

2015 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.

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III. Contact Information

Regional Solid Waste Administrative Contact Information			
Regional Solid Waste Board	Title	Jurisdiction	Term Ends
Dirk Pohlmann	Chairperson	Knox County	3/31/2015
Mark Donaldson	Member	Knox County	3/31/2015
Kim Davis	Member	Knox County	3/31/2018
Catherine Wilt	Member	Knox County	3/31/2018
Grant Barton	Member	City of Knoxville	3/31/2019
Nick Jackson	4/1/2015	Knox County	3/31/2021
David Collins	4/1/2015	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	
David Brace	Public Service Director	City of Knoxville	
John Homa	Manager, Solid Waste	City of Knoxville	
Cassie Garner	Public Service Coordinator	City of Knoxville	

IV. Tire Report Module

Amount of Tires managed:

4,584 Tons

Amount of Tires sent to beneficial use:

4,584 Tons

Amount of Tires landfilled:

0

V. Collection Systems & Diversion Activities

Did your local government have any household hazardous waste events?

No.

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

There were no significant disaster related solid waste activities that influenced diversion efforts in the region.

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 curbside trash pickup limits bulky waste to 5 items per pickup day and up to (4) 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. Businesses are not allowed to use the HHW facility for anything other than computer system recycling but they are subject to fees for computer recycling.

The HHW facility has different limits for different materials. Limits are generous. The HHW facility does not 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. Large televisions (over 27 inches) and 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.

Recycling and Waste Drop-off Centers: Locations and Hours of Operation:

Knox County Convenience Centers	Hours	Address	City	Zip		Phone#
				code	Permit#	
Carter	M-F 8am-6pm; Sat 7am-3pm	8815 Asheville Highway	Knoxville	37924	CCC470000027	865-215-5865
Dutchtown	M-F 8am-6pm; Sat 7am-3pm	10618 Dutchtown Road	Knoxville	37932	CCC470000022	865-215-5865
Halls	M-F 8am-6pm; Sat 7am-3pm	3608 Neal Drive	Knoxville	37918	CCC470000483	865-215-5865
John Sevier	M-F 8am-6pm; Sat 7am-3pm	1810 John Sevier Highway	Knoxville	37920	CCC470000449	865-215-5865
Karns	M-F 8am-6pm; Sat 7am-3pm	6818 Oak Ridge Highway	Knoxville	37931	CCC470000023	865-215-5865
Powell	M-F 8am-6pm; Sat 7am-3pm	7311 Morton View Lane	Knoxville	37849	CCC470000024	865-215-5865
Tazewell/Gibbs	M-F 8am-6pm; Sat 7am-3pm	7201 Tazewell Pike	Knoxville	37721	CCC470000026	865-215-5865

Knox County Convenience Centers	Metals	Paper	Glass	Batteries	Plastic	Textiles	Pallets	Tires	Used Oil	Antifreeze	E-Scrap	Paint	Other
Carter Convenience Center	yes	yes	yes	yes	yes	no	no	no	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	yes -fee	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	no	yes	yes	no	no	yes	yes	yes	no	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

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

The Forks of the River Convenience Center was underutilized and was closed in May of 2014 in order to offset the costs of planned expansions of the Karns and Carter Centers. Equipment from Forks was moved to other busier more utilized centers in order to handle the increased demand at those locations. The Karns center relocation and expansion of service will be completed in the spring of 2015. The Carter Convenience Center will not be expanded until after the Karns project is complete.

- 2.3 **Calculated number of County Convenience Centers required by State of Tennessee.**
- 7 **Total number of County Convenience Centers present in County.**
- 4.7 **Difference.**

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

Not applicable.

Does your county have any green boxes?

No.

Transfer Stations

Does your local government have any transfer stations?

Not technically. The City of Knoxville has 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 Stations in Knox County

Transfer Station	Address	City	Zip Code	Permit ID
City of Knoxville Solid Waste Management Facility	1033 Elm Street	Knoxville	37917	SWP470000069
Knoxville Transfer Station	1300 Prosser Road	Knoxville	37914	TRF470001050
Medical Waste of America, LLC	5102 Middlebrook Pike	Knoxville	37921	TRF470001441
Waste Management - Heiskell Facility	9504 Diggs Gap Road	Heiskell	37754	TRF470001442

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

Yes.

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

City of Knoxville Recycling 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
Chilhowie 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

Privately Owned/Operated	Hours	Address	City	Zip code	Permit#	Phone#
FLOWR Owned West Knox County	open 24 hours, 7 days a week	10772 Kingston Pike	Knoxville	37922	na	865-740-5407
Goodwill Owned Bearden	open 24 hours, 7 days a week	4501 Kingston Pike	Knoxville	37919	na	865-588-8567
Goodwill Owned Pleasant Ridge	open 24 hours, 7 days a week	5412 Pleasant Ridge Rd	Knoxville	37912	na	865-588-8567

Does your county have a Pay as You Throw (PAYT) System?

No.

List the locations of largest five roadside dumps, types of materials that make up these roadside dumps, and the Tons associated with the dumps.

Location	Types of Materials	Tons
Maryville Pike	Litter, tires, furniture, MSW, bulky items, etc.	7
John Sevier	Litter, tires, furniture, MSW, bulky items, etc.	6
Dutchtown	Litter, tires, furniture, MSW, bulky items, etc.	5
Martingale	Litter, tires, furniture, MSW, bulky items, etc.	5
New Gray Cemetary	Litter, tires, furniture, MSW, bulky items, etc.	5

Does your county have a Higher Level of Service-Alternative?

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	0%	100%	0%	100

Does your County have a Hub and Spoke Program?

No

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

Yes.

Please describe how funds were used, and how they sustained or improved recycling for local governments. Also, please provide a county recycling report for local governments who received the recycling rebate.

Jurisdiction	Description
Knox County	Knox County primarily uses the Recycle Rebate to pay for a recycling education team of AmeriCorps volunteers. Supplies are purchased and equipment is purchased, repaired, and maintained when extra funds are available after paying for the AmeriCorps team.
City of Knoxville	The City of Knoxville uses the Recycling Rebate to offset the considerable hauling fees from the city drop-off recycling centers.
Town of Farragut	The Town of Farragut is implementing single-stream recycling in a public park. This includes the expansion of an existing dumpster enclosure and the purchase and installation of outdoor recycling bins.

Does your county 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	30%	Fiber/Paper; Glass; Plastic; Metals; Other	Co-mingled

Privately run curbside recycling is a service offered by a few waste collection companies. They are not reported because the program is not supported by public funds. Furthermore waste companies offering the service are reluctant to discuss their market share.

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
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
Rock Tenn Recycling	1323 Proctor Street, Knoxville	Knoxville	37921	mixed	Both
Southeast Recycling	906 Chase Drive	Johnson City	37604	plastic/carpet	County
Southeastern Recycling	2518 Cherry Arcade St	Knoxville	37917	fluorescent tubes	County
Spectra	1627 Robert C. Jackson Dr.	Maryville	37801	mixed	City
Tennessee American Recycling	200 W. Springdale Avenue	Knoxville	37917	mixed	County

VI. Solid Waste Planning and Implementations

Are there any publicly owned landfills in the region?

No.

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	recycling	recycling trailer	trailer for collecting event recycling	City budgetary requests
equipment	disposal	replacement compactors	replacement Compactors for City Transfer Station	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
facility	both	new Carter Convenience Center	relocation, expansion, or renovation of Carter Convenience Center	County budgetary requests
equipment	recycling	recycling boxes (roll-off)	roll-off recycling boxes for Convenience Centers and events	County budgetary requests
equipment	disposal	waste boxes (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	waste compactors and swap boxes	waste compactors and swap boxes for Convenience Centers	County budgetary requests
equipment	recycling	roll-off trucks	roll-off trucks for Convenience Centers and events	County budgetary requests
equipment	both	fleet vehicles	replacement vehicles for an aging fleet	County budgetary requests
facility	recycling	attended donation centers	additional attended donation centers at Knox County Convenience Centers	County budgetary requests
facility	recycling	HHW expansion	major expansion of the Household Hazardous Waste (HHW) facility to increase capacity	City-County budgetary requests with State of Tennessee funding support

Future Marketing and Educational Initiatives Marketing

County educational activities will primarily encourage people to recycle more at County Centers. Target audiences will be educated about the savings to the taxpayer from recycling versus throwing waste into the trash. The County pays for a team of AmeriCorps volunteers used for center engagement where users are educated about the costs of waste and recycling operations and how recycling saves tax dollars. The County also contracts with local community organizations to provide Recycling and Litter Education throughout the Knox County Region.

City and County will target the general public to promote solid waste & recycling activities, events, and special projects. Due to changing media habits and budgetary limitations much of the marketing is achieved through social networking and earned media. Paid advertising is used for large events where critical masses of attendees are needed for success.

Education

Education			
Target Audience Group	Projected Served	Projected Cost	Repetitions or Number
Adult/General Public	305,850	\$18,250	1
Business/Industry	2,773	\$18,251	1
Government/Institutional	21,500	\$18,252	1
Children/Educators	10,224	\$18,253	1

Narrative:

County educational activities will primarily encourage people to recycle more at County Centers. Target audiences will be educated about the savings to the taxpayer from recycling versus throwing waste into the trash. The County pays for a team of Americorps volunteers used for center engagement where users are educated about the costs of waste and recycling operations and how recycling saves tax dollars. The County also contracts with local community organizations to provide Recycling and Litter Education throughout the Knox County Region.

City and County will target the general public to promote solid waste & recycling activities, events, and special projects. Due to changing media habits and budgetary limitations much of the marketing is achieved through social networking and earned media. Paid advertising is used for large events where critical masses of attendees are needed for success.

Disaster Debris Management

Does your local government have a Disaster Debris Management Plan?

Yes

Is the Plan Modeled after FEMA's PA325 Plan?*

No. Our goal is to have a FEMA PA325 modeled plan in place in 2015

Are pre-event contracts in place? *

Yes

With whom and for what service?

Emergency Debris Removal Services

Primary Contractor: Crowder Gulf

Backup Contractor: Phillips and Jordan

Are staging areas identified?*

Yes

Where?

County convenience centers are large and well distributed geographically throughout the County. They would be the first choices for a staging area. However, the County is aware of many sites that could be used in the event of an emergency. The County owns or has access to a great deal of public lands and properties. Much of the County planning has been to ensure the continuity of operations. If a staging area(s) for debris management was needed and the Convenience Centers would not work the County would first look at other County-owned properties (such as vacant land, facilities, and county owned lots) closest to the debris to see if an existing County-owned property could serve as a staging area. If nothing owned by the County would work the County would procure space via an expedited or emergency procurement process.

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

There are terms in the contract for Emergency Debris Removal Services that specify how material is to be recycled or diverted. There are also provisions where debris would be ground down to smaller sizes in order to reduce space needed for disposal. The contractor is aware of the duties to reduce waste and has a record of successful waste reduction while removing debris.

VII. Problem Management and Education Management

Complaints

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

Yes.

Provide the total number of reported solid waste complaints:

10,000 estimated

Provide the number of solid waste complaints resolved:

10,000 estimated

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 108,024 yearly unique web page views. The City of Knoxville takes upwards of 1,000 calls regarding missed pickups for trash and/or recycling. The City of Knoxville reports an average of 2,871 combined unique monthly (34,452 yearly) page views for the City Solid Waste Pages. The average monthly breakdown for City Solid Waste web pages was 623 views for the main solid waste page, 1109 views for the recycling pages, and 1139 views for the management and Household Hazardous Waste (HHW) facility.

Past Education Efforts

Education.						
Name	Sponsor	Program Effectiveness	Program Type	Program Target	Number Served	Description
Community Recycling Events	City, County, Non-profits, Businesses	Positive Result - Noticeable increase in materials or quality after campaign	Community Outreach, Other	Adult & General Public, Business & Industry, Government & Institutional, Children & Educators, Media, Civic & Environment, Other	County-Wide	City and County Solid Waste Offices are sponsors and/or partners for several recycling events that take place on a yearly basis. Among them are EarthFest, America Recycles Day, regional medication collection events, electronic waste events, municipal events/facility recycling, thermometer exchanges, and small scale event recycling for community groups/activities. The primary educational goal of these initiatives is to show best practices for waste disposal but events are also used to promote a broader awareness and familiarity for recycling at other locations in the community.
Expos, Trade Shows, Public Outreach, & Consultation	City and County	Positive Result - Noticeable increase in materials or quality after campaign	Community Outreach	Adult & General Public, Business & Industry, Government & Institutional, Children & Educators, Media, Civic & Environment, Other	County-Wide	Solid Waste offices will place an exhibit at any trade show that offers to provide a free space. In some instances, both City and County Solid Waste offices will pay for spaces and furnish additional exhibit space(s) for partner organizations to be co-located. Furthermore, constituents wishing to receive a presentation from an official are obliged. Trade show booths and group speaking settings allow Solid Waste offices to interact with thousands of individuals every year where they are educated about waste, educated about recycling & waste reduction, are informed of ongoing activities, and sometimes recruited as volunteers on future projects. Constituents wishing to receive expert waste and recycling consultation are also obliged to the extent possible.
City of Knoxville Residential Curbside Recycling Program Expansion	City of Knoxville	Positive Result - Noticeable increase in materials or quality after campaign	Advertisement, Public Access, Tour, Community Outreach, Other	Adult & General Public, Media, Other	Other-City of Knoxville Residents	The City of Knoxville reached out to residents on the waiting list to confirmed interest in receiving curbside recycling service. Approximately 2,300 households confirmed and were added to the program. The city plans to expanded from 20,000 households to the full 40,000 homes as funding and participation allow.
County AmeriCorps Center Engagement (County AmeriCorps Team)	County with State Recycling Rebate Support	Positive Result - Noticeable increase in materials or quality after campaign	Community Outreach	Adult & General Public, Business & Industry, Government & Institutional, Children & Educators, Media, Civic & Environment, Other	County-Wide	The County pays for a team of AmeriCorps volunteers (usually 3-4). The team has several core missions, which are to engage center users and explain the economic benefits of recycling, plan and organize regular events, serve as liaisons on inter-departmental or inter-agency initiatives, and to promote waste reduction and recycling within the Knox County Region.
City Solid Waste and Recycling AmeriCorps	City of Knoxville	Positive Result - Noticeable increase in materials or quality after campaign	Community Outreach	Adult & General Public, Business & Industry, Government & Institutional, Children & Educators, Media, Civic & Environment, Other	County-Wide - City of Knoxville Predominately	The City pays for an AmeriCorps volunteer. The member has several missions, which are to engage center users and explain the economic benefits of recycling, plan and organize regular events, serve as liaisons on inter-departmental or inter-agency initiatives, and to promote waste reduction and recycling within the City of Knoxville
County Litter Prevention Education (Keep Knoxville Beautiful)	County with State Litter Grant Support	Positive Result - Noticeable increase in materials or quality after campaign	Classroom, Advertisement, Public Access, Tour, Community Outreach, Other	Adult & General Public, Business & Industry, Government & Institutional, Children & Educators, Media, Civic & Environment, Other	County-Wide	Knox County Solid Waste contracts with Keep Knoxville Beautiful (KKB) for litter prevention education in the community based on funding from the State of Tennessee Litter Grant Program. The contract allows for a wide variety of activities to reach citizens of Knox County. KKB's activities include but are not limited to promoting waste reduction, promoting proper waste disposal in the community, encouraging groups to pick up waste along public rights of way, and encouraging communities to take ownership of their litter problems by adopting roads, parks, and streams. For the most part its activities do not overlap with the recycling education activities.
Regional Medication Collection Program	City, County, State, Non-profits, Utilities, Businesses	Positive Result - Noticeable increase in materials or quality after campaign	Community Outreach, Other	Adult & General Public, Business & Industry, Government & Institutional, Children & Educators, Media, Civic & Environment, Other	County-Wide, Regional	An unwanted medication program was created at the end of 2008 to address the growing concern of pharmaceuticals and personal-care waste products. When medications and prescriptions change, expire, if loved ones die, or if they are simply unwanted most individuals pour them down the drain or flush them down the toilet. Medications that are poured down the sewer ultimately make their way into waters of the state because waste water treatment systems were not designed to filter out pharmaceuticals. If medications aren't disposed of properly they can end up in the hands of children or addicted relatives. Medication collection events are held regularly to collect this waste and to promote the existence of a permanent collection box located at the City of Knoxville Police Department. The program continues to be successful, attendance is steady, and the collection of medication is growing.

VIII. Program Summary

Solid Waste Planning - Detail Strategies on Diversion

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 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.

Name and title of individual(s) who answers the following questions:

Document prepared by Drew Thurman*

*The following individuals served in an advisory capacity for updating the Regional Solid Waste Plan subject to the approval of the Knox County Regional Solid Waste Board:

- Drew Thurman, Knox County Compliance Manager
- Tom Salter, Knox County Solid Waste Director
- Zach Johnson, Knox County Recycling Coordinator
- John Homa, City of Knoxville Solid Waste Project Manager
- David Brace, City of Knoxville Director of Public Service Division
- Cassie Garner, City of Knoxville Public Service Coordinator

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

There was a rather large programmatic change in the way tire disposal/recycling was administered. The Tennessee legislature passed a law (TCA § 67-4-1601) to guarantee counties would revive one dollar (\$1) from the one dollar thirty-five cent (\$1.35) fee charged to consumers by generators (tire shops) for every new tire sold in counties. The funding allocated back to the counties may only be spent by the counties for the beneficial end use of tires. This law took effect July 1st 2014.

The longstanding TDEC Tire Grant program ended due to this new law but the County is choosing to structure its own program in a similar way to the old tire grant. The County learns the amount of fees a generator collected from consumers when the Tennessee Department of Revenue sends the fees in quarterly payments to the County. Knox County chooses to allocate credits for tire generators at the County tire management contractor based on the amount of fees they collected. The generators can then use the credits allocated by Knox County to deliver the tires they removed for recycling.

The main difference is that the County will control the credits allocated to tire generators. The new system is allowing the County to more closely monitor the tire recycling program and ensure that only eligible tires are delivered for recycling. The County will also have more direct access to funding to deal with tire dump cleanups.

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. Equipment operators and truck drivers' positions were re-graded to reflect the difficulty and highly visible public nature of their position. 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 therefore 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 is expanding to all residents on the waiting list. After the expansion the program is expected to reach 23,000 homes. All expansions of the program require initial investment for the costs of the cart and continued operating costs for pickup. The City of Knoxville eventually plans to extend curbside recycling service to all 40,000 homes as funds become available. 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. The City distributes flyers about the carpet recycling program to customers with large loads of carpet because the carpet recycling at Southeastern is free and it is a cost savings to the customers wishing to dispose of carpet. The County created a pilot collection system using open top containers at two convenience centers and is in the process of expanding the collection to a third location. The carpet boxes divert the carpet from the bulky bin. Collecting carpet separately saves the County disposal costs and minimizes the wear and

tear on the bulky compactors that bog down while compacting carpet. The only difficulty faced by the County while collecting the carpet in roll off containers is keeping it dry because the carpet recycler will not accept wet carpet due to their internal quality control issues. The County has collected an estimated 100+ tons since the collection started in August 2014 for a total landfill cost avoidance of over \$1,700 dollars.

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 or 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.

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

1) It is known 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. Recycling in Knox County is voluntary and there is little public interest in making it mandatory. Regardless of the collection system as long as the act of recycling is an optional behavior there will be limits to participation. Publicly funded programs must find ways to encourage individuals to voluntarily recycle. There is little interest in compulsory recycling although there is considerable public interest in publicly funded recycling programs. Public and private recycling collection programs must take this situation into account when considering policies or commercial ventures into the recycling sector.

2) Similar to the lack of understanding of costs for waste disposal, there is a lack of understanding that recycling programs take materials out of the waste disposal system that have significant value. Recycling systems have operational costs for the recyclers and disposal/cost avoidance (or considerable revenue) for public/private collection programs. The public often assumes all the recyclables collected by the public or private collection programs generate revenue that offsets handling and processing costs. This is true for high-value commodities such as cardboard, paper, metals, and some types of plastic. Other recyclable materials may be very problematic to collect or actually cost a lot of money to recycle (glass). Some materials are difficult to market for resale (plastics 3-7). Other materials are easily recyclable but can cause damage to the recyclers' equipment if placed in the some collection bins (plastic shopping bags). Some unaccepted materials (flip flops, children's swimming pools, and coolers) are placed into collection programs by energetic recyclers in good faith but these acts introduce contamination and ultimately slow down the process and drive up costs. Public and private collection programs are discouraged when the cost to collect and recycle a commodity is higher than the costs to landfill material. Glass is very problematic. Many communities have already stopped accepting glass. Only the City and County accept glass for recycling in the region and this option may not be available in the future as the market for post-consumer glass is not strong.

3) There seems to be little value placed on the economic importance of the recycling industry. Regions with high recycling rates and well developed recycling infrastructures can demonstrate recycling activity positively and significantly contributes to the local economy. Public and private entities save money with disposal cost avoidance or revenue generated from the sale of recycled material. The collection, transportation, and sorting of recycled material takes several individuals working in lots of different positions resulting in several jobs that are a direct result of recycling programs. Recycling collection employees typically work regular and steady hours. Recycling transportation and processing often requires high skilled workers such as truck drivers and equipment operators. High skilled employees typically earn higher wages. All of the workers will report to supervisors or managers which is typically a well-paid position. Locally there are several recycling companies with several office employees performing all the duties associated with a business responsible for thousands of financial transactions. One local company is an industry leader and they are responsible for several high paying executive jobs. Lastly, manufacturers and other industry often locates where there is a large supply of raw materials. Successful recycling programs with high-volume collections 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.

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

- 1) The public sector will continue to explore a variety of funding methods in order to purchase new recycling equipment, such as: trucks, compactors, roll off containers, vehicles, collection trailers, and other such equipment necessary to improve the logistical operations surrounding the recycling program. Grant funding will be explored.
- 2) Knox County Centers will continue to be improved in order to remove the stigma that centers are simply dumps rather than comprehensive recycling and household waste disposal sites.
- 3) The City of Knoxville plans to update its contractual relationship with several waste service providers as the contracts will undergo a natural rebidding process in 2016. The City would like to structure their competitive solicitations so they can provide uniform trash carts and also provide recycle bins to all 40,000 residents. All program expansions require initial investment for the costs of the carts and continued operating costs for pickup and are therefore subject to available funding.
- 4) Keep Knoxville Beautiful and the City and County commissioned a study on recycling attitudes and behavior. Results are being finalized. The City and County will use the results to inform policy makers about best practices for waste and recycling in the region and how to best structure educational outreach and messaging to have more impact on people's attitudes.
- 5) The Solid Waste Region encourages innovative approaches to turning waste or recyclable material into something of value. However the Solid Waste Region expects all activities, even those considered most innovative, to 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.

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 Transfer Station will finish planned upgrades and new replacement compactors will be purchased and installed for waste compaction. 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) The Karns center relocation will be completed. Karns will be moved to a bigger and better facility a few miles down on a side road to reduce dangerous road congestion associated with the existing center. The Karns relocation and expansion of service is expected to alleviate some of the demand at the Dutchtown and Powell centers. The Carter Convenience Center also needs to undergo an expansion in order to meet user demand. When the Carter center expansion is complete the Convenience Center system will all be large enough to handle

projected demand for several years. Funds will be requested to expand and renovate the Carter Center either where it is currently located or to a nearby property.

3) County Centers will continue to be branded as household waste and recycling 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 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 convenience centers or transfer stations:

No remediation is expected.

Waste Stream Estimate*

Name	Residential	Commercial	Institutional	Industrial
Give approximate percentages of each category of waste that make up your county's MSW stream.	18.5%	38.5%	0.0%	43.0%

*Determined in 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 waste and recycling survey can supply a better estimate as general waste trends have not changed

Successes and Setbacks

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

There are fewer recycling companies in the region and waste to energy options are virtually non-existent. Less competition means less competitive pricing for services. The region has not lost capacity. Capacity to handle some types of commodities (such as carpet or Styrofoam) is expanding. The region has had difficulties with Air Quality attainment. This can indirectly affect the waste and recycling industry if they cannot locate in the community due to the lack of a permit approval. The Knoxville Recycling Coalition (KRC), a longstanding non-profit recycling

service provider and recycling education organization sold its assets and operations to a local recycling company Spectra and shut down. The recycling services they performed are still available but the education services are no longer available.

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 very accurate waste data. The information is being collected and analyzed in order to determine recycling rates, participation, who is recycling, who is not recycling, and why. The findings are being used to tailor specific messages, design programs and projects to specific target audiences in order to increase recycling and encourage proper waste disposal practices.

2) The County has created a system to account for the cost of waste disposal and cost avoidance savings due to recycling in order to promote the advantages of waste reduction and recycling as alternative to land filling.

3) City and County support several local events and festivals. Increased visibility maximizes the numbers of individuals with direct educational interaction with the Solid Waste Offices. Solid Waste officials are increasingly being called to serve as expert consultants for several presentations, task forces, event committees, green initiatives, and sustainability projects.

4) In 2011 The City of Knoxville launched a curbside recycling program. The program was so successful that a waiting list was needed for households wishing to participate. The curbside program will soon serve over 23,000 households. The curbside program collects roughly 5,000 tons of recycling per year. As funding becomes available the City plans to extend curbside recycling to all 40,000 homes and pair that with uniform trash and recycling carts that help residents recycle more and reduce waste.

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.

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

City and County government waste trends have been flat in recent years. Modest increases in recycling have occurred with corresponding decreases in landfilled weight. The total weight changes are modest.

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.

Strategies for waste reduction include but are not limited to education of the public by municipalities, private industry, and the non-profit sectors, public and private infrastructure improvements and investments, the free-market competition for recycling services, and significant non-profit activities and events that promote recycling and waste reduction

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.

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 recycling strategy for the region is to encourage convenient, free or low-cost recycling options to individuals, organizations and businesses. There is not a specific target rate set for recycling commodities. In recent years, the real-time diversion rate for the region is approximately 60%.

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

There are no permitted composting facilities in the region. There are multiple public and private solid waste processing facilities in the region. The public and private sectors collect tires, waste oils, wood waste, waste chemicals, cooking oil, grease, and methane for waste-to-energy use.

Incineration is not currently permitted in Knox County due to air quality management regulations. There are no anticipated changes in the current system. New processes that represent more cost efficient, effective, or more environmental solutions to the public sector for waste disposal will be explored.

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.

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

Due to the scope and nature of the private sector activities in the region this information cannot be adequately summarized. The region's knowledge of public sector's activity is limited. This question was addressed in great detail under education programs but the answers are limited to known municipal programs previously outlined.

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 Household Hazardous Waste Facility (HHW) by contractors who make bread runs or pick up regularly. The contractors pay revenue for the batteries collected.

Oil and Antifreeze) Oil and antifreeze are picked from Knox County Convenience Centers and the City of Knoxville Household Hazardous Waste Facility (HHW) by contractors. The material is collected regularly or along bread runs. The recent drop in oil prices caused a disruption in services. The County contractor was acquired by another vendor. The county is in the third round of rebidding these services. Pricing will be established on an index so that price paid/received for the oil can fluctuate with the market pricing.

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).

Electronic Waste) Most types of ewaste are collected at HHW free of charge from households and for a modest fee from institutions and businesses. Television recycling is available for a modest fee at the City Transfer Station. Knox County Convenience Centers utilize a contract with Goodwill Industries for Goodwill to collect most types of ewaste and televisions free of charge from the public.

HHW) Knox County leverages state funding and the City of Knoxville Solid Waste offices to offer a permanent Household Hazardous Waste (HHW) facility. HHW is limited to residents of Knox County only. HHW funds are potentially available for an expansion of the facility and for the expansion of the program. HHW management is exploring upgrades and improvements that can be made using grant funding in order to expand the current services.

Tires) Knox County Solid Waste accepts up to (4) four tires per person for free per year at County Centers. The City of Knoxville Transfer Station accepts for a fee up to (4) four tires per person. The City of Knoxville will also accept a limited number of tires similar to its regular

household trash collection for no additional fee from residents. All City-collected tires are collected and then transferred to the Transfer Station, then, later taken to the County tire contractor.

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 at the County tire contractor based on the amount of fees they collected in order to provide generators a way to dispose of the tires they removed. Once a generator reaches their limit they become cash customers directly with the tire processor unless there is a sufficient cause and available funds for the County to increase the generator's balance. The County is instituting a manifest system to ensure the system is not abused or gamed by third party haulers.

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. Policies are being more strictly enforced and residents are being put in contact with private sector solutions that will accept cylinders. Example problem cylinders are: propane tanks, fire extinguishers, carbon dioxide tanks, SCUBA tanks, acetylene welding tanks, oxygen tanks, helium tanks, and Freon recharge tanks.

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.

IX. Landfill - Annual Material Tonnage

Landfill totals reflect the total amount of waste reported from landfills as originating in the Knox County Region being disposed in landfills for the calendar year.

Landfill Disposal					
Type	County	Landfill Name	TDEC Permit:	Tons	
Class I	Anderson	Chestnut Ridge Landfill	SNL01-000-0160	198,624	
Class I	McMinn	Meadow Branch Landfill	SNL54-000-0174	185,236	
Class I	Scott	Volunteer Regional Landfill	SNL76-000-0271	78,258	
Class I	Loudon	Matlock Bend Loudon County Landfill	SNL53-000-0203	22,576	
Class I	Rhea	Rhea County Landfill	SNL72-000-0131	52	
Class I	Hamblen	Lakeway San. & Recyc Landfill	SNL32-000-0280	38	
Class I	Hawkins	BFI Carter Valley Landfill	SNL37-000-0185	10	
Class III/IV	Knox	Poplar View C/D Landfill	DML47-000-0057	96,125	
Class III/IV	Knox	Riverside C&D Landfill	DML47-000-0011	70,000	
Class III/IV	Knox	Yarnell C/D Demolition Landfill	DML47-000-0069	63,672	
Total Landfill				714,591	100%
Class I				484,794	68%
Class III/IV				229,797	32%
<i>Knox County Class I taken to Meadow Branch</i>				32,131	
<i>City of Knoxville Class I taken to Chestnut Ridge</i>				60,691	
<i>Total Publicly Collected for Class I</i>				92,822	
<i>Knox County Class III/IV taken to Poplar View</i>				11,862	
<i>City of Knoxville Class III/IV taken to Poplar View</i>				43,819	
<i>Total Publicly Collected for Class III/IV</i>				55,681	

X. Recycling and Diversion Reported

Recycling and diversion estimates are reported for all recyclers, recycling haulers, or recycling processors reporting to the Solid Waste Office. The majority of recycling activity in the region is attributable to the TDEC commercial/industrial classification where recycling buyers or sellers pay to recycle or are compensated for recyclable commodities as part of their business model. Some recycling activity goes un-reported because of non-responsive recycling businesses or unknown activities. Official numbers will be determined and accepted by TDEC.

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	147,847
Re-TRAC Recycling	Commercial/Industrial	RockTenn Recycling	Tennessee	31,626
Re-TRAC Recycling	Commercial/Industrial	Tennessee Metals Company, LLC.	Tennessee	20,822
Re-TRAC Recycling	Commercial/Industrial	Waste Connections of TN, Inc.	Tennessee	19,341
Re-TRAC Recycling	Residential - (Public)	City of Knoxville	Tennessee	7,803
Re-TRAC Recycling	Commercial/Industrial	Tennessee American Recycling, LLC.	Tennessee	7,363
Re-TRAC Recycling	Residential - (Public)	Knox County	Tennessee	5,681
Re-TRAC Recycling	Commercial/Industrial	Waste Management Inc.	Tennessee	4,971
Re-TRAC Recycling	Commercial/Industrial	Nature's Best Organics	Tennessee	3,835
Re-TRAC Recycling	Commercial/Industrial	Enterprise Waste Oil Co. Inc.	Tennessee	2,470
Re-TRAC Recycling	Commercial/Industrial	Goodwill Industries	Tennessee	2,149
Re-TRAC Recycling	Commercial/Industrial	Southeastern Recycling	Tennessee	1,512
Re-TRAC Recycling	Commercial/Industrial	Spectra Recycling Inc.	Tennessee	1,375
Re-TRAC Recycling	Institutional	University of Tennessee - Knoxville	Tennessee	1,330
Re-TRAC Recycling	Commercial/Industrial	Liberty Tire	Tennessee	1,171
Re-TRAC Recycling	Commercial/Industrial	Construction Waste Recycling LLC (TN Waste)	Tennessee	1,057
Re-TRAC Recycling	Commercial/Industrial	Dollar General Stores	Tennessee	578
Re-TRAC Recycling	Commercial/Industrial	Crystal Clean (Formerly FCC Environmental)	North Carolina	177
Re-TRAC Recycling	Commercial/Industrial	Master Battery LLC.	Tennessee	164
Re-TRAC Recycling	Commercial/Industrial	Battery Services Inc.	Tennessee	89
Re-TRAC Recycling	Commercial/Industrial	B.C.S. Recycling	Tennessee	46
Re-TRAC Recycling	Commercial/Industrial	Onsite Environmental	Tennessee	33
Re-TRAC Recycling	Commercial/Industrial	Safety-Kleen Systems, Inc.	Illinois	3
Re-TRAC Recycling	Commercial/Industrial	Clean Harbors	Tennessee	2
Re-TRAC Recycling	Commercial/Industrial	Cartridge World	Tennessee	1
Re-Trac Diversion	Residential - (Public)	City of Knoxville	Tennessee	32,692
Re-Trac Diversion	Commercial/Institutional/Industrial	Knoxville Utilities Board KUB	Tennessee	26,833
Re-Trac Diversion	Commercial/Industrial	Nature's Best Organics	Tennessee	20,851
Re-Trac Diversion	Commercial/Industrial	Griffin Industries	Tennessee	2,500
Re-Trac Diversion	Commercial/Industrial	Construction Waste Recycling LLC	Tennessee	2,477
Re-Trac Diversion	Commercial/Industrial	Environmental Waste Solutions	Tennessee	980
Re-Trac Diversion	Commercial/Industrial	Valley Proteins	Virginia	942
Re-Trac Diversion	Institutional	University of Tennessee - Knoxville	Tennessee	189
Re-Trac Diversion	Residential - (Public)	Household Hazardous Waste Facility (HHW)	Tennessee	143
Re-Trac Diversion	Commercial/Institutional/Industrial	West Knox Utility District	Tennessee	135
Total Re-TRAC Recycling and Diversion				349,185
Re-TRAC Recycling				261,443 75%
Re-TRAC Diversion				87,742 25%
<i>Residential (Public) Portion</i>				<i>46,319 13%</i>
Total Waste Stream				1,063,776
Class I Landfilled				484,794 46%
Class III/IV Landfilled				229,797 47%
Recycling and Re-TRAC Diversion				349,185 33%
Waste Stream NOT disposed in a Class I Landfill				578,982.30 54%

XI. Municipal Recycling - Annual Financial Data

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	\$ 1,680,421.00	\$ 370,838.00	\$ 2,051,259.00
55710 Sanitation Management			\$ -
55720 Sanitation Education/Information			\$ -
55731 Waste pickup			\$ -
55732 Convenience centers	\$ 84,300.00	\$ 2,822,638.00	\$ 2,906,938.00
55733 Transfer stations			\$ -
55734 Problem waste centers		\$ 84,242.00	\$ 84,242.00
55735 Bailing Centers			\$ -
55739 Other waste collection			\$ -
55751 Recycling Center		\$ 231,781.00	\$ 231,781.00
55752 Compost Center			\$ -
55753 Waste incinerator			\$ -
55754 Landfill Operation and Maintenance			\$ -
55759 Other waste disposal		\$ 415,750.00	\$ 415,750.00
55770 Post closure care costs			\$ -
64000 Highways litter and trash collection		\$ 162,417.00	\$ 162,417.00
70000 Education			\$ -
90000 Capital projects			\$ -
Contracted Services	\$ 9,024,816.93		\$ 9,024,816.93
Total	\$ 10,789,537.93	\$ 4,087,666.00	\$ 14,877,203.93
Revenue			
40000 Local Taxes			\$ -
40100 County Property Taxes			\$ -
40200 County Local Option Taxes		\$ 2,400,000.00	\$ 2,400,000.00
42000 Fines, forfeitures and penalties		\$ 55,000.00	\$ 55,000.00
43106 Commercial and industrial waste collection	\$ 99,025.83		\$ 99,025.83
43107 Residential waste collection charges			\$ -
43108 Convenience Center waste collection charge			\$ -
43109 Transfer waste stations collection charge	\$ 909,985.85		\$ 909,985.85
43110 Tipping Fees			\$ -
43111 Surcharge-State			\$ -
43112 Surcharge-Host Agency			\$ -
43113 Surcharge-General			\$ -
43114 Solid waste disposal fee			\$ -
44145 Sale of recycled materials		\$ 645,000.00	\$ 645,000.00
44165 Commodity rebates			\$ -
46170 Solid waste grants	\$ 80,563.00	\$ 415,750.00	\$ 496,313.00
46430 Public Works grants - Litter Program		\$ 144,600.00	\$ 144,600.00
468511 State Revenue Sharing			\$ -
47230 Federal government disaster relief			\$ -
48000 - Other Governments and Citizens Groups		\$ 475,000.00	\$ 475,000.00
49800 - Transfer from General Fund	\$ 9,662,272.04	\$ 46,000.00	\$ 9,708,272.04
Total	\$ 10,751,846.72	\$ 4,181,350.00	\$ 14,933,196.72
Assets			
13100 Fixed Assets - Landfill Facilities Development			\$ -
13200 Land		\$ 3,600,000.00	\$ 3,600,000.00
13300 Fixed Assets - Buildings and Improvements		\$ 1,590,000.00	\$ 1,590,000.00
13700 Machinery and Equipment			\$ -
Total	\$ -	\$ 5,190,000.00	\$ 5,190,000.00
Liabilities			
21870 Accrued liability for landfill closure/post closure care costs - Current	\$ -	\$ -	\$ -
27700 Accrued liability for landfill closure/post closure care costs	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -

XII. Municipal Household Hazardous Waste (HHW) - Tonnage

The HHW Facility is operated by the City 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 2014, this facility was visited by 5,842 vehicles and processed 143 tons of HHW, 73% of which was latex paint.

<i>Household Hazardous Waste</i>					
Year	2010	2011	2012	2013	2014
Tons	120	169	146	155	143

XIII. Appendices

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

Regional Plan Update via Re-Trac (under planning summary)

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 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.

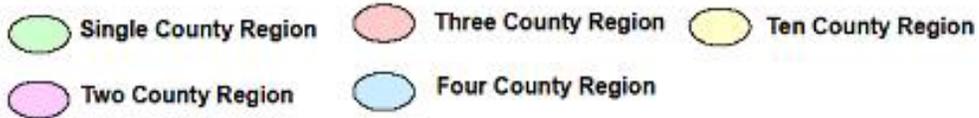
T.C.A. 68-211-814 Municipal solid waste region plans — Authority of region or solid waste authority after approval. —

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



As of 4/11/07