

HARTSVILLE/TROUSDALE COUNTY METROPOLITAN GOVERNMENT

SOLID WASTE COMMITTEE

*Richard Johnson, Chair
David Nollner, Vice Chair
Mary Ann Baker, Secretary*

*Beverly Atwood
Ken Buckmaster
Coy Dickey*

*Bill Fergusson
Gary Walsh
Steve Whittaker*

AGENDA

JULY 20, 2021 | 6:00 PM | TC COURTHOUSE

1. Open Meeting
2. Review Minutes from October 20, 2020
3. Update from Director of Sanitation, Cliff Sallee
4. Review Audit by Caldwell Environmental Solutions
5. Other Discussion
6. Public Comments
7. Adjourn

Solid Waste Committee

Meeting Minutes

Solid Waste;Minutes

Present: Commissioners: Richard Johnson, David Nollner, Mary Ann Baker, Ken Buckmaster, Coy Dickey, Steve Whittaker, Dwight Jewell, Beverly Atwood and Gary Walsh.
Mayor Stephen Chambers and Sanitation Director Cliff Sallee.

Absent: Commissioner Bill Fergusson

Others Present: Tommy McFarland

1. Open Meeting

Chairman Johnson opened the meeting of the Solid Waste Committee held at the Mayor's Office at 6:00 P.M. and expressed appreciation of everyone in attendance.

2. Review Minutes

Chairman Johnson asked the committee to review the minutes of the March 10, 2020 meeting. Gary Walsh made a motion to approve the minutes, Seconded by Coy Dickey.

MOTION CARRIED

3. Officer Elections

Gary Walsh made a motion to keep all Solid Waste Committee Officers the same which are Richard Johnson – Chairman, David Nollner – Vice Chairman and Mary Ann Baker – Secretary, Seconded by Beverly Atwood.

MOTION CARRIED

4. Update from Director of Sanitation, Cliff Sallee

Mr. Sallee advised that everything was going well within the department. They have had a few issues with a couple of the trucks which caused a bit more than he expected to spend this early in the budget year to repair but they have been repaired and moving forward. They have been (1) one employee short at the conveyance center but have a replacement in mind.

5. OTHER BUSINESS (QUESTIONS)

- Commissioner Dickey asked about the Ford Ranger that needed an engine? Director Sallee advised that was a Park vehicle and was probably going to be sold on GovDeals. That vehicle will need to be moved to Surplus property by the Parks Committee which meets later this month.
- Commissioner Nollner asked about Cardboard and was advised that we have 62 bails and its is selling for \$80.00 per ton.
- Commissioner Jewell asked about the delay the truck that goes to the prison had been having in the past. Mr. Sallee advised that situation had gotten better since the last meeting. The truck that was in the shop at the last meeting is back and doing well.
- The Mayor advised that the Regional Solid Waste Plan that the Greater National Regional Council was working on had been delayed due to COVID and other issues. However, they are still looking at it and he will keep the committee updated on it.

6. Public Comments

N/A

7. Adjourn

Gary Walsh made a motion to adjourn a 6:13 P.M. Seconded by David Nollner.

MOTION CARRIED

Hartsville-Trousdale County, Tennessee

Solid Waste Operations Audit, June 2021

Executive Summary

In March 2021, Hartsville-Trousdale County contracted with Caldwell Environmental Solutions, LLC, to conduct a solid waste operations audit, including evaluation of current operations, inventory of customers served, summary of resources available to provide services, routing efficiencies, and recommendations for continuous improvements to the existing system.

Federal and state regulations require local governments to provide residential solid waste services. These are essential functions for protection of the health, safety, welfare, and sanitation of any community.

Current operations provide residential collection services, with an annual financial deficit covered by the General Fund. Commercial solid waste collection services are offered to businesses in Hartsville-Trousdale, serviced with a rollout container or 8-cubic yard dumpster.

The recommendations include:

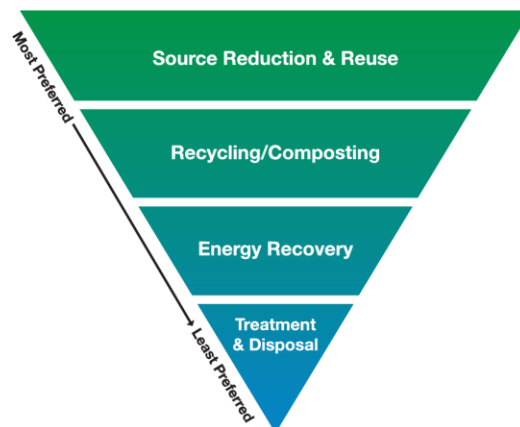
- Adding backyard composting and grass recycling information to the county website.
- Increase the frequency and topics covered in employee safety training.
- Assessing the out of service fleet vehicles for salvage value.
- Update policy to require customer to pay the cost to replace rollout containers, as needed.
- Increase the price for leased roll-off containers.
- Increase service fees for commercial customers with dumpsters.
- Redefine service areas to include dense residential developments in the urban services area.
- Charge general service households a monthly access fee for convenience center use.
- Visit the Chester County Solid Waste & West Tennessee Recycling Hub.
- Create bid specifications for potential outsourcing of curbside, residential, curbside solid waste and/or recycling services.

- Re-route automated sideload truck to provide services 3 days each week (Tuesday, Wednesday, Thursday).
- Exchange open top and/or 8-cubic yard dumpsters for compactor units, to collect recyclables.
- Feasibility study for development of a regional recycling processing hub (MRF).

Introduction

The United States Environmental Protection Agency (EPA) was established in 1970. In October 1976, the EPA mandated the Resource Conservation and Recovery Act (RCRA) to affirm its authority and develop proper regulations and policies, for controlling generation, transportation, treatment, storage, and disposal of hazardous and non-hazardous wastes. Subsequently, Subtitle D of the RCRA was dedicated to non-hazardous solid waste, requiring a ban on open dumping of waste, and set minimum national technical standards for design and operation of disposal facilities. States played a lead role in implementing Subtitle D. In 1989, the state planning office established a comprehensive solid waste management plan, as directed by the Solid Waste Planning and Recovery Act. Tennessee's 1991 Solid Waste Management Act, primarily focused on assuring adequate waste collection infrastructure and disposal capacity, and the Solid Waste Authority Act, required creation of regional solid waste authorities across the state.

The EPA developed the solid waste management hierarchy, illustrated below, to communicate the preferred approach to managing non-hazardous materials. The least preferred method is treatment and disposal, but this is also the most common in the United States. Waste minimization, through source reduction, reuse, recycling, and composting, are preferred methods for responsible management of household waste materials.



Source: <https://www.epa.gov/smm/sustainable-materials-management-non-hazardous-materials-and-waste-management-hierarchy>

In 2015, the Tennessee Department of Environment and Conservation (TDEC) presented a new comprehensive 10-year plan (“2025 Plan”) with the intent to provide a roadmap for sustainable materials management, in Tennessee, for the next ten years. Primary themes focus on recognition that decisions occur when a product is purchased and when it reaches the end of its useful life, materials still having value at the end of their useful life, and materials can and should be recovered.

The 2025 Plan proposed these eight objectives:

Objective 1: Update Goals and Measure Progress – establish more robust solid waste management goals, to more accurately measure the disposition of MSW in Tennessee, and to better assess progress toward achieving those goals.

Objective 2: Increase Access to and Participation in Recycling – expand the breadth of recycling making sure access to convenient recycling programs is available to all Tennesseans, as well as expanding participation in recycling programs.

Objective 3: Enhance Processing and End Markets – facilitate closing the materials processing gaps and increasing the opportunities for end uses of recovered materials in Tennessee, in an effort to incentivize increased diversion and simultaneously strengthen the state’s economy.

Objective 4: Increase Diversion of Organics – encourage the reuse, composting, and beneficial use of organics, as well as implement source reduction efforts, to decrease the disposal of these materials.

Objective 5: Support New Diversion Technology – support the adoption of new technologies in the state, as appropriate, that will help Tennessee move closer to reaching its waste reduction and diversion goals.

Objective 6: Expand and Focus Education and Outreach – improve education and outreach in Tennessee regarding the opportunities for source reduction, recycling, and composting, and the benefits of these activities relative to disposal.

Objective 7: Ensure Sufficient and Environmentally Sound Disposal – monitor MSW disposal capacity to be sure it is sufficient and ensure that disposal facilities are maintained in an environmentally sound manner.

Objective 8: Develop Sustainable Funding Sources for Sustainable Materials Management – ensure that state and local governments have sustainable funding sources in place to develop and support programs to manage municipal solid waste and materials.

Additionally, local government guidance was presented in four (4) tiers, based on population, to communicate best management practices for an integrated solid waste system. Hartsville/Trousdale County is a small rural county, with a population of less than 25,000 people, listed in the first tier. Best management practices, both targeted and preferred, defined in the 2025 plan, are summarized in the table below.

Table 1. Four Tiers of an Integrated Solid Waste Management System.

TIER 1: Small Rural Community	Target Minimum Level of Solid Waste/Materials Management	Preferred Level of Solid Waste/Materials Management
Population Served	Very rural counties; population of 25,000 or less	Same as target minimum
Collection Systems	At least one (1) staffed convenience center	Same as target minimum
Disposal Systems	At least one (1) Class I (MSW) disposal facility available to the county either locally or regionally	Same as target minimum
Waste Reduction	Recycling program includes at least two (2) material types; preferred materials include cardboard and metals (steel and/or aluminum)	Recycling program includes at least three (3) materials; preferred materials include cardboard and metals (steel and/or aluminum) plus any of the following: newspaper, magazines, mixed paper, plastics (#1 and #2 bottles), or glass
Problem Waste Management	Maintain/secure public or private sites to manage batteries, tires, oil, and other automotive fluids	Maintain/secure public or private sites to manage batteries, tires, oil, and other automotive fluids; at least one (1) mobile HHW collection event provided every other year sponsored by the state
Education & Awareness	Adequate signage provided at convenience center(s); handouts/mailers provided to user center(s) and/or by mail/email; provide K-12 education and promotion on core message	Same as target minimum plus county website contains up-to-date information on recycling drop-off sites and HHW collection events and BOPAE
Staff	A solid waste director or recycling coordinator oversees materials management; job duties are at least 55% solid waste/reduction related	Same as target minimum
Composting & Mulching	Some composting or mulching may take place at county or residential level; website with information and references to composting methods	Same as target minimum plus website including information about grass recycling and backyard composting
Economic & Management	Full cost accounting approach through a county enterprise fund for all waste and materials management services	Same as target minimum

Solid Waste Operations

Hartsville-Trousdale County is part of the three-county North Central Tennessee Solid Waste Planning Region, along with Macon and Smith counties. This region appointed members to a solid waste planning board, including representatives from each county and cities within, to plan, advise, and administer solid waste program activities in the region. Specifically, development of a 10-year plan for disposal capacity assurance, 25 percent waste reduction, collection assurance, public education, and other facets of integrated solid waste management.

Resources owned and operated by the Hartsville-Trousdale metropolitan government are used to provide residential curbside collection and convenience center collection outside the city limits of Hartsville. One (1) active permit within the county is for the publicly owned and operated convenience center. Curbside services include collection of municipal solid waste (MSW), with residential recyclables collected at the convenience center drop-off.

The Hartsville-Trousdale convenience center, located on Industrial Drive, offers convenient access for residents, seven days a week. Operating hours are Monday through Friday, 6:00 a.m. until 7:00 p.m. during Daylight Savings time, and 6:00 a.m. until 6:00 p.m. during Standard time. Saturdays the convenience center is open 8:00 a.m. until 5:00 p.m. and Sunday 1:00 p.m. until 5:00 p.m.

Hartsville-Trousdale already meets many of the preferred level of solid waste/materials management criteria that indicate best management practices, according to the 2025 Plan. There is one (1) staffed convenience center within the county, and collected waste is delivered to the Smith County Class I MSW disposal facility. Current waste reduction efforts include more than three (3) materials, as is preferred in the state plan. Cardboard, metals (steel and aluminum), paper, and plastics are collected at the convenience center and processed for market. Problem wastes, including batteries, tires, oil, and other automotive fluids are collected at sites throughout the county, or as a drop-off service at local retailers. A co-sponsored event, with the state and surrounding counties, allows Hartsville-Trousdale to participate in a mobile household hazardous waste (HHW) event. Staffing levels in the preferred level of management for an integrated system show a solid waste director or recycling coordinator with at least 55% of job duties solid waste and/or waste reduction related. There are no staff members assigned to recycling services independent from residential solid waste and there are no resources to hire added staff. Composting and mulching activities, in a preferred system, may be county

related or at the residential level, with most of the effort being education related. A full-cost accounting approach through a county enterprise fund for all waste and materials management services is the preferred practice for an integrated solid waste system. Hartsville-Trousdale does designate solid waste operating funds, revenues and expenses, separate from other functions within the county budget. Currently, none of the solid waste services provided are contracted to third party vendors.

Based on current billing, curbside residential collection is provided each week to 977 households within the urban services area. General services customers often use the convenience center or contract with a private service provider for solid waste collection. Most of the businesses in the downtown area are serviced using rollout containers, while restaurants and apartment complexes are served with 6-8 cubic yard dumpsters. Routing for most collection services is spread across five (5) weekdays, Monday through Friday. Businesses are provided the level of service needed based on their industry and type of waste stream.

Public education is a valuable tool for any solid waste service provider. Hartsville-Trousdale's primary message(s) in community outreach efforts focus on recycling. Public service announcements on local radio, periodic flyers distributed to identify what materials are recyclable and how, litter prevention in daycare and local schools, and educational programs at the senior center are all tools for educating residents throughout the county. These efforts are active when resources are available to designate funds to support community education.

Remediation of the old, closed landfill is completed. This project was partially funded through TDEC, but it was still a large financial burden for Hartsville-Trousdale. The landfill has been inspected, with no violations, since completion of the project. Post-closure responsibility is expected to extend to infinity.

Natural disasters, such as tornadoes, flooding, fire, and earthquakes create added work for employees assigned daily job tasks associated with solid waste services. Hartsville-Trousdale needs an updated disaster debris management plan to prepare for natural disasters within our region. A debris management plan guides not only Public Works, but Highway Department and Public Safety professionals in the responsibilities and logistics to coordinate the response following the life safety step in disaster response and recovery efforts.

Waste Streams

The EPA defines waste stream as the total flow of solid waste from homes, businesses, institutions, and manufacturing plants that must be recycled, incinerated, or disposed of in landfills. Waste streams are typically categorized as organics, food waste, construction and demolition waste, residential waste, or hazardous waste.

Residential municipal solid waste (MSW) is collected at the convenience center, as well as curbside from households located within the city limits of Hartsville-Trousdale. Residential recyclables are collected at the convenience center drop-off. Recyclable commodities collected at the facility include metals (aluminum and steel), plastics #1 and #2, used oil, mixed paper, cardboard, antifreeze, glass, e-scrap, batteries, tires, yard clippings, brush, and bulky items. Bulky wastes are furniture, mattresses, white goods (household appliances), and other large, hard to handle waste streams. Liquid/hazardous waste, contractor construction materials, commercial waste, and home and business demolition wastes are not accepted at the convenience center nor are they collected at curbside. Hartsville-Trousdale partners with surrounding counties and TDEC, annually, to participate in a one-day, household hazardous waste (HHW) drop-off event.

In August 2019, Metropolitan Nashville and Davidson County adopted a *Solid Waste Master Plan: Achieving Zero Waste*. While this plan is focused on Metro Nashville's solid waste management system, the waste audit conducted for a portion of this plan is applicable for most residential customers in Middle Tennessee. The waste audit considered several different waste streams, which were measured from random samples of residential waste. The samples were of equal amounts, collected in the spring and fall. Results indicated, by weight, organics and paper made up just over 55% of the waste generated by residential customers. Plastics, construction and demolition, miscellaneous inorganics, textiles, glass, metals, and household hazardous waste (HHW) were other categories making up 100% of the sampled materials. In theory, collecting residential organics and paper could result in diverting approximately 55% of waste from landfills. These waste streams would need to be collected using a method that maintained quality commodities, with strong markets to buy these materials, and reasonable transportation costs for this to be a responsible path for managing residential solid waste.

Successful organics collection programs typically include food waste from businesses. Residential organics are better managed as backyard compost

operations instead of containerizing this waste stream for weekly collection. Currently, Hartsville-Trousdale does not have an organics diversion program in place. Adding this waste stream as a separate residential collection service would require financial resources to expand collection, processing and/or end use. Best management practices, as outlined in The 2025 Plan, indicate composting or mulching may take place at the county or residential level, including website information with references to composting methods. Community outreach through the county website showing the steps needed for backyard composting, in addition to frequently asked questions that assist with common problems encountered in backyard compost operations would support state goals and objectives for the foreseeable future.



Photo 1. Tin Can Recycling



Photo 2. Aluminum Can Recycling



Photo 3. Aluminum Recycling

Fleet

Hartsville-Trousdale has a fleet of seven (7) trucks assigned to provide local solid waste collection services.

Three (3) of these units are out of service:

- 1994 MR690S Front-end load truck (out of service)
- 1994 Volvo Door-to-Door pick-up truck (out of service)
- 1995 Mack DM Roll-off truck (out of service)

The four (4) active units include:

- 2005 MR6885 Front-end load truck
- 2013 Mack Model GU813 Roll-off truck
- 2014 Mack LEU Sideload truck
- 2016 Western Star Roll-off truck

When weekly collection services are provided, it is critical to have enough resources to allow for maintenance downtime and unexpected repairs to active trucks and equipment. There are no back-up units available if the front-end load truck or automated side load truck are out of service unexpectedly. Weekly routes are spread throughout a 5-day workweek, which also creates a challenge for taking units offline for regular preventive maintenance.

Regarding out of service units, an internet search resulted in the following comparable trucks for sale or on auction sites.

1994 MR690S front-end load truck –

- 1996 MR690S front-end load truck with 198,000 miles = \$14,900
- 1997 Mack front-end load truck with 228,929 miles = \$15,000
- 1999 Mack front-end load truck with 470,196 miles = \$29,900

1994 Volvo door-to-door truck (side-load truck)

- 1994 Volvo side-load truck – current bid \$1,825 with 6 days remaining
- 1999 International chassis (not Volvo) = \$7,500

1995 Mack DM roll-off truck

- 1995 Mack DM roll-off truck with 64,782 miles and 8,827 hours = \$9,460
- 1995 Mack DM roll-off truck with 251,421 miles and 37,742 hours = \$29,900
- 1995 Mack DM roll-off truck with 65,748 miles = \$24,000

There are no back-up trucks or equipment to use if the current fleet trucks need repairs or maintenance.

2005 Mack MR6885 front-end load truck is a truck used for daily collection. This truck needs major mechanical work. Based on the year of this truck it is 16 years old and may not have enough value to warrant spending monies on needed repairs.

2013 Mack GU813 roll-off truck is a daily truck that currently has problems with the regeneration system that ensures clean air is emitted from the truck's exhaust. Instead of the system automatically switching to the "regen" mode for processing the built-up exhaust, it must be completed using a manual process that takes more time and effort than the automatic option would require.

2014 Mack LEU side-load truck is a truck used daily for residential collection. Currently, there are no identifiable issues with the mechanics and reliability associated with this truck.

2016 Western Star roll-off truck is the newest truck in the fleet and there are no mechanical troubles noted from drivers assigned to drive and operate this unit.

The average age of this fleet is nine (9) years old, well beyond the usual replacement goal of 7 years for each truck providing daily collection services. The front-end load truck used every day for collection services is 16 years old and cannot be expected to continue providing reliable collection service without investing in the mechanics and needed repairs on this truck. Hartsville-Trousdale may need to consider leasing collection trucks instead of purchasing units for their government owned fleet.

Staffing/Customer Service

Employees of the Public Works Department often serve in many different roles. For instance, the mechanic is assigned to provide internal service to all public works vehicles and equipment. The backdoor route, made up mostly of downtown businesses, is a daily responsibility for the mechanic as well. This route is condensed and usually takes approximately an hour to complete. Team members are hired with an active commercial driver's license (CDL) to allow flexibility in their job duties, as well. When collection routes are completed, other duties include driving roll-off trucks to provide service to the convenience center, operating lawncare equipment, picking up litter, and completing other public works related tasks that are not directly connected to solid waste services. The Hartsville-Trousdale recycling processing facility is dependent upon one (1) full-time team member and local inmate labor.

Safety training is quarterly for existing and new employees. Historically, the solid waste industry is one of the top five (5) most dangerous jobs in the country. Regular safety training is a necessity to protect people, both employees and the public, as well as other county-owned resources like trucks and equipment. Increasing the frequency of safety training, and topics covered would further communicate the importance of situational awareness, accident prevention, and learning from incidents when they occur.

Financial/Budget

Economics of how to balance the service needs of the community with the costs associated with providing those services include how waste streams are managed, transportation costs, environmental impacts, disposal expenses, and other factors. Funding for solid waste operations is budgeted with revenues from Urban Services District residential household collection service fees, local property taxes, sale of recyclable materials, and grants. Curbside collection services are provided to residents located in the Urban Services area. Effective January 1, 2018, the monthly door-to-door residential trash collection fee increased to \$19. Business customers are charged monthly service fees based on the number of services needed each week. Hartsville-Trousdale leases roll-off boxes for \$150 per month with a two (2) ton minimum which equals \$74. The sale of recyclables has been a source of revenue for the Solid Waste Department. As the demand and markets declined, so did revenues received from the sale of these commodities.

The current disposal rate for waste delivered to the Smith County Landfill is \$37 per ton. Liberty Tire provides a trailer, on-site, for tire collection. Hartsville-Trousdale pays 32 cents per mile, plus \$395 for a loaded trailer to cover transportation and tire recycling expenses. Excess used oil, not used in heating county facilities, is collected by Noble Oil for recycling. The fee for used oil collection was \$118 per service, as needed. When the team recognized the oil was usually pumped once each month, the department took advantage of a \$65 per month flat fee, and shifted this service to a monthly rotation, at a reduced cost. The old, closed landfill project is completed, with the post-closure care costs estimated at \$75,000 annually. Additionally, any rollout containers that are damaged or destroyed are replaced and accounted for as an expense to the Public Works Department.

The deficit between revenues and expenses to cover Urban Services door-to-door residential collection services continues to increase. In the past three (3) years, the total deficit for fiscal years combined is \$149,376. Thus far, in the FY2021 budget the deficit is projected to be \$69,733.

In 2019, the number of households reported by TDEC, in the Trousdale County Annual Progress Report (APR), was 3,054. Considering there are 977 households that currently receive residential solid waste collection, this would indicate approximately 2,077 households in unincorporated Hartsville-Trousdale County, or the general services area. Creating an access fee for residents to use the convenience center would generate revenues to support the ongoing operation of the

facility. For instance, beginning with a monthly access fee of \$5.00 per household, the added revenue would equal \$124,620 annually, based on 2019 data. In addition, continuing to evaluate ongoing expenses associated with curbside collection in the Urban Services district will allow for gradual increases in service fees, as needed, to fully cover expenses.

Additionally, the current spending on door-to-door collection services is \$264,444 annually. Using 977 residential customers, from utility billing records, to calculate a monthly cost per household, the price to cover expenses would be \$22.55, per household.

Recommendations

Based on the Middle Tennessee Industrial Development Association's Community Data Profile population figures, there were 10,308 people in Hartsville-Trousdale in 2019. As reported to TDEC, in 2019, there were 4,119 tons of MSW generated in the metropolitan government. Projected population in 2024 is expected to be 10,770 people. Maintaining the total volume of waste generated in Hartsville-Trousdale and increasing it by the same 6% the population is expected to increase, the total waste generated can be projected at 4,366 tons in 2024. Essentially, Hartsville-Trousdale residents would generate an average of 805 pounds per person per year. Even based on a slow, steady increase in population, continuing to provide current levels of service will require additional financial support.

The following recommendations are based on direct communication with Hartsville-Trousdale leadership and team members, site visits, historic data provided to TDEC, and experience gained from other successful operations throughout Tennessee.

1. Add backyard composting and grass recycling information to the county website.

Immediate (3 months)

This will allow Hartsville-Trousdale to meet the preferred best management practice for supporting residential composting and mulching, as presented in TDEC's 2025 Plan. Partnering with the local UT Agriculture Extension Office may be an opportunity to move this recommendation forward immediately.

2. Increase the frequency and topics covered in employee safety training.

Immediate (3-6 months)

Increasing the frequency of safety training, and topics covered would further communicate the importance of situational awareness, accident prevention, and learning from incidents when they occur. Overall, this will benefit solid waste operations, and the public works team as a whole.

3. Assess the out of service fleet vehicles for salvage value.

Immediate (3-6 months)

The three (3) disabled collection trucks should be assessed for salvage value. Once these retired vehicles are stripped of any valuable parts, these should be sold through the online government auction site, or local auction, and accounted for as solid waste revenue. The intent for revenues collected should be identified as this process moves forward; for instance, if the monies will be used to decrease the overall deficit in the operations budget, spent toward the purchase of new truck(s) or

equipment, to repair an existing truck, or satisfy the cost for other solid waste operations related needs.



Photo 4: 1994 Volvo automated side-load truck
1994 MR690S front-load truck



Photo 5: 1995 Mack DM roll-off truck

4. Update policy to require customer to pay the cost to replace rollout containers, as needed.

Immediate (6-12 months)

Damaged or lost rollout containers are currently paid for through Hartsville-Trousdale budgeted operating funds. Shifting this financial responsibility to the customer not only reduces expenses for the department, but also gains attention from the customer to prevent damages and lost containers in the future.

5. Increase the price for leased roll-off containers.

Immediate (6-9 months)

This service is provided by private companies throughout Middle Tennessee. Calls for quotes indicates the minimum fee for 30-yard, open-top roll-off containers, for construction and demolition projects, is \$325 for box rental.

6. Increase service fees for commercial customers with dumpsters.

Immediate (6-12 months)

Business customers are provided collection service using two (2) different containers, a rollout can or a dumpster. Both types of service are charged the same fee, although the rollout container is 96-gallon capacity, and the dumpster is 6-8 cubic yard capacity. Rollout containers can be serviced with the same truck used for curbside services, and the dumpsters are serviced with a front-end load truck. The dumpster holds more waste and is serviced with a larger, more expensive truck, but charged the same as the customer using a rollout container and a more widely used truck. In addition, the landfill tip fee will be a higher expense for the dumpster based on the added capacity in the container.

7. Redefine service areas to include dense residential developments in the urban services area, instead of general services.

Immediate (6-12 months)

Expanding the urban service district to include the unincorporated area within a certain distance of the current boundary, for instance within a 3-mile radius of the existing urban services boundary, will allow for residential neighborhoods to be provided comparable services as other similar developments. Adding dense residential developments, such as Sulphur College, Ridgecrest, and Bridal Path, to the urban services district will increase curbside services provided, increase the revenues associated with these services, and potentially decrease the need for an added convenience center. Accomplishing this recommendation may require creating a special solid waste services district. A district, which can be created through updating the ordinance, would allow for transparency in revenues and expenses, based on service levels and functions. This will also provide designated funding to support on-going service delivery and allow for future growth.

8. Charge general service households a monthly access fee for convenience center use.

Immediate (6-12 months)

Residents paying a monthly service fee for curbside services still use the convenience center, as needed for overflow waste, bulky items, and other waste streams. Residents in the general services district should pay an access fee to pay for the services provided through the convenience center. This fee should be less than the current residential fee for curbside service, but enough to help cover operating costs at the convenience center. For instance, \$5.00 per month for convenience center access would result in approximately \$124,620 in revenues to support the operation of the convenience center.

9. Visit the Chester County Solid Waste & West Tennessee Recycling Hub.

Immediate (6-12 months)

This county-owned and operated site has been successful in their mission to be a regional materials recovery facility (MRF). Touring this facility and comparing the operation to current processing at the Hartsville-Trousdale facility will assist in developing the idea of becoming a regional hub for processing recyclable materials.

10. Re-route automated sideload truck to provide services 3 days each week (Tuesday, Wednesday, Thursday)

Near-term (12-18 months)

Re-routing curbside services will increase operating efficiencies, decrease large truck traffic in residential and congested areas, and improve safety on dead-end streets.

11. Create bid specifications for potential outsourcing curbside, residential, solid waste and/or recycling services.

Near-term (12-18 months)

Current fleet inventory indicates added repairs and maintenance will be needed to maintain the existing fleet to continue providing solid waste collection services. Additionally, curbside recycling services are not currently offered, but may be an option if level of service and pricing proved to benefit residential customers. The lack of current back-up trucks or equipment to perform these essential services puts local government in a vulnerable position for continuing to meet service expectations. Adding customers will also directly impact the life expectancy of each truck, based on preventive maintenance, and needed repairs. There have been at least three (3) local companies identified as possible respondents if a bid specification were written and published for responses.

12. Exchange open top and/or 8-cubic yard dumpsters for compactor units, to collect recyclables.

Near-term (12-24 months)

Compaction will create a more efficient operation saving time spent emptying roll off containers that are not as full when materials are not compacted. Efficiencies will be added to the entire process, including loading, transportation, processing and other similar criteria.

13. Feasibility study for development of a regional recycling processing hub (MRF).

Long-term (3-5 years)

Expand recycling processing to accept materials from other customers and set it up in a hub format. A processing permit may be needed, and an added sort line would assist with efficiencies. Full-time staff should be considered for establishing a dependable operation for customers to depend on for their processing needs.

Chester County, Tennessee, serves as a “hub” for several local governments, which are often referred to as the “spokes”. According to their website, this West Tennessee Regional Recycling operation accepts recyclable commodities from Chester County, the City of Henderson, Hardin County, City of Savannah, McNairy County, City of Adamsville, City of Selmer, City of Lexington, Henderson County, and the City of Collierville.

Photos below provide a visual of the intake from customers, the processing, and the bales that are transported to companies within our market, and beyond.



Photo 6: Tipping floor at MRF in California



Photo 7: Processing at MRF in California



Photo 8: Bale of cardboard ready for transport