I am writing to provide comments back to TDEC in response to the recently completed Qualitative Assessment.

First, I would like to thank you and your staff at TDEC for providing a thorough review of the recycling initiatives conducted within our single county region. I generally support the conclusions as presented and will use TDEC's recommendations to provide guidance in our efforts to improve recycling within the County. I will also encourage our colleagues in our stakeholder cities to seek to improve their own recycling opportunities.

Loudon County has been blessed with productive and robust industry and much of the waste coming into the Matlock Bend Landfill is industrial waste. Indeed nearly 70% of all waste coming to the Matlock Bend Landfill is industrial waste, most of which is received under Special Waste permits. At most municipal landfills a normal ratio of Municipal Solid Waste (MSW) to industrial waste is roughly 70% MSW to 30% industrial. However, due to the vast amount of industrial waste generated in Loudon County, the waste ratio at the Matlock Bend Landfill is roughly 70 % industrial to 30% MSW!

While I certainly appreciate TDEC's recommendations, I do take exception to the policies and processes TDEC currently utilizes concerning two particular areas:

- 1) The classification of MSW
- 2) The voluntary nature of recycling programs

I find it troubling that the classification of MSW currently implemented by TDEC appears to be inconsistent with the classification of MSW enumerated in the applicable provisions of the Tennessee Code Annotated (TCA) and the accepted Environmental Protection Agency (EPA) definitions. TCA § 68-211-802(a)(10) of the Solid Waste Management Act of 1991 (SWMA) provides as follows: 'Municipal solid waste' means any garbage, refuse, industrial lunchroom or office waste, household waste, household hazardous waste, yard waste, and any other material resulting from the operation



of residential, municipal, commercial or institutional establishments and from community activities; provided that 'municipal solid waste' does not include the following:

- (A) Radioactive waste;
- (B) Hazardous waste as defined in § 68-212-104;
- (C) Infectious waste;
- (D) Materials that are being transported to a facility for reprocessing or reuse; provided further, that reprocessing or reuse does not include incineration or placement in a landfill; and
- (E) Industrial waste which may include office, domestic or cafeteria waste, managed in a privately owned solid waste disposal system or resource recovery facility, if such waste is generated solely by the owner of the solid waste disposal system or resource recovery facility.

Municipal Solid Waste as defined by the EPA in their *Measuring Recycling Guidance Glossary*: refers to wastes such as durable goods, nondurable goods, containers and packaging, food scraps, yard trimmings, and miscellaneous inorganic wastes from residential, commercial, institutional, and industrial sources, such as appliances, automobile tires, old newspapers, clothing, disposable tableware, office and classroom paper, wood pallets, and cafeteria wastes. Municipal Solid Waste specifically excludes solid wastes from other sources, such as construction and demolition debris, autobodies, municipal sludges, combustion ash, and industrial process wastes that might also be disposed of in municipal waste landfills or incinerators. (U.S. EPA, 1996b)

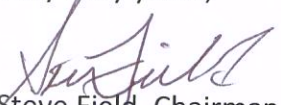
The current practice of TDEC to arbitrarily classify all waste received by our Class I landfill as "municipal solid waste" is inconsistent with the classification of MSW by the EPA and the SWMA enumerated in TCA § 68-211-802(a)(10).

Finally, with regard to recycling, it is my understanding that the SWMA originally delineated recycling as a purely voluntary endeavor. Indeed, the "goal" of a 25% reduction was designed as a goal – not a mandate. I find it troubling that in a 2011 TDEC issued document entitled *The Role of the Regional Municipal Solid Waste Board in Tennessee*, the use of the term "25% reduction goal" was modified to "mandated 25% waste reduction and diversion goal".

What I find particularly ironic about this process, as currently enforced by TDEC, is that two of our three largest industrial customers are recycling business at their core and we end up with the industrial materials that they can't recycle. I firmly believe that TDEC should re-evaluate its classification of MSW and implementation of its recycling initiatives so that they are administered by TDEC in a manner that is consistent with the original intent.

Thank you for your consideration.

Very truly yours,

  
Steve Field, Chairman

cc: Kevin C. Stevens, General Counsel



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APR 26 2013

CITY OF LENOIR CITY

Division of Solid Waste  
Management

CITY COUNCIL

Mike Henline  
Douglas "Buddy" Hines  
Bobby Johnson, Sr.  
Jim Shields  
Eddie Simpson  
Harry Wampler



RECORDER-TREASURER  
James W. Wilburn III

CITY JUDGE  
Terry Vann

CITY ATTORNEY  
James K. Scott

CITY ADMINISTRATOR  
W. Dale Hurst

April 24, 2013

Mr. Matt Maynard, MPH  
Tennessee Dept. of Environment & Conservation  
Division of Solid Waste Management  
Solid Waste Assistance Programs  
401 Church Street, 5<sup>th</sup> Floor  
Nashville, TN 37243

Dear Mr. Maynard:

I read your report with much interest. I appreciate your hard work and the significance of the report's results.

Under the recommendations for improvement, I intend to further engage the Mayor and City Council as well as appropriate department supervisors in continuing to increase our efforts in the following areas:

- More recycling opportunities for our residents
- Engage our schools in this effort
- The City's chipping program

Thank you,

W. Dale Hurst  
City Administrator