Davidson County Region Solid Waste Plan Update

Metropolitan Nashville and Davidson County Region

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1.0 EXECUTIVE SUMMARY .................................................................4
  1.1 Overview ....................................................................................4
  1.2 The Metro Nashville Solid Waste Planning Region .......................5
  1.3 Plan Purpose and Objectives ......................................................7
  1.4 Waste Stream Generation and Characteristics ............................8
  1.5 Solid Waste Management System and Future Needs ..................8
  1.6 Future Waste and Waste Reduction Strategies ...........................8
  1.7 Planning Process .......................................................................8

2.0 DESCRIPTION OF THE REGION ...............................................10
  2.1 Introduction ................................................................................10
  2.2 Demographics ..........................................................................10
  2.3 Regional Economic Activity .....................................................13
  2.4 Geography .................................................................................15
  2.5 Regional Transportation System ..............................................15
  2.6 Form of Government ................................................................15

3.0 WASTE STREAM CHARACTERIZATION .....................................17
  3.1 Introduction ...............................................................................17
  3.2 Municipal Solid Waste ................................................................19
  3.3 C&D Waste ..............................................................................20
  3.4 Industrial Recyclables ...............................................................21

4.0 THE METRO SOLID WASTE MANAGEMENT SYSTEM ..............23
  4.1 Introduction ...............................................................................23
  4.2 Waste Collection and Transportation Services ............................24
  4.3 Source Reduction and Recycling Services ..................................28
  4.4 Waste Transfer Systems in region .............................................34
  4.5 Processing Systems ..................................................................35
  4.6 Disposal Facilities .....................................................................36
  4.7 Public Information and Education Programs .............................38
  4.8 Management of Problem Wastes .............................................38
  4.9 Revenues and Expenses of the Current System ..........................39
  4.10 Strengths and Weaknesses of the Current System ....................41

5.0 WASTE STREAM PROJECTIONS AND FUTURE SYSTEM NEEDS ....42
  5.1 Introduction ...............................................................................42
  5.2 Population Projections .............................................................42
  5.3 Waste Stream Quantity Projections .........................................43
  5.4 Solid Waste Management projections .......................................44
  5.5 System Capacity Requirements ...............................................44

6.0 FUTURE WASTE REDUCTION GOALS AND STRATEGIES ..........46
  6.1 Introduction ...............................................................................46
  6.2 Rationale ..................................................................................46
  6.3 Base Year Solid Waste Disposal Rates and 10 Year Projections ......47
  6.4 Waste Diversion Target for Ten-Year Plan: Exceeding TDEC Requirements ......48
6.5 Methods for Meeting the 60% Waste Diverion goal .................................................... 48
6.6 Summary .................................................................................................................. 50

7.0 FUTURE WASTE COLLECTION, TRANSPORTATION AND DISPOSAL SERVICES .................................................. 51
7.1 Current Collection and Transportation System .................................................... 51
7.2 Evaluation of Current System ............................................................................... 51
7.3 Meeting Future Collection Needs ....................................................................... 51
7.4 Meeting Future waste Transportation Needs ..................................................... 52
7.5 Staffing and Training at convenience centers ..................................................... 52
7.6 Future Waste Disposal Needs ............................................................................ 53
7.7 Collection and Transportation Budget ............................................................... 54
7.8 Responsible Entities within the Region ............................................................... 55

8.0 FUTURE WASTE DIVERSION PROGRAMS ............................................................... 56
8.1 Introduction ............................................................................................................ 56
8.2 Recycling Goals and Strategies ........................................................................ 56
8.3 Regional Recycling System Alternatives ......................................................... 57
8.4 Proposed Waste Reduction Programs and Services ...................................... 58
8.5 Low Cost, Near and Long-Term Options ......................................................... 59
8.6 Checklist for Permitting of Landfill Expansions or New Landfill Sites ............ 65
8.7 New Developments on the Horizon .................................................................. 66
8.8 Coordination of Public and Private Efforts .......................................................... 68
8.9 Responsible Entities within the Region ............................................................... 68
8.10 Summary of Future Waste Diversion Programs ........................................... 69

9.0 FUTURE PUBLIC INFORMATION AND EDUCATION PROGRAMS ..................... 70
9.1 Introduction ............................................................................................................ 70
9.2 Public Information and Education Program Needs ......................................... 70
9.3 Goals and Strategies ............................................................................................ 70
9.4 Summary of Existing and Proposed Services .................................................. 73
9.5 Implementation Schedule and Budget ............................................................... 75
9.6 Responsible Entities within the Region ............................................................... 75

10.0 FUTURE PROGRAMS FOR PROBLEM WASTES .................................................. 76
10.1 Introduction ........................................................................................................... 76
10.2 Household Hazardous Waste ............................................................................ 76
10.3 Waste Tires .......................................................................................................... 76
10.4 Automotive Fluids ............................................................................................... 77
10.5 Lead Acid Batteries ............................................................................................. 77
10.6 White Goods ........................................................................................................ 78
10.7 Litter ....................................................................................................................... 80
10.8 Infectious Waste .................................................................................................. 81
10.9 Other Problem Wastes ....................................................................................... 82
10.10 Problem Wastes Program Implementation and Budget .................................. 82

11.0 RESPONSIBILITIES FOR PLAN IMPLEMENTATION ......................................... 83
1.0 EXECUTIVE SUMMARY

1.1 OVERVIEW

This Municipal Solid Waste Regional Plan – 2007 Update (2007 Plan Update) has been prepared in accordance with the Tennessee Solid Waste Management Act of 1991 (Solid Waste Act) for the purpose of meeting local solid waste goals and protecting public health and the environment within the Metropolitan Nashville-Davidson County planning region.

The planning region consists of the municipalities of Nashville, Goodlettsville, Forest Hills, Oak Hill, Belle Meade, Lakewood, Berry Hill, and the unincorporated areas of Davidson County. The planning period covered in this plan is 2008-2017.

The Metropolitan Government of Nashville and Davidson County (Metro) formed a single county solid waste planning region (Metro Region) on November 17, 1992 by resolution of the county’s legislative body. Then, according to the mandates of the Solid Waste Act, the municipalities in the Metro Region appointed a Solid Waste Regional Board (SWRB). The SWRB, with the assistance of Metro’s Department of Public Works (DPW), prepared the Metro Region’s original ten-year Solid Waste Management Plan (Original 1994 Plan). This plan was submitted to and approved by the State of Tennessee in November, 1994.

This document has been prepared in compliance with the Solid Waste Act and its 1999 Amendments with funding from the DPW. The purpose of this document is to update the Original 1994 Plan submitted by the Metro Region. While not required under Tennessee regulations, the DPW felt that an update to the Original 1994 Plan was warranted due to the significant number of changes that have been made to the Metro Region’s solid waste management infrastructure and services since the development of the Original Plan. It is the DPW’s and the SWRB’s intent that this 2007 Plan Update be the reference document with respect to future APR’s submitted for the Metro Region.

Through implementation of this comprehensive, updated solid waste management plan, the Metro Region will continue to provide for the efficient and environmentally-sound management of solid waste, including solid waste disposal and waste reduction, for the next ten years.
1.2 THE METRO NASHVILLE SOLID WASTE PLANNING REGION

The Metro Region consists of Nashville, Davidson County, and six satellite cities. The Town of Ridgetop is located partially in Davidson County; however, the Town chose to be represented by Robertson County where a majority of its population resides. The City of Goodlettsville is located in Davidson and Sumner Counties; however, the City of Goodlettsville chose to be represented by the Metro Region where most of its population resides. The Metro Region entities are presented in Table 1-1 with their respective 2000 United States census population figures. The Metro Region population reflects those persons represented by the Metro Region including 13,780 Sumner County residents living in and represented by the City of Goodlettsville and excluding 1,083 Davidson County residents residing in the Town of Ridgetop.

As the consolidated government of Nashville and Davidson County, Metro provides governmental services to the Nashville incorporated area as well as the unincorporated areas of Davidson County. Metro’s service area is divided into the Urban Services District (USD) and the General Services District (GSD). For the purposes of this 2007 Plan Update, the USD refers to the central portion of the Metro Region as defined by the Davidson County-Metropolitan Nashville Charter and as shown on Figure 1-1. The GSD will represent the remainder of the Metro Region excluding the satellite cities listed in Table 1-1. This distinction will be important in later sections that discuss solid waste collection and disposal services.

The Metro Region was formed to develop a regional solid waste management plan. It was collectively determined by the local governments in the region that the size of the metropolitan region, with respect to both population and waste generation, necessitated the formation of a one-county region. The Metro Region is significantly more urbanized than any of its contiguous counties making its solid waste management needs unique in the middle Tennessee area. However, this does not eliminate the possibility of working cooperatively with other counties as deemed appropriate in the future.

### Table 1-1

<table>
<thead>
<tr>
<th>City/Town</th>
<th>Population (2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belle Meade</td>
<td>2,943</td>
</tr>
<tr>
<td>Berry Hill</td>
<td>674</td>
</tr>
<tr>
<td>Forest Hills</td>
<td>4,710</td>
</tr>
<tr>
<td>Goodlettsville</td>
<td>13,780</td>
</tr>
<tr>
<td>Lakewood</td>
<td>2,341</td>
</tr>
<tr>
<td>Nashville-Davidson (balance)</td>
<td>540,909</td>
</tr>
<tr>
<td>Oak Hill</td>
<td>4,493</td>
</tr>
<tr>
<td>Ridgetop (part)</td>
<td>41</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>569,891</strong></td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau
The Metro Region has evaluated waste reduction and disposal alternatives on a regional basis. These analyses are described in the following sections, which also present the evaluation criteria and the decision-making process used to establish the future solid waste management goals and policies for the region.

The SWRB for the Metro Region is comprised of 13 members. Representation on the SWRB is allocated to provide one member for each municipality providing solid waste collection or disposal services, which includes the cities of Belle Meade, Berry Hill, Oak Hill, Goodlettsville, and Lakewood. The remaining members represent the Metro Region at-large. A list of the SWRB members is provided in Table 1-2.

The SWRB members were appointed by their respective mayors. As such, they provide direct communication with these individuals regarding the activities of the Metro Region.

Public meetings, as well as written correspondences, provide input into the regional planning process.
1.3 PLAN PURPOSE AND OBJECTIVES

The SWRB is committed to reducing the amount of solid waste that is disposed in landfills as much as is economically possible. To that end, the SWRB offers this Solid Waste Management Plan. Principles that guide the Plan are as follows:

- The Plan presents a ten-year vision to manage the Metro Region’s solid waste stream efficiently and reduce the amount of municipal solid waste disposed by a minimum of 60% over the planning period. This rate is more than double the MSW waste reduction goal of 25% established by the State.
- The Plan requires maximizing source reduction, recycling, and composting prior to sending materials to Class I-IV landfills to the extent that has been demonstrated to be economically and technically feasible.
- The Plan presents the framework for the implementation of environmentally-sound and economical methods of managing the municipal solid waste (MSW) that is projected to be generated by the Metro Region over the planning period.
- The Plan is designed to be equitable, realistic, and practical for the typical user of waste services while accomplishing waste reduction goals.
- The Plan contains incentives and policies that encourage residential, commercial, industrial, and institutional waste reduction practices.
- Through effective education and community relations, all waste generators will understand:
  - how to reduce, reuse, and recycle waste;
  - how their wastes are managed;
  - the need for waste management facilities;
  - the full cost of managing the wastes that they produce; and
  - their responsibility for improving waste management practices.
- Community quality of life, health, and aesthetics are optimized when designing facilities and planning operational practices.
- The Plan presents an integrated solid waste management system for the Metro Region. The participants who deliver the system—the staff, the contractors, and the operators—have specific responsibility and accountability for implementation of the Plan, which include common goals, compliance controls, rewards, consequences for noncompliance, communication, cooperation, and training.
The Metro Region government should be a model for other entities by using recycled products and incorporating reduction strategies.

### 1.4 WASTE STREAM GENERATION AND CHARACTERISTICS

Nashville’s waste distribution is similar to other cities with business and industry comprising the largest portion of landfilled waste. Section 3 contains further details of waste generation and characterization.

<table>
<thead>
<tr>
<th>Waste Source</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>34%</td>
</tr>
<tr>
<td>Commercial/Institution/Industrial</td>
<td>66%</td>
</tr>
</tbody>
</table>

### 1.5 SOLID WASTE MANAGEMENT SYSTEM AND FUTURE NEEDS

The Davidson County Region has all aspects of an integrated solid waste management system with curbside trash collection available to all residents either through property taxes or a direct fee for service, curbside or drop-off recycling, yard waste collection and household hazardous waste drop-off open seven days/week. Section 4 describes these programs including revenues/expenses, disposal facilities and current public education programs. Projections of population growth and how that will affect waste handling going forward are described in Section 5.

### 1.6 FUTURE WASTE AND WASTE REDUCTION STRATEGIES

Sections 6 through 10 outline how waste will be handled going forward including an aggressive waste reduction goal. This goal can only be achieved through participation from the public and private sector. Section 8 describes near, mid and long term options for waste reduction.

### 1.7 PLANNING PROCESS

The Metro Region SWRB met on April 17, 2006 to provide guidance on the update of the Ten-Year Solid Waste Plan. The SWRB discussed the purpose of the 2007 Plan Update with an outline of the intended programs and waste reduction goals. On December 18, 2008, the 2007 10 Year Plan
Update was presented to the SWRB and approved. Revisions required by TDEC are represented in this document and were approved on April, 30 2009.
2.0 DESCRIPTION OF THE REGION

2.1 INTRODUCTION

The City of Nashville, which is located in Davidson County, Tennessee, was originally settled in 1779. It became the state capitol from 1812 to 1815, then permanently in 1843. Together, the City and County formed the Metro Nashville Government in 1963. With an area of 533 square miles, the Metro Nashville-Davidson County Region has a 2007 population of 610,187 persons. Over 1.23 million live in the Metropolitan Statistical Area, which consists of eight counties: Cheatham, Davidson, Dickson, Robertson, Rutherford, Sumner, Williamson, and Wilson.

Nashville typically enjoys a mild and pleasant climate with only a few days of the year having either very hot or very cold conditions. Most of the City's rain is confined to the spring months, but a shower throughout the year is not unusual.

A map of the Nashville Economic Marketplace is provided in Figure 2-1.

2.2 DEMOGRAPHICS

The estimated population for Davidson County in 2007 was 619,626\(^1\). Households were estimated at 248,911. These values represent approximately 60% of the growth projected for the 2000-2010 period\(^2\).

Looking to 2010 - Davidson County is projected to continue its pattern of slowing growth. The 2010 projected population for Davidson County is 619,771: an 8.8% increase over 2000. This compares to the

\(^1\) US Census Bureau  
\(^2\) www.nashville.gov/mpc/population_projections2010.htm
11.6% growth seen for 1990-2000. By 2010 approximately 50,000 new residents will be added, and most of this growth will be focused on Priest Lake, Bellevue and Far South Davidson County between I-24 and I-65.

Table 2-1

<table>
<thead>
<tr>
<th>Population Age Groups</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 to 14 years</td>
<td>12.50%</td>
<td>13.10%</td>
<td>11.90%</td>
</tr>
<tr>
<td>15 to 17 years</td>
<td>3.60%</td>
<td>3.70%</td>
<td>3.40%</td>
</tr>
<tr>
<td>18 to 24 years</td>
<td>9.40%</td>
<td>9.70%</td>
<td>9.20%</td>
</tr>
<tr>
<td>15 to 44 years</td>
<td>44.30%</td>
<td>46.00%</td>
<td>42.70%</td>
</tr>
<tr>
<td>16 years and over</td>
<td>79.00%</td>
<td>78.00%</td>
<td>79.90%</td>
</tr>
<tr>
<td>18 years and over</td>
<td>76.60%</td>
<td>75.50%</td>
<td>77.60%</td>
</tr>
<tr>
<td>60 years and over</td>
<td>15.10%</td>
<td>12.80%</td>
<td>17.30%</td>
</tr>
<tr>
<td>62 years and over</td>
<td>13.30%</td>
<td>10.90%</td>
<td>15.60%</td>
</tr>
<tr>
<td>65 years and over</td>
<td>10.90%</td>
<td>8.70%</td>
<td>13.00%</td>
</tr>
<tr>
<td>75 years and over</td>
<td>5.30%</td>
<td>3.80%</td>
<td>6.80%</td>
</tr>
</tbody>
</table>

Source: http://factfinder.census.gov

Table 2-2

<table>
<thead>
<tr>
<th>Race</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>613,632</td>
</tr>
<tr>
<td>White alone</td>
<td>404,006</td>
</tr>
<tr>
<td>Black or African American alone</td>
<td>168,487</td>
</tr>
<tr>
<td>American Indian and Alaska Native alone</td>
<td>2,076</td>
</tr>
<tr>
<td>Asian alone</td>
<td>18,624</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander alone</td>
<td>233</td>
</tr>
<tr>
<td>Some other race alone</td>
<td>14,300</td>
</tr>
<tr>
<td>Two or more races:</td>
<td>5,906</td>
</tr>
<tr>
<td>Two races including Some other race</td>
<td>1,195</td>
</tr>
<tr>
<td>Two races excluding Some other race, and three or more races</td>
<td>4,711</td>
</tr>
</tbody>
</table>

Source: http://factfinder.census.gov
<table>
<thead>
<tr>
<th>Education Level</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population 18 to 24 years</td>
<td>57,945</td>
<td>28,950</td>
<td>28,995</td>
</tr>
<tr>
<td>Less than high school graduate</td>
<td>17.70%</td>
<td>21.60%</td>
<td>13.90%</td>
</tr>
<tr>
<td>High school graduate (includes equivalency)</td>
<td>30.20%</td>
<td>32.20%</td>
<td>28.20%</td>
</tr>
<tr>
<td>Some college or associate's degree</td>
<td>39.30%</td>
<td>35.90%</td>
<td>42.60%</td>
</tr>
<tr>
<td>Bachelor's degree or higher</td>
<td>12.80%</td>
<td>10.30%</td>
<td>15.30%</td>
</tr>
<tr>
<td>Population 25 years and over</td>
<td>412,033</td>
<td>196,974</td>
<td>215,059</td>
</tr>
<tr>
<td>Less than 9th grade</td>
<td>5.70%</td>
<td>6.40%</td>
<td>5.00%</td>
</tr>
<tr>
<td>9th to 12th grade, no diploma</td>
<td>10.00%</td>
<td>10.20%</td>
<td>9.80%</td>
</tr>
<tr>
<td>High school graduate (includes equivalency)</td>
<td>26.70%</td>
<td>26.70%</td>
<td>26.80%</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>19.40%</td>
<td>18.60%</td>
<td>20.20%</td>
</tr>
<tr>
<td>Associate's degree</td>
<td>5.90%</td>
<td>5.00%</td>
<td>6.70%</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>20.80%</td>
<td>21.20%</td>
<td>20.50%</td>
</tr>
<tr>
<td>Graduate or professional degree</td>
<td>11.50%</td>
<td>11.90%</td>
<td>11.10%</td>
</tr>
<tr>
<td>Percent high school graduate or higher</td>
<td>84.30%</td>
<td>83.40%</td>
<td>85.20%</td>
</tr>
<tr>
<td>Percent bachelor's degree or higher</td>
<td>32.30%</td>
<td>33.10%</td>
<td>31.60%</td>
</tr>
<tr>
<td>Population 25 to 34 years</td>
<td>94,312</td>
<td>47,729</td>
<td>46,583</td>
</tr>
<tr>
<td>High school graduate or higher</td>
<td>85.30%</td>
<td>82.70%</td>
<td>87.90%</td>
</tr>
<tr>
<td>Bachelor's degree or higher</td>
<td>38.20%</td>
<td>33.70%</td>
<td>42.80%</td>
</tr>
<tr>
<td>Population 35 to 44 years</td>
<td>97,913</td>
<td>49,874</td>
<td>48,039</td>
</tr>
<tr>
<td>High school graduate or higher</td>
<td>86.30%</td>
<td>83.10%</td>
<td>89.70%</td>
</tr>
<tr>
<td>Bachelor's degree or higher</td>
<td>34.20%</td>
<td>33.40%</td>
<td>35.00%</td>
</tr>
<tr>
<td>Population 45 to 64 years</td>
<td>152,763</td>
<td>73,285</td>
<td>79,478</td>
</tr>
<tr>
<td>High school graduate or higher</td>
<td>87.10%</td>
<td>86.40%</td>
<td>87.70%</td>
</tr>
<tr>
<td>Bachelor's degree or higher</td>
<td>32.30%</td>
<td>34.10%</td>
<td>30.70%</td>
</tr>
<tr>
<td>Population 65 years and over</td>
<td>67,045</td>
<td>26,086</td>
<td>40,959</td>
</tr>
<tr>
<td>High school graduate or higher</td>
<td>73.80%</td>
<td>76.60%</td>
<td>72.00%</td>
</tr>
<tr>
<td>Bachelor's degree or higher</td>
<td>21.10%</td>
<td>28.50%</td>
<td>16.40%</td>
</tr>
</tbody>
</table>

Source: [http://factfinder.census.gov](http://factfinder.census.gov)
Table 2-4
Distribution of Houses by Type and Occupancy 2005-2007

<table>
<thead>
<tr>
<th></th>
<th>Occupied Housing Units</th>
<th>Owner Occupied Units</th>
<th>Renter Occupied Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>248,006</td>
<td>149,629</td>
<td>98,377</td>
</tr>
<tr>
<td><strong>HOUSEHOLD SIZE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-person household</td>
<td>36.50%</td>
<td>30.70%</td>
<td>45.10%</td>
</tr>
<tr>
<td>2-person household</td>
<td>32.00%</td>
<td>36.00%</td>
<td>26.10%</td>
</tr>
<tr>
<td>3-person household</td>
<td>15.30%</td>
<td>15.90%</td>
<td>14.50%</td>
</tr>
<tr>
<td>4-or-more-person household</td>
<td>16.20%</td>
<td>17.40%</td>
<td>14.30%</td>
</tr>
<tr>
<td><strong>Units in Structure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, detached</td>
<td>57.20%</td>
<td>82.60%</td>
<td>18.60%</td>
</tr>
<tr>
<td>1, attached</td>
<td>7.30%</td>
<td>9.10%</td>
<td>4.60%</td>
</tr>
<tr>
<td>2 apartments</td>
<td>5.50%</td>
<td>1.50%</td>
<td>11.60%</td>
</tr>
<tr>
<td>3 or 4 apartments</td>
<td>3.20%</td>
<td>1.40%</td>
<td>5.80%</td>
</tr>
<tr>
<td>5 to 9 apartments</td>
<td>6.50%</td>
<td>1.20%</td>
<td>14.50%</td>
</tr>
<tr>
<td>10 or more apartments</td>
<td>18.80%</td>
<td>2.60%</td>
<td>43.30%</td>
</tr>
<tr>
<td>Mobile home or other type of housing</td>
<td>1.50%</td>
<td>1.40%</td>
<td>1.50%</td>
</tr>
</tbody>
</table>

Source: http://factfinder.census.gov

2.3 REGIONAL ECONOMIC ACTIVITY

Nashville is known for its Country Music scene but in the past decade the capital of Tennessee is one of the fastest growing cities in the Southern United States. A low cost of living combined with a low tax base for businesses has created a metropolitan area that has been able to easily transition an increasing population while maintaining quality living standards.

Although the city is rather spread out, properties are concentrated in three main areas. There is East Nashville Tennessee which covers the Opryland area; Midtown Nashville near "Music Row"; and Downtown Nashville Tennessee, which includes the Business District. Founded in 1779, Nashville was originally called Fort Nashborough, in honor of acclaimed Revolutionary War hero General Francis Nash. In 1784, the community's name was changed from Nashborough to Nashville.

3 www.relocateamerica.com/tennessee/cities/nashville
Nashville is the capital of Tennessee and a vital transportation, business and tourism center for North America. The Nashville Metropolitan Statistical Area (MSA), in the state's center, comprises eight counties and over one million in population. The Nashville region's economy is diverse and mirrors the national economy. The area benefits from low unemployment, consistent job growth, substantial outside investment and expansion, and a well-trained, growing labor force.

<table>
<thead>
<tr>
<th>Table 2-6</th>
<th>Economic Sector 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2002 NAICS sector</strong></td>
<td><strong>Number of Establishments</strong></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>666</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>1,242</td>
</tr>
<tr>
<td>Retail trade</td>
<td>2,781</td>
</tr>
<tr>
<td>Information</td>
<td>610</td>
</tr>
<tr>
<td>Real estate &amp; rental &amp; leasing</td>
<td>873</td>
</tr>
<tr>
<td>Professional, scientific, &amp; technical services</td>
<td>1,826</td>
</tr>
<tr>
<td>Administrative &amp; support &amp; waste management &amp; remediation service</td>
<td>1,003</td>
</tr>
<tr>
<td>Educational services</td>
<td>141</td>
</tr>
<tr>
<td>Health care &amp; social assistance</td>
<td>1,701</td>
</tr>
<tr>
<td>Arts, entertainment, &amp; recreation</td>
<td>605</td>
</tr>
<tr>
<td>Accommodation &amp; food services</td>
<td>1,422</td>
</tr>
<tr>
<td>Other services (except public administration)</td>
<td>1,370</td>
</tr>
</tbody>
</table>

Source: http://factfinder.census.gov

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Nicknamed the “Athens of the South,” Nashville has numerous colleges and universities add a distinctive feel.

Due, in part to Nashville’s strong economy, Relocate America rated Nashville as the “#1 City in the United States to Relocate.”

Nashville’s largest employers (excluding government agencies) are listed in Table 2-5.

2.4 GEOGRAPHY

The Metro Region comprises over 533 square miles in North Central Tennessee. The major topographic feature of the Metro Region is the Central Basin that is primarily a limestone formation. The Cumberland River runs through the Metro Region in an east and west direction and through the City of Nashville. This river is dammed and forms the Old Hickory Lake on the Davidson/Sumner County boundary. A Cumberland River tributary—the Stones River—runs north where it is dammed to form the J. Percy Priest Lake.

2.5 REGIONAL TRANSPORTATION SYSTEM

The Metro Region is accessible by three interstate highways (i.e., I-40, I-24, and I-65). I-440, an inner beltway, now exists; and State HWY 840, an outer beltway connects I-40 and I-24 and I-24 and I-65, was recently completed.

The Region’s airport is served by 13 airlines, which are Air Canada, American, American Connection, American Eagle, Continental, Delta, Frontier, Northwest, Skyway, Southwest, United Express, US Airways, and US Airways Express.

2.6 FORM OF GOVERNMENT

On April 1, 1963, the governments of the City of Nashville and Davidson County were consolidated into a single “Metropolitan Government of Nashville and Davidson County,” under which the boundaries of the City of Nashville and Davidson County are coextensive\(^5\).

The Metro Charter provides a framework for local government in Nashville to serve the needs of two service districts: (i) the General Services District (GSD) and (ii) the Urban Services District (USD).

\(^5\) www.nashville.gov/finance/catfr99/form3.htm
The GSD embraces the entire area of Davidson County; and its residents are taxed to support those services, functions, and debt obligations which are deemed properly chargeable to the whole population. Such services include general administration, police, fire protection, courts, jails, health, welfare, hospitals, streets and roads, traffic, schools, parks and recreation, airport facilities, auditoriums, public housing, urban renewal, planning, and public libraries.

The original USD conformed to the corporate limits of the City of Nashville as they existed in April 1963—the date of consolidation. USD residents are charged an additional tax to support those services, functions, and debt obligations which benefit only the USD. Such services include additional police protection, storm sewers, street lighting, and refuse collection. Since April 1, 1963, the area of the USD has been expanded from 72 square miles to 152 square miles (see Figure 2-2).
3.0 WASTE STREAM CHARACTERIZATION

3.1 INTRODUCTION

The Solid Waste Act requires that regional solid waste plans document the amounts and types of solid wastes that are generated within each region. This section provides information on the quantities and characteristics of solid waste generated in Davidson County.

The Metro Region annually reports the quantities of solid wastes that are recycled and disposed from Davidson County in its Annual Progress Report (APR), which is submitted to the State. The information presented in this section was derived from the Region’s 2007 APR that covers the period of January 2007 through December 2007. Data from the 2007 APR is used to determine the quantities of the different solid waste streams being recycled and disposed, which is presented in Table 3-1.

Based on the 2007 APR, the total amount of solid waste generated in the Metro Region in 2007 was estimated to be 1,287,077 tons. As indicated in Table 3-1, there are three major solid waste streams generated within Davidson County that are covered by the Solid Waste Act. These waste streams include:

- **Municipal Solid Waste** – MSW consists of everyday items such as product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspapers, appliances, paint, and batteries. MSW is generated by the residents, businesses, and institutions in each community and includes all waste disposed or recycled.

- **Construction and Demolition (C&D) Waste** – C&D waste consists of discarded solid wastes resulting from construction, remodeling, repair, and demolition of structures, road building, and land clearing. This waste stream includes, but is not limited to, bricks, concrete, and other masonry materials; soil, rock, lumber, road spoils, paving material, and tree and brush stumps. C&D waste generally does not include solid waste from agricultural or silvicultural operations. Under current Tennessee regulations, C&D waste does not have to be disposed in lined landfills.

- **Industrial Recyclables** – Industrial recyclables are byproducts of industrial processes that are, or can be, diverted from landfill disposal through recycling. Examples of industrial recyclables that are generated in Davidson County include plate glass, grease, textiles, and mixed metals.

The data presented in Table 3-1 were utilized to determine the percentage breakdowns and per capita generation rates for the major solid waste streams being generated in Davidson County, which are
presented in Table 3-2. A per capita disposal rate (i.e., the equivalent amount of solid waste generated per person in the County) for each waste or recycle stream was calculated and used to develop tonnage projections over the ten-year planning period.

| Table 3-1 Metro Nashville-Davidson County 2007 Solid Waste Recycling and Disposal Data |
|---------------------------------------------------------------|-----------------|-----------------|
| Waste and Recycling Data 2007 | MSW Diversion/Recycling Rate |
| MSW Disposed (Includes 100,135 tons of sludge) | 687,157.79 | MSW Disposed (Includes 100,135 tons of sludge) |
| MSW Recycling - Public Programs | Auto Fluids | 22.89 | 0.00% |
| | Batteries | 20.53 | 0.00% |
| | C&D Waste Diversion | 253.65 | 0.02% |
| | Carpet/Carpet Pad | 199.52 | 0.02% |
| | Cooking Grease | 23.25 | 0.00% |
| | Corrugated | 1,647.49 | 0.15% |
| | Electronics | 38.88 | 0.00% |
| | Glass | 1,354.30 | 0.12% |
| | Metals | 916.03 | 0.08% |
| | Mixed Paper | 3,923.82 | 0.35% |
| | Mixed Recyclables | 13,241.08 | 1.19% |
| | Mulch | 75,403.52 | 6.80% |
| | Other HHW | 64.65 | 0.01% |
| | Plastic (Mixed #1 and #2) | 290.78 | 0.03% |
| | Plastic Bottles & Metal Cans | 321.21 | 0.03% |
| | Propane Tanks | 2.17 | 0.00% |
| | Tires | 12,527.46 | 1.13% |
| Subtotal | 110,251.23 | 9.95% |
| MSW Recycling - Private Sector (Commercial/Industrial) | Batteries | 605 | 0.05% |
| | Flat Glass | 23,243.70 | 2.10% |
| | Auto Body Scrap | 17,081.00 | 1.54% |
| | Ferrous Metals | 128,001.17 | 11.55% |
| | Mixed Metals | 26.00 | 0.00% |
| | Non-Ferrous Metals | 7,417.00 | 0.67% |
| | Mixed Recyclables | 1,254.80 | 0.11% |
| | Grease | 2444 | 0.22% |
| | Plastic (Mixed #1 and #2) | 1396 | 0.13% |
| | Textiles | 6,654.50 | 0.60% |
| | Carpet/Carpet Pad | 2,250.00 | 0.20% |
| | Paper | 30,582.48 | 2.76% |
| | Corrugated | 46,328.58 | 4.18% |
| | C&D Waste Diversion | 40,870.00 | 3.69% |
| | Pallets | 3,000.00 | 0.27% |
| Subtotal | 311,154.23 | 28.07% |
| MSW (Including Public- and Private-Sector Waste and Recycling) | 1,108,563.25 |
| C&D Waste Disposed | 178,513.75 |
| Total MSW and C&D Wastes and Recyclables | 1,287,077.00 |
| Total Public and Private Sector Recycling | 421,405.46 | 33% |

Table 3-1 also presents information on the amounts and percentages of wastes generated in Davidson County that are currently being recycled or diverted. As shown, of the 1.29 million tons of waste generated each year, over 421,000 tons of waste is recycled, resulting in a waste recycling/diversion rate of 38.01 percent for 2007.

<table>
<thead>
<tr>
<th>Waste Stream</th>
<th>CY2007 (Tons/Year)</th>
<th>Per Capita Generation Rate (Lbs/Person/Day)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>% MSW</td>
</tr>
<tr>
<td>Municipal Solid Waste</td>
<td>891,671</td>
<td>8.01</td>
<td>100%</td>
</tr>
<tr>
<td>- Residential Waste</td>
<td>303,343</td>
<td>2.72</td>
<td>34%</td>
</tr>
<tr>
<td>- Commercial/Institutional/Industrial Waste</td>
<td>588,328</td>
<td>5.29</td>
<td>66%</td>
</tr>
<tr>
<td>Construction and Demolition Waste</td>
<td>219,637</td>
<td>1.97</td>
<td>17%</td>
</tr>
<tr>
<td>Industrial Recyclables</td>
<td>175,769</td>
<td>1.58</td>
<td>14%</td>
</tr>
<tr>
<td>Totals</td>
<td>1,287,077</td>
<td>11.56</td>
<td>100%</td>
</tr>
</tbody>
</table>

1 Per capita generation rates were calculated based on the Davidson County 2007 population of 610,189 (See Table 5-1).
2 Residential waste is assumed to represent 28% of the MSW generated in Davidson County based on national data. The national range estimated for residential solid waste is 55% to 65% of the MSW generation rate of 4.54 pounds per person per day, or 2.72 pounds per person per day according to the US EPA. (See Municipal Solid Waste in the United States: 2005 Facts and Figures[1]).
3 891,671 MSW tons = 1,287,077 total tons recycled and landfilled from Davidson County for CY2007 – 219,637.40 tons of C & D landfilled and recycled (178,513.75 tons landfilled, 40,870 tons recycled from Private Programs and 253.65 tons recycled from Public Programs) – 175,768.87 tons of Private Recycling Programs (Flat Glass 23,243.70 tons and 152,525.17 tons of Auto Body Scrap, Ferrous, Mixed and Non-Ferrous Metals) which were identified as Industrial Recycling.
4 C&D Waste assumed to include C&D Waste Diversion categories under “MSW Recycling – Public Programs” (253.65 tons) and “MSW Recycling – Private Sector (40,870 tons)..
5 Industrial Recyclables assumed to include the following materials listed in Table 3-1 under “MSW Recycling – Private Sector”: Flat Glass, Auto Body Scrap, Ferrous Metals, Mixed Metals, and Non-Ferrous Metals.

3.2 MUNICIPAL SOLID WASTE

3.2.1 Waste Stream Quantities, Sources, and Projections

MSW is the portion of the non-hazardous solid waste stream that is generated by residences, businesses, and institutions in a community. As indicated in Table 3-2, a total of 891,671 tons of MSW were estimated to have been generated in Davidson County in 2007. This equates to a per capita waste generation rate of 8.01 pounds per person per day (lbs/person/day).

While the generation rate of 8.01 lbs/person/day is higher than the national municipal waste generation rate estimated by the United States Environmental Protection Agency (US EPA) of 4.54 lbs/person/day
in 2005\(^1\), it should be noted that the EPA generation rate does not include industrial non-hazardous waste and that the EPA generation rates have historically been significantly lower than those calculated for local communities based on actual weight data. (The EPA relies on a ‘materials flow methodology’ computer model – not data from actual waste scales and composition studies - to develop its estimates).

The Earth Engineering Center of Columbia University and Biocycle Magazine\(^2\) published an article in 2006 that presented their own MSW generation rate estimate of 7.23 pounds per person per day. This rate is believed by some to be more accurate than the EPA rate and is much more in line with the Metro MSW generation rate.

### 3.2.2 MSW Composition

An estimate of the material composition of the MSW stream is achieved by review of national MSW composition estimates available from the US EPA’s Office of Solid Waste.

The US EPA’s estimate of MSW composition was applied to the tonnage of MSW disposed in 2005 with the results presented in Table 3-3. As indicated, the most prevalent materials in the residential waste stream are paper (34%), plastics (12%), and organics including wood wastes, yard wastes, and food scraps (30%).

<table>
<thead>
<tr>
<th>Material</th>
<th>Estimated Percentage</th>
<th>Estimated Tons Generated in 2007(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper and Paperboard</td>
<td>34%</td>
<td>302,000</td>
</tr>
<tr>
<td>Glass</td>
<td>5%</td>
<td>45,000</td>
</tr>
<tr>
<td>Metals:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ferrous</td>
<td>6%</td>
<td>53,000</td>
</tr>
<tr>
<td>Aluminum</td>
<td>1%</td>
<td>9,000</td>
</tr>
<tr>
<td>Other Nonferrous</td>
<td>1%</td>
<td>9,000</td>
</tr>
<tr>
<td>Total Metals</td>
<td>8%</td>
<td>71,000</td>
</tr>
<tr>
<td>Plastics</td>
<td>12%</td>
<td>107,000</td>
</tr>
<tr>
<td>Rubber and Leather</td>
<td>3%</td>
<td>27,000</td>
</tr>
<tr>
<td>Textiles</td>
<td>5%</td>
<td>45,000</td>
</tr>
<tr>
<td>Wood</td>
<td>6%</td>
<td>54,000</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
<td>18,000</td>
</tr>
<tr>
<td>Food Scraps</td>
<td>12%</td>
<td>107,000</td>
</tr>
<tr>
<td>Yard Trimmings</td>
<td>12%</td>
<td>107,000</td>
</tr>
<tr>
<td>Misc. Inorganic Wastes</td>
<td>1%</td>
<td>9,000</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>892,000</td>
</tr>
</tbody>
</table>

\(^1\)Rounded to nearest 1,000 tons.

### 3.3 C&D WASTE

#### 3.3.1 Waste Stream Quantities, Sources, and Projections

C&D waste consists of discarded solid wastes resulting from construction, remodeling, repair, and demolition of structures, road building, and land clearing. This waste stream includes, but is not limited to, bricks, concrete, and other masonry materials; soil, rock, lumber, road spoils, paving material, and tree and brush stumps. C&D waste generally does not include solid waste from agricultural or

\(^1\) [www.epa.gov](http://www.epa.gov)

As indicated in Table 3-2, a total of 219,637 tons of C&D waste were generated in Davidson County in 2007 (40,870 tons private recycled + 253.65 tons public recycled + 178,513.75 tons land filled). This equates to a per capita C&D waste disposal rate of 1.98 lbs/person/day.

### 3.3.2 C&D Waste Composition

An estimate of the material composition of the C&D waste stream is achieved by review of national C&D waste composition estimates from the US EPA. As indicated in Table 3-4, the most prevalent materials in the C&D waste stream are estimated to be concrete (45%), wood (25%), drywall (10%), and asphalt roofing (5%).

<table>
<thead>
<tr>
<th>Material</th>
<th>Estimated C&amp;D Waste Stream Fraction¹</th>
<th>Estimated Tons Disposed in 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete and Mixed Rubble</td>
<td>45%</td>
<td>100,000</td>
</tr>
<tr>
<td>Wood</td>
<td>25%</td>
<td>56,000</td>
</tr>
<tr>
<td>Drywall</td>
<td>10%</td>
<td>22,000</td>
</tr>
<tr>
<td>Asphalt Roofing</td>
<td>5%</td>
<td>11,000</td>
</tr>
<tr>
<td>Metals</td>
<td>2%</td>
<td>5,000</td>
</tr>
<tr>
<td>Bricks</td>
<td>2%</td>
<td>5,000</td>
</tr>
<tr>
<td>Plastics</td>
<td>2%</td>
<td>5,000</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>9%</td>
<td>16,000</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>220,000</td>
</tr>
</tbody>
</table>

¹Based on U.S. EPA estimates of C&D waste composition [http://www.epa.gov/epaoswer/non-hw/debris-new/basic.htm](http://www.epa.gov/epaoswer/non-hw/debris-new/basic.htm)

### 3.4 INDUSTRIAL RECYCLABLES

#### 3.4.1 Quantities, Sources, and Projections

Industrial recyclables are non-hazardous recyclable materials that are recycled by local industries. As indicated in Table 3-2, a total of 175,769 tons of industrial recyclables were recycled in Davidson County in 2007. This equates to a per capita industrial recyclables rate of 1.58 lbs/person/day.

#### 3.4.2 Industrial Recyclables Composition

The following products and materials were recycled by industries in the Metro Region in 2007:

- Flat Glass - 23,244 tons
- Auto Body Scrap - 17,081 tons
- Ferrous Metals - 128,001 tons
- Mixed Metals - 26 tons
- Non-ferrous Metals - 7,417 tons.
There are no national data on the composition of recycled industrial materials. The future composition of industrial recyclables will be dependent on the future industrial activity in the Metro region and the environmental policies of the region’s industries with respect to materials recycling.
4.0 THE METRO SOLID WASTE MANAGEMENT SYSTEM

4.1 INTRODUCTION

As indicated in Section 3.0, approximately 1.3 million tons of solid waste is generated each year within Davidson County. The purpose of this section is to present information regarding the services and facilities that are utilized to manage these wastes. These services are provided by the public and private sectors with the latter mainly responsible for providing collection and disposal services to commercial and industrial customers. A map presenting the location of the major solid waste facilities and service areas in the Metro Region is presented in Figure 4-1.

It is important to note that since the development of the Original 1994 Plan and the Plan Update in 1999, several major changes have been made to the Metro Region’s solid waste management infrastructure. These changes include the following:
- Implementation of new curbside waste and recycling collection services for residents in the USD using automated collection vehicles and 96-gallon, lidded rollout containers.
- Expansion of a recyclables processing facility in 2007 by QRS Recycling under contract to Metro, which has the capability of processing both source-separated and single-stream recyclables collected through the residential and commercial recycling programs implemented by Metro Public Works and the Region’s municipalities.
- Execution of a ten-year contract with a ten-year renewal with Allied Waste Industries to transfer, haul, and dispose non-recycled MSW collected by Metro Public Works at an out-of-county regional landfill.

Updated information on these new, as well as ongoing, services and facilities that constitute the Metro Regional Solid Waste Management System is presented below.

### 4.2 WASTE COLLECTION AND TRANSPORTATION SERVICES

#### 4.2.1 Introduction

MSW collection and transportation services are available throughout the Metro Region. Summary information on the various MSW collection services that are provided in each municipality is provided in Table 4-1.

Weekly curbside residential solid waste collection services are provided by public solid waste departments or city contractors in every municipality except Forest Hills, which does not provide any public service. In addition, there is no public MSW collection services provided in the General Services District (GSD).

Table 4-1 also summarizes the separate waste and recyclables collection provided by the various entities within the Metro Region. These collection services play a critical role in the achievement of local waste reduction goals through the implementation of local composting, recycling, and diversion programs. The State requires that at least 90 percent of each county be within the service area of collectors; otherwise, counties must provide convenience centers - at a minimum - for solid waste collection.
Although Forest Hills and the GSD are not provided with a public-waste collection and transportation system, these areas are serviced by private haulers.

### Table 4-1

**MSW Collection Services in the Metro Region**

<table>
<thead>
<tr>
<th>Municipality/Service Area</th>
<th>Population Served</th>
<th>Residential Solid Waste Collection Services</th>
<th>Commercial Solid Waste Collection Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Service Provider</td>
<td>Refuse</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belle Meade</td>
<td>2,943</td>
<td>Private contractor</td>
<td>2 x/week: backyard</td>
</tr>
<tr>
<td>Berry Hill</td>
<td>674</td>
<td>Private contractor</td>
<td>2 x/week: backyard</td>
</tr>
<tr>
<td>Forest Hills</td>
<td>4,710</td>
<td>Private</td>
<td>Drop-Off</td>
</tr>
<tr>
<td>Goodlettsville (part)</td>
<td>13,780</td>
<td>Public</td>
<td>1 x/week</td>
</tr>
<tr>
<td>Lakewood</td>
<td>2,341</td>
<td>Public</td>
<td>1 x/week</td>
</tr>
<tr>
<td>Metro – Urban Services District</td>
<td>396,474</td>
<td>Public and Private</td>
<td>1 x/week</td>
</tr>
<tr>
<td>Metro – General Services District</td>
<td>94,000</td>
<td>Public and Private</td>
<td>1 x/week</td>
</tr>
<tr>
<td>Oak Hill</td>
<td>4,493</td>
<td>Private</td>
<td>2 x/week</td>
</tr>
<tr>
<td>Ridgetop (part)</td>
<td>41</td>
<td>Public</td>
<td>1 x/week</td>
</tr>
</tbody>
</table>

#### 4.2.2 Metro Public Works

**Solid Waste Collection Services – USD Residents**

As indicated in Table 4-1, Metro Public Works provides a variety of solid waste collection services to Nashville residents living in the USD as well as residents living in the unincorporated areas of Davidson County (i.e., the GSD). There are approximately 125,000 single-family homes located in the USD that receive the following collection services from Metro Public Works:

**Residential Refuse Collection**

In December 2005, Metro Public Works instituted a new method of residential refuse collection to increase collection efficiency and reduce injuries to collection workers. This method – referred to as “automated collection” – involves the provision of a 96-gallon, lidded rollout cart to each residence and the servicing of these carts through the use of either automated, one-person, side-loading trucks equipped with mechanical arms or semi-automated two- or three-person, rear-loading trucks equipped with hydraulic cart-lift mechanisms.
This new approach greatly reduces both waste collection costs as well as lifting and other injuries to collection workers. Under the new program, all households have uniform-looking, lidded carts, which improve neighborhood aesthetics, reduce waste scavenging by rodents, and keep rain out of the waste.

Figure 4-2 — Metro Region Rollout Carts

**Bulky-Waste Collection**

Metro Public Works and the Davidson County Sheriff’s Office have partnered to offer bulk item and white goods collection services. All items must be placed at the street curb, and there is a limit of no more than six items per address. To place a bulk item pick-up request, Davidson County residents can call the Public Works Customer Service. The Sheriff's Office will schedule a pick-up within one to five business days after a request is made.

Another alternative available to citizens in Davidson County is to take the items to one of Metro’s recycling convenience centers. Residents can take up to three bulk items per day at no charge (see Table 4-2 for items that are collected as a bulky item).
4.2.3 **City of Belle Meade**

The City of Belle Meade contracts for refuse collection services with a private hauler to provide backyard collection services on a twice-per-week basis to its residents.

4.2.4 **City of Berry Hill**

The City of Berry Hill contracts for refuse collection services with a private hauler to provide backyard collection services on a twice-per-week basis to its residents.

4.2.5 **City of Goodlettsville**

The City of Goodlettsville provides curbside collection services to its residents, using its own personnel and equipment, on a once-per-week basis. The City also collects residential yard waste two times per month and bulky waste on an on-call basis.

4.2.6 **City of Oak Hill**

The City of Oak Hill provides solid waste collection services to approximately 1,800 households through a franchise contract with a private company – Clean Earth Sanitation. Residents receive backyard collection service two times per week for residential trash and refuse. Bulky items are also picked up through an on-call collection service.

4.2.7 **Forrest Hills**

Residents in Forest Hills contract for refuse collection on an individual basis.

4.2.8 **City of Lakewood**

The City of Lakewood provides once-per-week refuse collection services to its residents through a franchise contract with a private company. Residents who provide their own refuse containers receive backyard collection service while residents using the contractor’s refuse containers have their waste picked up at the curb. Bulky wastes are picked up two times per year.
4.3 SOURCE REDUCTION AND RECYCLING SERVICES

4.3.1 Introduction

Although source reduction is not as tangible as recycling, it is nonetheless a very important component of solid waste management. The public support of this method by the local governments in the region will result in both greater awareness and acceptance of source reduction by the general public. Some source reduction education is currently provided through Metro’s education programs, which are discussed further in Section 9.

Current source reduction and recycling programs represent a dedication by many member communities of the Metro Region. However, greater emphasis will be given to a regional approach to take advantage of combined resources. These resources could include an expansion of Solid Waste Division/Metro Recycling Office role to include guidance to the satellite municipalities. Guidance could include developing or expanding collection programs, determining which materials to focus on, advising on marketing, coordinating the marketing of materials for larger volume sales, and determining appropriate processing to meet market specifications. Section 6 addresses proposed waste reduction and recycling programs.

Many businesses will practice source reduction simply to cut costs in resource purchases, waste management, and waste disposal. The Metro Region will continue to encourage the private sector to implement source reduction methods and will provide educational resources to teach source reduction methods. Source reduction and backyard composting are also addressed in Metro’s education programs.

4.3.2 Metro Nashville

The Metro Nashville Source Reduction and Recycling Program is a comprehensive program consisting of several components:

- **Commercial Recycling and Waste Reduction Outreach** – The DPW Recycling Office provides on-site support to businesses with waste audits and employee training.

- **Residential Recyclables Collection** -- Nashville residents living in the USD are also provided with a convenient curbside recyclable collection service. Through this service, which was initiated in 2002 and which is referred to as “Curby,” residents are encouraged to place their
recyclables in 96-gallon, lidded, rollout containers provided by Metro. To minimize costs, the carts are serviced once per month by Metro collection crews.

The following recyclable materials and products are collected:

- Clean, dry paper (including cardboard, paperboard (e.g., cereal boxes, freezer boxes, and soft drink boxes), paper bags, office paper, envelopes, junk mail, catalogs, magazines, and phone books.
- Aluminum cans.
- Metal food cans.
- Plastic bottles and containers (#1 through #7).

Residents are encouraged to put all acceptable recyclable items in their rollout containers in a “commingled” fashion (i.e., materials do not have to be separated). The commingled materials are taken to the QRS Recycling Facility for processing, recovery, and sale. This innovative approach to the collection and processing of residential recyclables is referred to as “single-stream” recycling, because all materials are containerized and collected in a single, commingled form.

As with other single stream systems, glass containers are not collected with the other recyclable materials. Instead, residents are encouraged to take their glass containers to nearby drop-off centers where they are accepted for recycling.
- **Residential Yard Waste Collection** -- Metro Public Works uses a route system to collect brush and leaves three times per year in the USD and GSD areas. In 2007, Metro and its contractors collected approximately 18,000 tons of brush and 188 tons of leaves.

When setting out brush and leaves for collection, residents are encouraged to comply with the following guidelines:

- Brush needs to be set out by the first day that the trucks are scheduled to be in the area.
- Brush should be placed in biodegradable bags.
- Brush must be set out for collection in the area where garbage is collected (at the curb or in the alley if your garbage is collected in the alley).
- Limbs must be less than four inches in diameter. No stumps will be accepted.

- **Recycling Convenience Centers** – DPW has established three recycling convenience centers for the use of residents living in the USD and GSD areas. The three convenience center locations are as follows:
  - East Convenience Center (943A Doctor Richard G. Adams Drive)
  - Omohundro Convenience Center (1019 Omohundro Place)
  - Anderson Lane Convenience Center (939A Anderson Lane)

These centers allow residents to drop off residential trash, recyclables, bulky items, and household hazardous wastes either free of charge or for a modest fee for certain items.

- **Recycling Drop-Off Sites** – Thirteen unstaffed drop-off sites are also provided and serviced by Metro Public Works. Residents may drop off the following recyclables at these sites: newspaper, mixed paper, paperboard, cardboard, aluminum, tin, glass containers, and plastic bottles and plastic containers (#1–#7). The following sites are available for use by residents:
  - Dupont-Hadley Middle School
  - Metro Transit Authority’s Park Ride
  - Edmondson Pike Wal-Mart
  - Elysian Fields Kroger
  - Hobby Lobby (Old Hickory Blvd/Lebanon Pike)
  - Hillsboro High School
  - Charlotte Center – Strike and Spare
Granbery Elementary School
Joelton Middle School
QRS Recycling
Northwest Family YMCA
McGavock High School
Tennessee State University

- **Household Hazardous Waste Facility** – Household hazardous waste (HHW) refers to products containing potentially harmful or toxic chemicals, often used for cleaning and maintenance of our homes.

Metro Nashville operates a household hazardous waste collection facility, which is open seven days a week and is available to Nashville and Davidson County residents. This facility is located at the East Convenience Center.

Residents can bring up to 15 gallons or 100 pounds of household hazardous waste each month. There is no fee to drop off HHW at the East Convenience Center. Items accepted at the center include:

<table>
<thead>
<tr>
<th>Adhesives</th>
<th>Insect repellant</th>
<th>Pool chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antifreeze</td>
<td>Insecticide</td>
<td>Rat and mouse poison</td>
</tr>
<tr>
<td>Bleach</td>
<td>Lead-acid batteries</td>
<td>Shoe polish</td>
</tr>
<tr>
<td>Brake fluid</td>
<td>Lighter fluid</td>
<td>Spot remover</td>
</tr>
<tr>
<td>Car wax and cleaners</td>
<td>Mothballs</td>
<td>Stain remover</td>
</tr>
<tr>
<td>Caulk</td>
<td>Motor oil</td>
<td>Toilet bowel cleaner</td>
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<tr>
<td>Detergent</td>
<td>Oven cleaner</td>
<td>Transmission fluid</td>
</tr>
<tr>
<td>Drain opener</td>
<td>Paint</td>
<td>Tub and tile cleaner</td>
</tr>
<tr>
<td>Flea collars</td>
<td>Paint stripper</td>
<td>Varnish</td>
</tr>
<tr>
<td>Gasoline</td>
<td>Paint thinner</td>
<td>Weed killer</td>
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<tr>
<td>Household batteries</td>
<td>Pesticides</td>
<td>Windshield wiper fluid</td>
</tr>
<tr>
<td>Household cleaners</td>
<td>Pet spray and dip</td>
<td>Cooking grease</td>
</tr>
<tr>
<td>Electronics</td>
<td>CFL’s</td>
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</tr>
</tbody>
</table>
- **Education Outreach Program** – The DPW's Education and Outreach Program is assigned to Metro Beautification & Environment Commission, a division of DPW, for development and implementation. The programs address recycling, backyard composting, and litter prevention. Program offerings include:
  - school-age education program offerings for public and private schools and home school students (K-12th grades and college classroom presentations, teacher and student materials and activities) and field trip programs held in the education classroom at the MRF.
  - outreach to neighborhood, business, civic, and church groups through presentations and booths at community events.
  - and the use of media including the nashville.gov/beautification and nashville.gov/recycle websites, a Metro Channel 3-produced video, and information slides on Metro Channel 3.

- **Metro Building Recycling** – Metro Public Works crews collect paper, cardboard, plastic, metal and aluminum from Metro buildings that put carts in central locations. Public Works staff is in the process of expanding recycling collection to all buildings with a strengthened initiative from the Mayor’s office to increase employee recycling within the Metropolitan Government.

- **Buy Recycled** – To encourage the purchase of recycled paper, the Metro Government has passed Ordinance #090-1191 – an Ordinance establishing a policy for the Metropolitan Government on the purchase and use of recycled paper.

- **Paper Reduction** – Metro Council passed Ordinance BL2008-248 requiring Metro Departments to reduce paper and postage consumption and to report on reduction efforts annually.

- **Speakers Bureau** – Metro Public Works has staff available to provide recycling and waste reduction information to the public that includes classroom, community, civic, commercial, and university presentations.

- **School Recycling** – Metro Public Works has partnered with Metro Nashville Public Schools (MNPS) to promote recycling at public schools. Through the MNPS contract with Allied Waste, every public school has received a recycling dumpster for paper, cardboard, plastic, metal and aluminum. This program that began in 2006 with a pilot program in the Hunters Lane Cluster has been expanded to 100% of all schools in 2008.
• **Christmas Tree Recycling Program** – First initiated in 1990, this program has proven to be very successful. Residents have 15 different local parks at which to deposit Christmas trees. The DPW collects the trees over a six-week period. The Christmas trees are taken to Bordeaux Compost where they are chipped and sold for mulch. This is a combined effort of the Public Works/Metro Parks. In 2007, 203.86 tons of trees were processed. This represents approximately 12,470 trees.

• **Used Motor Oil Information Program** – Do-it-yourselfers in the Metro Region can bring their used motor oil to the East Convenience Center as part of the HHW program to be recycled. Residents can bring up to 15 gallons per month.

• **Waste Exchange Resource List** – Metro’s website refers businesses to the UT Center for Industrial Services Waste Exchange for processors, collectors, vendors, merchants, etc.

4.3.3 **City of Belle Meade**

The City of Belle Meade began a drop-off program in the late 1980s. Currently, Belle Meade contracts with PDQ to collect recyclable materials each Wednesday city-wide from approximately 1,100 households. Materials accepted are newspaper, cardboard, plastics, aluminum and bi-metal cans, and three colors of glass. Belle Meade does not maintain records of material quantities collected.

4.3.4 **City of Oak Hill**

The City of Oak Hill provides curbside recycling for its residents. The City contracts with Clean Earth for weekly collection of paper, plastic and metal.

4.3.5 **City of Goodlettsville**

The City of Goodlettsville operates a drop-off recycling center for use by its residents. This facility – located at 215 Cartwright Street – is open Monday through Saturday from 7:30 a.m. to 4:00 p.m. Materials accepted are newspaper, cardboard, plastics, aluminum and bi-metal cans, and three colors of glass.
4.3.6 Berry Hill, Forest Hills, and Lakewood

The municipalities of Berry Hill, Forest Hill, and Lakewood encourage their residents to utilize the drop-off recycling centers provided by DPW for residential recycling services.

4.3.7 Other Recycling Programs

There are several other small programs in the Metro Region, which include churches, schools, and other organizations. An inventory of these programs is not available.

- **Private Non-Profit Source Reduction and Recycling** – Currently, there are numerous advocacy groups focusing on various elements of recycling and solid waste management. These groups include B.U.R.N.T., (Bring Urban Recycling to Nashville Today), R.A.M. (Recycling Advocates of Middle Tennessee), and the Tennessee Environmental Council. These are not the only advocacy groups but represent some of the more active ones in the Metro Region.

- **Private for-Profit Recycling** – There are many private for-profit recycling programs in the Metro Region. A list of these programs has been developed by the Metro Recycling Office and is available to the public. The larger private for-profit recycling programs may be considered markets; and they may have processing equipment, which requires the facility to be permitted by the State.

4.4 WASTE TRANSFER SYSTEMS IN REGION

There are two privately-owned MSW transfer stations in the Metro Region, which are:

- **Waste Management Antioch Transfer Station** - This is a transfer station facility operating under permit SWP 19-102-1030. The contact person for this facility is Joy Zachary, Post Office Box 17915, 1428 Antioch Pike, Antioch, Tennessee 37013, telephone (615) 315-5215.

- **Allied Waste Transfer Station** – The Allied Waste transfer station is located at 1160 Freightliner Drive in Nashville and is operated under permit SWP 19-102-1241. The contact person for this facility is Rob McClellen at (615) 207-6123.

Since there are no permitted Class I disposal facilities for MSW disposal in Davidson County, these transfer stations are utilized to handle all of the non-recycled MSW that is generated in the County. It is
concluded that the two MSW transfer stations that presently serve the region have adequate capacity to continue serving the region over the ten-year planning period.

4.5 PROCESSING SYSTEMS

4.5.1 Introduction

A processing facility is defined by the State of Tennessee as a combination of structures, machinery or devices utilized to perform solid waste processing, including other storage and processing areas. The term does not include collection vehicles.

There are several types of facilities in the Metro Region which are classified as waste processing facilities, including composting, material separation and processing, transfer stations. A short description of each processing facility within the Metro Region is presented below.

4.5.2 Composting Facilities

Metro Wood Waste Mulch and Leaf Composting Program – The Metro Compost Facility is located at 1400 County Hospital Road. The facility accepts brush, tree limbs, and leaves for processing and composting. Materials may be dropped off at the facility for $0.01 per pound ($20 per ton). This facility is operated by a contractor who is responsible for grinding the leaves, wood, and tree limbs into mulch and then selling the mulch to the public. The facility is permitted by permit SWP 19-102-1016. The contact person for this facility is David Himes, Davidson County Compost Facility, 750 South Fifth Street, Nashville, Tennessee 37206, telephone (615) 862-8700.

4.5.3 Recyclable Material Separation and Processing

QRS Recycling Materials Recovery Facility (MRF) -- QRS Recycling operates two material recovery facilities (MRFs) that provide recyclables processing services to Metro under the terms of a five-year contract that was initiated in 2004. QRS Recycling 1 is located at 630 Myatt Drive, Madison, Tennessee; QRS Recycling 2 is located at 100 River Hills Drive, Nashville, Tennessee.

These facilities process the recyclable materials collected through Metro’s curbside recycling program, recycling drop-off centers, Metro in-house recycling program, and Downtown Old-Corrugated Cardboard (OCC) Collection Program.
The acceptable material delivered to the MRF must contain no more than 5 percent (by weight) of unacceptable (i.e., non-recyclable) material. Under the terms of the contract, Metro is not required to pay a processing fee to QRS Recycling; rather, the company is required to pay Metro a “Material Payment” of approximately $10.00 per ton for each ton of recyclable material collected from the curbside recycling program; $35.00 per ton for cardboard, market rates for mixed paper; and a weighted average of the market value for aluminum, metal, and plastic from the Metro recycling drop-offs. The contractor is also required to make an “Educational Payment” to Metro for promoting the processing services provided at the facility. The contractor is responsible for the processing of the recyclables and the marketing of the recovered materials. Finally, the Contractor must pay Metro a “Host Community Fee” of $5.00 per ton for recyclable materials delivered to the facility by other local governments and recycling companies in the Metro Region.

**Smurfit-Stone Corporation** -- Smurfit-Stone Corporation has a baler and materials separation facility which operates under permit SWP 19-102-1008. The contact information for this facility is Jefferson Smurfit Corporation, 707 19th Avenue North, Nashville, Tennessee 37203, telephone (615) 329-4855.

**Greentree Processing** -- Greentree Processing has a food-grade organic processing facility which operates under permit SWP 19-102-1040. The contact information for this facility is: Ron Pearson, Combs Industrial Services, 1501 Baptist World Center Drive, Nashville, Tennessee 37189, telephone (615) 228-3901.

**4.6 DISPOSAL FACILITIES**

**4.6.1 Introduction**

The State of Tennessee recognizes and issues permits for the following types of solid waste disposal facilities:

- Class I disposal facility – takes non-hazardous MSW such as household wastes, commercial wastes, and approved special wastes.
- Class II disposal facility – takes non-hazardous industrial and commercial process wastes, and fill.
- Class III disposal facility – takes Class IV wastes plus landscaping, land clearing, and farming wastes.
- Class IV disposal facility – takes C&D wastes, and waste with similar characteristics.
The disposal facilities that currently exist in the Metro Region are described below.

### 4.6.2 Class I Disposal Facilities

The State defines a Class I disposal facility as a sanitary landfill, which serves a municipal, institutional, and/or rural population and may be used for disposal of domestic, commercial, institutional, municipal, bulky, landscaping/land clearing, industrial, C&D, farm, tires, dead animal wastes, and certain approved special wastes.

There are no operating or permitted Class I disposal facilities in the Metro Region. Instead, the region relies on the following out-of-county regional landfills for MSW disposal.

**Allied Waste Middle Point Landfill** – This landfill, which is located in Murfreesboro, Tennessee, provides MSW disposal services for the non-recycled MSW collected by Metro and other municipalities in the Metro Region. Metro has a 20-year agreement with Allied Waste, which began January 2002. Based on current disposal rates, it is estimated that the Middle Point Landfill has 28 years of remaining capacity.

**Waste Management Landfill** – Waste Management owns and operates a Class I landfill in Camden, Tennessee. This landfill disposes of MSW collected by Waste Management and other commercial waste haulers in the Metro Region. Based on current disposal rates, it is estimated that the West Camden landfill has over 20 years of remaining capacity.

Based on remaining capacities and current disposal rates, these landfills can be safely expected to serve all of the MSW disposal needs of the Metro Region over the ten-year planning period (i.e., through 2017). Therefore, it appears that the Metro Region does not need to develop or procure additional Class I disposal capacity options during the planning period.

### 4.6.3 Class II Disposal Facilities

The State definition of this type facility is a landfill which receives waste which is generated by one or more industrial or manufacturing plant(s) and will be used by them. The materials accepted may
include industrial, commercial, domestic, institutional, fanning, bulky, landscaping/land clearing, C&D, tires, and dead animal wastes. There are currently no Class II facilities in the Metro Region.

4.6.4 Class III Disposal Facilities

A Class III disposal facility is defined by the State as a landfill which is used or can be used for the disposal of farming wastes, landscaping and land clearing wastes. There are currently no Class III facilities in the Metro Region.

4.6.5 Class IV Disposal Facilities

The State defines a Class IV disposal facility as a landfill for the disposal of construction and demolition wastes. There are two Class IV disposal facilities in the Metro Region, which are described below.

Waste Management C&D Landfill -- This Class IV facility is owned and operated by Waste Management, Inc. It is located at 4561 Amy Lynn Drive in Nashville. This facility, which is operated under Permit Number DML 19-102-0032 is estimated to have 12 to 13 years of remaining capacity.

Central Pike C&D Landfill -- This Class IV facility is operated by Odell Binkley under permit DML 19-102-0090 and is located in Hermitage at 3530 Central Pike. Based on current disposal rates, this landfill is estimated to have 6 to 7 years of remaining capacity.

4.7 PUBLIC INFORMATION AND EDUCATION PROGRAMS

The Metro Public Works Division of Solid Waste employs an Education Outreach Specialist to develop and implement solid waste management education activities. These activities have been integrated into the Metro Beautification and Environment’s seventeen year old education program. A detailed description of the education programs is provided in Section 9.

4.8 MANAGEMENT OF PROBLEM WASTES

State law requires that every county provide at least one site for the collection of specified “problem wastes”. Problem wastes include tires, automotive fluids, and lead-acid batteries. Currently, the Metro Region provides for the collection of all of these problem wastes as well as white goods. A detailed description of problem waste management is provided in Section 10.
### 4.9 REVENUES AND EXPENSES OF THE CURRENT SYSTEM

The revenues and expenses associated with the public-sector programs and facilities in the Metro Region are presented in Table 4-3.

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</thead>
<tbody>
<tr>
<td>Trash Collection (Metro crews &amp; Contracted)</td>
<td>$7,703,432.64</td>
<td>$8,076,125.24</td>
<td>$8,152,355.82</td>
<td>$8,396,926.49</td>
<td>$8,648,834.29</td>
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<td>$9,175,548.30</td>
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<td>$9,734,339.19</td>
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<td>Commercial Trash Collection (downtown and dumpsters):</td>
<td>$611,163.58</td>
<td>$634,370.78</td>
<td>$597,235.48</td>
<td>$610,861.34</td>
<td>$623,078.56</td>
<td>$635,540.13</td>
<td>$648,250.94</td>
<td>$661,215.96</td>
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<td>$687,929.08</td>
<td>$701,687.66</td>
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<td>Curbside Recycling &amp; Metro Building Recycling</td>
<td>$1,067,121.23</td>
<td>$979,062.05</td>
<td>$958,331.64</td>
<td>$941,612.54</td>
<td>$960,444.79</td>
<td>$979,653.69</td>
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<td>Convenience Centers</td>
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<td>$1,274,696.97</td>
<td>$1,205,090.88</td>
<td>$1,206,599.27</td>
<td>$1,230,731.26</td>
<td>$1,255,345.88</td>
<td>$1,280,452.80</td>
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<td>Recycling Drop-offs</td>
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<td>Brush Collection</td>
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<td>Household Hazardous Waste</td>
<td>$155,238.74</td>
<td>$141,232.31</td>
<td>$143,720.19</td>
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<td>$164,985.66</td>
<td>$168,285.38</td>
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<tr>
<td>Waste Tire Program</td>
<td>$814,282.90</td>
<td>$519,181.78</td>
<td>$654,743.52</td>
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<td>$626,513.75</td>
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<tr>
<td>Total Operational Cost of Current Programs</td>
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## REVENUE

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<th>January 2009</th>
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<td><strong>Front Loader-</strong></td>
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<td>MDHA (Flat Fee)</td>
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<td>MDHA Housing Complexes</td>
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<td><strong>Convenience Ctr Tip Fee</strong></td>
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<td><strong>Compost Facility Tip Fee</strong></td>
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<td>$2,299,976.38</td>
<td></td>
</tr>
<tr>
<td><strong>C&amp;D Surcharge/Waste Generation Fee</strong></td>
<td>$281,934</td>
<td>$412,091</td>
</tr>
<tr>
<td>(.50/cubic yard):</td>
<td>$403,849</td>
<td>$395,772</td>
</tr>
<tr>
<td></td>
<td>$403,688</td>
<td>$411,761</td>
</tr>
<tr>
<td></td>
<td>$419,997</td>
<td>$428,397</td>
</tr>
<tr>
<td></td>
<td>$436,964.48</td>
<td>$445,703.77</td>
</tr>
<tr>
<td></td>
<td>$454,617.85</td>
<td></td>
</tr>
<tr>
<td>Sale of Recyclable Material</td>
<td>$682,772</td>
<td>$820,462</td>
</tr>
<tr>
<td></td>
<td>$244,619</td>
<td>$160,121</td>
</tr>
<tr>
<td></td>
<td>$163,323</td>
<td>$166,589</td>
</tr>
<tr>
<td></td>
<td>$169,921</td>
<td>$173,320</td>
</tr>
<tr>
<td></td>
<td>$176,786.09</td>
<td>$180,321.82</td>
</tr>
<tr>
<td></td>
<td>$183,928.25</td>
<td></td>
</tr>
<tr>
<td><strong>Total Revenue:</strong></td>
<td>$4,002,224</td>
<td>$4,065,062</td>
</tr>
<tr>
<td></td>
<td>$3,424,327</td>
<td>$3,276,234</td>
</tr>
<tr>
<td></td>
<td>$3,341,759</td>
<td>$3,408,594</td>
</tr>
<tr>
<td></td>
<td>$3,476,766</td>
<td>$3,546,302</td>
</tr>
<tr>
<td></td>
<td>$3,617,227.56</td>
<td>$3,689,572.12</td>
</tr>
<tr>
<td></td>
<td>$3,763,363.56</td>
<td></td>
</tr>
</tbody>
</table>
4.10 STRENGTHS AND WEAKNESSES OF THE CURRENT SYSTEM

The existing solid waste management system of the Metro Region has all of the elements of an integrated solid waste management system that are needed to provide for the environmentally sound and economical management of solid waste generated in the Metro Region over the planning period.

The solid waste system of the Metro Region incorporates the four elements established by the US EPA for integrated solid waste management – namely, waste reduction, recycling, recovery (through yard waste mulching and composting), and landfill disposal. Since the closure of the Nashville Thermal Resource Recovery Facility in 2002, the System – similar to other MSW management systems in the United States – relies on landfill disposal for the management of the majority of the solid waste generated in the region.

The closure in the Thermal Plant resulted in a significant reduction in the disposal costs associated with the System, which went from almost $90 per ton in 2003 to almost $30 per ton in 2007, saving Metro over $10 million per year. As a result, the current system is on a stronger economic footing than the previous system, which relied on Nashville Thermal for waste processing.

One potential weakness of the existing system is its reliance on a single, privately-owned transfer station and a single contractor to provide transfer, hauling, and disposal services to Metro and other local governments for the non-recycled MSW generated in the region. In this regard, communities that rely on out-of-county regional landfills for disposal are generally advised to own and operate their own transfer stations, as this approach enables them to take advantage of price reductions in the marketplace and also makes the switch to an alternative disposal services provider – if ever warranted – much easier.
5.0 **Waste Stream Projections and Future System Needs**

5.1 **Introduction**

The Solid Waste Act requires that regional solid waste plans cover a ten-year planning period. The purpose of this section is to provide waste stream projections over the ten-year planning period (2008 through 2017) for the Metro Region and to determine the system capacity needs for managing these future waste and recyclables quantities.

5.2 **Population Projections**

Population projections over the ten-year planning period were developed using data provided by the Metropolitan Planning Commission for Davidson County. These projections were revised to exclude Ridgetop residents in the county and to include Goodlettsville residents in Sumner County. The current and projected population for the Metro Region over the ten-year planning period is provided in Table 5-1.

<table>
<thead>
<tr>
<th>Year</th>
<th>Populated Projection</th>
<th>Projected Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Persons/Year</td>
<td>Percent</td>
</tr>
<tr>
<td>2000¹</td>
<td>569,891</td>
<td>6,456</td>
</tr>
<tr>
<td>2001²</td>
<td>576,347</td>
<td>6,456</td>
</tr>
<tr>
<td>2002²</td>
<td>582,803</td>
<td>6,456</td>
</tr>
<tr>
<td>2003²</td>
<td>589,258</td>
<td>6,456</td>
</tr>
<tr>
<td>2004²</td>
<td>595,714</td>
<td>6,456</td>
</tr>
<tr>
<td>2005³</td>
<td>602,170</td>
<td>4,010</td>
</tr>
<tr>
<td>2006³</td>
<td>606,179</td>
<td>4,010</td>
</tr>
<tr>
<td>2007³</td>
<td>610,189</td>
<td>4,010</td>
</tr>
<tr>
<td>2008³</td>
<td>614,198</td>
<td>4,010</td>
</tr>
<tr>
<td>2009³</td>
<td>618,208</td>
<td>4,010</td>
</tr>
<tr>
<td>2010³</td>
<td>619,771</td>
<td>4,010</td>
</tr>
<tr>
<td>2011⁴</td>
<td>623,781</td>
<td>4,010</td>
</tr>
<tr>
<td>2012⁴</td>
<td>627,790</td>
<td>4,010</td>
</tr>
<tr>
<td>2013⁴</td>
<td>631,800</td>
<td>4,010</td>
</tr>
<tr>
<td>2014⁴</td>
<td>635,809</td>
<td>4,010</td>
</tr>
<tr>
<td>2015⁴</td>
<td>639,819</td>
<td>4,010</td>
</tr>
<tr>
<td>2016⁴</td>
<td>643,828</td>
<td>4,010</td>
</tr>
<tr>
<td>2017⁴</td>
<td>647,838</td>
<td>4,010</td>
</tr>
</tbody>
</table>
Table 5-1
Davidson County, Tennessee
Projected Population Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Populated Projection</th>
<th>Projected Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Persons/Year</td>
</tr>
<tr>
<td>(1)</td>
<td>The official U.S. Census Bureau population for Davidson County for 2000 was 569,819 persons. Population estimates for 2004 (595,714 persons) and 2010 (619,771 persons) were provided by the Metro Nashville Planning Department.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Projected growth rates are based on linear projections for the interim years between the years 2000 and 2004.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Population: Jul-00 569,891</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jul-04 595,714</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference 25,823</td>
<td><strong>Projected Growth Rate (Persons/Year): 6,456</strong></td>
</tr>
<tr>
<td>(2)</td>
<td>Population growth rates are based on linear projections for the interim years between the years 2004 and 2010.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Population: Jul-04 595,714</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jul-10 619,771</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference 24,057</td>
<td><strong>Projected Growth Rate (Persons/Year): 4,010</strong></td>
</tr>
<tr>
<td>(3)</td>
<td>Population growth rates for 2011 through 2017 are based on an assumed identical growth rate for the period 2004 - 2010, namely, 4,010 persons/year.</td>
<td></td>
</tr>
</tbody>
</table>

The population projections suggest an above average increase in economic activity throughout the Metro Region within the next decade. If these assumptions are correct, there will be a resultant increase in population with obvious implications for the generation of solid waste.

5.3 WASTE STREAM QUANTITY PROJECTIONS

The quantities of MSW that are projected to require disposal over the ten-year planning period are presented in Table 5-2. These projections were calculated by multiplying the projected County population for each year (as presented in Table 5-1) by the per capita municipal waste generation rate for each waste stream (MSW or C&D) and recyclables stream (industrial recyclables). For the purpose of this Plan, the County has assumed that the per capita waste generation rates will remain constant over the planning period.

Table 5-2
Waste Stream Projections

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Generation</td>
<td>Recycling</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rate</td>
<td>Tons</td>
</tr>
<tr>
<td>2008</td>
<td>614,198</td>
<td>796,737</td>
<td>25.8%</td>
</tr>
<tr>
<td>2009</td>
<td>618,208</td>
<td>801,938</td>
<td>25.8%</td>
</tr>
<tr>
<td>2010</td>
<td>619,771</td>
<td>803,965</td>
<td>25.8%</td>
</tr>
<tr>
<td>2011</td>
<td>623,781</td>
<td>809,167</td>
<td>25.8%</td>
</tr>
<tr>
<td>2012</td>
<td>627,790</td>
<td>814,368</td>
<td>25.8%</td>
</tr>
<tr>
<td>2013</td>
<td>631,800</td>
<td>819,569</td>
<td>25.8%</td>
</tr>
<tr>
<td>2014</td>
<td>635,809</td>
<td>824,770</td>
<td>25.8%</td>
</tr>
<tr>
<td>2015</td>
<td>639,819</td>
<td>829,971</td>
<td>25.8%</td>
</tr>
<tr>
<td>2016</td>
<td>643,828</td>
<td>835,172</td>
<td>25.8%</td>
</tr>
<tr>
<td>2017</td>
<td>647,838</td>
<td>840,373</td>
<td>25.8%</td>
</tr>
</tbody>
</table>
### 5.4 SOLID WASTE MANAGEMENT PROJECTIONS

As indicated in Table 5-2, it is estimated that the quantities of MSW that will be generated in Davidson County will grow from 796,737 tons in 2008 to 840,373 tons in 2017. It is assumed that current recycling activities will continue and the recycling rate will be 25.8% for the MSW waste stream and 18.7% for the C & D waste stream. The amount of MSW requiring future disposal will grow to 623,242 tons in 2017. Similarly, it is projected that C&D waste from Davidson County will grow to 189,528 tons in 2017.

### 5.5 SYSTEM CAPACITY REQUIREMENTS

The Metro Region will continue to manage and develop a regional solid waste management system consisting of source reduction, recycling, composting, problem waste diversion, disposal of MSW at out-of-county regional MSW landfills, and disposal of C&D waste at in-county Class III/IV C&D landfills.

The annual and daily processing capacities that will be required to manage the solid waste generated in Davidson County over the next ten years are presented in Table 5-3. It is important to note that these
required processing capacities assume no change in the current recycling rate. If additional recycling and/or waste reduction activities are implemented as a result of this plan, the amounts of MSW and C&D waste requiring transfer and/or disposal will be lower than those indicated in Table 5-3.

TABLE 5-3
Metro Nashville Solid Waste Management System
Future System Requirements

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MSW Recycling</td>
<td>205,857</td>
<td>660</td>
<td>209,068</td>
<td>670</td>
<td>217,131</td>
<td>696</td>
</tr>
<tr>
<td>Biosolids Diversion</td>
<td>101,697</td>
<td>326</td>
<td>105,619</td>
<td>339</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSW Disposal (Class I Landfills)</td>
<td>590,880</td>
<td>1,894</td>
<td>600,099</td>
<td>1,923</td>
<td>623,242</td>
<td>1,998</td>
</tr>
<tr>
<td>C&amp;D Disposal (Class IV Landfills)</td>
<td>179,686</td>
<td>576</td>
<td>182,490</td>
<td>585</td>
<td>189,528</td>
<td>607</td>
</tr>
</tbody>
</table>

Note: Tons per day figures assume 6 days per week operation (312 days per year).
6.0 FUTURE WASTE REDUCTION GOALS AND STRATEGIES

6.1 INTRODUCTION

The goal of the revised SWP is for Davidson County (the Region) is to divert 60 percent of solid waste generated in the Region from being disposed in any landfills including classes I, II, III, and IV by 2018. This means that the Region would need to attain a diversion rate of 1.09 tons per person per year of waste going to Class I-IV landfills. (i.e., 1995 base year of 1.83 tons/person/year MSW/C&D generation rate X 0.60 = 1.09 tons/person/year of waste that must be diverted from landfills to meet the 60% goal). The additional tonnage required to be diverted by the Region to meet this goal is presented in Table 6-2.

The SWRB recognizes that this goal exceeds the state 25 percent diversion goal and eliminates the utilization of any class of landfills (including but not limited to Class IV landfills for the disposal of construction and demolition wastes) as acceptable waste diversion measures.

The intention of the SWRB is to maximize the utilization of source reduction, materials recovery, recycling, and composting options to the fullest extent possible (technically, environmentally, and economically) prior to sending materials to a Class I landfill, or any landfill, for disposal.

This chapter outlines the rationale for this goal, solid waste projections, status of achieving the state mandated reduction goals, and identifies the specific strategies to achieve the 60 percent goal.

6.2 RATIONALE

There are several reasons for this more aggressive goal:

- **Avoided Costs** – Due in part to the closure of the Nashville Thermal waste-to-energy facility, DPW entered into a long-term contract with Allied Waste for the transfer, hauling, and disposal of its non-recycled waste. Importantly, this contract does not have a “put or pay” provision that requires Metro to deliver minimum quantities of MSW to the Allied Waste transfer station so there is no penalty for reducing waste.

  Citizens and businesses in Davidson County, then, have a direct economic incentive to divert waste from landfill disposal. Each ton of waste that is diverted and, therefore, is not handled through the Allied Waste transfer station will result in a direct cost saving due to the avoidance
of transfer, haul, and disposal costs. In 2007, these avoided costs saved approximately $30 per ton.

The availability of direct cost savings should provide a substantial boost to the waste reduction and recycling programs that currently exist in the Metro Region. The challenge for each government and community in the Metro Region is to enable waste generators and service providers to realize these direct cost savings through the promotion and/or implementation of effective billing and/or pricing mechanisms.

- **Enhanced Resource Conservation** – through a more aggressive waste reduction program, there will be a correspondent increase in the amount of: a) wastes kept from being generated, b) the materials recycled, and c) materials composted.

- **Increased Longevity of Current Class III and IV (C&D) Landfills** - The current in-region C&D landfill capacity will be extended by implementing waste reduction strategies, thus reducing the need for their further expansion, or for locating a new one in the Region.

- **Reduced Transportation Costs and Impacts** – Reduction in wastes disposed in out-of-county class I landfills and in-county C&D landfills should decrease the overall number of truck miles hauling the Region’s waste to those landfills. This in turn should reduce the overall amount of fuel and emission of greenhouse gasses emitted. (However, some of these savings may be offset by a possible increase in truck miles devoted to diverting the increased amount of wastes from these landfills.)

### 6.3 BASE YEAR SOLID WASTE DISPOSAL RATES AND 10 YEAR PROJECTIONS

The base disposal rate for the Metro Region was amended to include sewage sludge per correspondence from the State of Tennessee dated July 19, 2006. The amended base year disposal rate is 971,383 tons in 1995, which – at the 1995 population of 530,796 – equates to 1.83 tons per person per year.

Waste reduction calculations required by the State for the Metro Region are presented in Table 6-1. As shown, based on population and tonnage data for 2005, the per capita MSW disposal rate for the region that is needed to meet the State diversion goal of 25 percent is 1.37 tons per capita from Class I landfills only.
Table 6-1
Metro Nashville – Waste Reduction Calculations

<table>
<thead>
<tr>
<th>Waste Reduction Calculations</th>
<th>1995 (Base Year)</th>
<th>2007 (Current)</th>
<th>2017 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Per capita MSW disposal rate in tons per person per year</td>
<td>1.83</td>
<td>1.13</td>
<td>0.96</td>
</tr>
<tr>
<td>2 Tons MSW disposed</td>
<td>971,383</td>
<td>687,158</td>
<td>623,242</td>
</tr>
<tr>
<td>3 Population</td>
<td>530,796</td>
<td>610,189</td>
<td>647,838</td>
</tr>
<tr>
<td>4 TDEC waste diversion goal from base year</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>5 TDEC per capita diversion rate to meet 25% goal in tons per person per year</td>
<td>1.37</td>
<td>1.37</td>
<td>1.37</td>
</tr>
<tr>
<td>6 Targeted annual tonnage allowed for disposal to meet State Waste 25% Diversion Goal (Multiply line 3 by line 5)</td>
<td>728,537</td>
<td>835,959</td>
<td>887,537</td>
</tr>
<tr>
<td>7 Targeted additional annual tonnage to reduce</td>
<td>242,846</td>
<td>(148,801)</td>
<td>(264,295)</td>
</tr>
</tbody>
</table>

6.4 WASTE DIVERSION TARGET FOR TEN-YEAR PLAN: EXCEEDING TDEC REQUIREMENTS

The SWRB determines that continued implementation of current waste diversion programs, the 25 percent State reduction goal for the period 2008 through 2017 will be met; thus, the Region would not have to divert any additional waste from disposal in MSW landfills.

In 2007, the Metro Region met the 25% waste reduction goal by landfilling less than 1.37 tons/person/year. As shown in Table 6.1 the 2007 disposal rate was 1.13 tons per person per year from Class I landfills. To continue meeting the mandated 25% waste reduction goal, the Metro Region must continue to recycle at the current rate.

6.5 METHODS FOR MEETING THE 60% WASTE DIVERION GOAL

The State has developed waste reduction regulations that outline those activities that will be considered waste reduction. There are several methods as described below.

- **Source Reduction** - Many view source reduction as the most cost-effective program in terms of achieving reduction in the amount of waste that must be managed or disposed. Encouraging source reduction behavior that will eliminate waste before it enters the waste stream will be the focus of the SWRB. The SWRB has concluded that the two most effective methods of achieving source reduction are: 1) the implementation of mechanisms which enable waste generators to directly benefit from reduced waste disposal costs through their waste reduction efforts and 2) environmental education.
Additionally, to encourage waste reduction, the Metro government needs to enact:

- Pay-as-you-throw program (also known as unit pricing or variable rate pricing), which charge residents for the collection of municipal solid waste—ordinary household trash—based on the amount they throw away.

- Enact enforceable policies that require waste reduction, recycling and reuse plans be submitted as part of the building permit process. Plans would need to include specific ways in which construction wastes would be minimized and the processes for reusing and recycling those that were generated. The DPW would be responsible for reviewing and approving such plans.

- Promotion and expansion of backyard composting. Backyard composting allows residents to compost potentially 20% of their food and yard waste at no cost to the government. Public Works currently sells backyard compost containers to residents at cost.

- **Recycling** - Recycling is the transforming or remanufacturing of waste materials into usable or marketable materials or products. This involves collection, storage, processing, and marketing materials. Specific future recycling approaches and programs are discussed in Section 8.

- **Composting** - Composting is actually a form of recycling which is a controlled method of breaking down organic materials through microbial action resulting in a non-hazardous product to be used for various land applications. Typically, composting is utilized for yard wastes although mixed MSW can be composted as well. Specific future composting approaches and programs are discussed in Section 8.

- **Diversion** - The state allows for any MSW diverted from a Class I or waste-to-energy/incineration facility to a Class III or Class IV landfill to be counted as waste reduction. The SWRB understands the need to meet the mandated 25% waste diversion. However, the SWRB proposes to meet and exceed the mandated rate by setting a 60% diversion goal for the region. This goal includes the diversion of waste from any landfill regardless of class.

- **Problem Waste** - The diversion of waste tires, used oil, lead-acid batteries, household hazardous wastes, and other problem wastes from a Class I disposal facility for recycling constitutes waste reduction. The Metro Region provides collection and management services for the required problem wastes as well as white goods. A permanent household hazardous waste (HHW) program has been established by the DPW. Details on problem waste management are described in Section 10.
**Mulching** – Any non-treated wood waste that may be converted to mulch will be considered waste reduction if it is marketed. Metro's wood waste processing facility currently recycles over 26,000 tons of leaves, tree and brush waste each year. In addition, non-treated wood such as pallets are accepted for processing at this facility. Because of the capacity of the processing system already in place at the Bordeaux Mulch Facility, the potential exists for Metro to increase the processing of other wood waste such as untreated dimensional lumber.

### 6.6 SUMMARY

Table 6-2 presents the projected waste reduction by year that is necessary to exceed the State waste diversion goal of 25 percent and meet the SWRB planned 60% goal. Program alternatives that can be implemented in the Metro Region to meet the SWRB Goal are discussed in Section 8.

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Tons Per Year</th>
<th>Tons Per Person</th>
<th>%</th>
<th>Tons Per Year</th>
<th>Tons Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995 (Base Year)</td>
<td>530,796</td>
<td>971,383</td>
<td>1.83</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2008</td>
<td>614,198</td>
<td>770,567</td>
<td>1.25</td>
<td>31.1%</td>
<td>348,043</td>
<td>0</td>
</tr>
<tr>
<td>2009</td>
<td>618,208</td>
<td>775,597</td>
<td>1.25</td>
<td>31.1%</td>
<td>350,316</td>
<td>0</td>
</tr>
<tr>
<td>2010</td>
<td>619,771</td>
<td>777,558</td>
<td>1.25</td>
<td>35.0%</td>
<td>395,066</td>
<td>43,864</td>
</tr>
<tr>
<td>2011</td>
<td>623,781</td>
<td>782,588</td>
<td>1.25</td>
<td>35.0%</td>
<td>397,622</td>
<td>44,148</td>
</tr>
<tr>
<td>2012</td>
<td>627,790</td>
<td>787,619</td>
<td>1.25</td>
<td>40.0%</td>
<td>457,346</td>
<td>101,600</td>
</tr>
<tr>
<td>2013</td>
<td>631,800</td>
<td>792,649</td>
<td>1.25</td>
<td>40.0%</td>
<td>460,287</td>
<td>102,249</td>
</tr>
<tr>
<td>2014</td>
<td>635,809</td>
<td>797,679</td>
<td>1.25</td>
<td>40.0%</td>
<td>463,187</td>
<td>102,898</td>
</tr>
<tr>
<td>2015</td>
<td>639,819</td>
<td>802,709</td>
<td>1.25</td>
<td>50.0%</td>
<td>582,635</td>
<td>220,074</td>
</tr>
<tr>
<td>2016</td>
<td>643,828</td>
<td>807,740</td>
<td>1.25</td>
<td>50.0%</td>
<td>586,287</td>
<td>221,453</td>
</tr>
<tr>
<td>2017</td>
<td>647,838</td>
<td>812,770</td>
<td>1.25</td>
<td>60.0%</td>
<td>707,925</td>
<td>340,820</td>
</tr>
</tbody>
</table>

1 Waste stream projections are in tons. Tonnages do not include industrial recyclables.

2 Recycling rates based on data presented in 2007 Metro Nashville and Davidson County APR (See Table 3-1)
FUTURE WASTE COLLECTION, TRANSPORTATION AND DISPOSAL SERVICES

CURRENT COLLECTION AND TRANSPORTATION SYSTEM

The current waste collection and transportation services were discussed in Section 4. As indicated, all governmental units provide door-to-door collection except as follows: Metro does not provide service in the GSD, and the City of Forest Hills does not provide any waste collection. An evaluation of the current system is provided below.

EVALUATION OF CURRENT SYSTEM

An evaluation of the current solid waste collection system shows that adequate collection service is provided throughout the Metro Region. The State’s proposed convenience center regulations require that at least 90 percent of each county shall be within the service area of a solid waste collector. If less than 90 percent have access to collection, the county is required to have at least one convenience center or a higher level of collection service by January 1, 1995.

Although Metro does not provide collection service in the GSD and the City of Forest Hills does not provide collection services for household waste, private hauler information shows that at least 100 percent of these areas are within service areas for collection. Figure 4-1 provides the collection service areas in the Metro Region including private haulers. Table 4-1 provides the number of residents which are located in collection service areas.

MEETING FUTURE COLLECTION NEEDS

Although all areas without public collection have adequate private collection, this must be monitored by the Metro Region to ensure that adequate collection continues.

The State requires that a county provide a minimum level of service if there is less than 90 percent collection coverage provided by the private and public sector. This involves the establishment of convenience centers that are adequate to serve all residents. Although not required, Metro has implemented three recycling convenience centers to serve the collection needs of those residents in the GSD who currently do not subscribe to a curbside collection service. Based on historical usage, Metro believes that the three centers are adequate to serve the current needs of these residents, but would be
open to expand the convenience center program if funding and property become available, particularly in the high growth areas of the county.

### 7.4 MEETING FUTURE WASTE TRANSPORTATION NEEDS

As discussed in Section 4, Metro has entered into a long-term contract with Allied Waste to provide transfer, hauling, and disposal services for the non-recycled MSW generated in the Metro Region. Metro believes that this contract – along with transportation services provided by other private companies – will provide for the future waste transportation needs of the Metro Region. Should the contract with Allied Waste become void for any reason, Metro has the option of contracting with another waste hauling company to meet the future transportation needs of the Metro Region.

The SWRB voted unanimously that a minimum of one transfer station be available (upon closure of the Bordeaux Landfill) for use by all private haulers and the general public. This transfer station may be provided through the private sector. However, the SWRB has recommended that the City of Nashville consider the feasibility of constructing and operating a waste transfer station in the future.

As described in Section 4, the Metro Region has two privately-owned transfer stations available for use by the Region’s residences and businesses.

### 7.5 STAFFING AND TRAINING AT CONVENIENCE CENTERS

The convenience centers require varying staffing according to customer traffic and operational services (i.e., East Convenience Center's HHW site). The East Convenience Center, the busiest and most extensive of the three current centers, requires four operators (five on Saturdays – the busiest day) to be on site during open hours. Additional convenience centers opened five days per week would need between two to four operators, depending on volume and services. In addition, with the increase of recycling/convenience centers, additional truck drivers would need to be hired depending on the volume of material. Truck drivers are required to possess CDL’s and have at least three years of driving experience. Convenience center staff are not required to have special training prior to hiring; however, once hired, convenience center staff are required to undergo HAZMAT training and receive EPA Freon Certification.
7.6 FUTURE WASTE DISPOSAL NEEDS

The purpose of this section is to review and discuss future solid waste disposal needs of the Metro Region over the planning period and to determine what – if any – actions need to be taken to address these needs beyond the continuation of the current disposal services and facilities.

7.6.1 Class I Disposal Facilities

Since the closure of the Bordeaux Landfill in 1994, the Metro Region has relied on out-of-county regional landfills for the disposal of its non-recycled and non-incinerated MSW. As indicated in Table 3-1, approximately 687,000 tons of waste – which is equivalent to 2,200 tons per day for a six-day facility operations work week – was exported by the Metro Region to out-of-county landfills in 2007. The contracted price for transfer, hauling, and disposal services in 2007 was $29.10 per ton.

7.6.1.1 Class I Disposal Capacity Needs

The Class I disposal needs of the Metro Region are presented in Table 5-2. It is assumed that the activities resulting in the projected 2008 MSW recycling rate of 25.8 percent will continue and that the amount of MSW requiring future disposal will grow to 623,242 tons in 2017.

7.6.1.2 Class I Disposal Capacity Provisions

In order to adequately provide for responsible solid waste disposal, Metro has entered into a long-term contract with Allied Waste. Under this contract, which was executed in January 2002 for twenty years with two five year renewal options, Allied Waste has agreed to provide disposal capacity – as well as transfer and hauling services – for all of the Metro Region’s non-recycled MSW delivered to the Allied Waste transfer station in Nashville over the term of the contract. Allied Waste currently utilizes its Middlepoint Landfill – which is 32 miles from the transfer station in Nashville – to dispose of the Metro Region’s non-recycled MSW.

Should, for any reason, the Allied Waste contract become void, Metro has the option of entering into a similar contract with Waste Management, Inc., (WM), which also owns a transfer station in Nashville. WM owns and operates a Class I landfill in Camden, Tennessee. This landfill is currently used by WM to dispose of MSW collected by WM and other commercial waste haulers in the Metro Region.
In summary, there are five regional landfills in the middle Tennessee area, which are within feasible hauling distance of the Metro Region, providing adequate long-term capacity for Metro’s non-recycled MSW over the ten-period covered by this 2007 Plan Update.

Metropolitan government officials believe that the out-of-county landfills will meet or exceed the Region’s future disposal needs. In the event a future Class I landfill is needed within Davidson County, the SWRB voted that only a publicly-owned facility would be permitted in the Metro Region.

7.6.2 Class IV Disposal Facilities

The Waste Management (Southern Services) C&D Landfill and the Central Pike C&D Landfill in Hermitage are the only C&D Landfills operating in the Metro Region. The WM and Central Pike C&D landfills appear to have sufficient capacity to serve the Metro Region’s C&D disposal needs over the planning period. For this reason, Metro does not intend to approve the development of another C&D landfill in Davidson County unless it determines that the need for such a facility exists to enhance marketplace competition or secure future C&D disposal capacity. Moreover, as stated previously, no expansion of a current C&D disposal facility or permitting a new C&D disposal facility will be entertained by the SWRB unless comprehensive on-site recycling is actively underway or is included in the new facility’s plans.

7.7 COLLECTION AND TRANSPORTATION BUDGET

While revenues and expenses for the current system are included in Table 4-3, truly accurate 10 year projections of this magnitude are not possible for the following reasons:

- Unforeseen growth surges in the USD.
- Current and potential USD expansions.
- CPI increases on current contracts follow formulas based on annual inflation rates which are unpredictable.
- Administration changes that may eliminate some programs or add others.
- Budget constraints that may eliminate, reduce, increase or initiate programs.
- Availability of state and federal grants that may eliminate, reduce, increase or initiate programs.
- Contract expirations, renewals, or new contracts that will affect costs and revenues.
- New technologies that may change current procedures or operations.
• Revenue rates are based on cost to perform administrative tasks or on current market rates for recycling materials which will fluctuate based on the economy.
• Federal, state, and local regulations that may cause decreases or increases in administration or operation costs or ability to collect revenue.

7.8 RESPONSIBLE ENTITIES WITHIN THE REGION

The waste collection responsibility will remain with Metro and the satellite cities. The transportation and disposal system will be a regional effort. Since it is mandated by law that each county provide for the collection of recyclables and problem wastes, this sole responsibility will remain with Metro.
8.0 FUTURE WASTE DIVERSION PROGRAMS

8.1 INTRODUCTION

The Metro Region has several public recycling programs, which are currently operational. In addition, commercial, institutional, and industrial entities have implemented various independent forms of recycling and waste reduction programs. The public and private programs were briefly described in Section 2.

As indicated in Section 3, the Metro Region currently recycles over 421,000 tons per year. In 2007, the Metro Region met the 25 percent waste reduction goal set by the State. This section presents a discussion of the various recycling and waste diversion options that are available to the Metro Region for implementation to go beyond the State goal. As mentioned in Section 6, the SWRB plans to divert 60 percent of solid waste generated in the region from all landfills by 2018.

Although recycling efforts are occurring throughout the County, the Metro Region and the satellite cities would like to continue and expand recycling efforts and increase waste diversion. There are currently areas that do not receive curbside recyclable materials collection service. Opportunities that will be addressed over the next several years during the implementation of this 2007 Plan Update include expanding and enhancing programs that target other economic sectors within the Metro Region, expanding recycling programs to include additional materials, and cooperating throughout the Metro Region to improve access and stability of markets for recyclable materials.

8.2 RECYCLING GOALS AND STRATEGIES

In addition to current efforts, Metro will undertake a comprehensive public education project to accomplish the following:

- Work with both public and private schools to support their in-house recycling programs and initiatives.
- Develop and implement backyard composting education programs and strategies for making compost bins and supplies available at a low cost to the public.
- Further develop outreach to neighborhood, community and business groups.
- Continue to develop and expand the school and adult education outreach programs.
- Strengthen media relations.

Plans for commercial business, industry, and institutional future projects include:
- Target select businesses for recycling education.
- Continue to develop waste reduction strategies for businesses.
- Develop a promotional program for businesses which includes educational materials and a database of private recyclers.

8.3 REGIONAL RECYCLING SYSTEM ALTERNATIVES

The Metro Region needs to implement one or more of six waste diversion and recycling options to go beyond the Region’s 25 percent waste diversion goal as defined by the State and achieve the 60 percent waste diversion proposed in the Plan. These options include:
- Mandatory commercial/institutional/industrial recycling.
- Food waste composting or wet-dry collection
- Increasing the collection frequency of residential recycling collection services.
- Provision of curbside recycling services to GSD residences.
- Provision of recycling collection services to multi-family buildings.

These options are briefly described below, along with an estimate of the economic impacts of each implementation. The potential waste diversion impacts of each option are presented in Table 8-1. In this regard, it should be noted that the waste diversion impacts represent “ballpark” estimates that are based on a number of assumptions – such as public participation rates – that can only be verified through the conduct of pilot programs and more in-depth analysis for each option.
Table 8-1
Preliminary Estimates of Impacts of Potential Future Waste Diversion Strategies for the Metro Region

<table>
<thead>
<tr>
<th>Waste Stream Option</th>
<th>Waste Stream Targeted</th>
<th>Total Annual Tons</th>
<th>Materials Targeted</th>
<th>% of Waste Stream</th>
<th>% County Residents or Businesses Targeted</th>
<th>Participation Rate</th>
<th>Capture Rate (by Each Participant)</th>
<th>Recovery Rate (Participation Rate X Capture Rate)</th>
<th>Tons Recoverable</th>
<th>Tons Currently Diverted</th>
<th>Additional Tons that can be Diverted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory Commercial Recycling</td>
<td>Commercial/Institutional/Industrial</td>
<td>588,328</td>
<td>Corrugated, Office Paper</td>
<td>35%</td>
<td>100%</td>
<td>80%</td>
<td>80%</td>
<td>64%</td>
<td>132,539</td>
<td>76,900</td>
<td>67,069</td>
</tr>
<tr>
<td>Wet/Dry Collection</td>
<td>Residential</td>
<td>303,343</td>
<td>Food &amp; Yard Waste: Same materials as current Curby, drop-off and Yard Waste collection programs</td>
<td>78%</td>
<td>50%</td>
<td>70%</td>
<td>70%</td>
<td>25%</td>
<td>58,192</td>
<td>39,325</td>
<td>18,867</td>
</tr>
<tr>
<td>Increasing Frequency of Residential Recycling Collection</td>
<td>Residential</td>
<td>303,343</td>
<td>Same materials as current Curby and drop-off programs</td>
<td>55%</td>
<td>50%</td>
<td>70%</td>
<td>80%</td>
<td>28%</td>
<td>46,290</td>
<td>21,540</td>
<td>26,656</td>
</tr>
<tr>
<td>Provision of Curbside Recycling to GSD Residents on Fee Basis</td>
<td>Residential</td>
<td>303,343</td>
<td>Same materials as current Curby program</td>
<td>55%</td>
<td>40%</td>
<td>20%</td>
<td>80%</td>
<td>6%</td>
<td>10,581</td>
<td>-</td>
<td>10,581</td>
</tr>
<tr>
<td>Commercial Food Waste Composting</td>
<td>Commercial</td>
<td>588,328</td>
<td>Food Scraps</td>
<td>12%</td>
<td>10%</td>
<td>100%</td>
<td>80%</td>
<td>8%</td>
<td>5,507</td>
<td>-</td>
<td>5,507</td>
</tr>
<tr>
<td>Increasing Yard Waste Collection Frequency</td>
<td>Residential</td>
<td>303,343</td>
<td>Yard Waste</td>
<td>12%</td>
<td>100%</td>
<td>90%</td>
<td>80%</td>
<td>72%</td>
<td>26,427</td>
<td>26,000</td>
<td>427</td>
</tr>
<tr>
<td>Provision of Recyclables Collection Service to Multi-Family Dwellings</td>
<td>Residential</td>
<td>303,343</td>
<td>Same materials as current Curby program</td>
<td>55%</td>
<td>10%</td>
<td>25%</td>
<td>50%</td>
<td>1%</td>
<td>2,067</td>
<td>-</td>
<td>2,067</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>137,482</td>
</tr>
</tbody>
</table>

8.4 PROPOSED WASTE REDUCTION PROGRAMS AND SERVICES

While no new facilities or programs are needed from a regulatory standpoint to meet the mandated 25% waste diversion, the SWRB recommends that the local governments within the Metro region consider a range of options for implementation over the ten year planning period with the goal of achieving a 60% waste diversion from all landfills by 2018. These options, summarized in Table 8-2, are organized into Near (low cost), Mid-term (investment required) and Long-Term priorities. It is important to note that the proposed 60% diversion goal will only be achieved by the implementation of most of the proposed in the table below.

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8 Curbside (mixed recyclables) tons for 2007 were 13,241.08 and drop-off/convenience center recycling tons were 8,304.91.
Table 8-2 -- Timeline
Solid Waste Management Options Recommended By The SWRB For Possible Implementation During The Ten-Year Planning Period (2008-2017)

Near-Term Options – Low Cost (Implementation Target 2009 ~ 2012)
- Mandatory Business Recycling Ordinance
- C&D Policies To Promote Recycling
- Licensing of Waste Haulers
- Mandatory Reporting of Recycling Activities and Data
- Enforce Existing Policies that Require Waste Reduction, Recycling and Reuse Plans be Submitted as Part of the Building Permit Process
- Identify Potential Sites for Future Permitting of Class I Landfill or Solid Waste Disposal Facility in the Metro Region

Mid-Term Options – Investment Required (Implementation Target 2013 ~ 2017)
- Increased Frequency of Curbside Recycling (Currently Once Per Month)
- “Pay As You Throw” Variable Rate Charges for Residential Waste Collection
- Provide or Require Curbside Recycling in the General Services District
- Increase Frequency of Yard Waste Collection
- Collect Recyclables From Multi-Family Residences

Long-Term Options (Implementation Target 2018+)
- Development of Publicly Owned Transfer Station With Material Recycling Capabilities and/or C&D Recycling Processing Facility
- Mandatory Commercial Food Waste Composting
- Pilot Residential Food Waste Composting or Wet-Dry Collection Program

8.5 LOW COST, NEAR AND LONG-TERM OPTIONS

Future waste reduction and recycling options recommended for consideration by the SWRB include both near-term and long-term options. Near-term options include low cost options requiring little or no investment as well as investment options that will require additional funding for implementation.

8.5.1 Near-Term Options Recommended For Consideration

The low cost options recommended for consideration by the SWRB for implementation in the Metro Region include the following:

Mandatory Commercial/Institutional/Industrial Recycling -- As indicated in Table 3-2, it is estimated that over 600,000 tons per year of waste from the Metro Region that is currently disposed in MSW landfills is generated by the commercial/institutional/industrial sector.
Local governments can assist businesses, institutions, and industries in the Metro Region to achieve higher recycling levels by requiring that commercial waste haulers identify and separately charge for the disposal costs that are included in their collection service prices.

In addition, the Tennessee Department of Environment and Conservation is currently proposing mandatory diversion of cardboard, metals, e-scrap and yard waste from all landfills. These proposed landfill bans are currently being considered by the Solid Waste Disposal Control Board for implementation. If the State Solid Waste Disposal Control Board fails to implement these bans, the Metro Region will consider the implementation of a similar ordinance.

In comparison to other programs, this approach – as indicated in Table 8-1 – has the potential to result in a significant amount of waste diversion – potentially on the order of over 67,000 tons per year. Relative to other programs, the implementation costs of this option are modest, consisting mainly of costs for program administrators and support staff.

**Policies To Promote C&D Recycling** – This option involves the adoption of policies to promote the recycling of C&D wastes. Policy alternatives include establishment of a requirement that a “Construction Waste and Recycling Plan” be submitted along with building permit applications for buildings requesting certain types of permits (new construction, total demolition, etc.). The Metro Region could also require that differential tipping fees be instituted to discourage the disposal of recyclable-rich C&D waste loads.

**Licensing of Waste Haulers** – Currently, waste haulers in the Metro Region are required to obtain hauling licenses but there is no requirement that they provide recycling services. A number of U.S. communities that license waste haulers further require that any hauler providing waste collection service also offer recycling collection to their customers.

**Mandatory Reporting of Recycling Activities and Data** – This option would require all industries, businesses and institutions in the Metro Region over a certain size to document their recycling activities and provide accurate data on the types and quantities of materials and products that they recycle.
8.5.2 Mid-Term Options – Investment Required

The following options recommended for consideration by the SWRB for implementation in the Metro Region will require the commitment of additional funding resources:

**Increasing the Collection Frequency for Residential Recycling** -- In 2004, Metro began the implementation of a curbside recyclables collection service that utilizes automated collection trucks and provides residents with 90-gallon rollout recyclables containers. The method of recyclables collection implemented by Metro is referred to as single stream recycling. This method is growing in popularity across the United States as one which can maximize the diversion of residential waste by targeting a large number of recyclables (such as junk mail, magazines, cereal boxes, etc.) and by providing residents with a container that is large enough to accommodate the targeted recyclables. It is likely that the recycling diversion rate achieved through this residential service can be increased through the increase of the frequency of recyclables collection to a bi-monthly or weekly basis.

Recycling diversion and cost data for North Carolina municipalities were compiled by the School of Government of the University of North Carolina at Chapel Hill. An analysis of this data for small-to-medium sized municipalities indicates that weekly curbside recycling programs in these municipalities divert an average of 16 percent of the residential solid waste stream and that the net program cost for these programs is $174 per ton or $2.83 per household per month ($34 per household per year). Assuming an average household cost of $34 per year, it is estimated that it would cost Metro 75 percent of this cost to increase the recycling collection frequency to USD residents from a monthly to a weekly basis – or roughly $3 million per year. Increasing to a collection frequency of every other week would cost roughly half that amount. As indicated in Table 8-1, it is estimated that this alternative has the potential to divert an additional 27,000 tons per year of recyclable material.

**“Pay As You Throw” Variable Rate Charges for Residential Waste Collection** – As described in Section 4.0, a variety of waste collection services are provided by the local governments in the region to residents in their respective jurisdictions. These services are paid out of general funds with no direct charges assessed to each resident. A large number of communities in the U.S. have started charging residents for waste collection services based on the amount of wastes that they set out for collection.

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This approach encourages residents to minimize their charges by reducing the amount of waste they set out for collection through the use of waste reduction and/or recycling options.

**Provision of Curbside Recycling Services to GSD Residents on a Fee Basis** -- Currently, curbside recycling services are provided by Metro only to residents in the USD. Metro has the option of offering the same services to GSD residents on a fee basis.

Studies have consistently shown that waste diversion rates increase with consumer or customer convenience and, for this reason, that the waste diversion impacts of curbside recycling programs are substantially higher than those of recycling drop-off centers.

For Metro to offer curbside recycling to GSD residents, it is important to note that entire neighborhoods – and not just individual residences – must request the service, as the costs of providing the service on a single residence subscription basis would be prohibitive. Metro’s role in this regard would be to define the minimum neighborhood size that could receive the service, price the service to cover its costs, and market and promote the service. With respect to service pricing, it is likely that the service costs would be similar to those reported above for increasing the frequency of curbside recycling services to USD residents. A preliminary ballpark estimate of the diversion potential of this option is about 10,600 tons per year.

**Increased Yard Waste Collection Frequency** -- The SWRB has adopted a goal to maximize yard waste composting by excluding yard waste from landfills to the extent economically feasible and environmentally responsible.

Communities that have maximized the diversion of yard waste from landfill disposal generally provide regularly scheduled, curbside collection services for yard waste. Depending on the economic feasibility as well as other considerations, Metro may want to consider upgrading the frequency of its yard waste collection services to a monthly, semi-weekly, or weekly basis.

The Metro Region’s goal is to maximize yard waste composting. As indicated in Table 3-3, it is estimated that 12 percent (36,000 tons/year) of the residential waste stream consists of yard waste, which could be removed and composted. After subtracting out the approximately 20,000 tons that are
currently collected by Metro and considering participation and capture rates, it appears that an additional 6,400 tons or so of yard waste could be recovered through this option.

The most plausible alternative of capturing this additional yard waste is to increase the collection frequency for Metro’s residential curbside yard waste collection program. Currently, yard wastes are collected by Metro five times per year.

A ballpark estimate of the costs of weekly collection of yard waste is $4.00 per household per month with bi-monthly collection estimated to be roughly half that amount. Assuming that Metro provides this service to the 120,000 households in the USD, annual costs to provide a weekly yard waste collection service can be expected to be on the order of $5.8 million. On a per-ton basis, average cost for a weekly yard waste collection service can be expected to be on the order of $110 per ton.11

**Provision of Recyclables Collection Services to Multi-Family Buildings** -- The provision of effective recycling services to multi-family housing units has been a challenge for many communities across the country. However, by targeting multi-family dwellings, especially those that are being constructed in the urban center, it is likely that a significant amount of waste can be recycled. Effective multi-family programs range from reviewing apartment building designs to ensure that sufficient building space is made available to accommodate recycling containers to providing central recycling containers to each apartment building and then servicing those containers on a regular basis.

As indicated in Table 8-1, the net diversion that could be achieved by the implementation of a wet/dry program in Nashville is about 19,000 tons per year.

**8.5.3 Long-Term Options**

The following options are long-term options for which the SWRB recommends that planning and/or feasibility analyses be conducted during the ten year planning period.

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10 North Carolina Local Government Performance Measurement Project. Final Report on City Services for Fiscal Year 2003-2004. (Chapel Hill, NC: Institute of Government, February 2005). This document reported that the average annual costs for 15 municipal curbside yard waste programs (14 of which provide weekly yard waste collection services) was $48 per year, or $4.00 per household per month.

11 Ibid.
Development of Publicly Owned Transfer Station With Material Recycling Capabilities - As described in Section 4, the Metro Region has two privately owned transfer stations that are available for use by the Region’s residences and businesses. The SWRB recommends that the City of Nashville conduct a feasibility study and develop a plan for constructing and operating a publicly owned waste transfer station. This would provide the Metro Region with direct control over waste transfer and provide the region with greater flexibility regarding the utilization of private landfill disposal services for the region’s non-recycled wastes. Designing the transfer station for the maximum recovery of products and materials from the waste stream during the transfer process would both increase the region’s recycling rate as well as enable the region to save on hauling and disposal costs and use these savings to support recycling activities.

Development of Publicly Owned Materials Recovery Facility (MRF) and/or Publicly-Owned C&D Recycling Processing Facility – The Metro Region currently utilizes a privately owned materials recovery facility for the processing and sale of recyclables recovered through government sponsored recycling programs. The SWRB recommends that the Region evaluate the feasibility of implementing a publicly-owned MRF. Potential benefits of public ownership - which include direct control over facility design and operation and capture of all recycling revenues - should be weighed in light of the required capital investment, facility operations responsibilities and recyclables marketing risks.

Mandatory Commercial Food Waste Composting – This option has the potential to divert an additional 5,507 tons each year of food waste through composting. Grocery stores, restaurants and commercial food producers would be targeted for this waste diversion program.

Pilot Residential Food Waste Collection or Wet/Dry Collection – Food waste is estimated to constitute 12 percent of the MSW generated in the Metro Region, or about 107,000 tons per year. While costly, a number of U.S. communities are beginning to collect food waste at the curb from residences. However, of the 7,689 curbside recycling programs in the United States, less than a handful have adopted the wet/dry collection approach.12

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Among the communities collecting food waste, the most common method currently is to instruct residents to place their food wastes in their yard waste containers for curbside pickup. The SWRB recommends that local governments in the region consider this option.

8.6 CHECKLIST FOR PERMITTING OF LANDFILL EXPANSIONS OR NEW LANDFILL SITES

One of the roles of the SWRB is to provide policy guidance on the permitting of new landfills or the expansion of existing landfills within the Metro region. In this regard, the SWRB has adopted a checklist of items that need to be addressed by the permit applicant before providing guidance on new landfills or landfill expansions. This checklist is presented in Table 8-3 and summarized below.

Identification and Resolution of Host Community Issues – The permit applicant must identify and address issues raised by the community that will host the landfill. Of particular importance is the identification and resolution of environmental justice issues associated with communities that have been asked to host an inordinate number of solid waste or wastewater-related facilities.

Host Community Benefit Program – The permit applicant must develop a host community benefit program be developed to offset any real environmental, economic, public safety and nuisance impacts associated with new landfills or landfill expansions.

Landfill Liner Requirement -- The permit applicant must show that a linter will be installed on any landfill permitted in Davidson County including a Class III-IV or C&D landfill.

Post-Closure Site Use Plan -- For landfill expansions or new landfills, the permit applicant must submit a site use plan that identifies a long term use for the site as well as a plan to provide custodial care of the site following the landfill’s regulatory post-closure period.

Site Impact Study – The permit applicant must complete an impact study to assess the potential impacts of the new landfill or landfill expansion with respect to traffic, noise, litter, odor and other potential impacts.
Pricing Policy Which Promotes Recycling – For landfill expansions and new landfills, the permit applicant must implement pricing policies which discourage the landfilling of recyclable-rich waste loads.

Waste Load Inspection Protocol – For landfill expansions and new landfills, the permit applicant must develop waste load inspection protocols to ensure that only acceptable waste is disposed at the landfill.

### Table 8-3
Checklist for Approval of Landfill Expansion or New Landfill Sites

- ✔ Identification and Resolution of Host Community Issues, Including Environmental Justice Issues
- ✔ Host Community Benefit Program
- ✔ Landfill Liner (installed on all landfills & expansions, including C & D landfills)
- ✔ Post-Closure Site Use Plan
- ✔ Site Impact Study
- ✔ Pricing Policy Which Promotes Recycling
- ✔ Waste Load Inspection Program

### 8.7 NEW DEVELOPMENTS ON THE HORIZON

During the review process associated with this Plan Update, the SWRB was made aware of a number of new developments that may impact the future management of solid waste over the planning period. The SWRB will continue to track these developments and provide policy input regarding their impact on the region’s solid waste management infrastructure and services.

The most important of these developments are listed in Table 8-4 and are summarized below:

Development of New Conversion Technologies – Progress is being made on the development of new conversion technologies to recover energy and/or materials from the non-recycled waste stream. Marketers for these new technologies are already approaching local government policy makers and solid waste managers with claims regarding the technical performance, costs and impacts of these new technologies. The SWRB believes that it is important for local governments in the Metro region to understand the commercialization status and performance history of these new technologies in order to accurately assess their implementation potential in the Metro region. The SWRB recommends that an independent assessment of these technologies be made before they are considered for implementation.
Potential Liner Requirements for C&D Landfills – A growing number of states are adopting new design standards for C&D landfills that require these landfills to be constructed with a bottom and top liner system. The adoption of similar regulations by the State of Tennessee could impact the future C&D disposal capacity that currently exists in the Metro region.

Solid Waste Management and Greenhouse Gas Emissions – The issue of greenhouse gas emissions is impacting all societal systems and services, including solid waste management systems. Key elements of solid waste systems that may be impacted include solid waste collection vehicles that rely on fossil fuels and landfills that generate methane as a byproduct of waste decomposition. The SWRB recommends that an assessment of the greenhouse gas impacts of the region’s solid waste management system be conducted in order to develop sound local policies on this issue.

European Commission Policy Directive To Phase Out The Landfilling of Biodegradable Waste – In 1999, the European Commission issued a “Landfill Directive” to address the environmental threat from the production of methane in landfills, which accounted for some 3% of total greenhouse gas emissions in the EU-15 in 1995. The Landfill Directive obliges Member States to reduce the amount of biodegradable waste that they landfill to 35% of 1995 levels by 2016. If a similar policy is adopted at the state or national level in the U.S., it could significantly impact the design of landfill-based solid waste systems such as the system utilized by the Metro region.

Recycling of Discarded Consumer Electronics -- About a dozen states have adopted legislation to address the disposal of discarded consumer electronics. In addition, progress is being made on the development of national legislation to address this issue. Of key importance is the question of how discarded consumer electronics will be collected from residences and businesses for recycling. Solid waste collection services provided by local governments to residents in the Metro region could play an important role and may have to be redesigned to accommodate these products.

<p>| Table 8-4 |</p>
<table>
<thead>
<tr>
<th>New Developments on the Solid Waste Management Horizon</th>
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<tbody>
<tr>
<td>New Conversion Technologies (e.g., plasma arc gasification etc.)</td>
</tr>
<tr>
<td>Liner requirements for C&amp;D landfills</td>
</tr>
<tr>
<td>Solid Waste Management and Greenhouse Gas Emissions</td>
</tr>
<tr>
<td>European Policy Directive to Phase out Landfilling of Organic Wastes</td>
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<tr>
<td>Recycling of Discarded Consumer Electronics</td>
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</table>
8.8 COORDINATION OF PUBLIC AND PRIVATE EFFORTS

The Metropolitan Government is responsible for ensuring that the Metro Region reaches the State mandated goal and more. In the process, the Metro Division of Waste Management may look to all sectors in accomplishing the goals set forth in this 2007 Plan Update including incorporated cities within Davidson County.

The Metro Region will encourage recycling through its education programs and information outreach. These programs will target households, schools, businesses, industries, the media, and government officials. They will emphasize the need to purchase recycled products to increase the demand for recyclable materials. Efforts will include coordination from the DPW’s Beautification and Environment Commission to assist neighborhood groups and schools to recycle. DPW will also work with the University of Tennessee Center for Industrial Services to assist businesses and industries in determining how they can participate and market materials to reduce waste disposal costs and become positively involved in the community’s waste reduction efforts.

Some existing programs for the private sector include coordination with small to medium businesses and encouraging them to use the Metro recycling drop-off sites. Small businesses who receive Metro trash collection are also encouraged to participate in curbside recycling offered by DPW. This will be expanded by encouraging the private sector, in particular large businesses and industries, to look at recycling through private contracts.

8.9 RESPONSIBLE ENTITIES WITHIN THE REGION

The Metro Region and each satellite city will be responsible for the collection of recyclables within its jurisdiction. The DPW’S Division of Solid Waste (DSW) will be responsible for coordinating efforts of the various programs and assisting with marketing materials.

All recycling and waste reduction programs will be administered through the DSW. The DSW will continue, as it has in the past, to create a community-wide comprehensive solid waste program based on community involvement.

The DSW will provide oversight of the programs to ensure that they are efficient and provide adequate service. The DSW will also coordinate solid waste education programs.
Annual reports will be provided to the State to reflect the efforts of the recycling programs. The DSW will be responsible for maintaining records of all marketed recyclable materials. Each satellite city will be responsible for maintaining records for compilation and reporting that will be provided to the DSW.

8.10 SUMMARY OF FUTURE WASTE DIVERSION PROGRAMS

Finally, for all of the waste diversion options presented in this section, it must be clearly understood that the decision to implement a waste diversion option rests with each of the local governments and private sector organizations in the Metro Region. With respect to these options, the SWRB’s role is to consider and recommend solid waste policies and practices for the local governments and other public and private institutions in the Metro Region to consider in order to achieve the solid waste goals of the Metro Region.
9.0 Future Public Information and Education Programs

9.1 Introduction

This section defines the regional needs for public information and education programs to support the solid waste management plan and presents a strategic framework for meeting those needs.

9.2 Public Information and Education Program Needs

Metro currently provides a comprehensive solid waste informational and educational program for the Metro Region. Metro will continue to provide and expand the public information and educational opportunities for school children, adults, and businesses.

Incomplete understanding of what happens to recycled materials can lead to unfounded concerns that the materials are not actually recycled. Such conclusions undermine not only the city’s recycling programs but can also negatively impact all solid waste initiatives. A comprehensive and effective recycling education program is a vital component of the overall Solid Waste Plan. In order for a recycling and solid waste program to be successful it must develop and implement strategies for promoting behavioral change.

It is critical that an effective recycling education programs addresses the variety of reasons and compelling concerns that motivate individuals to participate and make well-informed and responsible decisions about how they manage the waste they generate. Clearly, the reasons and concerns are many: quality of life, economic, environmental, and an ever growing commitment to using government resources wisely.

The basic need is to educate the entire Metro Region, including both residential and non-residential sectors (public, private, and non-profit), on the components of the solid waste plan and how it operates.

9.3 Goals and Strategies

Metro recognizes the need to foster citizens’ understanding of why it is necessary to reduce and recycle waste, what is recyclable, and how to reduce the waste stream on an individual and corporate level. A primary goal of this program is to promote the recycling of as many materials as is practical in order to
reach the mandated goal, to educate residents on the problems and costs associated with solid waste management, and to motivate residents and businesses to participate.

To accomplish these goals, the Metro DSW through MBEC developed a public education program with the anticipated assistance of contractual supplementary support with the goal and objective of informing and educating homeowners, business persons, and students of the programmatic options available to them and how they can participate in the solid waste plan while promoting a positive attitude toward waste reduction and recycling.

- The Recycling Education Classroom, in partnership with QRS Recycling, utilizes a state-of-the-art facility to educate K-12 and adults.
- Continue to develop and expand the use of technology, which includes the following:
  - Maintaining website.
  - Develop informational slides and videos on solid waste issues.
- Continue to develop and expand school programs that meet the educational goals of the Solid Waste Plan and which also meet the specific academic standards of MNPS.
- Research and develop education programs in partnership with area businesses that have a particular interest or investment in solid waste management.
- Continue to work with MNPS to support and promote their in-house recycling.
- Continue to offer backyard compost education programs, including the Master Composter Certification Class; offer compost bins and supplies at a low cost to the public; develop and implement school programs about backyard composting and vermiculture; and develop a backyard compost demonstration site that the public and school age groups can tour.

Key steps necessary to provide a comprehensive solid waste management education program include:

9.3.1 Education of Local Officials

- Develop informational and educational materials to instruct local officials about responsible solid waste management.
- Develop informational and educational materials to inform local officials about current programs.
- Provide public educational materials to local officials about current programs.
Utilize government office waste reduction programs as an example to the community and gain experience in education, source reduction, recycling, and purchasing recycled and recyclable products.

9.3.2 Education of Local Interest Groups

Educate interest groups about relevant activities, which could fit into a solid waste education program (e.g., a garden club might become involved in a backyard composting program, a home economics organization might test non-toxic household cleaners, neighborhood groups conduct clean-ups, etc.).

- Coordinate with Existing Solid Waste Education Groups.
- Coordinate with the University of Tennessee Center for Industrial Services and encourage businesses and industries to participate in the waste reduction program.
- Maintain the Keep America Beautiful affiliation and maximize use of the partnership resources: continuing education, national programs and contests, clean-up supplies, and national networks promoting best practices and media coverage.
- Coordinate with the County Extension offices, which distribute educational materials.
- Work with the Tennessee Office of Cooperative Marketing.

9.3.3 Education of the General Public

- Educate the public through public speaking, workshops, television, radio, and other types of communication.
- Design public information literature focusing on source reduction and reuse, and general guidelines for recycling.
- Inform the public about special events and seasonal projects.
- Focus on the cost and environmental impact of mismanaged solid waste and how it affects the community.

9.3.4 Informing Commercial Businesses, Industries, and Institutions

- Educate through website, public speaking workshops, Channel 3, and other types of communication.
- Design public information literature focusing on source reduction and reuse, and specific guidelines for recycling.
- Provide waste audit training.
- Work directly with key community business leaders.
- Evaluate feasibility of developing standards for model businesses, industries, and institutions that incorporate waste reduction policies.

9.3.5 **Informing the Media**
- Develop press releases of Metro Region programs for dissemination to the diverse media in the Metro Region.
- Sponsor special press events to train members of the media on waste management and recycling issues.

9.4 **SUMMARY OF EXISTING AND PROPOSED SERVICES**

Metro will continue to provide public information regarding solid waste management and waste reduction opportunities throughout the Metro Region. This information will continue to be disseminated by the Metro DSW and MBEC using newspaper, radio, community volunteers, and public speaking engagements as vehicles. Specific tools that will be made available and employed through the Metro DSW and MBEC include:

9.4.1 **School-Based Instruction**

This program, which currently focuses on grades K-12 (both public and private schools), include a hands-on presentation with explicit discussion of how and why to participate in Metro Nashville’s recycling and waste reduction initiatives. Special projects and contests for students are included to emphasize reuse and waste reduction. Field trips to the Recycling Education Classroom located in the QRS Recycling MRF are offered free of charge. Our website includes local photographs highlighting the current methods of disposal, concluding with options to reduce waste. Teacher activity packets for K-12 containing extensive material for teachers ranging from lesson plans to classroom activity are available. Backyard compost bins are offered to schools free of charge. Note: the Metro Region contains approximately 134 public schools and approximately 61 private schools excluding pre-schools, daycare centers, and trade schools.
9.4.2 **Workshops, Conferences, and Training Courses**

In an effort to train education staff on waste reduction and recycling, teacher workshops are planned for the Metro Region (plus neighboring counties). Continued participation in state and national conferences to keep informed about current issues and technologies.

9.4.3 **Audio-Visual Materials, Slides, and Videos**

Video and informational slide shows are shown on Metro Channel 3 and can be used when needed for presentations. The Metro DSW and MBEC will continue to update these materials to focus on pertinent issues as they evolve.

9.4.4 **Publications**

Metro currently provides publications to the public, on 1) a citizens’ guide to reducing, reusing and recycling, 2) composting brochure on the basic methods to backyard composting, 3) composting booklet providing more extensive information, 4) commercial recycling web page geared to businesses and industries, 5) alternative guide to household hazardous waste, 6) recycling drop-off map plus current list of what is recycled in Nashville, 7) listing of sites accepting used motor oil, 8) clean-ups, 9) curbside and drop-off recycling guidelines, and 10) litter prevention.

9.4.5 **Contests and Awards**

When feasible, the Metro Region will sponsor contests and awards and/or enter contests and awards to promote the program and to increase the awareness of public of ongoing efforts.

9.4.6 **Exhibits or Demonstrations**

Throughout the year, Metro will continue to take advantage of festivals and conferences as an opportunity to exhibit and present free educational material to the public.

9.4.7 **Speaker’s Bureau**

The MBEC currently has a staff and volunteers dedicated to public presentations on an as-needed basis. Frequently, they provide presentations at various seminars and conferences.
Public education will be provided to educate residents about all aspects of solid waste management, but focusing upon waste reduction. This component of the plan is important as all residents generate waste and must manage it in their homes and businesses. But many are not informed about the need for better managing of their waste both at the source and beyond.

The Metro DSW and MBEC will provide comprehensive public information about existing programs and solid waste management education. They will work with local interest groups, schools, state agencies, the University of Tennessee, and the county extension offices to develop educational programs. Volunteers will be recruited from organizations in the Metro Region to provide public engagements and educational materials to the public.

### 9.5 IMPLEMENTATION SCHEDULE AND BUDGET

Based on the above discussion, no major new initiatives are included in this Plan with respect to public education and outreach. Therefore, an implementation schedule or budget impact estimates have not been developed for this program.

The Metro DSW and MBEC will be responsible for monitoring and evaluating the effectiveness of the public information and education program. Reporting will be done on a monthly and annual basis.

### 9.6 RESPONSIBLE ENTITIES WITHIN THE REGION

The Metro DSW will oversee the combined efforts within the Metro Region and coordinate the development of activities and materials.
10.0 FUTURE PROGRAMS FOR PROBLEM WASTES

10.1 INTRODUCTION

The Solid Waste Act requires that every county provide management of the following “problem” wastes: whole tires, lead acid batteries, and used oil. Landfills are no longer allowed to accept these materials as of January 1, 1995. The Act requires that each county must provide - directly or by contract - at least one collection site for these materials if adequate sites are not already available in the county.

10.2 HOUSEHOLD HAZARDOUS WASTE

The Solid Waste Act provided that the State Planning Office will award competitive grants for collection of HHW at a permanent program to municipalities with a population of 100,000 or more, in counties with a population which exceeds 287,700. Metro received a $500,000 grant to establish a permanent HHW center to serve the Metro Region. The HHW facility has been in operation since 1998 at the East Convenience Center.

10.3 WASTE TIRES

Metro DPW has contracted with Greenman/TTRI to provide tire collection and hauling to a recycling facility. Tire dealers who sell tires and collect the State of Tennessee Department of Environmental and Conservation tire fee are allowed to take their tires to the Greenman/TTRI facility in La Vergne, Tennessee, where they are hauled by Greenman/TTRI to a recycling facility in Tupelo, Mississippi.

10.3.1 Current Management

The Metro Region allows residents to bring up to four tires per month to any of the three convenience centers where they are collected and stored for recycling. Tire dealers either can have a trailer put at their site by Greenman/TTRI, who will haul the tires to a recycling facility, or dealers can haul tires directly to the Greenman/TTRI facility in LaVergne, Tennessee.

10.3.2 Proposed Management

No change is anticipated in this operation.
10.4 AUTOMOTIVE FLUIDS

The Solid Waste Act prohibits the disposal of used oil in Class I landfills or incinerators effective January 1, 1995. The Solid Waste Act further provides that each county must provide at least one collection site for used oil and other automotive fluids by this date, either directly by contract or through a solid waste authority, unless adequate collection opportunities already exist in the county. Automotive fluids include gasoline, antifreeze, brake fluid, transmission fluid, power steering fluid, windshield fluids, and motor oil.

The improper disposals of automotive fluids harm the environment. Additionally, the improper disposal of antifreeze can poison animals who are attracted to its sweet taste. Transmission fluid has similar characteristics to motor oil and in some cases may be blended together prior to recycling. However, the purchaser of these fluids should be consulted before approving the mixing of these two fluids. Equipment has been developed that will filter contaminants and replace the additives to used antifreeze. The recycled anti-freeze is returned to the owner for reuse. Some service stations may offer this option.

10.4.1 Current Management

The Metro HHW facility at East Convenience Center accepts automotive fluids for disposal or recycling. Citizens are allowed to bring up to 15 gallons or 100 pounds per month of fluids for recycling. Metro collects the automotive fluids in 500 gallon drums, which hold the liquid until sufficient volume for recycling has been achieved.

10.4.2 Proposed Management

The Metro Region will continue with its current used oil management system and will continue to provide information and education to encourage participation in this program. Other types of automotive fluids are collected in the existing HHW program.

10.5 LEAD ACID BATTERIES

Lead acid batteries are also prohibited by the Solid Waste Act from disposal in Class I landfills or incinerators. Each county must provide at least one collection site for waste batteries by this date either directly by contract or through a solid waste authority. An exception is made if adequate collection site(s) are presently available, for example, through a non-profit organization. Although State law
requires lead acid battery retailers to accept old batteries as trade-ins, many households and businesses have accumulated old batteries in their garages.

Lead acid batteries are used in automobiles, motorcycles, trucks, tractors, boats, jet skis, riding lawn mowers, and off-road vehicles. The electricity produced by these batteries is generated by a chemical reaction between sulfuric acid and lead. The components in a battery do not wear out, they just get dirty. Battery recyclers convert spent batteries into usable lead, sulfuric acid, and plastic.

10.5.1 Current Management

Lead acid batteries are collected in the Metro Region’s HHW program located at the East Convenience Center. The program is advertised and information is disseminated to inform residents that lead-acid batteries will be accepted. In addition, the DPW’s recycling program will continue to provide listings of scrap dealers who will purchase lead-acid batteries.

10.6 WHITE GOODS

White goods consist of large metal household appliances such as washers, dryers, stoves, refrigerators, freezers, dishwashers, and air conditioners. These items have traditionally been processed for scrap or landfilled. However, in the last several years, additional information indicates that they contain potentially harmful components. Many white goods, particularly those that were manufactured prior to 1979, have electrical capacitors or lighting ballasts, which contain polychlorinated biphenyls (PCBs). This material is a carcinogen (causes cancer) and its disposal is regulated under the Federal Toxic Substance Control Act (TSCA) of 1976. When these materials are processed or crushed, the release of PCB-contaminated oil may occur. In 1979, US EPA regulations banned any further manufacture of PCB. However, an exemption was granted so that companies that had existing inventories of capacitors could use up their remaining stocks. As a result, capacitors containing PCBs may have been used as late as 1984.

Current federal regulations exempt capacitors from TSCA regulations provided they remain intact and the PCBs are not released into the environment. PCB-contaminated oils are found predominantly, but not exclusively, in air conditioners, fluorescent light ballasts, dehumidifiers, microwave ovens, submersible pumps, mercury vapor lamps, furnace blower motors, and electrical control panels. It is not
normally found in refrigerators, washing machines, dryers, and fans. However, it can be found in most commercial appliances.

Another issue concerning white good processing is a fluid collection system for refrigerants. The long term impact to the environment of these chemicals is the emission of chlorine molecules, which destroy molecules in the ozone layer which protects us from ultraviolet rays of the sun. Every refrigerator, freezer, and air conditioning system uses refrigerants – most commonly chlorofluorocarbons (CFCs) and, more recently, hydrochlorofluorocarbons (HCFCs) – both of which contain chlorine. When a white good is disposed or repaired, the piping system containing the liquid refrigerant is broken either accidentally or deliberately. Once the loss of pressure occurs, the liquid quickly reverts to a gas and dissipates into the atmosphere.

### 10.6.1 Current Management

Although Tennessee has not required that counties address white goods management, the Metro Region has operated a white goods recycling program since August 1992. Metro accepts segregated appliances at each of its three recycling convenience centers. There is no charge for up to three items and a minimal fee charged for additional items. The Sheriff’s Department also provides free collection of white goods in its bulky item pickup program.

When items are dropped off at the recycling convenience centers, potentially contaminating capacitors, lamps, motors, pumps, and compressors are removed from the appliances and are managed as appropriate. Some components such as capacitors are disposed as hazardous waste by a private contractor. Coolants are removed from the compressors by trained and US EPA certified DPW personnel so that the gas can be recycled and not pose a threat to the environment.

According to the Federal TSCA regulations, PCBs are only regulated once the contaminant is released. This means that capacitors containing PCBs can be disposed as MSW as long as they are not detached from the appliance. Once detached from the appliance, PCB-containing capacitors are classified as hazardous waste and must be managed as such. However, metal processors may not want the responsibility of managing capacitors. The Metro Region has included capacitor removal to ensure that white goods are acceptable to metal processors.
Effective June 14, 1993, the Federal Clean Air Act establishes a recycling program for ozone-depleting refrigerants recovered during the servicing and disposal of air conditioning or refrigeration equipment. Together with the prohibition on venting during servicing, repair, and disposal of these substances that took effect on July 1, 1992, these regulations should substantially reduce emissions of ozone-depleting refrigerants. The regulations require persons servicing air conditioning and refrigeration equipment to observe certain service practices that reduce refrigerant emissions and establish equipment and off-site reclamation certification programs, as well as a technician certification program. A sales restriction on refrigerant is included, whereby only certified technicians will legally be authorized to purchase such refrigerant.

In addition to the above, other features of the Act amendments were created to provide further incentives for the recycling of refrigerants and development of less harmful substitutes: an increased excise tax, effective January 1, 1993, raises the cost of the virgin substances, and a phase out of these refrigerants over the next several years will require the recycling of existing refrigerants to supply the appliances and automobiles of today designed to utilize them.

10.6.2 Proposed Management

The Metro Region will continue its white goods recycling program. The program may be expanded as participation increases.

10.7 LITTER

The Tennessee Department of Transportation provides a Litter Grant Program to assist counties with roadside cleanups and litter prevention efforts. The grants are given to the Sheriff’s office in each county. A portion of the funds include a percentage which must be utilized for education. These funds are distributed to Metro Beautification (MBEC), which is a part of the DPW, and assigned to provide education for solid waste management, including litter issues. It is only when people take personal responsibility for the waste that they generate that the litter problem can be improved. However, it is important to recognize that additional funds are required, along with the litter grant education funds, in order to effectively support a comprehensive solid waste education and information program. This program was discussed in Section 8.
Program requirements provide five target groups for education: the media, the general public, students, government officials, and the business sector. Due to the size of Davidson County, the Metro Region is required to address all five target groups.

10.7.1 Current Management

The Streets and Roads division of DPW manages and directs litter removal from Metro road and public right-of-ways, including alleys.

MBEC, in partnership DPW division of Streets and Roads and the Davidson County Sheriff’s Office sponsors roadside and neighborhood cleanups, graffiti abatements, bulk item pickups, and waterway cleanups.

There is an Adopt-A-Street Program that is administered by Metro Beautification/Public Works. Neighborhood and/or civic organizations volunteer and “claim” block(s) of a street in an effort to keep them free of litter.

MBEC consists of thirty-five commissioners each representing one of the thirty-five councilmanic districts. Each commissioner works with the numerous neighbor organizations in their respective districts on a variety of volunteer efforts which include recycling education and litter prevention. These volunteer community projects can annually count over 30,000 participants.

Metro Beautification, part of the DPW, is responsible for the litter prevention education programs, which are primarily funded by the State grant.

10.7.2 Proposed Management

The litter prevention program has been not only popular but has also resulted in real savings in staff time for the DPW. This is clearly a quality of life concern that has been readily embraced by the residents of Davidson County.

10.8 INFECTIOUS WASTE

Most infectious waste is handled by commercial enterprises, which are equipped to deal most effectively with it (such as WMX, Allied Waste, and National Medical Waste). Some hospitals have incinerators or
other processing equipment to burn or sterilize infectious waste before disposal. In addition, the DPW’s Hazardous Materials Section is equipped to collect syringes, needles, and other types of infectious waste, discarded in alleyways, along streets, or in parking lots. Locations of these potentially dangerous materials are reported by schools, the Health Department, or other citizens. The DPW crew then picks up the items and safeguards them for proper disposal.

10.9 OTHER PROBLEM WASTES

10.9.1 Abandoned Vehicles
Abandoned vehicles are not only an eyesore, but they are a significant solid waste problem. The vehicles that are reported to the Codes Department are tagged, and the owners are given ten days to remove them from public streets. After ten days, the vehicle is towed to the impound lot and may be retrieved only after the owner pays the assessed costs. Vehicles that are not claimed are sold at auction.

10.9.2 Bulky Items
The Metro Sheriff’s Department provides collection of bulky items. These collections are provided by a mobile unit through an on call service. Residents may also call the Sheriff’s office to get the collection date. Bulky items include household appliances (white goods), carpets, furniture, oversized toys (bicycles, etc.), up to two tires, and other large household items. No lumber, shingles, automotive parts, C&D waste, commercial or industrial waste, paint, liquids, or batteries will be picked up. This service is not provided to apartment complexes, trailer parks, or businesses. No satellite cities are included in this service.

10.10 PROBLEM WASTES PROGRAM IMPLEMENTATION AND BUDGET
Since no new programs are being proposed through this plan, there is no program implementation schedule or additional budget impact for these services.
11.0 RESPONSIBILITIES FOR PLAN IMPLEMENTATION

11.1 PLAN ADOPTION

This 2007 Plan Update has been developed by the SWRB for the purpose of updating the Original 1994 Plan. It is the express intention of the SWRB that this 2007 Plan Update be approved as a replacement for the 1994 Plan and serve as the point of reference for the development of future Annual Progress Reports for the Metro Region.

Responsibility for implementation will reside with elected officials of Metropolitan Nashville and Davidson County and those Departments who report to those elected officials. However, the satellite cities and their elected officials will continue to be responsible for collection of solid waste and other components mentioned throughout the 2007 Plan Update as well as the diversion of that waste from landfills.

The SWRB has amended this 2007 Plan Update to reflect appropriate comments submitted during the public hearings for plan review.

11.2 SUBMISSION

The Metro Region will submit signed copies of this 2007 Plan Update to the Tennessee Department of Environment and Conservation.
APPENDIX A: DAVIDSON COUNTY SOLID WASTE REGION BOARD

Ms. Anna B. Alexander  
12/19/2006  12/15/2012  
918 Swinging Bridge Road  
Old Hickory TN  37138  
Representing: City of Berry Hill

Mr. Jamie Rounds  
05/12/2008  04/13/2010  
514 Fairlane Drive  
Nashville TN 37211  
Representing: City of Oak Hill

Mayor Tommy Alsop  
12/19/2008  12/31/2014  
5548 Franklin Road #102  
Nashville TN 37220  
Representing: City of Berry Hill

Ms. Alma Sanford  
03/01/2005  12/15/2010  
6317 Paddington Way  
Antioch TN 37013

Mr. Robert M. Diehl  
02/06/2007  12/31/2012  
1100 Stonewall Drive  
Nashville TN 37220

Mr. John E. Sherman - Chm  
12/21/2004  12/15/2010  
526 Fairfax Avenue  
Nashville TN 37212

Mr. Jim Driver  
01/08/2009  12/31/2013  
204 Dora Drive  
Goodlettsville TN 37072  
Representing: City of Goodlettsville

Mr. Jack Vanatta  
3/14/2003  12/31/2008  
3401 Hadley Avenue  
Old Hickory TN 37138  
Representing: City of Lakewood

Ms. Gail B. Hughes  
08/17/2004  12/15/2008  
3348 Tinney Place  
Nashville TN 37217

Ms. Gail B. Hughes  
08/17/2004  12/15/2008  
3348 Tinney Place  
Nashville TN 37217

Mr. Daniel D. Lane  
01/16/2007  12/15/2012  
3912 Drakes Branch Road  
Nashville TN 37218

Mr. David Wilson  
01/04/2005  12/15/2010  
510 Utley Drive  
Goodlettsville TN 37072

Dr. Decatur B. Rogers  
02/01/2005  12/15/2010  
3500 John A. Merritt Boulevard  
Nashville TN 37209-1561
APPENDIX B: REGION FORMATION RESOLUTION

RESOLUTION NO. 08-474

A RESOLUTION CREATING A MUNICIPAL SOLID WASTE PLANNING REGION FOR DAVIDSON COUNTY.

WHEREAS, the adoption of the Subtitle D landfill regulations by the United States Environmental Protection Agency and companion regulations adopted by the Tennessee Solid Waste Control Board will impact on both the cost and method of disposal of municipal solid waste; and,

WHEREAS, T.C.A. § 68-211-813 requires that counties in the State of Tennessee form municipal solid waste regions no later than December 12, 1992; and,

WHEREAS, as per T.C.A. § 68-211-811, the nine development districts in the State of Tennessee have completed a district needs assessment which are inventories of the solid waste systems in Tennessee; and,

WHEREAS, the Metropolitan Council has given consideration to the needs assessment prepared by the Greater Nashville Regional Council; and,

WHEREAS, pursuant to T.C.A. §68-211-813(c) and T.C.A. §68-211-801, the municipal solid waste regions are to develop solid waste regional plans which, among other requirements, must identify how each region will reduce its solid waste disposal per capita by twenty-five percent (25%) by December 31, 1995, and a planned capacity assurance of its disposal needs for a ten (10) year period; and,

WHEREAS, the development of a municipal solid waste regional plan that results in the most cost effective and efficient management of municipal solid waste is in the best interest of the citizens of Davidson County.

NOW, THEREFORE, BE IT ADOPTED BY THE COUNCIL OF THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY:

SECTION 1. That there is hereby established, pursuant to T.C.A. Section 68-211-801, et seq., a Municipal Solid Waste Region for and by Davidson County, Tennessee.
SECTION 2. That pursuant to T.C.A. § 68-211-813(a)(2), the Metropolitan Council of the Metropolitan Government of Nashville and Davidson County finds and determines that Davidson County shall be and shall constitute a single county municipal solid waste region due to the following: Davidson County is significantly more urbanized than any of its contiguous counties; and because of its high degree of urbanization, its solid waste management needs are unique in the Middle Tennessee area; and due to its size, Davidson County can effectively develop and implement its own solid waste management system.

SECTION 3. That pursuant to T.C.A. § 68-211-813(b)(1), a Municipal Solid Waste Region Board is hereby established to administer the activities of this Region.

SECTION 4. That this Municipal Solid Waste Region Board shall be composed of 13 members.

SECTION 5. That eight (8) board members shall be appointed by the Metropolitan Mayor of Nashville and Davidson County and approved by the Metropolitan Council; and due to the fact that the satellite city of Belle Meade collects or provides disposal services through its own initiative or by contract, said city of Belle Meade shall have one (1) board member appointed by the Mayor of Belle Meade and approved by the legislative body thereof; and due to the fact that the satellite city of Oak Hill collects or provides disposal services through its own initiative or by contract, said city of Oak Hill shall have one (1) board member appointed by the Mayor of Oak Hill and approved by the legislative body thereof; and due to the fact that the satellite city of Goodlettsville collects or provides disposal services through its own initiative or by contract, said city of Goodlettsville shall have one (1) board member appointed by the Mayor of Goodlettsville and approved by the legislative body thereof; and due to the fact that the satellite city of Berry Hill collects or provides disposal services through its own initiative or by contract, said city of Berry Hill shall have
one (1) board member appointed by the Mayor of Berry Hill and approved by the legislative body thereof; and due to the fact that the satellite city of Lakewood collects or provides disposal services through its own initiative or by contract, said city of Lakewood shall have one (1) board member appointed by the Mayor of Lakewood and approved by the legislative body thereof.

SECTION 6. That the members of the Board of the Municipal Solid Waste Region shall serve six-year terms except that all members appointed by the Mayors of the satellite cities shall initially have four-year terms, and of the members appointed by the Metropolitan Mayor, four shall have six-year terms, and four shall initially have two-year terms, so as to stagger the initial terms of office; and thereafter all members shall have six-year terms.

SECTION 7. That the Municipal Solid Waste Region Board shall have all powers and duties as granted it by T.C.A. § 69-211-811, et seq., and in addition, in the performance of its duties, it shall be empowered to utilize existing Metropolitan Government personnel, and to utilize the Metropolitan Government's services, facilities and records in completing this task. The Director of the Metropolitan Department of Public Works or his designee shall serve as Executive Director of the Board's staff.

SECTION 8. That at the Municipal Solid Waste Region Board's initial organization meeting, it shall select from its members a chair, vice-chair, and secretary and shall cause the establishment of a municipal solid waste advisory committee whose membership shall be chosen by the Board and whose duties are to assist and advise the Board.

SECTION 9. That the Municipal Solid Waste Region Board, in furtherance of its duties, is authorized to apply for and receive funds from the State of Tennessee, the federal government, the Metropolitan Government of Nashville and Davidson County, the cities of Belle Meade, Berry Hill, Oak...
Hill, Goodlettsville, and Lakewood; and also donations and grants from private corporations and foundations.

SECTION 10. That prior to submission to the State Planning Office, the region's plan shall be reviewed by the Metropolitan Mayor. The Metropolitan Mayor, with the approval by resolution of the Metropolitan Council, may alter or amend the plan prior to its submission to the State Planning Office.

SECTION 11. That the plan shall be submitted to the Metropolitan Mayor for review no later than November 1, 1993.

SECTION 12. That the Metropolitan Government of Nashville and Davidson County shall receive, disburse and act as the fiscal agent for the administration of the funds of the Municipal Solid Waste Region and the Region's Board.

SECTION 13. That upon the passage of this Resolution and at no later date than December 31, 1993, the Metropolitan Clerk shall provide a copy of this Resolution to the Tennessee State Planning Office.

SECTION 14. That this Ordinance shall take effect from and after its enactment, the welfare of The Metropolitan Government of Nashville and Davidson County requiring it.

RECOMMENDED BY:

[Signature]
Director of Public Works

APPROVED AS TO AVAILABILITY OF FUNDS:

[Signature]
Director of Finance

APPROVED AS TO LEGALITY OF FORM AND COMPOSITION:

[Signature]
Metropolitan Attorney
I, being under oath, do certify this is a true and authentic copy of Resolution No. R92-474, of the Metropolitan Government of Nashville and Davidson County, Tennessee which passed on November 17, 1992, at the regular meeting of the Metropolitan Council held on that date, and is now recorded in Book No. M15 page 188.

Witness my hand and the seal of the Metropolitan Government of Nashville and Davidson County, Tennessee, this 22nd day of November, 1993.

Marilyn L. Swing
Metropolitan Clerk

STATE OF TENNESSEE  
COUNTY OF DAVIDSON  

Sworn to and subscribed before me, by Marilyn S. Swing, this 22nd day of November, 1993.

Notary Public

My commission expires: May 25, 1996
AMENDMENT NO. 1
TO
RESOLUTION NO. R92-474

Mr. President, I move to amend Resolution No. R92-474
as follows:

1. By adding the following language as section 14 and
   renumbering the existing Section 14 as Section 15:

   Section 14: Should any court of competent
   jurisdiction declare any section, clause, or
   provision of this resolution to be
   unconstitutional, such decision shall affect
   only such section, clause or provision so
   declared unconstitutional, and shall not affect
   any other section, clause or provisions of this
   resolution, it being the express intent of the
   Metropolitan Government of Nashville and
   Davidson County that the remainder of this
   resolution continue in full force and effect.

2. By changing the word "Ordinance" in the existing
   Section 14 to "Resolution".

INTRODUCED BY:

[Signature]

MEMBERS OF COUNCIL

ADOPTED: NOVEMBER 17, 1992
RESOLUTION NO. R93-871

A RESOLUTION TO AMEND RESOLUTION NO. R92-474 AS AMENDED.

WHEREAS, the Tennessee General Assembly, by 1993 Public Acts, Chapter 523, has extended the due date for Solid Waste Region Plans from December 31, 1993 to July 1, 1994; and,

WHEREAS, Resolution No. R92-474 requires the Solid Waste Region Board to submit its solid waste management plan to the Metropolitan Mayor no later than October 1, 1993, but specifies no date for submission to the Metropolitan Council.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY:

SECTION 1. That Resolution R92-474 is amended by deleting Section 11 in its entirety and substituting in lieu thereof the following language:

That the plan shall be submitted to the Metropolitan Mayor for review no later than November 19, 1993, and to the Metropolitan Council no later than December 1, 1993.

SECTION 2. That this ordinance shall take effect from and after its passage, the welfare of The Metropolitan Government of Nashville and Davidson County requiring it.

RECOMMENDED BY:

[Signature]

Director
Department of Public Works

APPROVED AS TO LEGALITY OF FORM AND COMPOSITION

[Signature]

Metropolitan Attorney

MEMBERS OF COUNCIL

[Signature]
AMENDMENT NO. 2

TO

RESOLUTION NO. R92-474

Mr. President:

I move to amend Resolution No. R92-474 as follows:

(1) By deleting Section 10 thereof, in its entirety and substituting in lieu thereof the following new Section 10:

"SECTION 10. That prior to submission to the State Planning Office, the region’s plan shall be reviewed by the Metropolitan Mayor. The Metropolitan Mayor may alter or amend the plan and shall submit the plan to the Metropolitan Council for its approval by Resolution prior to the submission of the plan to the State Planning Office."

(2) By amending Section 11 thereof by deleting the phrase "November 1, 1993" wherein it appears, and substituting in lieu thereof the phrase "October 1, 1993".

INTRODUCED BY:

/s/ Roy Dale
Member of Council

ADOPTED: NOVEMBER 17, 1992
RESOLUTION NO. R9

A RESOLUTION TO AMEND NO. R9-474 AS

Refereed to PUBLIC WORKS

Introduced SEP 21 19

Adopted SEP 21 19

Approved SEP 24

By Metropolitan Mayor

Departments Notified SEP
### APPENDIX C: PUBLIC PARTICIPATION ACTIVITIES

**Summary of Public Information Activities**

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity Description</th>
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<tbody>
<tr>
<td>April 17, 2006</td>
<td>Davidson County Solid Waste Region Board (SWRB) Meeting</td>
</tr>
<tr>
<td>May 2006</td>
<td>Website created with form for public comments (see attached)</td>
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<tr>
<td>April 30, 2007</td>
<td>SWRB Meeting</td>
</tr>
<tr>
<td>March 27, 2008</td>
<td>SWRB Meeting</td>
</tr>
<tr>
<td>Early May 2008</td>
<td>Notice for Public Comment</td>
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<tr>
<td>June 12, 2008</td>
<td>Subcommittee Meeting</td>
</tr>
<tr>
<td>September 12, 2008</td>
<td>Subcommittee Meeting</td>
</tr>
<tr>
<td>December 5, 2008</td>
<td>Subcommittee Meeting</td>
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<tr>
<td>December 18, 2008</td>
<td>SWRB Meeting</td>
</tr>
<tr>
<td>April 30, 2009</td>
<td>SWRB Meeting</td>
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*Public Comments were heard at all meetings. Notices were mailed (see attached list of recipient addresses) prior to all meetings, posted in the Tennessean and Tribune and placed on the Solid Waste Region Board website at http://www.nashville.gov/recycle/Information/swrb.htm. Copies of some of the notices are included below.*
PUBLIC NOTICE

METRO SOLID WASTE REGIONAL BOARD MEETING

WHERE: HOWARD SCHOOL AUDITORIUM
700 SECOND AVE. SOUTH
NASHVILLE, TN 37210

WHEN: Monday, April 30, 2007
5:30 P.M.

The Metro Solid Waste Regional Board will meet to further consider the following items:

1) Consideration of the 2006 Annual Report
2) Presentation of Bio-Solid Program
3) Discussion of Solid Waste Plan Update

PUBLIC INPUT AND COMMENTS WELCOME AT THE MEETING

For further information, call (615) 862-8610.
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<th>Column 2</th>
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<td>Payment Date</td>
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<tr>
<td>Payment Title</td>
<td>Test Print</td>
</tr>
</tbody>
</table>

The Metro Solid Waste Region

The Department of Public Works employs the following forms:

1. Consideration of the
2. Presentation of the
3. Discussion of the

For further information, call (615) 862-6771.

The Tennessee Department of Public Works publishes the following forms:

- Consideration
- Presentation
- Discussion

For more information, call (615) 862-6771.
PUBLIC NOTICE

METRO SOLID WASTE REGIONAL BOARD MEETING

WHERE: METRO OFFICE BUILDING (next to the Old Howard School Building)
DAVIDSON ROOM 2ND FLOOR
800 SECOND AVE. SOUTH
NASHVILLE, TN 37210

WHEN: Thursday, March 27, 2008
5:30 P.M.

The Metro Solid Waste Regional Board will meet to further consider the following items:

1. Consideration of the 2007 Annual Report
2. Discussion of Ten Year Solid Waste Plan Update

For further information, call (615) 862-8610.

PUBLIC NOTICE

The Department of Public Works does not discriminate in hiring or employment practices. The Department of Public Works does not discriminate in admission to, access to, or operation of its programs, services, or activities. Questions, complaints, or requests for accommodation may be forwarded to the Department of Public Works ADA Compliance Coordinator, 729 South Fifth Street, Nashville, TN 37203. Policies concerning Title II discrimination should be directed to: Division of Finance, 222 3rd Avenue North, Suite 650, Nashville, TN 37211. Phone: (615) 862-6170, Fax: (615) 862-6173.
PUBLIC NOTICE

MÉTRO SOLID WASTE REGIONAL BOARD MEETING

WHERE:  METRO OFFICE BUILDING (next to the Old Howard School Building)
DAVISON ROOM 2ND FLOOR
800 SECOND AVE. SOUTH
NASHVILLE, TN 37210

WHEN:  Thursday, March 27, 2008
5:30 P.M.

The Metro Solid Waste Regional Board will meet to further consider the following items:

1. Consideration of the 2006 Annual Report
2. Discussion of Solid Waste Plan Update

PUBLIC INPUT AND COMMENT IS WELCOME AT THE MEETING

For further information, call (615) 862-8610.
PUBLIC NOTICE

The Department of Public Works does not discriminate in its hiring or employment practices. The Department of Public Works does not discriminate in admission to, access to, or operations of its programs, services, or activities. Questions, complaints, or requests for accommodation may be forwarded to the Department of Public Works ADA Compliance Coordinator, Lee Kenderline, 720 South Fifth Street; Telephone: 862-8732 (TTY 862-6747). Inquiries concerning Title VI compliance should be forwarded to: Michelle Lane, Department of Finance, 222 3rd Avenue North, Suite 650, Nashville, TN 37201, Phone: (615) 862-6170, FAX: (615) 862-6175.
PUBLIC NOTICE

DAVIDSON COUNTY REGION SOLID WASTE REGIONAL PLAN

The Davidson County Region Solid Waste Plan updated draft is available for download at www.nashville.gov/recycle/Information/swrb.htm.

Public input and comments are welcome and can be submitted in the following manners:

- Web: at www.nashville.gov/recycle/Information/swrb.htm
- Mail: Metro Public Works, Attention SWRB, 750 S. 5th Street, Nashville, TN 37206
- Fax: 615-862-8799 Attention SWRB

Correspondence must be received by May 30, 2008. The Solid Waste Regional Board will be meeting mid June (exact date to be determined and posted) to approve the Davidson County Region Solid Waste Plan.

For further information, call (615) 862-8610.

PUBLIC NOTICE

The Department of Public Works does not discriminate in hiring or employment practices. The Department of Public Works does not discriminate in admission to, access to, or operation of its programs, services, or activities. Questions, complaints, or requests for accommodation may be forwarded to the Department of Public Works, ADA Compliance Coordinator, Lou Kinghorn, 750 South 5th Street, Telephone: 615-862-8742; TTY 615-862-8747. Inquiries concerning Title VI compliance should be forwarded to: Michelle Lane, Department of Finance, 222 3rd Avenue North, Suite 650, Nashville, TN 37219. Phone: (615) 862-8170, Fax: (615) 862-8175.
PUBLIC NOTICE

DAVIDSON COUNTY REGION
SOLID WASTE REGIONAL PLAN

The Davidson County Region Solid Waste Plan updated draft is available for download at www.nashville.gov/recycle/information/swrb.htm.

Public input and comments are welcome and can be submitted in the following manners:

- Web: at www.nashville.gov/recycle/information/swrb.htm
- Mail: Metro Public Works, Attention SWRB, 750 S. 5th Street, Nashville, TN 37206
- Fax: 615-862-8799 Attention SWRB

Correspondence must be received by May 30, 2008. The Solid Waste Regional Board will be meeting in mid-June (exact date to be determined and posted) to approve the Davidson County Region Solid Waste Plan.

For further information, call (615) 862-8610.

PUBLIC NOTICE

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PUBLIC NOTICE

METRO SOLID WASTE REGIONAL BOARD SUBCOMMITTEE MEETING & METRO SOLID WASTE REGIONAL BOARD MEETING

WHERE: METRO OFFICE BUILDING (next to the Old Howard School Building)
800 SECOND AVE. SOUTH, 2nd FLOOR
NASHVILLE, TN 37210

WHEN: Subcommittee Meeting: Thursday, June 12, 2008 – Davidson Room
10:00 A.M.
Board Meeting: June 17th, 2008 – Nashville Room
5:30 P.M.

The Subcommittee of the Solid Waste Regional Board will be having a working meeting June 12th regarding the draft Davidson County Region Solid Waste Plan.

The Solid Waste Regional Board will meet on June 17th to review and vote on the Davidson County Regional Solid Waste Plan.

Public comment at the June 17th Solid Waste Regional Board Meeting is welcome.

For further information, call (615) 862-8700.

PUBLIC NOTICE
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PUBLIIC NOTICE

METRO SOLID WASTE REGIONAL BOARD SUBCOMMITTEE MEETING & METRO SOLID WASTE REGIONAL BOARD MEETING

WHERE: METRO OFFICE BUILDING (metro) the Old Howard School Building 202 SECOND AVE. SOUTH, 1ST FLOOR, NASHVILLE, TN 37210

WHEN: Subcommittee Meeting: Thursday, June 12, 2008 - Davidson Room 4:00 P.M.
Board Meeting: June 17th, 2008 - Davidson Room 4:30 P.M.

The Subcommittee of the Solid Waste Regional Board will meet on June 12th to review and vote on the Davidson County Regional Solid Waste Plan. Public comment is welcome.

The Solid Waste Regional Board will meet on June 17th to review and vote on the Davidson County Regional Solid Waste Plan. Public comment at the June 12th Solid Waste Regional Board Meeting is welcome.

For further information, call (615) 862-8700.

The Department of Public Works does not discriminate in hiring or employment practices.

The department of Public Works does not discriminate in admission to, access to, or operations of its programs, services, or activities.

Questions, complaints, or requests for accommodations may be forwarded to the Department of Public Works ADA Compliance Coordinator:
Lee Kenderdine, 202 South Fifth Street, Nashville, TN 37201. Phone: (615) 862-8700.

For further information, call (615) 862-8700.

PUBLIIC NOTICE

METRO SOLID WASTE REGIONAL BOARD SUBCOMMITTEE MEETING & METRO SOLID WASTE REGIONAL BOARD MEETING

WHERE: METRO OFFICE BUILDING (metro) the Old Howard School Building 202 SECOND AVE. SOUTH, 1ST FLOOR, NASHVILLE, TN 37210

WHEN: Subcommittee Meeting: Thursday, June 12, 2008 - Davidson Room 4:00 P.M.
Board Meeting: June 17th, 2008 - Davidson Room 4:30 P.M.

The Subcommittee of the Solid Waste Regional Board will meet on June 12th to review and vote on the Davidson County Regional Solid Waste Plan. Public comment is welcome.

The Solid Waste Regional Board will meet on June 17th to review and vote on the Davidson County Regional Solid Waste Plan. Public comment at the June 12th Solid Waste Regional Board Meeting is welcome.

For further information, call (615) 862-8700.

The Department of Public Works does not discriminate in hiring or employment practices.

The department of Public Works does not discriminate in admission to, access to, or operations of its programs, services, or activities.

Questions, complaints, or requests for accommodations may be forwarded to the Department of Public Works ADA Compliance Coordinator:
Lee Kenderdine, 202 South Fifth Street, Nashville, TN 37201. Phone: (615) 862-8700.

For further information, call (615) 862-8700.
PUBLIC NOTICE

METRO SOLID WASTE REGIONAL BOARD SUBCOMMITTEE MEETING

WHERE: METRO OFFICE BUILDING (next to the Old Howard School Building)
800 SECOND AVE. SOUTH, 2ND FLOOR
NASHVILLE, TN 37210

WHEN: Subcommittee Meeting: Friday September 12, 2008 – Davidson Room
16:00 A.M.

The Subcommittee of the Solid Waste Regional Board will be having a working meeting September 12, 2008 regarding the draft Davidson County Region Solid Waste Plan.

For further information, call (615) 862-8700.

PUBLIC NOTICE

The Division of Public Works does not discriminate in its hiring or employment practices. The Department of Public Works does not discriminate in administration, accessibility, or support of its programs, services, or activities. Questions, comments, or requests for accommodation may be directed to the Department of Public Works ADA Compliance Coordinator, Lottie Kardona, 750 South Fifth Street, Telephone (615) 862-8700, (615) 862-8727, inquiries concerning 1-800 compliance should be forwarded to Michele L. Day, Department of Finance, 222 3rd Avenue North, Suite 600, Nashville, TN 37203, Phone (615) 862-8173, Fax (615) 862-5175.
PUBLIC NOTICE

METRO SOLID WASTE REGIONAL BOARD SUBCOMMITTEE MEETING & METRO SOLID WASTE REGIONAL BOARD MEETING

WHERE:   METRO OFFICE BUILDING (next to the Old Howard School Building)
         800 SECOND AVE. SOUTH, 2ND FLOOR
         NASHVILLE, TN 37210

WHEN:    Subcommittee Meeting: Friday December 5, 2008 – Davidson Room
         10:00 A.M.
         Board Meeting:    Thursday December 18, 2008 – Nashville Room
         5:30 P.M.

The Subcommittee of the Solid Waste Regional Board will be having a working meeting December 5th regarding the draft Davidson County Region Solid Waste Plan.

The Solid Waste Regional Board will meet on December 18th to review and vote on the Davidson County Regional Solid Waste Plan.

The Draft Solid Waste Plan is available for download at www.nashville.gov/recycle/information/swrm.htm.

For further information, call (615) 862-8715.

PUBLIC NOTICE

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PUBLIC NOTICE

METRO SOLID WASTE REGIONAL BOARD SUBCOMMITTEE MEETING & METRO SOLID WASTE REGIONAL BOARD MEETING

WHERE: METRO OFFICE BUILDING (next to the Old Howard School Building)
900 SECOND AVE. SOUTH, 2ND FLOOR
NASHVILLE, TN 37210

WHEN: Subcommittee Meeting: Friday December 5, 2008 – Davidson Room
10:00 A.M.

Board Meeting: Thursday December 18, 2008 – Nashville Room
6:30 P.M.

The Subcommittee of the Solid Waste Regional Board will be having a working meeting December 5th regarding the draft Davidson County Region Solid Waste Plan.
The Solid Waste Regional Board will meet on December 18th to review and vote on the Davidson County Regional Solid Waste Plan.
The Draft Solid Waste Plan is available for download at www.nashville.com/environment/plan.html

For further information, call (615) 862-8715

PUBLIC NOTICE

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Phone: (615) 862-8744, FAX: (615) 862-6792

PUBLIC NOTICE

METRO SOLID WASTE REGIONAL BOARD SUBCOMMITTEE MEETING & METRO SOLID WASTE REGIONAL BOARD MEETING

WHERE: METRO OFFICE BUILDING (next to the Old Howard School Building)
900 SECOND AVE. SOUTH, 2ND FLOOR
NASHVILLE, TN 37210

WHEN: Subcommittee Meeting: Friday December 5, 2008 – Davidson Room
10:00 A.M.

Board Meeting: Thursday December 18, 2008 – Nashville Room
6:30 P.M.

The Subcommittee of the Solid Waste Regional Board will be having a working meeting December 5th regarding the draft Davidson County Region Solid Waste Plan.
The Solid Waste Regional Board will meet on December 18th to review and vote on the Davidson County Regional Solid Waste Plan.
The Draft Solid Waste Plan is available for download at www.nashville.com/environment/plan.html

For further information, call (615) 862-8715

PUBLIC NOTICE

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Phone: (615) 862-8744, FAX: (615) 862-6792
PUBLIC NOTICE

METRO SOLID WASTE REGIONAL BOARD MEETING

WHERE:   METRO OFFICE BUILDING (next to the Old Howard School Building)
          NASHVILLE ROOM 2ND FLOOR
          800 SECOND AVE. SOUTH
          NASHVILLE, TN 37210

WHEN:    Thursday, April 30, 2009
          5:30 P.M.

The Metro Solid Waste Regional Board will meet to further consider the following items:

1. Consideration of the 2008 Annual Report
2. Consideration of updates to the Ten Year Solid Waste Plan Update

For further information, call (615) 862-8610.

PUBLIC NOTICE

The Department of Public Works does not discriminate in its hiring or employment practices. The Department of Public Works does not discriminate in admission to, access to, or operations of its programs, services, or activities. Questions, complaints, or requests for accommodation may be forwarded to the department of Public Works ADA Compliance Coordinator, Lee Kenworthy, 722 South 5th Street, Telephone: 662-6732 (TTY 662-6747). Inquiries concerning Title VI compliance should be forwarded to: Michelle Lane, Department of Finance, 222 Third Avenue North, Suite 650, Nashville, TN 37201, Phone: (615) 862-6170, FAX: (615) 862-6175.
PUBLIC NOTICE
MUNICIPAL SOLID WASTE REGIONAL BOARD MEETING

WHERE: METRO OFFICE BUILDING (next to the Old Howard/School Building)
      NASHVILLE ROOM 2ND FLOOR
      800 SECOND AVE, SOUTH
      NASHVILLE, TN 37210

WHEN: Thursday, April 3, 2008
      6:30 P.M.

The Metro Solid Waste Regional Board will meet to further consider the follow-
ing items:

1. Consideration of the 2008 Annual Report
2. Consideration of updates to the Ten Year Solid Waste Plan Update

For further information, call (615) 862-8610.

PUBLIC NOTICE

The Department of Public Works does not discriminate in its hiring or employ-
ment practices. The Department does not discriminate in its access to, or use of, facilities, services, or activities. Questions, complaints, or requests for action or assistance, may be forwarded to the Department of Public Works, ADA Compliance Coordinator, Rick Winstanley, 720 South Fifth Street; Telephone: 624-6110 (TTY 622-6147). Inquiries concerning Title VI compliance should be forwarded to Michelle Lane, Department of Finance, 222 Third Avenue North, Suite 650, Nashville, TN 37219; Telephone: (615) 862-8178, FAX (615) 862-
8175.

Certified to meet colors

Continued to next column
PUBLIC NOTICE
METRO SOLID WASTE REGIONAL BOARD MEETING
WHERE: METRO OFFICE BUILDING (next to the Old Howard School Building)
NASHVILLE ROOM C&D FLOOR
3RD SECOND AVE. SOUTH
NASHVILLE, TN 37210
WHEN: Thursday, April 30, 2009
9:30 A.M.
The Metro Solid Waste Regional Board will meet to further consider the following items:
1. Consideration of the 2008 Annual Report
2. Consideration of updates to the Ten Year Solid Waste Plan Update
For further information, call (615) 862-6816.

PUBLIC NOTICE
The Department of Public Works does not discriminate in its hiring or employment practices. The Department does not discriminate in admission to, access to, or operation of its programs, services, or activities. Questions, complaints, or requests for accommodation may be forwarded to the Department of Public Works ADA Compliance Coordinator, Building 1301, 1700 South Fifth Street, Nashville, TN 37210. Telephone: (615) 862-2138. Inquiries concerning Title VI compliance should be forwarded to: Michelle Lane, Department of Finance, 223 3rd Avenue North, Suite 660, Nashville, TN 37211. Phone: (615) 862-4176, FAX: (615) 862-6176.
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Classifieds

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Mrs. Marilyn Roberson, Executive Director
Nashville Minority Business Center
223 Sth Avenue North, Suite 305
Nashville, TN 37203
Jordon, Jones & Goulding
601 Governors Lake Parkway, Bldg. 200
Nocress, Georgia 30071
Jordon, Jones & Goulding
One Vantage Way
Suite 8 402
Nashville, Tennessee 37228
Copies of Contract Documents may be obtained at the office of the Engineer, Jordon, Jones & Goulding, Inc., One Vantage Way, Suite 8 402, Nashville, Tennessee 37228, upon payment of $100.00, non-refundable, for each set. No partial sets will be sold. Shipment will be via delivery service, two-day delivery. Other shipping will be at the pur- chaser’s additional expense. Street address must be provided to allow delivery.

Ad No. 010101200
SUBSTITUTE
TRUSTEE’S SALE
Sale at public auc-
tion will be on May
4, 2009 at 12:00 p.m.
Central Standard
Time, at the east
door of the Sumner
County Courthouse
at Nevada, N.C. in the
plan of the Tor
Grove Subdivision
of record in plat
Book 18, page 122
Register’s Office for
sumner County, Ten-
nessee, to which plan
reference is made for
a more complete
description.
Street Address: 361
Lear Road, Portland,
TN 37148
Current owner’s (or
executor’s) name:
Please have the old
within twenty-four
(24) hours of the sale, the next hol-
iday, 2 days before the sale in
the successful bidder, at their
highest bid, will be

GF • Sunday, April 25, 2009

Ad No. 010105609
PUBLIC NOTICE
METRO SOLID WASTE REGIONAL BOARD MEETINGS
WHERE: METRO OFFICE BUILDING (next
to the Old Howard School Building)
NASHVILLE ROOM 1ND FLOOR
800 SECOND AVE SOUTH
NASHVILLE, TN 37210
WHEN: Thursday, April 30, 2009
5:30 P.M.
The Metro Solid Waste Regional Board will meet to consider the follow-
ing items:
1. Consideration of the 2008 Annual Report
2. Consideration of updates to the Ten Year Solid Waste Plan Update
For further information, call (615) 863-
8640.

PUBLIC NOTICE
The Department of Public Works does not discriminate in its hiring or employ-
ment practices. The Department does not discriminate in admission to, access to, or
operations of its programs, ser-
vices, or activities. Questions, complaints, or requests for accommo-
dation may be forwarded to the Department of Public Works ADA Compliance Coordinator:
Buck Kirnstrom, 350 South Fifth Street,
Telephone: 862-8615 (TTY 862-6747). In-
quiries concerning Title VI compliance should be forwarded to: Michelle Lane,
Department of Finance, 221 Thompson Avenue North, Suite 609, Nashville, TN 37201,
Phone: (615) 862-8770, FAX: (615) 862-
8775.
Solid Waste Regional Board

Davidson County Region Solid Waste Board

Upcoming Meetings:

December 18, 2008 at 5:30 PM -- full SWRB will meet in the Nashville Room on the 2nd floor of the Metro Office Building located at 800 2nd Ave. South.

Comments to the Metro Regional Solid Waste Board

Citizens who wish to submit information and offer suggestions for revisions to the Plan may do so by using the form below.

For further information, call (615) 862-8700.

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<th>First Name*:</th>
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<td>Email*:</td>
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*Required fields

Please provide your comments or feedback below:

Copies of reports and other documents relative to the Solid Waste Regional Board are below:

Board Members

http://www.nashville.gov/recycle/Information/swrb.htm 12/19/2008
List of people who receive notices by mail:

<table>
<thead>
<tr>
<th>Mailing List - PW Sub-Committee on Solid Waste h:dm-lbs7</th>
<th>Phil Armor</th>
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<td>Greater Nashville Regional Council</td>
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<td>Ms. Marilyn Swing</td>
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<td>Nashville Neighborhood Alliance</td>
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<td>Sherry Loller</td>
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Alan Jones
TDEC Community Assistance

City Desk
WTVF Channel 5

Dan Griffin

Jermane Bond

Mr. Ron Walton

Mr. Jonathan Davidson
East Nashville Green Party

Mr. Chad Driver

Sue Cane, Director of Law
Metro Department of Law

The Sierra Club

John P. Williams
Tune, Entrekin & White, P.C.

John Hudgins
Hudgins Disposal, Inc.

Mr. Peter Heidenreich
The Ingram Group

Mr. Fred Takacs
Ms. Mary Jane Dewey

Mr. Norman Piper

Dr. Bridget Jones, Exec. Director
Cumberland Region Tomorrow

Tennessee Conservation Voters

David Duke
Waste Industries of Tennessee

Mr. Michael Bradley
District Energy Systems
Metro Solid Waste Regional Board

Minutes for December 18, 2008 Meeting

The meeting of the Metro Solid Waste Regional Board (MSWRB) was held on December 18 at 5:30 p.m. on the 2nd Floor of the Metro Office Building.

The meeting was called to order by John Sherman, Chairman.

Roll call was taken and the following members were present: Alexander, Diehl, Hughes, Lane, Rounds, Sanford, Vanatta, and Sherman.

The first item on the agenda was the introduction of Jamie Rounds to represent the City of Berry Hill on the SWRB. The second item was the approval of the minutes from the March 27, 2008 meeting, motion made by Sherman, and seconded by Lane which motion prevailed without objection.

Jeremy O'Brian, P.E./Greshman Smith & Partners presented the 10 Year Solid Waste Plan Update. Following public comment, motion was made by Vanatta, seconded by Alexander to approve the 2007 10 Year Plan Update, which motion prevailed by the following vote: Ayes: Diehl, Lane, Rounds, Sanford, Sherman.

Three wording strikes to the Plan were then made. Deihl made a motion to strike “If and when weekly yard waste collection services are provided to their residents” from Section 8.5.3. Ayes: Alexander, Hughes, Lane, Rounds, Sandford, Vanatta, Sherman.

Lane made a motion to “may want to” to “will” from Section 8.5.1 “the Metro Region may want to consider the implementation of a similar ordinance.” Ayes, Alexander, Diehl, Hughes, Rounds, Sanford, Vanatta, Sherman.

Sherman made a motion to strike “Each government and organization must decide for itself if there are sufficient funds to pay for the implementation of the option and if the benefits are worth the costs” from Section 8.10. Ayes: Alexander, Diehl, Hughes, Lane, Rounds, Sandford, Vanatta.

There being no further business to come before the board, there was a motion to adjourn by Lane, seconded by Rounds and it was approved unanimously.