

# **Guidelines**

**for preparing a**

## **SOLID WASTE NEEDS ASSESSMENT**

September 2012

## INTRODUCTION

The Solid Waste Management Act of 1991 requires Tennessee local governments to prepare and maintain a comprehensive plan for managing their solid waste through modern, integrated, efficient systems. To assure that such planning is carried out on a solid foundation of relevant and objective knowledge of local conditions, the Act requires that the Development District staff coordinate, conduct and maintain an assessment of the solid waste needs for each municipal solid waste planning region. This assessment shall be revised every five years [T.C.A. 68-211-811].

***Please provide the following information as the core foundation of the region's needs. The Needs Assessment is an attempt to outline the obstacles, difficulties, and needs unique to the region's handling and ideal disposal of its solid waste flow. You are encouraged to expound on the following items and provide additional information as warranted. While there is no required format, we suggest that you use the following format. Information should be researched and answered thoroughly, with improvement of the region in mind.***

### **Item 1-Demographic Information & Projections**

Provide a table and chart of the region's population during the past ten (10) years with a projection for the next five (5) years. Provide a breakdown by sub- table and sub-chart, or some similar method to detail county and municipality populations. Considering the trends, discuss the affect on the solid waste infrastructure needs over the next five (5) years.

### **Item 2-Analysis of Economic Activity within the Region**

Provide a table and chart showing the region's economic profile for the county and its municipalities for the last ten (10) years with a projection for the next five (5) years. This can be accomplished by using the following economic indicators:

- Taxable sales, property tax generation, and per capita income
- Evaluation by break down of each economic sector
- County or municipal budgeting information
- Other commonly accepted economic indicators

### **Item 3-Characterization of the Solid Waste Stream**

Elaborate on the region's solid waste stream. Compare the current waste stream with trend anticipated over the next five (5) years, and discuss how this new total will be handled. Include in this discussion how problem wastes like waste tires, used oil, latex paint, electronics and other problem wastes are currently handled and are projected to be handled in the next five (5) years. What other waste types generated in this region require special attention? Discuss disposal options and management of these waste streams as well as how these waste streams will be handled in the future. Include in this discussion how commercial and industrial wastes are managed. Also, provide an analysis of any wastes entering or leaving the region, noting the source and amounts of such wastes.

**Item 4-Solid Waste Collection System**

Provide a detailed description of the waste collection system in the county and each municipality, including a narrative of the life cycle of solid waste from the moment it becomes waste (loses value) until it ceases to be a waste by becoming a useful product, residual landfill material or an emission to air or water. Label all major steps in this cycle noting all locations where wastes are collected, stored or processed, along with the name of operators and transporters for these sites.

**Item 5-Analysis of Existing or Potential Solid Waste Flows within the Region and Between Adjacent Regions**

Provide organizational charts of each county and municipality's solid waste program and staff arrangement. Identify needed positions, facilities, and equipment that a fully integrated solid waste system would have to provide at a full level of service. **Provide a page-size, scaled county map indicating the location of all solid waste facilities**, including convenience centers, transfer stations, recycling centers, waste tire drop-off sites, used oil collection sites, paint recycling centers, all landfills, etc. Identify any short comings in service and note what might be needed to fill this need.

**Item 6-Analyze Attitude of Region Toward Waste Management in General and Specify Needed Changes and/or Educational Measures**

Describe current attitudes of the region and its citizens towards recycling, waste diversion, and waste disposal in general. Where recycling is provided, discuss participation within the region. Indicate current and ongoing education measures to curb apathy or negative attitude towards waste reduction. Are additional measures needed to change citizen's behaviors? If so, what specific behaviors need to be targeted and by what means.

**Item 7-Evaluation of the Waste Reduction Systems for Counties & Municipalities in Region**

The Solid Waste Management Act of 1991 requires all regions to reduce the amount of waste going into Class I landfills by 25%. Amendments to the Act allow for consideration of economic growth, and a "qualitative" method in which the reduction rate is compared on a yearly basis with the amount of Class I disposal. Provide a table showing the reduction rate by each of these goal calculation methodologies. Discuss how the region made the goal by each methodology, or why it did not. If the Region did not meet the 25% waste reduction goal, what steps or infrastructure improvements should be taken to attain the goal, and to sustain this goal into the future.

**Item 8-Collection/Disposal Capacity and Projected Life of Solid Waste Sites**

(a) Using the example shown below, provide a chart indicating current collection and disposal capacity by facility site and the maximum capacity the current infrastructure can handle at maximum through put. Provide this for both Class I and Class III/IV disposal and recycled materials. Identify and discuss any potential shortfalls in materials management capacity whether these are at the collection or processor level.



**Item 9-Unmet Financial Needs and Cost Summary**

Complete the following chart and discuss unmet solid waste financial needs to maintain current level of service. Provide a cost summary for current year expenditures and projected increased costs for unmet needs.

Chart 9

| <b>EXPENDITURES</b>                                   |                      |                     |                                       |
|---|----------------------|---------------------|---------------------------------------|
| Description   | Present Need \$/year | Unmet Needs \$/year | Total Needs (Present + Unmet) \$/year |
| Salary and Benefits                                   |                      |                     |                                       |
| Transportation/hauling                                |                      |                     |                                       |
| Collection and Disposal Systems                       |                      |                     |                                       |
| Equipment   |                      |                     |                                       |
| Sites   |                      |                     |                                       |
| Convenience Center                                    |                      |                     |                                       |
| Transfer Station                                      |                      |                     |                                       |
| Recycling Center                                      |                      |                     |                                       |
| MRF   |                      |                     |                                       |
| Landfills   |                      |                     |                                       |
| Site  |                      |                     |                                       |
| Operation   |                      |                     |                                       |
| Closure   |                      |                     |                                       |
| Post Closure Care                                     |                      |                     |                                       |
| Administration (supplies, communication costs, etc.)  |                      |                     |                                       |
| Education   |                      |                     |                                       |
| Public  |                      |                     |                                       |
| Continuing Ed.  |                      |                     |                                       |
| Capital Projects                                      |                      |                     |                                       |
| <b>REVENUE</b>  |                      |                     |                                       |
| Host agreement fee                                    |                      |                     |                                       |
| Tipping fees  |                      |                     |                                       |
| Property taxes  |                      |                     |                                       |
| Sales tax   |                      |                     |                                       |
| Surcharges  |                      |                     |                                       |
| Disposal Fees   |                      |                     |                                       |
| Collection charges                                    |                      |                     |                                       |
| Industrial or Commercial charges                      |                      |                     |                                       |
| Residential charges                                   |                      |                     |                                       |
| Convenience Centers charges                           |                      |                     |                                       |
| Transfer Station charges                              |                      |                     |                                       |
| Sale of Methane Gas                                   |                      |                     |                                       |
| Other sources: (Grants, bonds, interest, sales, etc.) |                      |                     |                                       |

**Item 10-Compare Revenue Sources for the Region's Current Solid Waste Programs with Projected Future Demands. Identify Any Potential Shortfalls in that Capacity**

Identify all current revenue sources by county and municipality that are used for materials and solid waste management. Project future revenue needs from these categories and discuss how these needs will be met. (Use Chart 9 as an example to present data)

**Item 11-Sustainable Goals Consistent with the State Plan**

Discuss the region's plan for managing its solid waste system over the next five (5) years. Identify any deficiencies in that plan and offer recommendations for eliminating these deficiencies. Suggest and list the specific ways in which the region can improve its solid waste program to reach a level of waste reduction above that of the goal and provide long term sustainability to the current solid waste collection system.

Show how the region's plan supports the **statewide Solid Waste Management Plan**.

**Sources:**

Cite all sources, documents, surveys, and contacts.