

2016 Knox County Regional Solid Waste Plan Reporting 2015 Waste and Recycling Data

Purpose of Document

This is an update to the Regional Solid Waste Plan and a progress report for the implementation of past plans. Waste and recycling data conveyed in this document are summaries of the estimates of waste and recycling activity entered into the Re-TRAC system as required by the Tennessee Department of Environment and Conservation (TDEC). Great efforts are made to capture all available waste and recycling data but actual totals may differ from estimates entered into Re-TRAC. The data reported electronically through Re-TRAC may be adjusted by TDEC officials during a review and acceptance process later in the year.

The Knox County Regional Solid Waste Board is presented the following information at a publicly held and properly noticed meeting. The Board votes to accept the reporting and empowers the chair to sign off electronically on the final document. The Board Chair signoff and the final acknowledgment by the Knox County Mayor are completed in Re-TRAC. This plan will be used by the Solid Waste Board and by local solid waste offices for guidance in making solid waste decisions and to help formulate solid waste policies for the region. For questions about this document or solid waste assistance within Knox County contact Knox County Solid Waste at 865-215-5865 or send an email to solidwaste@knoxcounty.org.

TABLE OF CONTENTS

PART 1 GENERAL INFORMATION

Administrative Contact Information

Demographic Data

PART 2 WASTE PLANNING OBJECTIVES

Objective 1: Update Goals and Measure Progress

- Goals and Measurement Progress
- Tire Report
- Household Hazardous Waste
- Landfill Data
- Recycling and Diversion Data

Objective 2: Increase Recycling Access and Participation

Objective 3: Promote Material Processing and End Use in Tennessee

Objective 4: Increase Diversion of Organics

Objective 5: Support New Waste Reduction and Recycling Technology

Objective 6: Expand and Focus Education and Outreach

Objective 7: Ensure Sufficient and Environmentally Sound Disposal

Objective 8: Develop Sustainable Funding Sources for Sustainable Materials Management

PART 3 DISASTER DEBRIS PLANNING

PART 4 APPENDICES

Appendix A: References to T.C.A. for Annual Reporting

Appendix B: Municipal Solid Waste Planning Regions Map

PART 1 GENERAL INFORMATION

Administrative Contact Information

Regional Solid Waste Board	Title	Jurisdiction	Term Ends
Catherine Wilt	Chair	Knox County	3/31/2018
David Collins	Member	Knox County	3/31/2021
Grant Barton	Member	City of Knoxville	3/31/2019
Kim Davis	Member	Knox County	3/31/2018
Nick Jackson	Member	Knox County	3/31/2021
Planning Region Report Author	Title	Organization	
Drew Thurman	Compliance Manager	Knox County Government	
County Contacts	Title	Organization	
Tim Burchett	Mayor	Knox County Government	
Tom Salter	Solid Waste Director	Knox County Government	
Zachary Johnson	Recycling Coordinator	Knox County Government	
Other Key Contacts	Title	Organization	
Rachel Butzler	Solid Waste Manager	City of Knoxville	

Demographic Information (Completed by TDEC)

The following information was not entered by Knox County personnel and is reported exactly as it was entered for 2014.

Population Information

Number of people in the regular population:

448,644

Household Information

Total number of households:

197,288

Other Information

Consumer Price Index:

237

Current Year Employment:

211,560

Taxable Sales:

\$8,409,548,326

PART 2 WASTE PLANNING OBJECTIVES

Objective 1: Update Goals and Measure Progress

Goals and Measurement Progress

2025 Statewide Solid Waste and Materials Management Plan Implementation

Update local government waste reduction and recycling goals?

No (Re-TRAC will show nothing, qualifying statement below)

The Region has not adopted a “materials management plan”. However, the Regional Solid Waste Board recognizes the authority of the State of Tennessee to establish recycling and diversion goals for the regions and will work diligently in good faith to comply with legal or statutory goals established by the State of Tennessee. Furthermore, one of the primary roles of the Regional Solid Waste Board is to development a regional solid waste plan that results in the most cost effective and efficient management of municipal solid waste is in the best interest of the citizens of Knox County. To that effect the regional municipal waste entities will pursue waste management and recycling initiatives that are in the best financial interest of the taxpayers. Currently the public and private sector parties in the region are fully committed to recycling or diverting substantial amounts of material away from landfills into the recycling market because increased recycling activity creates jobs across Tennessee, recycling increases the life of landfills, and recycling is expected by the public as a necessary public and privately available service.

Tire Report Module

Amount of Tires managed:

3,243.36

Amount of Tires sent to beneficial use:

3,243.36

Amount of Tires landfilled:

0

Household Hazardous Waste

The HHW Facility is operated by the City of Knoxville with equal funding for operating and disposal costs from Knox County and the City of Knoxville. All City and County residents are permitted to use the facility. In 2015, this facility was visited by 6,520 vehicles. 79.6 tons of HHW material was processed and an additional 124.5 tons of latex paint was solidified and sent to the Class I landfill. The following estimates were calculated by taking the total tonnage of materials handled at HHW in 2015 then subtracting the weight of solidified latex paint (124.5 tons) in order to get estimated weight of HHW diverted from the landfill (79.6 tons). Based on 2015 about 61% of what comes through HHW is paint, and 39% is HHW that is diverted from a Class I landfill. This ratio is used to estimate the non-paint HHW for the past 5 years. Previously the total was reported to TDEC without the paint separated making the number higher.

Household Hazardous Waste (tons)						
Year	2010	2011	2012	2013	2014	2015
Tonnage processed at HHW Facility	120.0	169.0	146.0	155.0	143.0	204.1
Est tons of latex paint solidified	73.2	103.1	89.1	94.6	87.2	124.5
Est tons of HHW (w/o latex paint)	46.8	65.9	56.9	60.5	55.8	79.6

Landfill Data

Landfill Disposal					
Type	County	Landfill Name	TDEC Permit:	Tons	
Class I	Anderson	Chestnut Ridge Landfill	SNL01-000-0160	229,361	
Class I	McMinn	Meadow Branch Landfill	SNL54-000-0174	173,793	
Class I	Scott	Volunteer Regional Landfill	SNL76-000-0271	66,881	
Class I	Loudon	Matlock Bend Loudon County Landfill	SNL53-000-0203	19,049	
Class I	Rhea	Rhea County Landfill	SNL72-000-0131	10	
Class I	Hamblen	Lakeway San. & Recyc Landfill	SNL32-000-0280	9	
Class I	Hawkins	BFI Carter Valley Landfill	SNL37-000-0185	6	
Class III/IV	Knox	Riverside C&D Landfill	DML47-000-0011	86,203	
Class III/IV	Knox	Poplar View C&D Landfill	DML47-000-0057	80,391	
Class III/IV	Knox	Yarnell C&D Demolition Landfill	DML47-000-0069	61,308	
Total Landfill				717,011	100%
Class I				489,109	68%
Class III/IV				227,902	32%
<i>Knox County taken to Class I landfills</i>				31,966	
<i>City of Knoxville Class I taken to Class I</i>				53,420	
<i>Total Publicly Collected for Class I landfills</i>				85,386	
<i>Knox County taken to Class III/IV C&D Landfills</i>				11,077	
<i>City of Knoxville taken to Class III/IV C&D Landfills</i>				34,206	
<i>Total Publicly Collected for Class III/IV C&D Landfills</i>				45,283	

Waste Disposal Fees

- Knox County disposal tip fee Class I landfill \$22.79 per ton
- Knox County disposal tip fee Class III/IV landfill \$17.00 per ton
- Knox County hauling fee is \$60-\$150 per haul for waste/recycling containers depending on distance.
- City of Knoxville disposal tip fee Class I landfill \$21.72 per ton
- City of Knoxville disposal tip fee Class III/IV landfill \$16.49 per ton
- City pays \$6.90/household for curbside trash
- City pays \$4.15/household for curbside recycling for first 15,000 residents and \$1.82/household for additional residents
- City charges small commercial customers in the CBID \$50/quarter
- City Charges \$45/ton tipping fee at the City Solid Waste Management Facility (Transfer Station) at 1033 Elm Street.

Recycling and Diversion Data

Re-TRAC Recycling & Re-TRAC Diversion Reported				
Recycling or Re-TRAC Diversion	Collection Type:	Name	State	Tons
Re-TRAC Recycling	Commercial/Industrial	PSC Metals, Inc.	Tennessee	94,195
Re-TRAC Recycling	Commercial/Industrial	Waste Connections of Tennessee, Inc.	Tennessee	21,484
Re-TRAC Recycling	Commercial/Industrial	WestRock Recycling	Tennessee	18,430
Re-TRAC Recycling	Commercial/Industrial	Tennessee Metals Company LLC	Tennessee	15,456
Re-TRAC Recycling	Residential - (Public government)	City of Knoxville	Tennessee	8,016
Re-TRAC Recycling	Commercial/Industrial	Tennessee American Recycling	Tennessee	7,417
Re-TRAC Recycling	Commercial/Industrial	Waste Management Inc.	Tennessee	6,560
Re-TRAC Recycling	Residential - (Public government)	Knox County	Tennessee	6,494
Re-TRAC Recycling	Commercial/Industrial	Construction Waste Recycling LLC	Tennessee	5,050
Re-TRAC Recycling	Institutional - (Universities)	University of Tennessee - Knoxville	Tennessee	1,991
Re-TRAC Recycling	Commercial/Industrial	Enterprise Waste Oil Co., Inc.	Tennessee	1,842
Re-TRAC Recycling	Commercial/Industrial	Goodwill Industries - Knoxville	Tennessee	1,747
Re-TRAC Recycling	Commercial/Industrial	Liberty Tire Recycling, LLC	Tennessee	1,290
Re-TRAC Recycling	Commercial/Industrial	Walmart # 1318	Tennessee	1,056
Re-TRAC Recycling	Commercial/Industrial	Safety-Kleen Systems	Illinois	995
Re-TRAC Recycling	Commercial/Industrial	Walmart # 2065	Tennessee	983
Re-TRAC Recycling	Commercial/Industrial	Walmart # 1320	Tennessee	959
Re-TRAC Recycling	Commercial/Industrial	Walmart # 1319	Tennessee	904
Re-TRAC Recycling	Commercial/Industrial	Walmart # 2310	Tennessee	902
Re-TRAC Recycling	Commercial/Industrial	Southeastern Recycling	Tennessee	879
Re-TRAC Recycling	Commercial/Industrial	Spectra Recycling, Inc.	Tennessee	868
Re-TRAC Recycling	Commercial/Industrial	Walmart # 2932	Tennessee	854
Re-TRAC Recycling	Commercial/Industrial	Walmart # 8256	Tennessee	781
Re-TRAC Recycling	Commercial/Industrial	Walmart # 6572	Tennessee	693
Re-TRAC Recycling	Commercial/Industrial	9, 11454, 10918, 9857, 6894, 9812, 9808, 6744, 7736, 105	Tennessee	487
Re-TRAC Recycling	Commercial/Industrial	Swift Industrial Power, Inc.	Tennessee	280
Re-TRAC Recycling	Commercial/Industrial	Battery Services Inc.	Tennessee	90
Re-TRAC Recycling	Commercial/Industrial	Walmart # 4167	Tennessee	46
Re-TRAC Recycling	Commercial/Industrial	Master Battery LLC	Tennessee	28
Re-TRAC Recycling	Commercial/Industrial	Clean Harbors	Tennessee	2
Re-Trac Diversion	Residential - (Public government)	City of Knoxville	Tennessee	31,620
Re-Trac Diversion	Commercial/Industrial	Nature's Best Organics of TN, LLC	Tennessee	24,052
Re-Trac Diversion	Commercial/Institutional/Industrial	Knoxville Utilities Board	Tennessee	5,446
Re-Trac Diversion	Commercial/Industrial	Yarnell Landfill	Tennessee	2,942
Re-Trac Diversion	Commercial/Industrial	Valley Proteins, Inc.	Virginia	1,744
Re-Trac Diversion	Commercial/Industrial	Griffin Industries	Tennessee	780
Re-Trac Diversion	Institutional - (Universities)	University of Tennessee - Knoxville	Tennessee	467
Re-Trac Diversion	Commercial/Industrial	Southeastern Recycling	Tennessee	360
Re-Trac Diversion	Commercial/Institutional/Industrial	West Knoxville Utility District	Tennessee	268
Re-Trac Diversion	Residential - (Public government)	Knox County	Tennessee	204
Re-Trac Diversion	Commercial/Industrial	Walmart # 8256	Tennessee	23
Re-Trac Diversion	Commercial/Industrial	Walmart # 2932	Tennessee	19
Re-Trac Diversion	Commercial/Industrial	Walmart # 2065	Tennessee	18
Re-Trac Diversion	Commercial/Industrial	Walmart # 1320	Tennessee	17
Re-Trac Diversion	Commercial/Industrial	Walmart # 1319	Tennessee	12
Re-Trac Diversion	Commercial/Industrial	Walmart # 6572	Tennessee	12
Re-Trac Diversion	Commercial/Industrial	Walmart # 2310	Tennessee	9
Re-Trac Diversion	Commercial/Industrial	Walmart # 1318	Tennessee	8
Total Re-TRAC Recycling and Diversion				268,780
Re-TRAC Recycling				200,778 75%
Re-TRAC Diversion				68,002 25%
<i>Residential (Public) Portion</i>				<i>46,334 17%</i>
Total Waste Stream				985,791
Class I Landfilled				489,109 50%
Class III/IV Landfilled				227,902 47%
Recycling and Re-TRAC Diversion				268,780 27%
Waste Stream NOT disposed in a Class I Landfill				496,681.75 50%

Objective 2: Increase Recycling Access and Participation

Diversion Activities

Did your local government have any household hazardous waste events?

No

Source Reduction Activities

Describe source reduction and reuse activities by public or private entities by jurisdiction.

Municipalities in the Knox County Region continue to consult with interested industries and businesses on ways to reduce waste at their sources.

List any restrictions the local government or region places on collected wastes (Examples: no cardboard allowed in MSW compactors, additional container charges, etc.)

There are several restrictions placed on waste collected at County Centers. Individuals are subject to daily limits in volume and size (one pickup truck load, bulky items must be able to fit into the compactor box). Household Hazardous Waste Materials are diverted to the Household Hazardous Waste Facility (HHW). Signage directs users to put recyclables into other containers rather than the Municipal Solid Waste (MSW) or Construction and Demolition (C/D) bulky boxes.

City of Knoxville offers weekly curbside trash pickup to approximately 60,000 households with curbside recycling program for 23,000 homes. Recycling is collected in 95 gallon totes which are picked up every 2 weeks. All extra recycling can be taken to drop off centers. City residents are limited to 5 bulky waste items per pickup day and up to four 32-gallon trash cans per pickup day. Household Hazardous Waste Materials are diverted to the Household Hazardous Waste Facility (HHW).

The Knox County Region has a permanent HHW collection facility with no fees for residents. The HHW facility has different limits for different materials. Limits are generous. The HHW facility does not currently accept HHW from outside the Knox County Region. There are restrictions for items such as paint and other liquids. HHW will only accept (20) twenty gallons per day. Items containing refrigerant are banned at all County Centers along with bans placed on paint cans filled with liquid paint.

Materials such as brick, block, gravel, dirt, rock, sand, concrete, and cement are normally directed away from municipal and county facilities to a landfill because they damage the equipment.

Centers separate metal food and beverage cans from scrap metal. Some special wastes like old mercury containing items such as thermometers or compact fluorescent bulbs are also accepted. Restricted items are directed to alternate collection sites like the Household Hazardous Waste Facility or other public and private collection programs.

List Curbside Recycling Programs by Jurisdiction

Does any local government have any curbside recycling programs?

Yes

Jurisdiction	Participation Rate	Check All Materials Collected in Program	Is This Program Separated or Co-mingled
City of Knoxville Curbside Program -Residents	37%	Fiber/Paper; Glass; Plastic; Metals; Other	Co-mingled

Re-TRAC asks waste regions to report government run curbside recycling participation rates. Participation rates are more about behavior as opposed to availability. Knox County chose to report the percentage of homes that have curbside recycling available to them. The percentage of households that have curbside recycling is 37 percent. The participation rate of those homes that have curbside recycling is believed to be 100 percent because residents with City of Knoxville curbside recycling bins requested the bins. While it is not asked residents not living in the City can also purchase curbside waste and recycling service from waste companies. The number of residential waste/recycling subscribers is unknown but it is also assumed any resident paying for curbside recycling is participating.

Recycling Drop Off Locations

Does your local government have any recycling drop off locations not associated with convenience centers?

Yes

Collection facilities (not associated with County Convenience Centers)

City of Knoxville -Recycling ONLY Centers	Hours	Address	City	Zip code	Permit#	Phone#
Cedar Bluff City Recycling Center	open 24 hours, 7 days a week	341 Parkvillage Road	Knoxville	37923	na	865-215-4311
Chilhowee Park City Recycling Center	open 24 hours, 7 days a week	210 Alice Street	Knoxville	37914	na	865-215-4311
Downtown City Recycling Center	open 24 hours, 7 days a week	227 Willow Avenue	Knoxville	37915	na	865-215-4311
Kroger @ I-640 Plaza City Recycling Center	open 24 hours, 7 days a week	4440 Western Ave.	Knoxville	37921	na	865-215-4311
W. Moody Ave. City Recycling Center	open 24 hours, 7 days a week	225 W. Moody Avenue	Knoxville	37920	na	865-215-4311

Materials Collected at Facilities

City of Knoxville -Recycling ONLY Centers	Metals	Paper	Glass	Batteries	Plastic	Textiles	Pallets	Tires	Used Oil	Antifreeze	E-Scrap	Paint	Other
Cedar Bluff City Recycling Center	yes	yes	yes	yes	yes	yes	no	no	no	no	yes	no	yes
Chilhowee Park City Recycling Center	yes	yes	yes	yes	yes	yes	no	no	no	no	yes	no	yes
Downtown City Recycling Center	yes	yes	yes	yes	yes	yes	no	no	no	no	yes	no	yes
Kroger @ I-640 Plaza City Recycling Center	yes	yes	yes	yes	yes	yes	no	no	no	no	yes	no	yes
W. Moody Ave. City Recycling Center	yes	yes	yes	yes	yes	yes	no	no	no	no	yes	no	yes

Problem Waste Management

Describe current problem waste management strategy. Include management descriptions for batteries, oil, paint, antifreeze, electronics and HHW materials.

Batteries) Batteries are picked up from County Convenience Centers and the HHW facility by contractors.

Oil and Antifreeze) Oil and antifreeze are picked from Knox County Convenience Centers and the HHW facility by contractors.

Paint) Liquid only accepted at the HHW facility. The City and County plan to increase education on drying latex paint to a solid so it can be disposed as household trash.

Electronic Waste) Ewaste is collected at the HHW facility free of charge from households (modest fee for businesses). The County and City both pay contractors to take and recycle electronic waste at drop off locations without charging fees for residents.

HHW) Knox County has a permanent Household Hazardous Waste Facility jointly funded by City, County and State funding sources. The City of Knoxville manages and operates the facility.

Tires) The County accepts several tires per person for free per year at County Centers. The City of Knoxville collects tires at the Transfer Station for a fee. The City of Knoxville also accepts a limited number of tires from residents at the curb without fees. Tire generators (tire shops) collect from consumers a \$1.35 pre-disposal fee (tax) for each new tire sold and they remit \$1.25 to the State of Tennessee. As of July 2014, \$1.00 of the fees per new tire sold in the County is paid to Knox County in order to fund the processing or beneficial end use of tires. Knox County established a system to provide a credit to generators (and the City) at the County tire contractor based on the amount of fees they collect.

Cylinders) Compressed gas cylinders are increasingly problematic at public collection programs. While most cylinders are considered commercial waste, residents regularly show up with various types of pressurized (or empty) cylinders that are costly and difficult to transport, empty, recycle, or dispose of in a proper manner.

Waste Reduction and Recycling Obstacles

List and discuss the three largest obstacles to your waste reduction/recycling system:

1) There are participation plateaus or saturation rates for recycling programs. Curbside recycling programs report higher participation than drop off recycling programs. Convenience Centers that provide trash and recycling report higher participation than recycling-only drop off centers. Regardless of the collection system as long as the act of recycling is an optional behavior there will be limits to participation.

2) A lack of understanding of market forces with respect to recycling programs. Recyclers assume all recyclables collected by the public or private collection programs generate revenue. This is true for high-value commodities. Other recyclables like glass are problematic to collect or actually cost a lot of money to recycle. Some materials are difficult to market for resale or can

cause damage to the recyclers' equipment if placed in the same collection bins. Contamination from wishful recycling can ruin the loads, slow processing, and drive up costs. Glass recycling is problematic and it may need to be phased out.

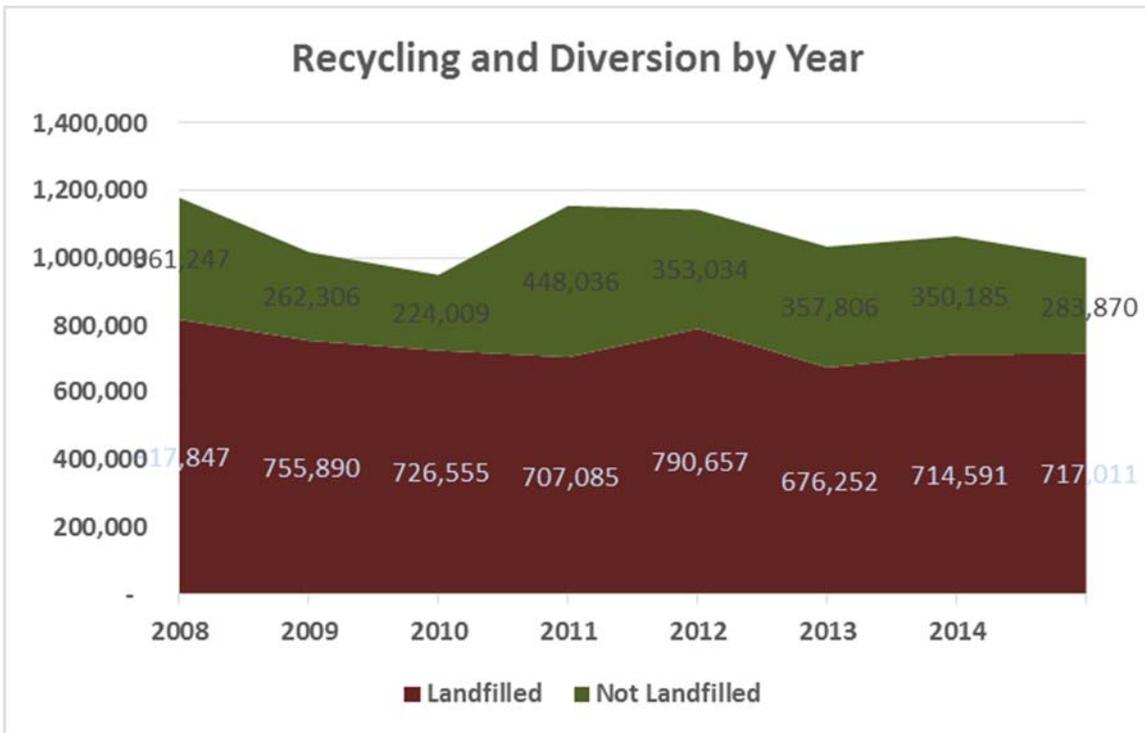
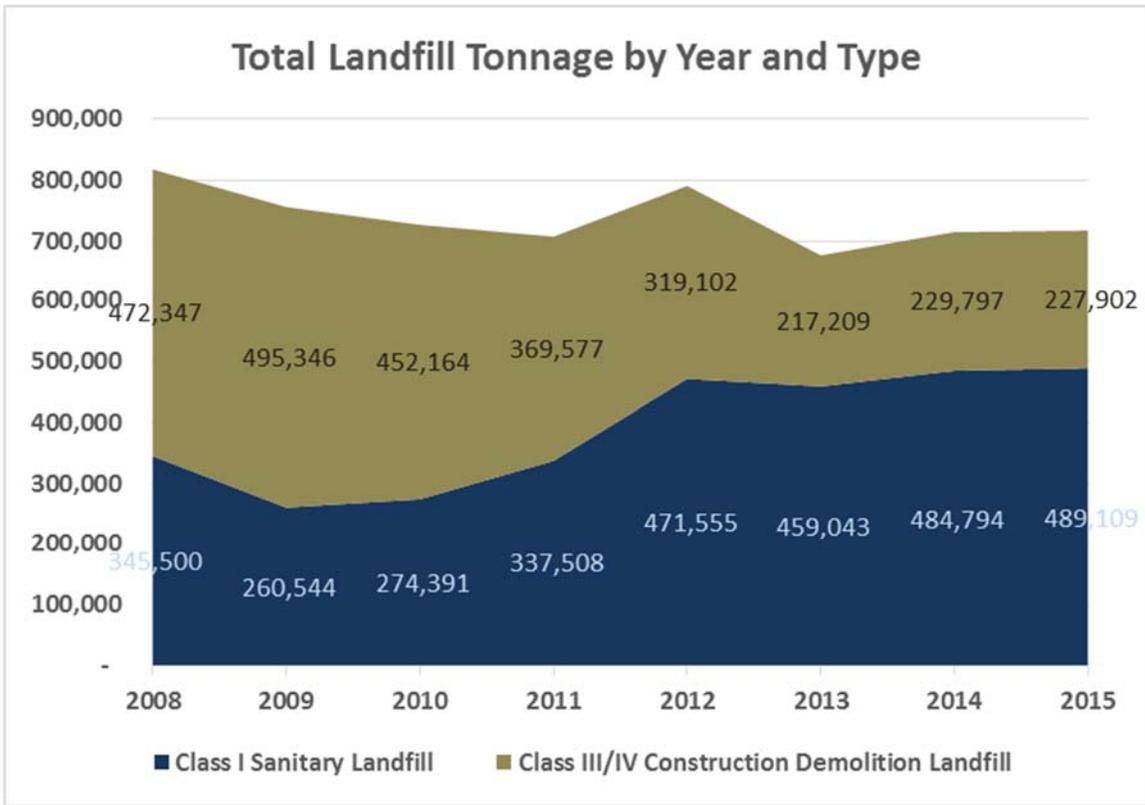
3) A lack of understanding and value placed on the economic importance of recycling. High recycling rates and industry are linked. Manufacturers and other industry often locates where there is a large supply of raw materials. Successful recycling programs generate a plentiful and steady supply of raw materials. There are paper and container manufacturers located in or near Knox County in part because there is a good supply of recycled paper for their mill. Though there is data and anecdotal evidence to support the efficacy of recycling it remains a real challenge to convince people that participation in local recycling programs, the collection of recyclables by public and private entities, and the processing of recyclable material collected is a benefit to the local economy.

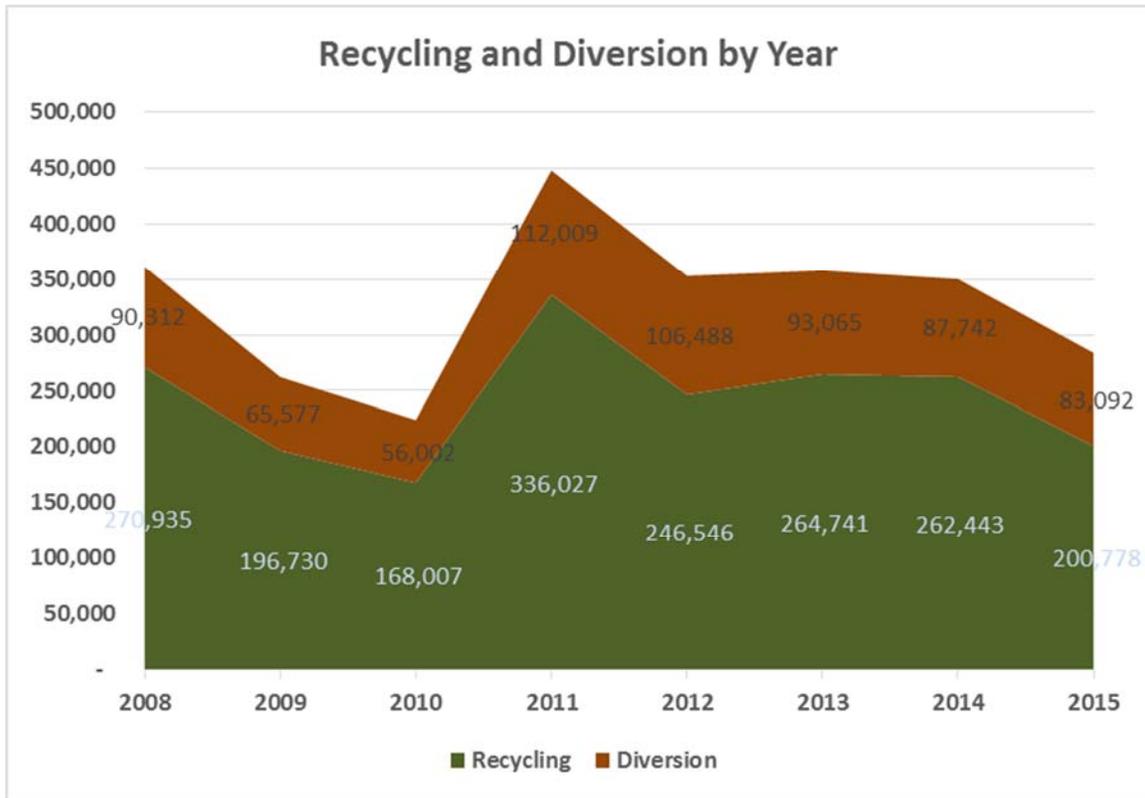
Describe the growth trends, waste projections, and system structure of the region.

Landfill data shows a small decline and slow recovery in the total waste generated by the region at ~1,000,000 tons of waste per year. Total waste is steady. The percentage of waste not landfilled is also steady between 25-30%. There is a dip in waste generated from 2008-2011 attributable to the global economic collapse. There was a shift from 2008 where the landfilled waste was mostly construction and demolition (C/D) in 2008 to mostly Class I in 2014. The economic slowdown may have caused a longer contraction in the construction industry leading to a slower recovery. Items once destined for C/D landfills are now sent to Class I landfills. The construction and demolition industry is increasingly recycling material. One example of increased construction and demolition recycling is recycled concrete from demolished buildings sold as aggregate for road base. Waste projections for the region correlate with significant population, industrial, or economic levels. If construction recovers to a more significant proportion of total waste then total waste may grow with the increased activity. Natural disasters also increase landfill with debris removal.

The Solid Waste Board plans and reports solid waste, diversion, and recycling data annually to the State of Tennessee. The Regional Solid Waste Board is a (5) five-member board established by Knox County Commission resolution R-92-11-127.

The two tax-supported waste collection programs operated by Knox County and the City of Knoxville only account for roughly 30 percent of the total landfilled waste originating from the region. The County operates convenience centers, manages a litter dumping cleanup/prevention program, and manages a tire disposal program. The City of Knoxville, Knox County, and the State of Tennessee jointly fund a permanent household hazardous waste facility (HHW). The City provides curbside waste and limited recycling service to its residents, drop off recycling centers, and litter/dumping control.





2025 Statewide Solid Waste and Materials Management Plan Implementation

Implement a Recycling Grant Plan.

No (Re-TRAC will show nothing, qualifying statement below)

The Region has no intention of starting a recycling grant program. The region and municipalities would pursue and apply for recycling grants available.

Support drop-off sites for residential collection where curbside not feasible.

Yes

The County operates seven (7) drop off waste and recycling Convenience Centers for residents that do not wish to pay for a private waste and recycling service.

The City of Knoxville operates a weekly curbside trash pickup for approximately 60,000 homes and bi-monthly recycling curbside pickup program for 23,000 homes. The City also supports five (5) drop-off recycling centers throughout the city. City residents waiting for the expansion of the City recycling program and residents unable to participate because their housing type is not serviced by the City (more than 4 units) are encouraged to use the closest City/County drop-off centers to their home.

Support enhancement of curbside and local government recycling programs.

Yes

The County does not plan to offer tax-supported curbside collection services. The County may choose to study the economic and community benefits of implementing a county-wide or zone based franchising system for residential curbside waste providers that could guarantee a minimum standard or service at a fixed and stable rate for residents interested in paying for curbside waste and recycling services.

The City of Knoxville provides curbside trash pickup to about 60,000 single family homes, duplexes, and 4-plexes. In 2011 the city initiated a curbside recycling pilot program that now serves approximately 37% of the households (23,000 households), with about 1,200 additional households on the wait list for a recycle bin. Because several of the city's waste management contracts expire in 2016, the City initiated a systems analysis performed by a waste consulting firm DSM Environmental Services. DSM provided recommendations on services in the City that could/should be modernized and recognized what the City was doing effectively. Based on DSM's report, the City is proposing to expand the recycling program with the goal that any resident who wants to recycle curbside will have the option (ie – no waitlist for a recycling bin and curbside service). Other potential changes include efficiencies to bulky and brush pickup, and providing each household a standardized 96 gallon refuse cart.

The City and County both continue to support increased waste reduction and an increase in recycling at government owned and operated facilities. There are existing programs that may benefit from more education or improvements in the existing collection system while others programs/events may benefit from more in depth waste reduction consultations by solid waste staff. Examples may include reducing contamination at parks and recreation facilities, or introducing recycling at more events hosted by government agencies on an annual basis.

Work with partners to encourage sustainable materials management by businesses and industry.

Yes

The City and County solid waste offices as well as personnel working in the field of sustainability in the Knox County Region continue to consult with interested businesses and industries on ways to reduce waste and/or handle their waste more efficiently. Furthermore the Solid Waste Region encourages innovative approaches to turning waste or recyclable material into something of value but all activities, even those considered most innovative, must strictly follow all permitting processes including all local, state and federal rules, regulations and laws. The Solid Waste Regional Board will not look favorably on solid waste activities that do not follow proper permitting procedures.

Increase recycling access and participation in state government facilities.

Describe your tactic that is planned to be implemented, who are the responsible parties and the target date of achievement:

No (Re-TRAC will show nothing, qualifying statement below)

The City and County do not have any operational control over facilities owned by the State of Tennessee.

Increase diversion of construction and demolition.

Yes

Since 1991 the State of Tennessee mandates regions increase diversion away from Class I sanitary landfills into construction and demolition landfills. No landfills used in the Knox County region are publicly owned. Disposing waste in Class I sanitary landfills is more costly than disposing of waste in construction and demolition landfills. Municipalities are going to utilize the most cost effective disposal option that is in the best financial interest of the taxpayers in most situations. Situations where material can be disposed of in another manner like recycling or diversion (including diversion from construction and demolition landfills) is an opportunity for municipalities and/or businesses to save money while also diverting material away from both types of landfills.

Examples of diversion by market forces are carpet recycling and concrete recycling. The City and County both collect dry carpet from individuals at drop off facilities. Instead of taking the carpet to the landfill they deliver it to a local carpet recycler that does not charge a tip fee. Carpet installation contractors may also deliver carpet without being charged a disposal fee. The recycled plastic from carpet is sold or burned as fuel. Municipalities and businesses are saving money via cost avoidance. Crushed concrete from the demolition of buildings is available for purchase in the region. Private demolition companies recycle cement by grinding it up and selling it as a product rather than disposing of it in landfills. Both examples are situations where the financial incentive of not paying a tip fee for disposal in a landfill led to increased diversion of marketable material away from a landfill. Neither examples required major policy changes or goals to be adopted by the region with relevant target dates for achievement.

Increase diversion of electronics.

Describe your tactic that is planned to be implemented, who are the responsible parties and the target date of achievement:

Yes

Electronic waste is expensive to recycle. The collection and handling of electronic waste in order to transport it to a recycling company is labor intensive. Electronics are ubiquitous and constantly failing or becoming obsolete however the cost to recycle ewaste is too high to justify mandatory recycling unless required by law. More emphasis is being placed on data security by participants. Electronic waste used to be recycled primarily for environmental reasons (or for valuable metal recovery) but now it is viewed as something that needs to be safely disposed of for the environment while also ensuring that data is not stolen or abused. There is a debate about the efficacy of reuse over recycling/destruction and what is meant by "proper" electronic waste disposal.

Due to the high expense of electronic recycling the City and the County are not actively promoting electronic waste disposal and are increasingly limiting the recycling of certain items. TVs are almost not accepted at all for recycling due to the aforementioned costs. This same trend exists in the private industry. Local electronics retailers which used to have free recycling

programs have limited participation in their electronic recycling programs for the items that are not valuable or they have begun charging or increasing the charges.

The good news is multiple electronic devices are being displaced and replaced by being integrated into smartphones that can be resold at the end of their life. Market forces are providing individuals plenty of incentives and monetary credits to recycle their old phones when replacing them at their phone retailers. Some items like automotive and rechargeable batteries have not seen major changes in collection and recycling. Printing is less necessary in an increasingly digital society which means printers are lasting longer and using less printer ink and toner. Printing cartridges can also be recycled and reused.

Increase diversion of HHW and BOPAE. (BOPAE: Batteries, Oil, Paint, Anti-freeze, Electronic Waste)

Yes

HHW) The City of Knoxville in collaboration with Knox County and TDEC runs one of four statewide Household Hazardous Waste (HHW) disposal programs where City and Knox County residents can take HHW free of charge.

Batteries) Batteries are picked up from County Convenience Centers and the Household Hazardous Waste Facility (HHW) by contractors who pick them up on a regularly schedule. The contractors pay revenue for the lead acid batteries collected while other batteries are disposed or recycled where possible.

Oil) Waste motor oil and antifreeze is picked from Knox County and the City of Knoxville Household Hazardous Waste Facility (HHW) by contractors. Recycling waste oil is more costly. Costs are pegged to indexes such as West Texas Intermediate (WTI). More expensive oil leads to less expensive disposal costs.

Paint) Liquid paint is not allowed at County Centers. Dried latex paint is accepted providing it has been mixed with a hardener and dried to a slug. All other paint is directed to the permanent Household Hazardous Waste Facility (HHW).

Antifreeze (collected with oil): The collection of waste oil from the municipal collection programs is part of the collection of waste oil.

Electronic Waste) See electronic waste section above.

OTHER PROBLEM WASTES

Tires are a perennial problem for the region. Tires have no market value and must be recycled at a considerable cost. The City and County both offer collection programs for residents seeking to dispose of several tires per year. Tires from businesses are treated differently but tires are still dumped in large numbers along the right of way and on public property. Cylinders of all types are a problem in public collection programs. Example problem cylinders are: propane tanks, fire extinguishers, carbon dioxide tanks, SCUBA tanks, acetylene welding tanks, oxygen tanks, helium tanks, and Freon recharge tanks.

Objective 3: Promote Material Processing and End Use in Tennessee

Recycling Hub and Spoke Program

Do you operate a grant funded Hub or Spoke?

No

Recycling Rebate

Did this county (including municipalities) qualify for a recycling rebate?

Yes

Jurisdiction	Description
Knox County	Knox County uses the Recycle Rebate to pay for equipment and facility upgrades and to pay for waste reduction and recycling programs and events.
City of Knoxville	The City of Knoxville uses the Recycling Rebate to offset the recycling expenses associated with curbside and drop-off recyclign programs.
Town of Farragut	Operational costs for a recycling dumpster, promotional materials, recycling bags, supplies, et cetera.

Equipment and Facilities

Project all new recycling & solid waste equipment needs for the next 3 years.

Equipment or Facility	Purpose (Disposal or Recycling/Waste Reduction)	Name of Equipment of Facility	Brief Description of Equipment/Facility	Brief Description of Funding Source
equipment	both	heavy trucks/loaders	Waste and recycling trucks/loaders operational needs	City budgetary requests
equipment	both	fleet vehicles	replacement vehicles for an aging fleet	City budgetary requests
equipment	both	equipment identified by consultant for improving operations	TBD	City budgetary requests
equipment	disposal	curbside trash carts/totes	City wishes to provide unified garbage containers to every resident receiving curbside trash pickup	City budgetary requests
equipment	recycling	curbside recycling carts/totes	City wishes to provide unified recycling containers to every resident receiving curbside recycling pickup	City budgetary requests
facilities	both	downtown collection areas	expand collection corrals downtown for waste and recycling	City budgetary requests
facility	both	City Solid Waste Management Facility (transfer station)	Install a new working security fence and cameras, credit card capabilities, improve ventilation in pit drop off area, reinforce side walls of drop off area	City budgetary requests
facility	recycling	HHW expansion	Improvements recommended by David Nightingale of Special Waste Associates and Larry Sweetser of Sweetser and Associates in their 2014 assessment of HHW facility	City-County budgetary requests with State of Tennessee funding support
equipment	recycling	recycling containers (roll-off)	roll-off recycling boxes for Convenience Centers and events	County budgetary requests
equipment	disposal	waste containers (roll-off)	roll-off recycling trash boxes for Convenience Centers and events	County budgetary requests
equipment	recycling	recycling compactors and swap boxes	recycling compactors and swap boxes for Convenience Centers	County budgetary requests
equipment	disposal	trash compactors and swap boxes	waste compactors and swap boxes for Convenience Centers	County budgetary requests
equipment	both	heavy trucks/loaders	Waste and recycling trucks/loaders operational needs	County budgetary requests
equipment	both	fleet vehicles	replacement vehicles for an aging fleet	County budgetary requests
facility	both	Carter Convenience Center Expansion/Relocation	relocation, expansion, or renovation of Carter Convenience Center	County budgetary requests
facility	recycling	attended donation centers	additional attended donation centers at Knox County Convenience Centers	County budgetary requests

Recycling Facilities

Provide the Name and Physical Street Address of the Facility(s) where your recyclables (paper, plastic, glass and metal) are taken, sorted, and prepared for market, after they are collected at your convenience centers, through your curbside program, or other collection points.

Facility	Address	City	Zip Code	Material	Organization
Air Cycle Corporation	2200 Ogden Avenue, Suite 100	Lisle	60532	bulbs	County
Battery Services Inc.	233 East Woodland Avenue	Knoxville	37917	batteries	County
Dynamic Recycling	N5549 County Rd Z	Onalaska	54650	e-waste	City
Goodwill Industries of Knoxville	5307 Kingston Pike	Knoxville	37919	textiles	Both
Master Battery	6667 Clinton Hwy	Knoxville	37912	batteries	Both
PSC Metals	5205 N National Drive	Knoxville	37914	metal	Both
Southeastern Recycling	2518 Cherry Arcade St	Knoxville	37917	plastic/carpet	County
Spectra	1627 Robert C. Jackson Dr.	Maryville	37801	mixed	City
Tennessee American Recycling	200 W. Springdale Avenue	Knoxville	37917	mixed	County
Westrock	1323 Proctor Street, Knoxville	Knoxville	37921	mixed	Both

2025 Statewide Solid Waste and Materials Management Plan Implementation

Develop region recycling Hubs where collection and delivery to processors or end users remains cost prohibitive.

No (Re-TRAC will show nothing, qualifying statement below)

The Knox County region is already a hub for the recycling and associated industries.

Seek and facilitate opportunities for public/private partnerships for the collection and processing of recyclables.

Yes

The public sector will take advantage of favorable market developments. Waste recycling and disposal options offered by municipalities are anticipated to remain the same unless new private sector waste hauling, processing, recycling, or disposal solutions become feasible or demonstrate a better, more cost effective or environmentally friendly solution. Public institutions will only support private sector activities that operate in accordance with all relevant laws, rules, regulatory procedures, and permitting processes.

There is public and private sector interest in studying the feasibility of new forms of waste reduction, recycling, or disposal methods such as waste to energy or anaerobic digestion. New methods that lower waste disposal costs, turn waste into resources, or that produce less environmental impact are desired. In the event that a new method or processing is financially feasible, a variety of funding mechanisms would be explored including grant funding or public private partnerships resulting from competitive solicitations such as a request for proposals (RFP).

The Board encourages innovative approaches to turning waste or recyclable material into something of value. However all activities, even those considered most innovative, must strictly follow all permitting processes including all local, state and federal rules, regulations and laws. The Solid Waste Regional Board will not look favorably on solid waste activities that do not follow proper permitting procedures.

Support the development or enhancement of online tools to facilitate materials processing/marketing.

No (Re-TRAC will show nothing, qualifying statement below)

There is no lack of a process for marketing materials collected in the Knoxville Region for recycling. If there is not a market for recycling in the local area it is not due to a lack of marketing, rather, a lack of a demand for a particular commodity. An example of this is glass. There is little to no national demand for recycled glass collected from public recycling programs. No amount of online marketing would increase the nationwide demand for glass.

Support the development of scrap tire processing and end markets for tire-derived materials.

No (Re-TRAC will show nothing, qualifying statement below)

There is a large supply of recycled tires from the Knox County region. The costs associated for recycling them is covered by and large from a revenue share of a \$1.35 pre-disposal fee levied on the sale of all new tires sold in the State of Tennessee. No amount of supply will increase downstream demand. The State of Tennessee could impact by requiring or incentivizing the use of waste tires in asphalt but there no is such law.

Incorporate sustainable materials management considerations in public purchasing decisions.

Yes

Cost is the primary consideration of tax supported public purchasing programs. However, where feasible, public institutions are increasingly investing in items that are more sustainable. Whether the choice is to buy goods that have longer operating periods, use less resources, reduce energy consumption, or some other consideration if incorporating sustainability reduces cost is a likely choice. The investment may be indirect but an example of this would be the investment in a compactor for compacting recyclables. The cost to invest in a compactor for plastic compaction is considerable but it allows for a 10:1 compaction rate thereby reducing several associated costs like fuel, wear and tear, risk from accidents, frequency of hauling, etc. The investment in a compactor for plastic compaction allows for more sustainable material management by the owner.

Objective 4: Increase Diversion of Organics

Describe the region's current composting, solid waste processing, waste-to-energy, and incineration capacity and strategies. Note any future or expected changes.

Yes

There are two businesses that account for the majority of organics recycled in the region. They are Knox Ag Shamrock and Natures Best Organics. They primarily grind greenwaste, yard waste, leaves, and/or untreated pallet wood and turn it into mulch or mix it with non-regulated materials to make soil amendments. Both firms offer public drop off for a fee from residences or businesses that bring material for disposal. Both companies accept material from private landscaping companies wishing to dispose of the greenwaste.

The largest single source of greenwaste material is the City of Knoxville residential collection which is currently delivered to Knox Ag Shamrock. The City contract will expire on September 30th 2016. The City will be issuing a competitive solicitation to decide the disposition of the material collected from their yard waste collection system.

The County has a contract to dispose of incidental amounts of greenwaste generated on county property (mostly parks and limbs from clearing downed trees). The County does not intent to increase generation of material or services to residents. Residents in the County outside of the City may pay landscapers to remove greenwaste or self-haul material to a greenwaste facility.

Over the past several years the City and County have been approached by numerous waste to energy firms. While they often present technology that could turn greenwaste and other organics into energy the feasibility is unknown with respect to a publicly funded collection program.

Some firms have expressed interest in the creation of a food waste collection program from local restaurants. The interest is often hampered because composting requires a permit issued from the State of Tennessee.

The primary legal barriers to organics recovery, handling, and associated composting or processing are imposed by State of Tennessee. There are not any permitted composting facilities in the Region. Composting is limited to non-regulated on-site commercial composting of organic waste generated on site (like a farm composting horse manure on site) or backyard composting. Also Solid Waste Processing permits are issued by the State of Tennessee and thus not regulated by the County/Region. There are many solid waste related activities that are not known to the regional solid waste officials.

The City and County solid waste offices as well as personnel working in the field of sustainability in the Knox County Region continue to consult with interested businesses and industries on ways to reduce waste and/or handle their waste more efficiently, including organics. Furthermore the Solid Waste Region encourages innovative approaches to turning waste or recyclable material into something of value but all activities, even those considered most innovative, must strictly follow all permitting processes including all local, state and federal rules, regulations and laws.

2025 Statewide Solid Waste and Materials Management Plan Implementation

Provide information to businesses and citizens about ways to reduce disposal of food residuals.

Yes

City and County solid waste offices strongly advocate best practices by businesses and residents. The City and County support backyard composting. Several truckload sales for backyard composters and rain barrels have been held over the years. The City and County personnel will continue to offer composting bin sales in cooperation with the Water Quality Forum, and Keep Knoxville Beautiful where feasible.

As stated in the former section, the primary legal barriers to organics recovery, handling, and associated composting/processing are imposed by State of Tennessee.

Dedicate resources to expand collection, processing, and end use of residential organics.

Yes

The County does not collect organic waste from residents and does not intent to expand this service. The City's current contract with Shamrock Organics expires September 30, 2016. A request for proposals (RFP) for yard waste disposal was issued on May 10, 2016, with a new contract to be in place as of October 1, 2016. As stated in the former section, the primary legal barriers to organics recovery, handling, and associated composting/processing are imposed by State of Tennessee.

Increase composting/processing of organics generated at county-owned and/or state facilities.

No (Re-TRAC will show nothing, qualifying statement below)

As stated in the former section, the primary legal barriers to organics recovery, handling, and associated composting/processing are imposed by State of Tennessee.

Provide financial, technical, and/or local ordinance support to implement organics processing at one or more institutions/commercial locations.

No (Re-TRAC will show nothing, qualifying statement below)

However, The City of Knoxville yard waste collection may undergo some changes which could result in changes to relevant ordinances to reflect the change in handling.

As stated in the former section, the primary legal barriers to organics recovery, handling, and associated composting/processing are imposed by State of Tennessee.

Support organics recovery with updated policy.

No (Re-TRAC will show nothing, qualifying statement below)

No policy is currently planned that would support organic recovery. As stated in the former section, the primary legal barriers to organics recovery, handling, and associated composting/processing are imposed by State of Tennessee.

Objective 5: Support New Waste Reduction and Recycling Technology

New Technologies

In the coming years, what new programs, or modifications to existing programs, will be enacted to increase the amounts of material being reduced/recycled?

The public sector will take advantage of favorable market developments. Waste recycling and disposal options offered by municipalities are anticipated to remain the same unless new private sector waste hauling, processing, recycling, or disposal solutions become feasible or demonstrate a more cost effective or environmentally friendly solution. Public institutions will only support private sector activities that operate in accordance with all relevant laws, rules, regulatory procedures, and permitting processes.

There is public and private sector interest in studying the feasibility of new forms of waste reduction, recycling, or disposal methods such as waste to energy or anaerobic digestion. New methods that lower waste disposal costs, turn waste into resources, or that produce less environmental impact are desired. In the event that a new method or process is feasible a variety of funding mechanisms would be explored including grant funding or public private partnerships resulting from competitive solicitations such as a request for proposals (RFP).

The Board encourages innovative approaches to turning waste or recyclable material into something of value. However all activities, even those considered most innovative, must strictly

follow all permitting processes including all local, state and federal rules, regulations and laws. The Solid Waste Regional Board will not look favorably on solid waste activities that do not follow proper permitting procedures.

In the coming years, what new waste reduction and recycling technologies will be utilized in your programs?

Any new waste reduction and recycling technology utilized would be dependent on the availability of technology in the region.

2025 Statewide Solid Waste and Materials Management Plan Implementation

Ensure state policy supports new waste reduction and recycling technology.

No (Re-TRAC will show nothing, qualifying statement below)

The Region supports and encourage the State of Tennessee in the pursuit of new waste reduction and recycling technologies.

Provide guidance to local government as they consider new waste reduction and recycling technologies.

No (Re-TRAC will show nothing, qualifying statement below)

The Region continues to look toward the County Technical Advisory Service (CTAS) for assistance as well as the East Tennessee Development District when assistance is needed. The City and County government agencies are both staffed with professional solid waste staff that are able and willing to assist and collaborate with other government agencies where missions align.

Work with partners to identify and support projects using new technology that may help achieve state waste diversion and recycling goals.

Yes

The Region and solid waste personnel working for the City and County are always willing to work with partners to identify and support projects that may help achieve diversion and recycling goals.

Objective 6: Expand and Focus Education and Outreach

Please describe the marketing and educational initiatives you plan in the next year.

Local governments within the region will continue implementing marketing and educational strategies as have been done in the past.

The region has no control over private sector marketing and educational initiatives.

Describe current waste reduction strategies for the region. Include effectiveness. If positive waste reduction efforts are not occurring, describe why and lay out strategy with timeline to address negative result efforts.

The City and County solid waste offices as well as personnel working in the field of sustainability in the Knox County Region continue to consult with interested businesses and industries on ways to reduce waste and/or handle their waste more efficiently. Furthermore the Solid Waste Region encourages innovative approaches to turning waste or recyclable material into something of value but all activities, even those considered most innovative, must strictly follow all permitting processes including all local, state and federal rules, regulations and laws. The Solid Waste Regional Board will not look favorably on solid waste activities that do not follow proper permitting procedures.

Describe public information and education strategy, target, and general effectiveness.

The City and County are available to provide information or waste reduction and recycling by a variety of methods including but not limited to telephone, web pages, social media, informational publications, tabling at events and expositions, arranging tours, giving presentations, sponsorship of events, paid advertisements on the radio, TV and print publications, and other education and outreach conducted by staff departmental staff and/or AmeriCorps volunteers where possible. The City and County consider their public information campaigns to be very effective.

Describe current recycling strategies. If capture rate for commodities are less than the percentage described in the region's plan for available materials, what will be done to address this issue. Give time table of projects, responsible parties, and method to determine success that will be used to attain this.

The current recycling strategy relies heavily upon private sector recycling companies combined with tax supported collection programs to collect and haul materials from residential generators where revenue from the sale of the valuable commodities offsets parts of the operational costs associated with collection. A very large portion of recycling activity in the region takes place in the private sector primarily driven by market forces.

Describe your successes in the implementation of your Solid Waste Management Plan. What are you doing well to promote waste reduction:

- 1) City and County Solid Waste Offices collect accurate waste data. Information is collected and analyzed in order to determine recycling rates, participation, who is recycling, who is not recycling, and why. Findings are used to tailor messages, design programs and projects to target audiences in order to increase recycling and encourage proper waste disposal practices.
- 2) The County created a system to account for the cost of waste disposal and cost avoidance savings due to recycling in order to promote advantages of waste reduction and recycling as alternative to land filling.
- 3) City and County support local events and festivals. Increased visibility maximizes the numbers of individuals with direct educational interaction with the Solid Waste Offices. Solid Waste officials are called to serve as expert consultants for several presentations, task forces, event committees, green initiatives, and sustainability projects.
- 4) The City of Knoxville launched a pilot curbside recycling program in 2011 that now has approximately 23,000 participants and 1,200 on the wait list for service. As funding becomes available the City plans to extend curbside recycling to all households with the goal of no waiting

list. Additionally, the City intends to distribute standardized 96 gallon refuse carts to all households, which is a reduction from the current allowable volume of 128 gallons and a very generous bulky waste allotment. All changes will require extensive outreach and education to the community to promote reduction and recycling.

5) The Regional Solid Waste Board is more engaged in City/County/Private Sector waste practices. Procedures were established in order to be fair and consistent in the event an application for Board approval is made. The Board is ready to thoughtfully consider alternative waste management strategies that come before the Board providing applicants follow proper permitting procedures and all other laws, rules, and regulations.

2025 Statewide Solid Waste and Materials Management Plan Implementation

Develop a statewide recycling campaign.

No (Re-TRAC will show nothing, qualifying statement below)

Statewide programs are the purview of the State of Tennessee but the region would participate when or if a statewide program was developed.

Promote sustainable materials management in Tennessee schools and public institutions.

No (Re-TRAC will show nothing, qualifying statement below)

Waste and recycling personnel within the region are always available to speak and discuss recycling and waste reduction upon request.

Promote sustainable materials management to Tennessee businesses.

No (Re-TRAC will show nothing, qualifying statement below)

Waste and recycling personnel within the region are committed to providing consultation to local/area businesses in sustainable materials management.

Promote HHW services to local governments and assist them in promoting HHW and BOPAE collection services.

Yes

The City of Knoxville in collaboration with Knox County and TDEC runs one of four statewide Household Hazardous Waste (HHW) disposal programs. The HHW Collection Center is a Tier I facility that allows City and Knox County residents to dispose of HHW free of charge. Over the next 5 years, the City plans to expand and improve the current HHW program by making it safer for the employees and the public, making the HHW facility more cost effective and efficient, increasing City and County participation of proper HHW disposal, increasing participation in the reuse program, and offering HHW services to surrounding counties that have no access to HHW disposal. The Solid Waste Office will accomplish these improvements through extensive facility upgrades, creative and diversified marketing, outreach, and education, and investment into mobile HHW waste disposal operations.

Objective 7: Ensure Sufficient and Environmentally Sound Disposal

Page 1 Solid Waste Planning

List and discuss the three largest obstacles to your solid waste disposal system:

1) Costs and operational constraints to providing waste disposal services are not well understood. Residents, businesses, and institutions are not aware of the costs of their waste disposal or how it is funded. Commercial generators often pay flat monthly rates for their waste services or waste services (like a dumpster out back) are included in commercial property rental fees. For the most part, the public and private disposal system allows varying amounts of waste to be disposed of for the same price. In most instances there are no financial incentives to reduce waste. Recipients of publicly provided waste services (at the curb by the City, Convenience Centers by the County) do not understand that there are significant costs associated with offering those services. There is also not much understanding that disposal costs can be offset by reducing their waste generation, buying recycled/recyclable goods, and by recycling high value commodities.

2). Residents, businesses, and institutions are often not aware of who provides their waste disposal service. There are several businesses and institutions that do not know that they are paying for waste disposal from a private company. Businesses are often unaware of how to dispose of material that is not the normal bagged trash they can place in their dumpster. Residents inside the City are not fully aware of all the services available to them. For example they may not know about the City Transfer Station or the fact they can use County Convenience Centers. County residents outside of the City tend to know about the Convenience Centers but many County residents outside of the City are unaware that curbside trash service they pay for is not actually a service provided by the government. Residents that use the centers may not know all the different things they can recycle at the Convenience Centers. Center users may not know of all the options for signing up for private subscription services. Property owners living in a homeowner's associations are often unaware they pay for trash service via their dues.

3) There are financial, market related, and political obstacles to making changes in the waste disposal system. Waste is constantly being generated and everyone produces it. Even a minor change in solid waste disposal policies or services could substantially impact a large portion of people, businesses, or institutions. For this reason solid waste services both public and private remain relatively unchanged from year to year.

In the coming years, how do you plan to handle disposal of waste differently to better address these issues?

The public sector will address identified obstacles through a combination of public education, procurement of equipment and technology, and taking advantage of favorable market developments. Waste recycling and disposal options offered by municipalities are anticipated to remain the same unless new private sector waste hauling, processing, recycling, or disposal solutions become feasible or demonstrate a better more cost effective or environmentally friendly solution. Public institutions will only support private sector activities that operate in accordance with all relevant laws, rules, regulatory procedures, and permitting processes.

There is public and private sector interest in studying the feasibility of new forms of waste reduction, recycling, or disposal methods such as waste to energy or anaerobic digestion. New methods that lower waste disposal costs, turn waste into resources, or that produce less environmental impact are desired. In the event that a new method or processing is financially feasible a variety of funding mechanisms would be explored including grant funding or public private partnerships.

Looking back on the Plan from this current year, what changes have been made in the way the county handles & prioritizes Solid Waste?

Waste and recycling planning reported herein is reported for the entire Knox County region as best known by public sector waste staff. With the exception of private sector contractors handling public sector waste and recycling, there is not much coordination between the public and private actors. Furthermore Knox County Government and the City of Knoxville plan and prioritize waste and recycling goals independently although they keep each other informed. The private sector plans and prioritizes waste and recycling completely independently from the public sector. The public sector's share of waste and recycling activity is small in comparison to the overall waste and recycling activity taking place within the Knox County region.

Knox County Solid Waste continues to operate County Convenience Centers for waste and recycling, manage a waste tire recycling program, manage a litter and dumping program, promote and encourage waste reduction and recycling at facilities and events, and investigate environmental crimes.

Knox County Solid Waste Departmental operations improved remarkably in the past several years. The County Solid Waste core missions remain essentially unchanged. The management team transitioned from a more personal to a more professional style of leadership that embrace changing behaviors and new technologies. Center operators were re-graded to reflect their increased visibility and their role as customer service representatives.

The Tennessee Department of Transportation TDOT Litter grant continues to fund a litter pickup program along state or state aid eligible roads. A portion (currently 30 percent) of the TDOT litter grant must be spent on education.

The County recently relocated and modernized the Karns Convenience Center and is currently proceeding with a similar upgrade for the Carter Convenience Center.

Departmental assets and equipment were expanded, replaced, and updated where possible. An increased emphasis was placed on preventative maintenance in order to preserve equipment lifespan and create a safer work environment. Departmental employees are trained regularly regarding operations, safety, compliance, and customer service issues. Technologies such as global positioning system (GPS) fleet and asset monitoring are reducing risk and fuel costs. Remote video monitoring provides management the ability to monitor the centers and personnel or review incidents for investigations and work performance.

The County is committed to expanding waste reduction and recycling options at County Convenience Centers when it is more cost effective than landfilling or when it is necessary to achieve diversion goal established by the State of Tennessee. Changes in prioritization or

handling at Convenience Centers will only affect center users' waste streams and therefor may not be noticeable in a regional context as limits in the public collection system are often absorbed by the private operators.

City of Knoxville continues to provide excellent waste and recycling services to City residents as well as businesses and apartment dwellers in the central business district. The City also manages a centrally located solid waste management facility (City Transfer Station) for the purpose of providing higher value waste services for residents and businesses. There are several public spaces where waste and recycling services are provided such as the central business district, event spaces such as the civic auditorium, and public parks with recreation centers.

The City of Knoxville curbside recycling program has expanded several times since the program's inception in 2011 to reach all residents on the waiting list at that time. The current waiting list as 1,200 residents, and the City hopes to invest in carts and continued operating costs for pickup with the goal of having no wait list (ie – any household who wants to recycle will be provided a cart and service). The City of Knoxville regularly picks up roadside litter.

A carpet recycler originally based out of Nashville called Southeastern Recycling, LLC opened up a facility in Knoxville to accept dry carpet and foam padding for recycling from contractors as well as the general public without a tip fee. Carpet is considered a troublesome waste, particularly when collecting and compacting it into waste compactors at solid waste facilities. City and County waste collection facilities are educating visitors about the availability services offered by this company. Taking carpet to Southeastern is free and it is a cost savings to the customers wishing to dispose of carpet. The County collects carpet at 4 locations and the City collects carpet separately at the Transfer Station. The carpet boxes divert the carpet from the bulky collection area. Collecting carpet separately saves the City and County disposal costs and minimizes the wear and tear on the bulky compactors that bog down while compacting carpet. The only difficulty is keeping it dry because the carpet recycler will not accept wet carpet due to their internal quality control issues. The open top containers are covered with industrial tarps or are stored under a shed to keep water from falling on the collected carpet.

Description of the Municipal Solid Waste Region

State or revise current responsibilities of each local government in the region by jurisdiction.

The Regional Solid Waste Board plans and reports solid waste, diversion, and recycling data annually to the State of Tennessee. The Regional Solid Waste Board is a (5) five-member board established by Knox County Commission resolution R-92-11-127. The "primary and prevailing purpose of the municipal solid waste regions are the preparation of municipal solid waste regional plans. The Board is charged with development of a municipal solid waste regional plan that results in the most cost effective and efficient management of municipal solid waste and is in the best interest of the citizens of Knox County. The board is empowered to utilize the existing Knox County governmental personnel, to employ or contract with persons, private consulting firms, and/or governmental, quasi-governmental, and public entities and agencies to utilize Knox County's services, facilities, and records completing this task".

The only government agencies that offer waste disposal in the region are Knox County and the City of Knoxville. Those municipal collection programs account for roughly 30 percent of the total landfilled waste originating from the region.

The County is responsible for operating county convenience centers, managing a state funded tire recycling program, managing a state funded litter dumping cleanup program, and a state funded litter dumping abatement education program. Knox County and The City of Knoxville jointly fund (with additional state funding) a permanent household hazardous waste facility (HHW).

The City provides a higher level of service to its residents including curbside trash pickup, curbside recycling options, drop off recycling centers, and litter/dumping control.

Describe and provide an analysis of the Current Solid Waste Management System within the region.

The region has excellent public and private sector systems in place to manage most solid waste recycling and disposal needs.

Describe current waste collection and transportation systems. Include any expected changes or revisions to this plan.

Most waste is collected and transported by the private sector. The exceptions are: Knox County operates convenience centers for collection of household waste and recyclables and transports collected recyclables to buyers. At this time the municipalities anticipate continuing to outsource the vast majority of waste collection and transportation to the private sector. There is also significant private sector waste and recycling collection and transportation that does not involve the government.

What is the current disposal capacity for the solid waste processing facilities used by the region?

Landfills located in and/or utilized by entities in the region are privately owned and operated and they are regulated by TDEC. Furthermore, other regions utilize those same sources for disposal. Current landfill disposal capacity is not currently known by the public sector. The City and County collection capacity is sufficient to meet current demand and projected growth for years to come.

Waste Stream Estimate

Give approximate percentages of each category of waste that make up your county's MSW stream.

Residential	Commercial	Institutional	Industrial
19.0%	39.0%	0.0%	42.0%

Estimated March 2010 by surveying landfills owned and operated by Waste Management and Waste Connections and averaging their estimates. The landfills did not collect separate metrics for institutional waste. This figure will be used until a better system for estimation is established.

Convenience Centers

Do you have any convenience centers?

Yes

Knox County Convenience Centers	Hours	Address	City	Zip code	Permit#	Phone#
Carter	M-F 8am-6pm; Sat 7am-3pm	8815 Asheville Highway	Knoxville	37924	CCC 47-0027	865-215-5865
Dutchtown	M-F 8am-6pm; Sat 7am-3pm	10618 Dutchtown Road	Knoxville	37932	CCC 47-0022	865-215-5865
Halls	M-F 8am-6pm; Sat 7am-3pm	3608 Neal Drive	Knoxville	37918	CCC 47-0483	865-215-5865
John Sevier	M-F 8am-6pm; Sat 7am-3pm	1950 West Governor John Sevier Highway	Knoxville	37920	CCC 47-0449	865-215-5865
Karns	M-F 8am-6pm; Sat 7am-3pm	6930 Karns Crossing Lane	Knoxville	37931	CCC 47-0563	865-215-5865
Powell	M-F 8am-6pm; Sat 7am-3pm	7311 Morton View Lane	Knoxville	37849	CCC 47-0532	865-215-5865
Tazewell/Gibbs	M-F 8am-6pm; Sat 7am-3pm	7201 Tazewell Pike	Knoxville	37721	CCC 47-0526	865-215-5865

Material Accepted at Convenience Centers

Knox County Convenience Centers	Metals	Paper	Glass	Batteries	Plastic	Textiles	Pallets	Tires	Used Oil	Antifreeze	E-Scrap	Paint	Other
Carter Convenience Center	yes	yes	no	yes	yes	no	no	yes	yes	yes	no	no	yes
Dutchtown Convenience Center	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	no	yes
Halls Convenience Center	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	no	yes
John Sevier Convenience Center	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	no	yes
Karns Convenience Center	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	no	yes
Powell Convenience Center	yes	yes	yes	yes	yes	no	no	yes	yes	yes	no	no	yes
Tazewell/Gibbs Convenience Center	yes	yes	yes	yes	yes	no	no	yes	yes	yes	no	no	yes

Convenience Center Summary

Please identify ANY changes that occurred to your convenience center(s)?

The Karns Convenience Center was relocated and modernized. The new Karns Center has increased capacity to collect all waste and recyclables accepted at other Knox County Convenience Centers. An attended donation center was added for the collecting items for reuse. Knox County is pursuing a similar modernization for the Carter Convenience Center.

The State of Tennessee will input the number of County Convenience Centers required as computed using this worksheet (click here):

Calculated 3 for Knox County using previous years' demographic data.

Total number of Convenience Centers present in jurisdiction:

7

If you have fewer convenience centers than are required, what steps will be taken to provide collection assurance?

Not applicable.

List Higher Level of Service-Alternative Disposal Collection Systems

Does any local government have curbside waste collection (Higher Level of Service-Alternative Disposal Collection System)?

Yes

Jurisdiction	Public Program Percentage of Coverage Within the Jurisdiction	Publicly Contracted Programs Percentage Coverage within the Jurisdiction	Privately contracted programs percentage coverage within the jurisdiction	Total Percentage of Each Category of Service for the Jurisdiction
City of Knoxville -Residents	5%	95%	0%	100

Public Collection (Green Box)

Does your local government have any green boxes?

No

Transfer Stations

Does your local government have any transfer stations?

No

While not technically a transfer station the City of Knoxville operates a Solid Waste Management facility that acts as a transfer station. The City facility is actually a solid waste processing facility per the TDEC permit. All facilities serving as transfer stations are listed below. There are no government owned and operated transfer stations in Knox County.

Transfer Station	Address	City	Zip Code	Permit ID	Phone #
City of Knoxville Solid Waste Management Facility	1033 Elm Street	Knoxville	37917	SWP470000069	865-215-6700
Knoxville Transfer Station	1300 Prosser Road	Knoxville	37914	TRF470001050	865-546-1125
Medical Waste of America, LLC	5102 Middlebrook Pike	Knoxville	37921	TRF470001441	865-558-3103
Waste Management - Heiskell Facility	9504 Diggs Gap Road	Heiskell	37754	TRF470001442	865-525-0529

Publicly Owned/Operated Landfills

No

Are there any publicly owned landfills, currently operating in the region?

No

Complaints

Is a method provided to receive complaints from the public related to solid waste issues?

Provide the total number of reported solid waste complaints:

10,000

Provide the number of solid waste complaints resolved:

10,000

Describe the nature of the complaints:

Callers request information about facilities, report litter and dumping, complain about solid waste policies, complain about solid waste facilities and/or personnel. Knox County Solid Waste reports an estimated 135,000 yearly unique web page views. The City of Knoxville takes upwards of 2,300 calls regarding missed pickups for trash and/or recycling or with questions about various trash and recycling services available in the City. The City of Knoxville reports an average of 5,397 combined unique monthly (64,770 yearly) page views for the City Solid Waste Pages. The average monthly breakdown for City Solid Waste web pages was 778 views for the

main solid waste page, 1387 views for household garbage page, 1924 views for the recycling pages, and 1310 views for the management and Household Hazardous Waste (HHW) facility.

Roadside Dumps

List the locations of the largest five roadside dumps and the materials that make up these dumps.

Location	Types of Materials	Tons
Governor John Sevier Highway	Litter, tires, furniture, MSW, bulky items, etc.	10
Asheville Highway	Litter, tires, furniture, MSW, bulky items, etc.	2
Old Rutledge Pike	Litter, tires, furniture, MSW, bulky items, etc.	2
Quail Ridge Rd	Litter, tires, furniture, MSW, bulky items, etc.	2
Strawberry Plains Pike	Litter, tires, furniture, MSW, bulky items, etc.	2

2025 Statewide Solid Waste and Materials Management Plan Implementation

Continue to monitor Class I landfill development, usage, and remaining capacity.

No (Re-TRAC will show nothing, qualifying statement below)

This activity is the purview of the State of Tennessee.

Review and consider strengthening environmental regulations/policies relative to solid waste management facilities.

No (Re-TRAC will show nothing, qualifying statement below)

This activity is the purview of the State of Tennessee.

Continue to address illegal disposal of materials.

Yes

Knox County employs an environmental crimes investigator. The environmental crimes investigator is responsible for investigation and enforcement related to the illegal disposal of waste as well as potential codes and stormwater violations. The Knox County environmental crimes investigator also participates in a regional environmental crimes task force that includes other local law enforcement agencies and the EPA.

Money generated from tire pre-disposal fees will continue to be used for cleaning tire dumps as they are identified. In some instances tire dumps may be cleaned like a dirty lot where crews clean up a piece of private property as a codes violation and send the property owner a bill for the charges incurred or place a lien on the property if the bill cannot be paid.

Illegal dumping continues to be a problem in the City of Knoxville. Area supervisors have identified the following locations as “repeat offenders” requiring recurring cleanup efforts: Ohio Ave, Richmond Hill Road/Richmond Ave, 4000 block of Selma, Ault Street at Lilac Avenue, Milton Street, 800 Graves Street, Nixon Road, Mayfield Avenue, and dead end of Mitchell Road. The City Public Service Crews and Neighborhood Codes Crews address these site ranging from twice a year to weekly.

The Tennessee Department of Transportation TDOT Litter grant continues to fund a litter pickup program along state or state aid eligible roads. A portion (currently 30 percent) of the TDOT litter grant must be spent on education.

Objective 8: Develop Sustainable Funding Sources for Sustainable Materials Management

Solid Waste Management Program

Describe any setbacks encountered in your solid waste management program and how these setbacks will be resolved in future plans:

No real setbacks

Briefly describe the current level of staff and how the program is funded.

Due to the scope and nature of the private sector activities in the region this information cannot be adequately summarized. The number of staff from public and private sectors in the region is significant. Only public sector data is available. There are approximately 50 staff members (mostly facility operators and drivers) working directly under the purview of City and County Solid Waste Offices. Municipal staff is sufficient to meet operational needs.

Improvements Remediation

Facility Improvements - Project any facility improvements needed for processing and/or managing solid waste and diversion efforts:

1) City and County operations plan to submit several capital improvement requests. The City continues to maintain and upgrade the Transfer Station. Planned improvements include a new fence and security system, improved circulation in the dumping area, and replacing aging vehicles in the Transfer Station Fleet. County Solid Waste will continue maintenance and repair of existing facilities and equipment in order to prolong operational life. The County instituted an aggressive preventative maintenance check and repair procedural program on equipment at County Centers in order to keep expensive industrial equipment operational and to rehabilitate equipment that has not aged well over its operational life.

2) A new location will be identified for the Carter Convenience Center adjacent to or relatively near the present center. The new Carter Center will provide expanded services, similar to those currently offered at the other 6 County Convenience Centers. When the Carter center expansion is complete the Convenience Center system will all be large enough to handle projected demand for several years. Funds have been requested and approved to expand and renovate the Carter Center.

3) County Centers will continue to be branded as recycling and household waste drop off centers rather than “dumps” in order to reinforce that waste handling can be handled in a clean manner that also maximizes recycling collection. The County will continue to keep equipment and facilities nicely maintained, painted, in working order, with printed signage and clearly defined solid waste policies, rules, etc. available in the form of educational pamphlets, bulletin boards, documents downloadable from the website and/or kiosks.

4) The State of Tennessee asked the City and County to propose ways to increase the capacity of the Household Hazardous Waste (HHW) Facility. Management at the facility is currently looking at capital improvements to the facility and equipment upgrades that would substantially increase capacity. Eventually more staff may be needed. With added capacity and more staff the HHW could consider going out into the community to collect material from residents at targeted pickup-events in the community. The State may partner with the Knox County HHW facility in the future to accept material from residents outside of the County. The City and County will utilize grant funding to improve HHW facilities and equipment.

5) The Region recognizes the need for private sector institutions to expand their capabilities to process waste and recyclable materials in ways that cannot fully be anticipated. The expansions could include additional services, buildings, equipment, land, efficiency improvements, jobs, and more. Private sector capacities may become public sector contractors providing the services they provide are more cost effective or are better for the environment.

Monitoring Cost Projections - Project any future monitoring, remediation, or mandated improvements over the next five years by the county for county owned solid waste facilities, including but not limited to, convenience centers, transfer stations, active landfills, or landfills in post-closure monitoring:

There are no anticipated costs associated with monitoring in the near future.

Green Boxes

According to rule 0400-11-01-.10 5(a) requires each county to include in their Annual Progress Report a plan for eventual elimination of collection receptacles or conversion of unmanned collections site to manned convenience centers. Please summarize and describe below the county's plan to eliminate or convert green box site(s) to manned convenience center(s). Please also describe expenses that may occur during the transition and additional funding needed.

There are no Green Boxes in the Knox County Solid Waste Region.

Pay as You Throw

Does your local government have PAYT?

No

Financial Information Survey

City of Knoxville and Knox County budgetary estimates are extrapolated from fiscal year appropriated totals and do not coincide with the calendar year. Calendar year expenditures will differ from reported estimates. Fiscal year budgets may be obtained by submitting a document request to City of Knoxville or Knox County finance departments.

City and County Municipal Solid Waste Spending Estimates			
State Budget Category	City	County	Total
Expense			
51000 General Administration	\$ 1,241,974.66	\$ 404,272.00	\$ 1,646,246.66
55710 Sanitation Management	\$ -	\$ -	\$ -
55720 Sanitation Education/Information	\$ -	\$ -	\$ -
55731 Waste pickup	\$ -	\$ -	\$ -
55732 Convenience centers	\$ 470,000.00	\$ 2,845,465.00	\$ 3,315,465.00
55733 Transfer stations	\$ -	\$ -	\$ -
55734 Problem waste centers	\$ -	\$ 84,242.00	\$ 84,242.00
55735 Bailing Centers	\$ -	\$ -	\$ -
55739 Other waste collection	\$ -	\$ -	\$ -
55751 Recycling Center	\$ -	\$ 241,698.00	\$ 241,698.00
55752 Compost Center	\$ -	\$ -	\$ -
55753 Waste incinerator	\$ -	\$ -	\$ -
55754 Landfill Operation and Maintenance	\$ -	\$ -	\$ -
55759 Other waste disposal	\$ -	\$ 378,500.00	\$ 378,500.00
55770 Post closure care costs	\$ -	\$ -	\$ -
64000 Highways litter and trash collection	\$ -	\$ 230,248.00	\$ 230,248.00
70000 Education	\$ -	\$ -	\$ -
90000 Capital projects	\$ -	\$ 1,332,482.00	\$ 1,332,482.00
Contracted Services	\$ 8,829,592.30	\$ -	\$ 8,829,592.30
Total	\$ 10,541,566.96	\$ 5,516,907.00	\$ 16,058,473.96
Revenue			
40000 Local Taxes	\$ -	\$ 2,400,000.00	\$ 2,400,000.00
40100 County Property Taxes	\$ -	\$ -	\$ -
40200 County Local Option Taxes	\$ -	\$ -	\$ -
42000 Fines, forfeitures and penalties	\$ -	\$ 45,948.00	\$ 45,948.00
43106 Commercial and industrial waste collection	\$ 77,072.99	\$ -	\$ 77,072.99
43107 Residential waste collection charges	\$ -	\$ -	\$ -
43108 Convenience Center waste collection charge	\$ -	\$ -	\$ -
43109 Transfer waste stations collection charge	\$ 943,876.19	\$ -	\$ 943,876.19
43110 Tipping Fees	\$ -	\$ -	\$ -
43111 Surcharge-State	\$ -	\$ -	\$ -
43112 Surcharge-Host Agency	\$ -	\$ -	\$ -
43113 Surcharge-General	\$ -	\$ -	\$ -
43114 Solid waste disposal fee	\$ -	\$ -	\$ -
44145 Sale of recycled materials	\$ 142,025.81	\$ 447,923.00	\$ 589,948.81
44165 Commodity rebates	\$ -	\$ -	\$ -
46170 Solid waste grants	\$ 76,376.00	\$ -	\$ 76,376.00
46430 Public Works grants - Litter Program	\$ -	\$ 144,600.00	\$ 144,600.00
468511 State Revenue Sharing	\$ -	\$ 388,198.00	\$ 388,198.00
47230 Federal government disaster relief	\$ -	\$ -	\$ -
48000 - Other Governments and Citizens Groups	\$ 34,807.00	\$ -	\$ 34,807.00
49800 - Transfer from General Fund	\$ 9,198,785.96	\$ -	\$ 9,198,785.96
Total	\$ 10,472,943.95	\$ 3,426,669.00	\$ 13,899,612.95
Assets			
13100 Fixed Assets - Landfill Facilities Development		\$ -	\$ -
13200 Land		\$ 3,600,000.00	\$ 3,600,000.00
13300 Fixed Assets - Buildings and Improvements		\$ 2,922,482.00	\$ 2,922,482.00
13700 Machinery and Equipment		\$ -	\$ -
Total	\$ -	\$ 6,522,482.00	\$ 6,522,482.00
Liabilities			
21870 Accrued liability for landfill closure/post closure care costs - Current	\$ -	\$ -	\$ -
27700 Accrued liability for landfill closure/post closure care costs	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -

2025 Statewide Solid Waste and Materials Management Plan Implementation

Consider increasing tipping fee surcharges on disposed solid waste.

No (Re-TRAC will show nothing, qualifying statement below)

This activity is the purview of the State of Tennessee

The City and County government agencies are paying this surcharge (currently only levied at Class I landfills by the State of Tennessee) because they are customers at regional landfills. The substantial amount of fees paid are not directly returned to municipalities but some portion of them are returned by way of the Recycle Rebate which is allocated based on the total amount of waste disposed of from the regions. The City Transfer Station charges a fee but it is in order to offset the cost of the disposal once delivered to the landfill.

Raise revenue for waste reduction, recycling, and integrated solid waste management from new sources.

Yes

Both public and private waste and recycling providers are always searching to maximize revenue.

Support the development of sustainable funding strategies for local programs.

Yes

The County Convenience Centers are tax supported collection facilities. The City contracts out services for tax supported residential pickup programs. The City also operates a fee-based collection program for the Central Business Improvement District (CBID). Revenue from the sale or recyclables is used to offset the tax and fee based funding sources.

PART 3 DISASTER DEBRIS PLANNING

Disaster Debris Planning

Does your local government have a Disaster Debris Management Plan?

No

Are pre-event contracts in place?

Yes

With whom and for what service:

The County has pre event contracts in place for the following services.

Emergency Debris Removal Services

- Crowder Gulf (primary)
- Phillips & Jordan (backup)

Emergency Debris Monitoring Services
-Tetra Tech

Are staging areas identified?

Yes

Where?

Not in the way that would be addressed in a Federal Emergency Management Agency (FEMA) debris management plan but there are continuity of operations plans where City and County owned properties could be utilized during or after an emergency if necessary. Now the County has all necessary emergency debris contracts in place the County plans to use one of the firms to develop a FEMA approved debris management plan. Planning may be in conjunction with the City of Knoxville and the Town of Farragut. The Knoxville Emergency Management Agency (KEMA) will be involved which is a jointly funded emergency response agency.

How is Waste Reduction and Diversion addressed in the local disaster debris management plan?

Recycling, grinding preferred, specified where possible unless otherwise directed.

Comment on any disaster related solid waste activities that may have influenced diversion efforts with your local government.

There were several Localized high-wind storms and large storm events in 2009-2011 resulting a large amount of damaged trees, roofs, siding, vehicles, et cetera. While the existing public and private solid waste disposal capacity was sufficient to absorb the higher amount of generated waste the storm events led to a greater awareness and recognition for increased emergency debris planning.

PART 4 APPENDICES

Appendix A: References to T.C.A. for Annual Reporting

Regional Plan Update via Re-TRAC (Re-TRAC Dashboard)

The Region's 10-Year Plan outlined a strategy to manage solid waste. In lieu of developing a complete update of this Plan as required by **TCA 82-211-814**, answer the following survey sections and associated questions in as much detail as possible. These questions should be answered by the government body responsible for directly determining solid waste policy within the Region.

T.C.A. 68-211-814 Municipal solid waste region plans — Authority of region or solid waste authority after approval. —

T.C.A. 68-211-815 Municipal solid waste region plans — Contents. —

T.C.A. 68-211-871 Annual report — Contents — Annual progress report — Sanctions for noncompliance — Annual reports by recovered materials facilities. —

Appendix B: Municipal Solid Waste Planning Regions Map as of 4/11/2007

Municipal Solid Waste Planning Regions



- Single County Region
- Two County Region
- Three County Region
- Four County Region
- Ten County Region

As of 4/11/07



Department of
**Environment &
Conservation**

October 24, 2016

Ms. Catherine Wilt, Chair
Knox County Municipal Solid Waste Region
205 West Baxter Avenue
Knoxville, TN 37934

Dear Ms. Wilt,

The Solid Waste Management Act of 1991 enacted a goal that each municipal solid waste (MSW) region in the State of Tennessee shall reduce the amount of solid waste disposed of at Class I municipal solid waste disposal facilities and incinerators by twenty-five percent (25%) on a per capita basis. As an alternative to calculating this goal, regions have the option of using an adjusted economic growth or adjusted population methodology to determine compliance.

In the event that a region does not meet the twenty-five percent (25%) waste reduction and diversion goal, the Department shall determine whether that region's programs are qualitatively equivalent to other regions that meet the goal, and whether that failure is due to factors beyond the control of the region. If a region fails to receive a favorable qualitative assessment by the Department, the Commissioner may subject the region and/or local governments in the region to sanctions (T.C.A. §68-211-861).

In accordance with information provided by the region in the 2015 Annual Progress Report submitted to the Department using the Re-TRAC system, the Knox MSW Region reduced the amount of solid waste disposed in Class I disposal facilities by: 12% when compared to the base year method, and 49% using the real-time comparison.

If you should have any questions about your waste reduction and diversion rate, the calculation process, or related information, please contact me at (615) 253-9929 or by email at Seth.Benge@tn.gov.

Sincerely,

Seth Benge
Recovered Materials

CC: The Honorable Tim Burchett, Knox County Mayor
Tom Salter, Knox Solid Waste Director
Zach Johnson, Knox Recycling Coordinator
John LeCroy, Regional Director for External Affairs
Mitch Loomis, East Tennessee Development District