

LOCAL SOLID WASTE MANAGEMENT PLANNING

GUIDANCE TO LOCAL GOVERNMENTS FOR PREPARING A COMPREHENSIVE LOCAL SOLID WASTE MANAGEMENT PLAN



NOVEMBER 2012

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
SOLID WASTE POLICY, PLANNING & GRANTS BRANCH**

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TABLE OF CONTENTS

I.	INTRODUCTION AND OVERVIEW OF THE LOCAL SOLID WASTE PLANNING PROCESS	5
	A. Introduction	5
	B. The Planning Grant Process	5
	C. The Local Planning Process	6
	D. The Public Comment Process	7
	E. The Submittal of the Plan	9
	F. The Commission Review and Approval Process	10
II.	GLOSSARY OF TERMS	12
III.	CONTENT OF A COMPREHENSIVE LOCAL SOLID WASTE MANAGEMENT PLAN	15
	A. Introductory Components	15
	1. Title Page	
	2. Transmittal Letter	
	3. Table of Contents	
	4. Lists of Plan Figures, Tables, and Components	
	5. Acknowledgements	
	6. Executive Summary	
	B. Introduction to the Planning Jurisdiction	17
	1. Organizational and Planning Structure	
	2. Planning Area Description	
	3. Local Laws and Ordinances	
	4. Public Involvement and Outreach	
	5. Environmental Justice Issues	
	C. Solid Waste Characterization and Quantification	20
	1. Municipal Solid Waste Characterization and Quantification	
	2. Projections of Future Municipal Solid Waste Quantities	
	D. Primary Solid Waste Program Components	24
	1. Residential Garbage Management Programs	
	2. Rubbish Management Systems and Programs	
	3. Municipal Wastewater Sludge/Biosolids and Other Municipal Sludges	
	4. Commercial Business and Nonhazardous Industrial Solid Wastes	
	5. Special Waste Management Programs	

a) Construction and Demolition Debris (Special Waste) Management	
b) Residential and Commercial Bulk Liquid Wastes	
c) Waste Tire Management	
d) Household Hazardous Wastes	
e) White Goods	
f) Agriculture Chemical Containers	
g) Household Medical Sharps	
h) Other Special Wastes	
6. Disaster Debris Planning	
7. Recycling and Waste Reduction Programs	
8. Comprehensive Inventory of Local Solid Waste Management Facilities	
9. Illegal Dumping Prevention and Clean-Up Programs	
10. Closed Solid Waste Facilities	
E. Financing of Primary Solid Waste System Components	42
F. Solid Waste Needs Assessment Summary	45
G. Proposed Implementation Schedule Summary	46
H. Administrative Procedural Information	47
IV. APPENDICES	48
A. Industrial, Commercial & Institutional Solid Waste Generator Survey	
B. Municipal Solid Waste Collectors Survey	
C. Municipal Solid Waste Characterization Components	
D. Worksheet: Conducting a Field Weighing Program	
E. Worksheet: Conducting a Field Composition Program	
F. Nonhazardous Solid Waste Recycler Survey	
G. Tire Retailer Waste Tire Management Survey	
H. Worksheet Preliminary Assessment of Pesticide Container Management	
I. Solid Waste Management Facility Information Sheet	

GUIDANCE FOR PREPARING A COMPREHENSIVE LOCAL SOLID WASTE MANAGEMENT PLAN

I. INTRODUCTION & OVERVIEW OF THE LOCAL SOLID WASTE PLANNING PROCESS.

A. INTRODUCTION

In order to protect the public health, safety, and well-being of its citizens and to protect and enhance the quality of its environment, the Mississippi Legislature adopted the Nonhazardous Solid Waste Planning Act in 1991. The act is found in the Mississippi Code Annotated Section 17-17-201 et seq (Supp. 2002) and it requires that local governments prepare, adopt and submit a local nonhazardous solid waste management plan to the Mississippi Commission on Environmental Quality (Commission). The law also provides that local governments shall comprehensively update the local nonhazardous solid waste management plans (SWM Plans) at a frequency determined by the Commission not to exceed more than once every five years. This planning will assure that Mississippi develops and implements appropriate solid waste management facilities and systems to meet the needs of the state. In addition, Mississippi Code Section 17-17-5 requires that the Board of Supervisors of each county and that each municipality in the state provide for the collection and disposal of garbage and the disposal of rubbish.

All local governments should, at a minimum, be a part of a local solid waste management plan and should participate and contribute to the local planning process. These local governments may include counties, cities, regional solid waste management authorities and/or solid waste management districts. Generally, county governments, by law and in practice, have taken the lead in developing these plans and municipalities have joined that planning process with the county. However, some communities have formed incorporated solid waste management authorities or solid waste management districts to facilitate long-term solid waste planning. These cooperative efforts pool the resources of multiple, local counties and cities and addresses waste management issues from a regional perspective. Also, when the authority or district includes one county and the municipalities in the county, it provides for municipalities to have greater roles in the solid waste management planning process. In addition, some municipalities have elected to develop and adopt their own solid waste management plans separate from the county or regional planning process. The manner in which these plans are developed is a decision of the local government(s), based on which planning concept offers the most opportunities, advantages, and benefits to the community.

B. THE PLANNING GRANT PROCESS.

The Mississippi State Legislature in the 2002 session made certain state funds available to local governments for planning development assistance in the form of monetary grants. These grants can be made to local governments to defray the costs of developing and adopting a comprehensive new or updated local solid waste management plan. The grants are not available for minor amendments or other changes that are not comprehensive in nature. The Mississippi Department of Environmental Quality (MDEQ) has developed guidelines and requirements for

those funds that can be found in Section III of the Mississippi Grant Regulations for Waste Tire and Solid Waste Assistance Funds. Local governments may submit an application for grant funding to support the planning efforts. Such applications may be submitted to MDEQ at anytime during the fiscal year prior to April 30th. Grant application forms and regulations can be obtained from the MDEQ in hard copy format or at the MDEQ's web site in electronic format. The MDEQ will review the applications and make grant awards to the applicants based on the criteria described in the aforementioned grant regulations. Obtaining planning grant support is optional for the local government but should certainly be considered for the offset of planning costs.

C. THE LOCAL PLANNING PROCESS.

The initial step in the local planning process for the local government is to determine the jurisdictions that will participate in the local planning effort and the organizational structure of the planning entity. Upon that determination, it is important for the local government to develop a steering committee, which will adequately represent the interests of each political subdivision in the planning jurisdiction. This steering committee will ultimately decide who or what organizations will be involved in preparing the plan. In addition, the steering committee, with input from others, will decide the goals that the local government wants to achieve through its local solid waste management system. The MDEQ also encourages local governments to convene an advisory committee or panel consisting of a representative group of citizens and businesses from the local area. It is important to accept and involve the public as a legitimate partner in developing the solid waste plan. The committee could include private citizens, civic group members, recycling company representatives, waste industry representatives, members of environmental groups, representatives of minority groups, government officials, representatives from commercial businesses and industry and finally the persons or organizations preparing the plan.

The persons preparing the plan may be a planning division of the local government, a local or regional planning and development district group, a private consulting company or engineering firm or another appropriate entity with planning experience such as a local university or research consortium. The solid waste advisory group should provide initial advice and conceptual planning recommendations on solid waste management services and programs needed or desired for the local planning area. The recommendations from this advisory group should be considered by the persons preparing the plan. Efforts should be initiated to collect the information to develop the plan and to make the necessary evaluation of solid waste management needs in the area. Representatives from MDEQ are also available to meet with the advisory group and discuss the planning information and process. The advisory committee may take on a larger role in collecting this information or participating in actually writing the plan, depending upon the desires of the local government.

MDEQ requests that the components contained in the guidance be included or expressed in the local plan in the format described in this guidance document. However, State law and regulations do not currently require that local governments use the enclosed guidance or format in developing the local plan. Consequently, if the major components of the local solid waste plan, as outlined in this guidance document, are addressed using other procedures or methodologies,

then the logic used and the conclusions reached in the plan must clearly confirm for MDEQ that the intent of the statutory planning requirements have been met.

Planners should note that for each new or expanded solid waste management facility that is proposed as part of the comprehensive update of the plan, the planning entity must develop a determination of need for the facility in accordance with the Miss. Code Ann. Section 17-17-227. To facilitate the local government's consideration and development of the final determination of need for inclusion in the plan, the third party applicants should generally prepare a demonstration of need that addresses each of the components described below. The local government may require additional information from the applicant to further develop or supplement this demonstration of need or may collect information from other sources. If the local government determines that the facility should receive consideration for inclusion into the local plan, then the local government shall develop the determination of need from the applicant's demonstration and other collected information.

The final determination of need as approved or developed by the local government must include, at minimum, the following items:

- i. Verification that the proposed facility meets needs identified in the approved local nonhazardous solid waste management plan which shall take into account quantities of municipal solid waste generated and the design capacities of existing facilities;
- ii. Certification that the proposed facility complies with local land use and zoning requirements, if any;
- iii. Demonstration, to the extent possible, that the operation of the proposed facility will not negatively impact the waste reduction strategy of the local government submitting the plan;
- iv. Certification that the proposed service area of the proposed facility is consistent with the local nonhazardous solid waste management plan; and
- v. A description of the extent to which the proposed facility is needed to replace other facilities.

This determination of need should be incorporated into the appropriate pages of the plan, typically as part of the detailed facility description, and shall be presented for review and comment during the public participation and comment process.

Upon completion of an initial draft of the local plan, the advisory committee could be reconvened, as necessary, to provide review and comments on the suitability of the draft plan. MDEQ also requests that a copy of the draft plan be provided to our agency for preliminary review and comment prior to going to public notice with the local plan.

D. THE PUBLIC COMMENT PROCESS.

Upon the development and completion of a comprehensive, solid waste management plan, the local government entity must solicit, collect and give meaningful consideration to public comments on the proposed plan. In starting this process, the local government must publish a

public notice at least twice in at least one newspaper having general circulation within the planning area. The notice should be conspicuously displayed in the newspaper. Such notice may need to be published in more than one newspaper, if the plan involves multiple counties in a regional plan. The notice should, at a minimum, describe the plan, specify the location(s) where it is available for review, and establish a minimum period of 30 days for comments concerning the updated plan and a mechanism for submitting those comments. The notice also should provide information to the public on the information that the plan includes (e.g. garbage collection systems, rubbish disposal options, yard waste collection, recycling and waste reduction, household hazardous waste management and etc.). In addition, the notice should provide specific details of any new or expanded solid waste management facilities proposed in the plan. The details should include location, size or capacity, the types of wastes proposed for management, the approved service area and the operator of the facility. Upon publication, a copy of the public notice should also be submitted to the Solid Waste Policy, Planning and Grants Branch of the Mississippi Department of Environmental Quality at the address provided at the end of Section I.E of this document.

In addition for any new or expanded solid waste management facility, the planning entity must ensure that the owners of the contiguous properties to the proposed facility are notified in writing of the proposed inclusion of the facility in the solid waste plan. Contiguous property shall include any property sharing a common border or point with the property of the proposed facility. A property shall be considered contiguous if the properties are separated by a street, highway, railroad line, or other similar transit or utility right-of-way or of other property owned by the applicant. Written notification shall be sent by certified mail to the contiguous landowner's address as indicated on county tax records. This notice may be sent by either the applicant or the local government, but must be sent no later than the 1st date of publication of the public notice and must contain a copy of the public notice (see paragraph above). Documentation of these notices must be provided to the MDEQ by the local government and must include copies of the signed receipts of certified mail delivery or a copy of any returned certified mail item that is refused or otherwise undeliverable.

The planning entity must also notify the Boards of Supervisors of the adjacent counties in writing of the proposed solid waste management plan and the location where the plan may be reviewed. MDEQ suggests that in order to appropriately advise the Boards of Supervisors in adjacent counties of the planning matters a copy of the local government's public notice on the local solid waste management plan be provided as part of the notification. Under state law, notifications to adjacent counties that lie outside to borders of the state of Mississippi are not required. However, MDEQ encourages local governments to appropriately advise and involve those adjacent out-of-state communities.

During the public comment period, the planning entity must conduct at least one public hearing concerning the updated plan. MDEQ recommends that the public hearing conducted during this process be transcribed, tape recorded or otherwise documented to provide an accurate record of the comments received. Following the 30-day comment period and associated public hearing, the local government should review all public comments and input and may modify the plan based upon those comments. Upon approval of the final plan, the local government must adopt a resolution confirming such approval. The resolution must be acted upon within 90 days after the

public hearing. In instances where a regional plan is approved, the Regional Solid Waste Authority or Regional Entity must also obtain a resolution adopting the plan from each Board of Supervisors and each municipality that is a member of the regional entity.

E. THE SUBMITTAL OF THE PLAN

Once approved, the local government should submit the following information, *in triplicate (two hard copies & one electronic copy)*, to the MDEQ:

- a) a cover letter from the local government requesting the desired action on the plan;
- b) copies of the proposed comprehensive solid waste management plan including the facility description and determination of need for any proposed new or expanded solid waste management facilities;
- c) copies of the letters notifying the adjacent counties of the proposed comprehensive plan and, if the plan includes new or expanded facilities, copies of the letters to contiguous property owners and copies of the signed certified mail delivery receipts or of any returned certified mail item that is refused or otherwise undeliverable;
- d) proof of publication of the public notices,
- e) copies of the transcript or a summary statement of the public hearing and a summary statement of any written comments received. Where comments were received this should include a written statement describing how the comments were ultimately considered; and
- f) copies of the signed and certified final resolution(s) by the local government approving the comprehensive plan.

The comprehensive SWM Plan should be submitted in report format in a 3-ring binder and in electronic format on a compact disk, flash drive, by email or by other electronic transmittal. A hard copy and an electronic copy of the submittal should be retained by the local government. An updated SWM Plan shall contain all the required information as listed in the attached pages. Tab pages should be used to separate different sections in the plan. Information/documentation pertaining to the submitted plan (*e.g. tables, figures, calculations, etc.*) should be contained as appendices at the end of the appropriate tabbed section. All pages should list the date the submittal was prepared, the revision number, and page number. For example:

Prepared on: 01-01-2012
Revision No.: 0
Page: 1-1

The proposed comprehensive SWM Plan should be sent to either of the following addresses:

By Mail:

By Delivery:

Mississippi Department of
Environmental Quality
Solid Waste Policy, Planning &
Grants Branch
P. O. Box 2261
Jackson, MS 39225

Mississippi Department of
Environmental Quality
Solid Waste Policy, Planning &
Grants Branch
515 East Amite Street
Jackson, MS 39201

F. THE COMMISSION REVIEW AND APPROVAL PROCESS.

Upon receipt from the local government, MDEQ will conduct its review of the proposed plan to identify any necessary information or documentation that was not provided or adequately addressed in the plan. MDEQ will also review the plan to determine that the administrative procedures in adopting the plan were followed. Upon identifying all such information, MDEQ, by law, is required to issue an administrative order to the local government identifying the deficient information or documentation that must be provided or modified to complete the plan. MDEQ will work with the local government and will review a draft of those revisions before requiring that the final revisions be incorporated into the official plan for final approval. Upon completion of a final, revised plan, MDEQ will present a recommendation to the Executive Director of the Mississippi Department of Environmental Quality or to the Mississippi Commission (Commission) on Environmental Quality regarding the approval of the plan. Upon the approval of the plan by the Executive Director or the Commission, an administrative order will be issued memorializing the approval of the plan. MDEQ will publish a notice of the approval of the plan in the local newspaper. Any person aggrieved by that action may file an appeal and request a full evidentiary hearing before the Commission. Such an appeal must be filed within 30 days of the Commission's action to approve the plan. If no appeal is filed within the 30 days, then the Commission's approval will be considered final and the local government should begin implementation of the provisions of the approved plan.

If approval of the plan is denied, the Executive Director or the Commission will issue an administrative order to the local government indicating the deficiencies in the plan. The local government has 120 days in which to respond to the denial with the appropriate information to address the deficiencies identified in the Order. The Director or the Commission may, for good cause shown, grant an extension to the local government of up to 60 additional days for response to the deficiencies. The Executive Director or the Commission, by order, generally will approve a "completed" plan within 180 days after its submission. After approval of the plan, the local government, by law, must implement the plan in accordance with the approved implementation schedule in the plan.

Local governments should first refer to the comprehensive planning guidance contained in this document for direction on the information necessary to develop and complete a local solid waste plan. For additional assistance or guidance, local governments may contact the Solid Waste Policy, Planning & Grants Branch at 601-961-5171. A regional planning engineer at MDEQ is assigned to each area of the state and can provide assistance as necessary on developing and completing the various components of a comprehensive solid waste management plan. In

addition, various other guidance documents or reports are described throughout this document. These publications can be obtained from MDEQ or other sources by the local government.

II. GLOSSARY OF TERMS

The following definitions are being used for the purposes of this guidance document.

“Authority” means a regional solid waste management authority created under Mississippi Code Sections 17-17-301 through 17-17-349.

“Commission” means the Mississippi Commission on Environmental Quality.

“Commercial nonhazardous solid waste management facility” means any facility engaged in the storage, treatment, processing, or disposal of nonhazardous solid waste for compensation or which accepts nonhazardous solid waste from more than one generator not owned by the facility owner.

“County” means any county in the state of Mississippi.

“Disposal” means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste into or on any land or water so that such solid waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwater.

“Dumpster” means specifically constructed, removable waste container of any size designed to be mechanically picked up, dumped, and/or transported by a specifically constructed vehicle designed for that purpose. (Commonly referred to as roll-off containers, green boxes, or commercial containers).

“Garbage” means putrescible animal or vegetable wastes resulting from the handling, preparation, cooking and consumption of food, including wastes from markets, storage facilities, handling and sale of produce or other food products, and excepting such materials that maybe be serviced by garbage grinders and handled as household sewage.

“Household Hazardous Wastes” means any waste that would be considered hazardous under the Solid Waste Disposal Law of 1974, Section 17-17-1 et seq., of the Mississippi Code, Annotated, or any rules and regulations promulgated thereto, but for the fact that it is produced in quantities smaller than those regulated under such law or regulations and is generated by persons not otherwise covered by such law or regulations.

“Local Government” means, for the purpose of this guidance document, any county, municipality, regional solid waste management authority, multi-governmental waste district or any other multi-county or municipal entity.

“Municipal solid waste” means any nonhazardous solid waste resulting from the operation of residential, commercial, governmental, industrial, or institutional establishments except oil field exploration and production wastes and sewage sludge.

“Municipality” means any incorporated city or town in the state of Mississippi.

“MDEQ” means the Mississippi Department of Environmental Quality.

“Open dump” means any officially recognized place, land or building which serves as a final depository for solid wastes, whether or not burned or buried, which does not meet the minimum requirements for a sanitary landfill, except approved incinerators, compost plants and salvage yards.

“Post-Closure” means a procedure approved by the Environmental Protection Agency or the MDEQ to provide for the long-term financial assurance, monitoring, and maintenance of solid waste disposal sites to protect human health and the environment.

“Recycling” means the use, reuse or reclamation of a waste. Recycling does not include the burning of waste as a fuel for the recovery of energy or the use of waste treatment technologies.

“Rubbish” means non-putrescible solid wastes (excluding ashes) consisting of both combustible and noncombustible wastes. Combustible rubbish includes paper, rags, cartons, wood, furniture, rubber, plastics, yard trimmings, leaves, and similar materials. Noncombustible rubbish includes glass, crockery, metal cans, metal furniture, and like materials which will not burn at ordinary incinerator temperatures (not less than 1600 degrees F).

“Rubbish site” means a site, which receives rubbish for the purpose of disposal.

“Small quantity waste tire generator” means any private individual generating 25 or fewer waste tires annually, or a tire retail outlet, automotive mechanic shop or other commercial or governmental entity that generates 10 or fewer waste tires per week.

“Solid Wastes” means any garbage, refuse, sludge, from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, included solid, liquid, semisolid or contained gaseous material resulting from industrial, commercial, mining and agricultural operations and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954.

“Storage” means the containment of wastes, either on a temporary basis or for a period of years, in such manner as not to constitute disposal of such wastes.

“Treatment” means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any solid waste in order to neutralize such waste or render such waste safer for transport, amenable for recovery, amenable for storage or reduced in volume.

"Waste minimization" means the reduction, to the extent feasible, of waste that is generated or subsequently treated, stored or disposed of. It includes any source reduction or recycling activity

undertaken by a generator or facility operator that results in either (i) the reduction of total volume or quantity of waste, or (ii) the reduction of toxicity or other characteristics of hazardous waste, or both, so long as the reduction does not result in the displacement of pollutants from one medium to another and is consistent with the goal of minimizing present and future threats to human health and the environment.

“Waste tire” means a whole tire that is no longer suitable for its original intended purpose because of wear, damage or defect.

“Waste tire collection site” means a site used for the storage of one hundred (100) or more waste tires.

“Yard waste” means the leaves, grass cuttings, weeds, garden wastes, tree limbs, and other vegetative waste generated at residential, commercial, institutional, governmental, or industrial properties.

III. CONTENT OF A COMPREHENSIVE LOCAL SOLID WASTE MANAGEMENT PLAN

This guidance document has been developed to assist local governments in the preparation of comprehensive local nonhazardous solid waste management plans as required by Section 17-17-227 of the Mississippi Code Annotated. The document is not a formal regulation but is intended to provide direction to local governments on the necessary components of a comprehensive solid waste management plan.

A. INTRODUCTORY COMPONENTS

1. Title Page.

The Plan should contain a Title Page that will include, at a minimum, the following information:

- a) The title of the submitted solid waste management plan;
- b) The name of the planning entity;
- c) A map of the planning area which the plan encompasses depicting the political subdivisions that are a part of the plan;
- d) The names and address for the organization(s) responsible for preparing the plan; and
- e) The date that the submitted solid waste management plan was adopted by the local government

2. Transmittal Letter

A letter of transmittal (signed by the Board President, Mayor, Regional Authority director or other authorized representative of the local government) should accompany the submittal of the proposed solid waste management plan to the MDEQ including a request for the desired Department/Commission action or response.

3. Table of Contents

The plan should include a Table of Contents that clearly indicates the page number of the beginning of each chapter/section/appendix of the plan.

4. Lists of Plan Figures, Tables and Components.

- a) The plan should include a list of tables that will specify all information summarized or presented throughout the plan in tabular format.
- b) The plan should include a list of maps, drawings or other figures contained in the plan.

5. Acknowledgements.

The plan should include acknowledgements to persons, organizations, or entities for their contributions towards the development of the plan;

- a) The names and contact information for any organization or person contractually employed by the county to direct the development of the solid waste management plan;
- b) The names and contact information for the local government officials and employees involved in the planning process and the organization of the planning entity; If a steering committee is organized to provide leadership to the planning process, then the names of those persons and the positions in which they serve should be provided.
- c) A listing of the persons serving on any solid waste advisory committees or councils, the organizations or communities that they represent and appropriate contact information should be contained in the plan. Where possible, MDEQ encourages local governments to convene a solid waste advisory committee made up of a representative group of citizens from local communities who will have input and review of the plan prior to and/or during the planning development process.
- d) Any names and contact information for any other persons or organizations that played a significant role in the development and adoption of the plan.

6. Executive Summary.

The plan should include an executive summary that addresses, at a minimum, the following information:

- a) The background of the submitted plan and a summary of previous comprehensive local planning efforts, including details of the local government's initial planning efforts in the early 1990's, the significant modifications to the existing plan and the result of ongoing review and assessment of the existing approved plan.
- b) A description of the applicable legal requirements and authority for preparing the plan;
- c) The scope and overall goals of the local solid waste plan, including a discussion of the hierarchy of preferred solid waste management methods identified in Section 49-31-3 of the Mississippi Code, Annotated.
- d) An introductory summary of key issues, major problems, priorities, responsibilities, conclusions, recommendations and necessary actions identified in the planning process.

B. INTRODUCTION TO THE PLANNING JURISDICTION.

The plan should include an introduction to the solid waste management planning area. The purpose of this section is to describe and characterize the geographic area, the organizational structure, and other foundational conditions in the planning area that would influence solid waste management conditions in the area. The information in this section should include, at a minimum the following:

1. Organizational and Planning Structure.

- a) The plan should include a description of the organizational composition of the planning entity, including the governmental relationships that have been established by municipalities and the county and an organizational chart or drawing depicting the administrative structure.
- b) For those entities that are regional solid waste authorities, waste districts, or other multi-governmental entities, documentation of the formation or formal incorporation should be provided in the plan in the appendices. Such documentation could include incorporation papers, intergovernmental agreements and any other documents needed to confirm consistency with the applicable parts of Section 17-17-301, et seq of the Mississippi Code, Annotated.
- c) For solid waste plans where the county government is the principal planning entity; but other local political subdivisions were also involved, provide a description of the process in which municipal or other local governments were included in the county planning efforts.

2. Planning Area Description.

The purpose of this section of the plan is to identify and describe the geographic area that is covered by the submitted plan. The description of the planning area should include the following information:

- a) A narrative physical description of the planning area, including the names and locations of municipalities and the county(ies) for which the plan is submitted;
- b) A map of the planning area, clearly depicting the jurisdictional areas of the plan; and
- c) A description of the demographic characteristics of the planning area, including the population (existing and 20 year projections in five-year increments). Recent population figures should also be provided for each political subdivision involved in the planning process.

3. Local Laws and Ordinances.

A summary description of local laws and ordinances administered by local governments (counties, municipalities, etc.) that directly affect solid waste management systems, facilities, or

programs in the planning area should be described. These local laws could include the following:

- a) land use or zoning ordinances applicable to solid waste management facilities;
- b) local noise, height or operational restrictions applicable to solid waste facilities;
- c) local solid waste management or illegal dumping ordinances;
- d) local flood or flood control ordinances, which may directly restrict the placement or management of solid waste;
- e) other comparable local laws that may impact solid waste management programs or facilities.

The description should address both county and municipal laws as well as laws of other political entities that may impact the jurisdiction. Where possible, a copy of those ordinances that are directly applicable to solid waste management should be included in an appropriate appendix of the plan. In addition, the implementation of local ordinances that directly apply to planning components such as illegal dumping or solid waste facility siting should be described in greater detail in other applicable sections of the solid waste plan.

4. Public Involvement and Outreach.

MDEQ encourages local governments to encourage and facilitate meaningful public participation early in the local solid waste planning process. Where possible, MDEQ recommends that local governments convene a solid waste advisory committee made up of a representative group of citizens from various sectors and geographic areas of the local community who will have input into the goals and the content of the plan prior to and/or during the planning development process. The advisory panel could host public meetings or forums in which local citizens could present their desires, interests or concerns with respect to solid waste management and recycling conditions in the planning area.

In addition to the suggested public input into the initial development of the plan, state law mandates a public participation process upon the completion of the development of the plan. The local government's efforts to comply with the statutory requirements in the mandatory public participation process will be described in greater detail in the procedural portion (Described in Section III.H of this Guidance Document) of the local solid waste plan.

5. Environmental Justice Issues.

The U.S. Environmental Protection Agency defines environmental justice as "the fair treatment for people of all races, cultures, and incomes, regarding the development of environmental laws, regulations, and policies." The local plan should describe the provisions and plans for addressing existing or potential environmental justice concerns with respect to solid waste management conditions and issues. This effort should include identification of pre-existing environmental justice matters as well as matters identified during the solid waste planning

process. Representation of minority citizens on the solid waste advisory committee would be important to the process of identifying pre-existing and potential environmental justice matters in the planning area. In addition, other public participation and outreach efforts during the planning process should include an environmental justice perspective.

One tool that may be available to local governments in evaluating environmental justice concerns in communities is the Environmental Justice Geographic Assessment Tool a web-based technology tool developed by the U.S. EPA. The assessment tool is available on the worldwide web at: <http://www.epa.gov/enviro/ej>. Factors relevant to environmental justice assessments generally fall into four sets of indicators: environmental, health, social, and economic. The conditions that these indicators seek to illuminate include, but are not limited to: adverse health or environmental impacts, aggregate or cumulative impacts, unique exposure pathways, vulnerable or susceptible populations, or lack of capacity to participate in the decision-making process. As these data become available, they may be incorporated into the Environmental Justice Geographic Assessment Tool, which when fully developed will provide the information that is necessary to conduct a comprehensive preliminary analysis of any area of concern. Use of buffers is incorporated into the Environmental Justice Geographic Assessment Tool; population estimation is accomplished through the area-weighted methodology. The smallest unit of geographic resolution is the census block. This Environmental Justice Geographic Assessment Tool is meant to serve as a module to be incorporated on the front end (e.g., screening) of all appropriate assessments.

C. SOLID WASTE CHARACTERIZATION AND QUANTIFICATION.

The plan is required to comprehensively characterize the solid wastes that are currently being generated within the boundaries of the planning area as well as the solid wastes currently being transported into the planning area. This characterization should include the following information on solid waste generation in the planning area:

- a) Characterization of the solid waste stream generated within the planning area, including the sources, composition, and quantities of solid wastes generated within the boundaries of the planning area;
- b) Characterization of the waste currently being transported into and managed at facilities within the planning area (from sources outside the planning area), including the sources, composition, and quantities of solid wastes transported into the planning area; and
- c) The overall total waste generation quantities for the solid waste stream generated in the planning area and the overall total waste quantities of solid waste expected to be brought into the planning area for management or disposal.
- d) The per capita waste generation rate for the local planning area (using the total for wastes generated within the planning area only).

1. Municipal Solid Waste Characterization Study.

The waste characterizations described above must be determined by the development and implementation of a local municipal solid waste characterization study. A local municipal solid waste characterization study may be carried out in the following three phases:

Phase 1 – The local government should begin its characterization of the municipal solid waste stream by addressing those municipal solid wastes generated in the commercial, industrial and institutional sectors. Such wastes should include locally-specific, large volume waste streams. These sector groups should be able to provide information regarding quantities of wastes generated over a period of time and composition of wastes provided for management. To assist in gathering this information, a sample survey form is included in Appendix A of this document. These survey forms may be amended or altered by the local government as needed to collect appropriate information for the specific planning area.

Phase 2 – The data collection efforts should also include acquisition of information from operators of waste collection services serving the planning area. These persons or organizations should be able to provide aggregate information on the sources and the quantities of municipal solid waste being transported from sources in the planning area and also from sources outside the planning area to facilities area. To assist, in gathering this information a sample survey form is included in Appendix B of this document. The form may be amended or altered by the local government as needed to collect appropriate information for the specific planning area. In addition, information on the amounts of waste disposed at facilities in the planning area from

sources inside and outside the area may be validated by the annual reports filed with MDEQ by every commercial solid waste management facility in the state. These annual reports are on file and available for review at MDEQ. In addition, a summary report of the information in all of the individual annual reports is published each year and is available online at the MDEQ solid waste home page at www.deq.state.ms.us/solidwaste.

Phase 3 – The final phase of the study involves characterization of the components of the local municipal solid waste stream. This information is important to assist in evaluating the potential for separating rubbish waste components for disposal or for separating recyclable components. A listing of municipal solid waste characterization components into which the waste stream must be separated and reported is provided in Appendix C of this document. The local government may vary or add to this listing as is determined necessary for the specific planning area. The following methods describe varying ways of characterizing the local municipal solid waste stream:

- a) *A field sampling and separation program.* A field program should be designed to allow the local government to extract a representative sampling of municipal solid waste being provided to commercial solid waste management facilities. To account for seasonal differences as well as representative sampling procedures, the program should be conducted for several days, preferably during several different seasons, possible. Incoming waste should be weighed, separated into components and analyzed by weight according to each component as listed on the list in Appendix C. Suggested methodologies for municipal solid waste stream quantification and composition analysis are included in Appendices D and E of this document. In addition, the U.S. EPA suggests several sampling techniques that may be employed in the program. These techniques include the following:

Quartering Technique – Choose a group of refuse trucks from various areas to gain a representative sampling of the community. For each truck, unload an agreed upon quantity of waste in a cleared area at the disposal site or transfer station. Mix the various collections of waste thoroughly with a front end loader. Rake the sample into quarters and mix again thoroughly. Continue quartering the sample and mixing until a representative sample weighing greater than 200 pounds is generated. The sample should then be weighed and separated into its components. Each waste component should be weighed and compared with the total.

Block Technique – The block technique can be used when mixing a group of samples might be difficult. Using this technique, the load samples of refuse are dumped in a clear area but the sampling team chooses a representative but random sample from the loads rather than mixing the loads. The sample is then separated and characterized. The accuracy of this technique is highly dependent on the ability of the sampling team to define and standardize a representative sample.

Grid Technique – The grid technique is available for communities that have transfer stations at which wastes are loaded onto a tipping floor. In this technique, the floor of the transfer station is divided into equal size squares, with each square assigned a number and letter code for identification. Waste is unloaded onto the grid and mixed with approximately equal

quantities of waste placed in each square. Waste characteristics are then determined for a set number of grid squares and compared with the weight or volume of the entire load.

- b) *Update or revisions to a previously-conducted field-sampling program.* Many of the initial local solid waste management plans approved by MDEQ in the early to mid-1990's included field sampling and separation programs as part of the approved solid waste plan. Local governments which conducted such studies previously may for their planning areas, upon analysis of the information and previously used methodologies and quantities, use the previous sampling program as a base to provide updated characterization information. The local government may choose to conduct a shorter confirmatory field-sampling program as described in part a) above to support use of the previous study. The local government may also use information collected in Phases 1 and 2 and Phase 3.c to verify the validity of the previous field study information. Another source of information that may help to validate previously collected local waste characterization data would be information collected from commercial solid waste facilities in the Annual Facility report provided to MDEQ. Such information is on file and available at MDEQ. In addition, a summary report of the information in all of the individual annual reports is sent to every local government planning entity in the state each year.
- c) *Use of acceptable national, regional or local waste characterization studies.* The local government may use acceptable national, regional or local waste characterization studies where the methodologies used and the information collected appears appropriate for adequately characterizing the local municipal solid waste stream. The local government may also use previous local studies from other planning entities in Mississippi that were conducted and approved in the initial local plans approved by the Commission. In using such studies, the local government should have at least 2-3 source studies that validate the expected component percentages of the local waste stream. In addition, waste characterization percentages determined for the planning area in an initial solid waste characterization study may be used to validate data and figures from other national, regional or local studies. Use of previously conducted studies may be less expensive for the local government; however, the data developed through this method will provide waste characterization data that is more general and perhaps not as specific or up to date for the local community. The use of this data would be less appropriate in circumstances where the local government is relying heavily on waste volume data to justify the need for high-cost new facilities or new programs.
- d) *Use of other methods as approved by MDEQ.* The MDEQ will consider other methods for characterizing and quantifying the municipal solid waste stream in the planning area. Such methods should be presented to and approved by MDEQ prior to conducting the waste characterization study.

The sources of various waste components can be determined from the survey of operators of waste collection services. Sources should generally be categorized as residential, commercial, industrial, institutional, or other.

The final determination of waste composition may be made from information contained in the Phase 1 survey and the Phase 3 composition study. The Phase 1 survey will provide information on the percentages of characterization components in the overall waste stream from the industrial sector. Phase 3 provides information on the composition of waste being provided for management at local facilities. Waste composition may be reported by the municipal solid waste characterization component categories listed in Appendix C. Information should be shown as a percentage of the total waste stream. The percentage of the waste stream may be determined by dividing the total weight of each component by the sum of the total weight of components and multiplying by ten.

The determination of the overall waste quantity for the local planning area may be made from the information provided on all three surveys. As discussed, information provided in the Phase 1 and 2 surveys as well as in the annual solid waste facility reports may be utilized to verify information obtained in the characterization study of Phase 3. Waste quantities should generally be shown in both weight (tons/day) and volume (cubic yards/day).

Utilizing information on population in the planning area, a per capita generation rate (pounds per person per day) should be calculated. Calculations should be shown.

2. Projections of Future Municipal Solid Waste Quantities.

The plan should include projections of future quantities and characteristics of municipal solid waste for each five-year period (using 2000 as the base year) during the twenty year planning period. The projected quantities of waste should be made by establishing an annual population growth rate and multiplying such growth rate by the per capita municipal solid waste generation rate derived in Section III.B.2.c of this document. An annual population growth rate may be established by assuming a constant population growth rate over a minimum period of ten years and then dividing by the number of years in the time period utilized. The calculation of an annual population growth may be made more accurately utilizing a period of more than ten years. Projections must also be made for the municipal solid wastes being imported into the local planning area for management.

For purposes of this projection the composition of the municipal solid waste stream as determined in Part 1 of this Section may be held constant. The quantities of waste stream components should be estimated for each five-year period during the twenty year planning period for wastes generated within the county, as well as those imported into the county.

Other factors which may be considered in municipal solid waste projections include: changes in the rate of waste generation, economic growth, changes in the manner of collection and the potential impacts of expected regulatory changes.

The plan should include a detailed narrative description of the specific methodology and all assumptions used in making these projections. The plan must also show appropriate calculations.

D. PRIMARY SOLID WASTE PROGRAM COMPONENTS

The plan should include a description of the existing municipal solid waste management system. The purpose of this section of the plan is to examine and evaluate the current solid waste management system and to assess the need for additional activities, services, programs, or facilities to provide for the solid waste needs of the planning area. For planning to be successful, the local government must demonstrate that it has an understanding of the current solid waste management systems and services within the planning area. The information in this section should include the following program components:

1. Residential Garbage Management Programs.

The plan should include a description of the local programs for the management of residential garbage. This program description should include, at a minimum, the following:

- a) Quantification of the residential garbage volume for each residential garbage collection systems in the planning area (counties, municipalities, universities). This information may be determined from the Waste Characterization Study required in Section III.C of this document.
- b) A narrative description of the existing residential garbage collection and disposal systems in place for each local government in the planning area. The description should identify public and private sector responsibility and involvement in managing residential garbage wastes as follows:
 - For each local government which conducts their own collection and transport of residential garbage, the description should include, at a minimum, the following: a narrative description of the type of collection services provided (door to door, area bins, other), the primary users of the service (e.g. single family dwellings, multi-family dwellings, commercial businesses), the frequency of collection, the transport fleet available, the destination(s) for transport (whether interim or permanent), and other information pertinent to the characterize the garbage collection system.
 - For each local government that contracts for collection of residential garbage, the description should include the following: the companies or individuals providing residential collection and disposal services for all political subdivisions (municipalities, counties or regional authorities/districts) in the planning area; a narrative description of the type and extent of collection services provided under the contract (e.g. garbage, recyclables, bulky wastes, yard debris, etc.); the primary users that are provided service, the frequency of collection, and the contractual terms and duration. (Note: where the contract includes collection services for waste materials or components addressed elsewhere in the plan (e.g. recyclables, white goods, yard debris, etc.), those services should be more completely described in those sections of the plan).

- c) For each county government, the plan should describe whether or not the county board of supervisors has adopted an order authorizing any single family generator to elect not to use the county garbage or rubbish collection or disposal system. The plan should further describe how the county's order and actions comply with Mississippi Code Annotated Section 19-5-21 (5)(a). In addition, a copy of the order should be included in the plan and a copy of the form to be signed by the head of any household electing not to use the county garbage or rubbish collection or disposal system should also be included in the plan.
- d) For each local government that hosts a municipal solid waste landfill that is owned or operated by a corporate, private or other organizational entity and that has negotiated a host agreement with the landfill owner or operator, the terms and conditions of those host agreements should be described in the local plan. Such terms and conditions could include but are not limited to: the economic benefits to the host local government, contractual or service benefits, long term obligations or commitments by the local government or the landfill owner, a clear description of how the host agreement will impact or affect local solid waste management conditions and the expected uses of host agreement fees where such fees may be used to enhance solid waste management conditions.
- e) A description of the manner in which the political subdivisions (counties, cities, towns, etc.) of the planning area comply with the requirements of Mississippi Code Annotated Section 17-17-5 (to provide collection, transfer, and disposal of garbage);
- f) A description of the available solid waste facilities (including MSW transfer stations and MSW landfills both within and outside of the planning jurisdiction) for management of municipal garbage and the facility(ies) to which residential garbage from the planning area is being directed for disposal. The description should include the physical location and the available disposal capacity of the receiving facilities. The local government may refer to the Annual Status Report compiled and published each year by the Department. This annual report includes information on the remaining capacity of all solid waste facilities as reported by the facility owner. If the facilities are located within the planning jurisdiction, the description should include the total approved disposal acreage, the remaining anticipated capacity (in years), and the approved service area of the facility. The plan may not place a restricted service area on those solid waste facilities, which were in existence prior to the development of the original local solid waste management plan (approved for most local governments in the early to mid 1990's).
- g) An assessment and determination of the need for expanded, additional or alternative residential garbage management services, programs or disposal capacity in the planning area (e.g. government versus private ownership, contract operator options, etc.). The evaluation should also contain a proposed plan and schedule for acquiring such needed system components. Where the needs assessment identifies specific new or expanded facilities, the plan should clearly describe the location of such new sites, the approved disposal acreage, the operator of the proposed facility, the approved service area, and all other relevant information, including the detailed determination of need components described in Section I.C. New or expanded facilities should be clearly disclosed to the public in all public notices regarding the plan.

2. Rubbish Management Systems and Programs.

The plan should include a description of rubbish collection and disposal systems for the planning area. The description of the rubbish waste system should specifically address yard waste management as part of this section but as an individual waste stream subset of rubbish. This information regarding the overall rubbish management system should include:

General Rubbish

- a) Quantification of the estimated rubbish generation rates for the planning area and how such rates were calculated. This information may be gleaned, in part from the industrial, commercial and residential waste characterization described in Section III.C of this planning guidance document.
- b) A description of the local government's efforts to comply with the Mississippi Code Annotated, Section 17-17-5 (to provide for the disposal of rubbish wastes);
- c) A complete description of all rubbish sites in the planning area, including existing and proposed sites, the street address and physical location of each site, the owner/operator of each site, the approved disposal acreage (for proposed sites, this should include the proposed disposal acreage, and the service area for each rubbish facility), the classification of the site and the overall available disposal acreage and capacity.
- d) A description of rubbish disposal sites outside the planning area which are utilized for the disposal of significant amounts of rubbish wastes from the area, including facility information such as the anticipated remaining capacity, location and classification;
- e) Inert rubbish wastes such as concrete, brick and other similar materials are often used in beneficial fill applications. Beneficial fill projects are not considered solid waste management facilities, are typically short term in duration, and are limited to inert waste materials. Upon review of such proposals by MDEQ, a beneficial fill project may be approved by a conditional exemption to state solid waste regulations. The local plan should describe the local government's positions and policies on the use of such materials for beneficial or "clean" fill. The plan should also indicate whether the local government desires that beneficial fill proposals be scrutinized and approved by the local government through the local planning or the local zoning processes, prior to MDEQ giving consideration to such proposals.
- f) An assessment of the need for additional or alternative rubbish management services, programs or disposal capacity in the planning area. Where new or enhanced programs or services are identified, the evaluation should also contain a proposed plan and schedule for implementing or acquiring such needed system components. Where specific new or expanded facilities are proposed, the plan should describe details of the facility including the operator of the proposed facility, the location and physical address of the site, the size of the disposal area, the approved service area, and all other pertinent information including the

detailed determination of need components described in Section I.C. New or expanded facilities should be clearly disclosed to the public in all public notices regarding the plan.

Yard Waste Management Programs

In Mississippi, yard waste is a subset of rubbish wastes. According to the U.S. EPA, yard waste accounts for as much as 20% of the overall municipal solid waste stream. The local plan should include a description of the existing programs or manner in which yard waste is being managed in the planning area for counties and municipal subdivisions of the planning area. This description should include:

- a) The sources and estimated quantity of yard waste generated annually within the planning area;
- b) The manner in which each local yard waste program (county/municipality) collects and disposes or uses yard waste;
- c) The solid waste facilities (e.g. landfills, rubbish sites, composting facilities, etc) to which yard waste is directed for beneficial use or disposal;
- d) Where the existing programs involve land filling of the yard wastes, the plan should include an assessment of alternatives to landfill disposal of the wastes, such as mulching or composting; and
- e) An assessment and determination of the need for additional, expanded or alternative yard waste collection/management programs or facilities. Where new or enhanced programs or services are identified, the evaluation should also contain a proposed plan and schedule for implementing or acquiring such needed system components. Where the assessment indicates that specific new or expanded facilities are necessary to manage yard waste, the plan should include details of the new facilities including the owner/operator, the location and physical address, waste management acreage, service area, the types of waste accepted and all other pertinent information, including the detailed determination of need components described in Section I.C. New or expanded facilities should be clearly disclosed to the public in all public notices regarding the plan.

3. Municipal Wastewater Sludge/Biosolids and Other Municipal Sludges

The plan should include a description of the manner in which municipal wastewater sludge (sludge) is managed and disposed in the planning area. In addition, some local governments in Mississippi must plan for the management of water treatment sludge, generated in providing safe drinking water to citizens. Where applicable, the plan should also address the management of water treatment sludge generated within the planning area. These planning components should include the following information:

Wastewater Treatment Sludge

- a) Identification of the primary sources of wastewater treatment sludge (e.g. publicly owned treatment works (POTW) utilized for wastewater treatment) in the planning area, the location of the POTW and the owner or operator of all POTW's;
- b) The quantities of sludge generated and removed for disposal annually (or other alternate frequency) at each POTW in the planning area;
- c) A description of the facilities and methods used for disposal of the sludge generated; The facility description should include locations, service areas and available acreage.
- d) An assessment of the need for new or expanded, sludge management facilities, programs or services in the planning area and a plan and schedule for initiating or acquiring the needed programs. Where the assessment identifies specific new or expanded facilities, the plan should describe in detail the planned facilities, including the location, the size (in acres), the wastes to be accepted and the source of the waste. For any new commercial facilities, the plan should also describe the approved service area for the facility.

Drinking Water Treatment Sludge

- a) Identification of the primary sources (drinking water treatment facilities) in the planning area and the owner/operator of all the facility. If no drinking water treatment facilities exist in the planning area, the plan should simply indicate such. Industrial water treatment facilities should be addressed in the section on Industrial Solid Wastes;
- b) The type of water treatment sludge generated (e.g. alum sludge, lime sludge, other), the quantities of sludge generated and removed for disposal annually (or other alternate frequency) at each water treatment facility;
- c) A description of the facilities and methods used for disposal of the sludge generated; The facility description should include locations, service areas and available acreage or capacity.
- d) An assessment of the need for new, expanded or alternative, water treatment sludge management facilities, programs or services in the planning area and a plan and schedule for initiating or acquiring the needed programs. Where the assessment identifies specific new or expanded facilities, the plan should describe in detail the planned facilities, including the location, the size (in acres), the wastes to be accepted and the source of the waste. For any new commercial facilities, the plan should also describe the approved service area for the facility.

4. Commercial and Industrial Solid Wastes

Commercial Business Wastes

The plan should include a description of the manner in which general commercial solid wastes generated by businesses such as restaurants, retail outlets, shopping centers, banks, office centers, hotels and others are primarily managed in the planning area. This information should include:

- a) A general profile of the business community in the planning area including the estimated number of businesses;
- b) A description of how commercial businesses in the planning area manage and dispose of their solid wastes. This information should include the available private waste/recycling contractors in the area that may provide collection or dumpster services, any local government services provided to the business sector, direct hauling of wastes to landfills or transfer stations, and any other options or opportunities available to businesses in the area for collection of their wastes;
- a) A description of the destination disposal facilities to which most commercial solid wastes collected from area businesses are hauled for disposal or recycling.
- b) An assessment of the existing commercial waste management conditions within the planning area should be provided identifying the need for additional or alternative programs or facilities for managing commercial wastes in the future. Where the assessment identifies specific needs to better manage commercial solid wastes in the planning area, the plan should describe in detail how those needs will be addressed. A plan and schedule for initiating or acquiring the needed services, programs, changes, or facilities should also be included.

Nonhazardous Industrial Wastes

The plan should include a description of the manner in which industrial solid wastes are primarily managed in the planning area. This information should include:

- a) Identification of the larger industrial waste generators in the planning area,
- b) The details and the types of the sources of wastes generated,
- c) A description of how these wastes are managed and disposed (including captive and/or commercial disposal facilities). This description should include details of the commercial and non-commercial industrial disposal facilities include the physical address and location, the owner/operator, the size of the disposal area, the types of wastes received, the service area for the facility (commercial sites only), and the overall available, remaining disposal capacity of the facility.
- d) The plan should describe whether the local government concurs with proposals or projects presented to MDEQ that would involve beneficial use of nonhazardous industrial wastes in substitution for the use of a raw material or a product. Such projects typically may not require formal environmental permits.

- e) Include any specific management programs or systems implemented by the planning entity or an indication as to whether nonhazardous industrial wastes are included as part of the overall waste collection contracts for the planning area.
- f) An assessment of the existing industrial waste management conditions within the planning area should be provided including a determination of the need for additional or alternative programs or facilities for managing industrial wastes in the future. Where the assessment identifies specific new or expanded captive and/or commercial industrial waste facilities, the plan should describe in detail the planned facilities, including the location, the size (in acres), the wastes to be accepted and the source of the waste. For any new commercial facilities, the plan should also describe the approved service area for the facility. A plan and schedule for initiating or acquiring the needed facilities or services should also be included.

5. Special Waste Management Programs.

The plan should include a description of the existing programs or systems for special waste management. This information should address the following special wastes:

Construction and Demolition Debris (Special Waste) Management

While most construction and demolition debris is considered rubbish waste, there are certain waste components generated from construction, renovation or demolition activities involving buildings, roads, bridges, and other structures that require special or extraordinary handling conditions. These materials include asbestos-containing materials, lead-based paint debris, engineered or treated wood products, polychlorinated biphenyl (PCB) containing light ballasts, and mercury containing switches and fixtures. This section should include the following information:

- a) An summary description of current management and disposal conditions in the planning area for such wastes;
- b) A description of any local building ordinances or building codes which may influence the generation or management of these wastes;
- c) An assessment of the need for additional or alternative services, programs, local laws to manage these wastes in the future and a proposed plan and schedule for acquiring such needed program components;

Residential and Commercial Bulk Liquid Wastes

There are two primary bulk liquid waste streams generated by residential or commercial sources. These two waste streams are residential septic tank pumpings and restaurant grease trap pumpings. In some areas, the local government may identify other types or sources of bulk liquid wastes that need to be addressed in the plan. The plan should include a description of the manner in which the septic tank/grease trap wastes and any other residential or commercial bulk

liquid wastes are managed in the planning area. The description should include the following information:

- a) Identification of the quantities and sources (in a general sense) of such wastes generated annually in the planning area;
- b) A description of the companies, persons, or organizations involved in collecting these wastes and the ultimate disposal destinations for such wastes; and
- c) A description of the treatment and disposal methods utilized and any special programs or systems in the planning area;
- d) An assessment of the need for additional or alternative services, programs or facilities to manage these wastes in the future and a proposed plan and schedule for acquiring such needed program components;

Waste Tire Management

The plan should include a description of the local waste tire collection program for private residents and other small quantity waste tire generators. The small quantity waste tire collection program should be designed to have a capacity for managing a number of waste tires annually that equals to at least 25% of the total population of the planning area. The local government should plan to provide a sufficient number of waste tire collection sites. The MDEQ recommends that a fixed collection site or some ongoing, periodic mobile collection service be provided to population centers, which have a population of over 5,000 persons. The MDEQ has developed a document entitled: *“Guidance for Implementation of a Local Government Waste Tire Collection Program”* (dated January 2002) to provide information on the local development of these programs. In addition, the MDEQ maintains a listing of waste tire collection and processing companies as well as listings of certified waste tire haulers in the state. The information in the plan on the local government’s waste tire collection program should include the following:

- a) A description of the locations of all local waste tire collection sites, including fixed sites or mobile or temporary collection points;
- b) A description of the ongoing or proposed utilization of waste tire grant support available from MDEQ.
- c) An indication of the manner in which the waste tires collected in the local collection program are being managed at each collection site; This information should include persons transporting the tires and the companies or organizations receiving the tires. Collection programs that are sending tires for landfill disposal should include a schedule for phasing out use of companies that dispose of waste tires and for acquiring the services of companies that will recycle or develop products from the waste tires.

- d) A description of the public education and outreach efforts regarding the local program offered for the collection and management of waste tires. Waste tire grant funds are available to assist with these efforts.
- e) An assessment of the need for additional or alternative services and programs to manage small quantity generator waste tires in the future and a proposed plan and schedule for acquiring such needed program components;

The plan should also include a general description of the management of waste tires generated by larger generators such as new and used tire retail outlets, large auto salvage yards, and companies with a large vehicle or truck fleet. This information should include the following:

- a) The facility(ies) to which retail tires are delivered for recycling or disposal and the general manner in which most are transported (commercial hauler, self hauled, etc.). A sample tire retailer survey form has been included in Appendix G for use in determining the management of larger generator tires. The form may be altered as necessary to collect appropriate information for the planning area. In addition, the MDEQ's listings of waste tire facilities and haulers may be used to develop this information.
- b) An assessment of the need for additional or alternative services and programs to manage retailer or large generator waste tires in the future and a proposed plan and schedule for acquiring or encouraging the development such needed program components. Efforts by the local government to provide such services would be voluntary and could be based on whether the local government makes comparable provisions for other commercial businesses.

Household Hazardous Wastes

Household Hazardous Waste (HHW) collection programs are waste diversion efforts that often provide significant benefits to the local community. These benefits include providing a disposal outlet for problematic waste streams, allowing for recovery of materials as resources, reducing the toxicity to landfills and wastewater systems, protecting waste handlers from unsafe exposure to such wastes, and helping the public avoid improper disposal practices.

Where these programs are determined necessary or desired, the local waste plan should include a description of the HHW Collection Programs in the planning area. This could include a description of programs for managing any items from households that may contain hazardous characteristics such as residential pesticides and insecticides, paints and solvents, used oil and other automotive fluids, automotive batteries and other household batteries or general household chemicals. Some communities may choose to manage only certain common types of HHW such as used automotive oil. The U.S. EPA has developed a guidance document entitled "How to Set Up a Local Program to Recycle Used Oil" (Document No. EPA530-SW-89-039A). The document is available to local governments interested in developing or enhancing such programs on the Special Waste Guidance web page of the Solid Waste home page at: www.deq.state.ms.us/solidwaste. At a minimum, the HHW program plan should include the following information:

- a) A description of the various types of household hazardous wastes collected;
- b) The manner of collection (one day event, permanent fixed collection site, mobile collection program, curbside collection, etc.);
- c) The physical location and address of collection points or fixed collection facilities;
- d) A description of the public education and outreach efforts regarding the local programs offered for the management of HHW;
- e) A description of the overall participation from the community in the program; and
- f) An assessment of the need for additional or alternative programs, facilities, or services to ensure adequate management of HHW in the planning area and a plan or schedule for initiating or acquiring such needed additional programs.

White Goods

The plan should include a description of all, local collection programs or provisions that the local governments have made for white goods wastes. White goods is a term used to describe a class of bulky wastes which includes major household appliances such as washers, dryers, refrigerator units, freezers, hot water heaters, and other larger comparable appliances. The MDEQ has developed a document entitled: “*Guidance for Implementation of Local White Goods Collection Programs*” (July 2008) to provide information on the local development of these programs. The description of these program(s) in the solid waste plan should include:

- a) The types of wastes managed in the local white goods collection programs;
- b) A description of the manner in which white goods and other residential bulky wastes are collected and disposed, including the name of contractors or other outside parties that provide assistance in managing or collecting these materials, the frequency of collection of the materials;
- c) The physical location and address of any white goods collection/storage points;
- d) A description of the public education and outreach efforts regarding the local programs offered for the management of white goods;
- e) A description of the annual collection rates and overall participation in the program; and
- f) An assessment of the need for additional or alternative programs, facilities or services to provide adequate management conditions for waste white goods, generated within the planning area and a plan and schedule for initiating or acquiring such needed additional programs.

Agricultural Chemical Containers

In certain areas of Mississippi, certain types of agricultural wastes require special management conditions. One of the major problem wastes for farmers and other individuals is pesticide and herbicide containers. These wastes are of special concern because if not properly rinsed the small amount of concentrate left in the containers can result in potentially significant water pollution problems where the containers are improperly stored or disposed.

To determine if a county produces a significant quantity of agri-chemical containers, each county should utilize the local cooperative extension agent or other qualified individual to develop a preliminary assessment based upon the crop reports for cotton, rice, soybeans and corn within the county. The worksheet in Appendix H must be completed for each county and submitted as an appendix to the plan.

Any county which has already established a pesticide container collection and management program and which plans to continue with implementation, as well as any county which must do so as a result of this guidance or which chooses voluntarily to do so, should include the following components in its pesticide container management plan:

- a) A description of the existing or proposed collection and management program. This description should include a narrative of how the program works; the locations of all collection and storage points with a county map indicating the approximate locations; a discussion of the quantity of containers collected (existing programs) or expected to be collected (new or expanded programs); and a description of how the containers were ultimately reclaimed or disposed of.
- b) A description of the public information or outreach efforts by the local government to increase the awareness of the farmer, pesticide applicator or other pesticide user of the program and the importance of proper rinsing procedures when emptying a container.
- c) An assessment of the need for additional or alternative programs, facilities or services to provide adequate management conditions for agricultural chemical containers, generated within the planning area and a plan and schedule for initiating or acquiring such needed additional programs.

Household Medical Sharps

MDEQ has developed a household medical sharps program which provides for the proper collection and disposal of syringes, lancets, and other “medical sharps” generated in the home and discourages these items from being placed in household garbage for disposal. Such disposable items not only present a safety hazard to persons working in the solid waste collection and disposal industry, but can become a hazard to the general public where garbage bags become broken open at the curb or where they are improperly disposed along roadsides or in illegal open dumps.

In order to provide a safe disposal option for persons generating medical sharps in the home, the MDEQ has established a network of voluntary household sharps collection stations throughout

the state. The local solid waste plan should identify any existing household sharps collection stations currently serving the area and should evaluate whether the number of local stations is sufficient to meet the needs of the community. A list of the participating household sharps collection stations in the state may be found on MDEQ's website at www.deq.state.ms.us/medsharps.

If there are no voluntary household medical sharps collection stations in the area or if the number of stations is determined to be insufficient, local governments should work with persons in the private and/or public sector to establish new or additional collection stations for use by the public. MDEQ has found that local pharmacies have served as the most convenient and successful locations for collecting household sharps. In addition, some local fire departments have also had success operating sharps collection stations. MDEQ may also consider other local public or healthcare related locations for these collection stations as well.

All household sharps collection stations must register with the MDEQ. Additional guidance on establishing and operating collections stations for home-generated sharps and forms for registering collection stations may be found online at MDEQ's website at www.deq.state.ms.us/medsharps.

The plan should also address an effective means of making the public aware of household sharps collection stations in the area. Examples of such means may include periodic posting of notices to citizens receiving utility bills, newspaper/radio public service advertisements, publishing in any local government services newsletters or circulars, posting on local available web resources or through social media outlets, and posting of information on bulletin boards in public buildings such as community centers, senior service centers, utility payment centers, etc.

Other Special Wastes

The plan should evaluate whether additional programs or services are needed to properly collect and manage other special wastes generated in the planning area. Other special wastes which have been identified as having problematic management conditions include, but are not limited to: seafood processing wastes (on the Mississippi Gulf Coast); electronics wastes (computers, televisions, cellular telephones, etc.); other medical wastes (health care facilities, and others); compressed gas cylinders and other cylinder container wastes (propane tanks, fire extinguishers, etc.- *Note: For those interested local governments, the Product Stewardship Institute has developed a guidance document entitled "Managing Non-Refillable Gas Cylinders: Recommendations for Municipal and County Officials" -dated July 16, 2003*); problematic agricultural wastes such as irrigation tubing and poultry litter and a variety of other waste materials.

Where these programs are determined necessary or advantageous by the local government, the description of the plans for the programs or services should include the following:

- a) A description of the types of waste managed and the expected sources and quantities;
- b) A description of the manner in which the wastes will be collected and managed;

- c) A description of the location and site conditions of any collection or storage point for managing the wastes;
- d) A description of the end use or disposition of the collected waste materials; and
- e) An assessment of the need for new, additional or alternative programs, facilities or services to manage these wastes and a plan and schedule for initiating or acquiring the needed additional programs.

6. Disaster Debris Planning.

The plan should include provisions and plans for management and disposal of disaster-related debris, caused by catastrophic events, weather related conditions, emergency events and other disaster occurrences that generate large amounts of solid wastes and debris. The Federal Emergency Management Agency (FEMA) has developed a Public Assistance Debris Management Guide (FEMA 325- April 1999) that provides helpful guidance and information on disaster debris planning. Contact FEMA to obtain a copy of this document. The section of the solid waste plan on disaster debris planning should include at a minimum:

- a) A characterization of the general types of wastes that are expected to comprise local disaster debris; For those planning areas that have large amounts of animal related agricultural facilities, the plan should include provisions for managing large quantities of animal mortalities or other related animal wastes;
- b) A description of the contact personnel and contact agencies within the planning area for coordination on disaster debris management;
- c) A plan for designating debris management sites in the area and a description of the factors that the local government(s) will use in selecting emergency waste management/disposal sites;
- d) A plan for providing information and outreach to the public and to affected local governments on proper disposal of disaster related debris;
- e) An assessment of the existing disposal capacity for managing disaster debris and the potential impacts on existing disposal facilities that a disaster might cause;
- f) An assessment of opportunities for recycling or beneficially using disaster related debris rather than utilizing landfill disposal, emergency site disposal or open burning options;
- g) An assessment of the need for additional or alternative programs, facilities or services to manage disaster debris wastes and a plan and schedule for initiating or acquiring the needed additional programs.

7. Recycling and Waste Reduction Programs.

Each local solid waste plan, by state law, must contain an adequate local strategy for achieving a 25% (percent) waste reduction goal. The Mississippi Code Annotated Section 17-17-227 requires that the plan should include that waste reduction strategy proposed by the local government through source reduction and recycling efforts. The U.S. EPA defines source reduction as the design, manufacture, purchase or use of materials to reduce their quantity or toxicity before the materials reach the waste stream. Local governments certainly have a role in purchasing and using materials and should consider developing and implementing practices and policies that will reduce or prevent solid wastes at their source. In addition, local governments may also have a role in the design of a new structure, road, or other items which could include waste reduction practices.

Recycling and composting are reactive methods of recovering or re-using materials after use. Recycling is the process by which materials otherwise destined for disposal are collected, processed, and remanufactured or reused. A well-managed recycling program can divert a significant percentage of municipal, institutional, and business waste from disposal. Recycling can also help to control waste management costs by generating revenues through the sale of recyclable materials. MDEQ maintains directories of various recycling organizations, businesses and programs in the state and region that may be used in the development of the local waste reduction and recycling strategy and of the local recycling facility inventory described below. The directories and other information on recycling are available on the MDEQ Recycling web pages accessible from the MDEQ Solid Waste program home page at the following web address: <http://www.deq.state.ms.us/solidwaste>. The local government's recycling/waste reduction strategy should contain the following components:

- a) A description of any source reduction practices or policies in place by local governments to reduce or prevent the generation of solid waste at the source. These policies could include local government procurement policies (purchasing recycled, used, or more durable or less toxic or environmentally friendly products), leasing instead of purchasing, purchasing concentrates, local government waste audits, employee education programs, outreach efforts to residents on source reduction issues (e.g grass-cycling and back yard composting), green building plans or policies for new construction, etc.
- b) A description of the recycling programs in the local planning area sponsored by local government entities such as counties, cities, regional solid waste authorities or waste districts. This description may include or reference other recycling programs previously presented in this plan such as white goods, waste tires, yard wastes or agri-chemical containers. The description should include the following:
 - the recyclable materials that are being collected;
 - the manner of collection (curbside, collection points, post collection separation, etc);
 - the physical location and site description of the collection, processing or separation facilities used in the program and a description of the activities occurring at the facility(ies); and

- the ultimate means of recycling or reuse of the collected materials.
- c) A description of other recycling programs sponsored in the planning area by other entities such as neighborhood associations, nonprofit groups, universities and school districts, commercial businesses, industries, recycling companies and other organizations. This description should include: the materials that are being collected; the manner of collection; the location of the collection, processing, separation or recycling points; and the ultimate method of recycling or beneficial use. A sample survey form for recycling companies and businesses has been included in Appendix F to assist in developing the information for this portion of the plan. The survey may be varied as necessary to collect appropriate information for the local planning area;
 - d) A listing of recyclable materials that are or will be collected and a numerical estimate of the anticipated impact on the municipal solid waste generated within the planning area.
 - e) An inventory (in tabular format) of all recycling facilities or services (whether public or private) in the local area should be included with an indication of the types of materials collected and recycled. The Department's listings of various recycling companies in the state and out of the state that may be used to assist in the development of this inventory.
 - f) An assessment of the existing solid waste reduction and recycling efforts that the community has achieved should be provided including an estimate of the percentage of waste reduction that has been achieved in the planning area. The assessment should also include a determination of the needs for additional or alternative programs, facilities or services for source reduction or recycling programs. Where the needs determination identifies new or enhanced programs, facilities, policies and practices, a plan and schedule for initiating or acquiring the needed additional programs should be included.

8. Comprehensive Inventory of Local Solid Waste Management Facilities.

This section of the plan should include a summary inventory and capacity evaluation of all existing permitted solid waste management facilities as described in the previous sections on primary system components and special waste management. This facility inventory should include the following information:

- a) A consolidated current listing of solid waste management facilities in the planning area with the locations, permit number (including the current permit status), the types of wastes received, approved service areas, overall total approved disposal acreage, remaining disposal capacity, the method of financing and the current tipping fees charged. The MDEQ maintains a spreadsheet listing of solid waste management facilities that may be used as a reference for developing this inventory.
- b) The inventory should refer to the specific sections of the plan where the facility and the facility information are more completely described.

- c) The inventory must also include those facilities that are owned and operated by private industries or manufacturers for the management of industrial wastes.
- d) The inventory should list other facilities that are located outside the planning area but that receive significant quantities of solid wastes from the planning area.
- e) The inventory should also recognize new facilities or expansions of existing facilities. Where specific new or expanded facilities are proposed as part of the planning update actions, a completed Solid Waste Planning Facility Information Form(s) should be included in an appropriate appendix of the plan. The form should be completed and signed by the person(s) proposing the new facility or the expansion of the existing facility. A sample solid waste management facility information form is included in this document in Appendix I.
- f) The inventory should be followed by a narrative discussion of the local land use or land management regulations or ordinances that apply to the siting of various solid waste management facilities in the planning area. As requested in Part III.B.3 of this document, a copy of the applicable portions of those land use or land management laws should be included in the appendix of the plan, where possible. Where such ordinances do not exist, the plan should include an assessment of the need for such local regulations or laws and an implementation schedule for acquiring or adopting such local laws or ordinances.
- g) The planning entity should attach a map of the planning area that depicts all existing and proposed solid waste management sites within the planning area. The map should differentiate between different types of solid waste management facilities by using a legend with distinctive symbols for each facility type.
- h) This inventory should not include planned facilities that are only conceptual where specific information is not known about the facility. Those facilities should be discussed in the section on Future Needs and Implementation Schedule.

9. Illegal Dumping Prevention and Clean-Up Programs.

This section of the solid waste plan should include a description of local programs and systems to address illegal dumping of solid wastes in the planning area. This information should include:

- a) A description of the efforts or programs administered by the planning entity or its member entities to prevent illegal dumping and a strategy for closing existing open dumps; The U.S. EPA Region 5 has developed a document entitled: *“Illegal Dumping Prevention Guidebook”* (dated March 1998). This guidebook provides information on various local programs throughout the nation to address the prevention of illegal dumping.
- b) A description of any existing enforcement programs or proposed plans for a local enforcement program to address illegal dumping;

- c) Where a local solid waste or environmental enforcement officer has been employed by a local government member of the plan, the plan should provide the name(s), contact information, an indication of the local agency(ies) for which the officer(s) is employed; and a description of the duties of the officer. The MDEQ has developed a document entitled: *“Local Solid Waste Enforcement Officers: Duties and Procedures”* (dated June 2002) for guidance in the expected work duties and procedures of a local solid waste enforcement officer supported by grant funding from the MDEQ.
- d) Where a local, solid waste enforcement officer is not employed, the local government(s) should designate a local enforcement contact(s) that is able to receive, investigate, and resolve illegal dumping complaints and problems. Multiple local enforcement contacts should be disclosed in those plans involving multiple political subdivisions which have jurisdictional enforcement authority.
- e) A description of any local ordinances or laws adopted or planned to address illegal dumping or other solid waste management issues for all political subdivisions; Where possible a copy of these local laws or ordinances should be included in the appendices and the specific appendix referenced in the text of this description.
- f) An inventory of all known active or recurring open dumps within the planning area. The inventory should include a general description of the open dump, the location of each known dump, the ownership of the property on which the open dump exists, the current status of the open dump, the type of waste disposed of at the dump, and any special environmental or public health hazards posed by the open dump. A map depicting the location of all known open dumps should be included;
- g) An assessment of the need for additional or alternative prevention or enforcement programs, laws, or personnel to locally address and resolve citizen solid waste complaints and a plan and schedule for initiating or acquiring the needed additional programs.

The U.S. EPA has developed a campaign to reduce backyard burning of solid wastes that may provide helpful information to local governments administering illegal dumping prevention programs. The EPA Web Site can be found at <http://www.epa.gov/msw/backyard>. The web site contains information, links, brochures, presentations and other outreach materials for governments to use with their residents. The brochures can also be customized to include local information on backyard burning. The first brochure, *“State and Local Governments Are Key to Reducing Backyard Burning”*, encourages state and local government officials to take action to reduce backyard burning in their jurisdictions. It describes the dangers of backyard burning, and provides information on what some jurisdictions are doing to provide waste disposal alternatives and outreach to residents, and to restrict backyard burning through regulations. The second brochure, *“The Hidden Hazards of Backyard Burning”*, is aimed at residents, and can be distributed by local governments in their efforts to discourage backyard burning.

10. Closed Solid Waste Disposal Facilities.

The plan should include an inventory of all known, closed solid waste disposal facilities. The MDEQ maintains a spreadsheet listing of known, closed solid waste landfill facilities in the state that may be helpful in developing this information. However, other information may need to be obtained from long time city employees or residents. This closed facility inventory should generally consist of the following information:

- a) A consolidated listing of closed facilities with the location, permit numbers (if any), the types of wastes received (if known) and the year closed.
- b) A narrative summary which describes the post closure maintenance efforts and perpetual care costs to the local solid waste management system.
- c) A summary of current status of the closed facilities and any ongoing corrective action measures or anticipated or potential corrective action measures at the identified closed facilities. Where the post closure conditions are not known for a closed landfill, rubbish site, or other disposal facilities that are owned by a local government member of the planning entity, the local government should conduct an inspection and assessment of those facilities that are closed landfills or rubbish sites. The results of those inspections or assessments should be included in this discussion.
- d) A description of any known future plans to use or develop the closed landfill.
- e) An assessment of the need for special corrective or supplemental post closure actions at the site(s) and a plan and schedule for initiating the necessary remedial actions.

E. FINANCING OF PRIMARY SOLID WASTE SYSTEM COMPONENTS

Each solid waste management plan must provide information on the costs and the financing of the primary, solid waste system components included in the plan. Mississippi Code Annotated Section 19-5-109(1) requires that each county and municipality shall make a good faith effort to estimate the cost of garbage and rubbish collection and disposal services. Assumptions used in calculating the system costs and financing should be identified.

1. System Costs.

The evaluation of solid waste system costs should include the local government's costs for solid waste collection, storage (including transfer stations), treatment, processing, composting, recycling and disposal of municipal solid wastes within the planning area. In addition, other costs for program administration, illegal dump clean-ups, public education and outreach, post-closure maintenance of closed facilities and other related solid waste management services should also be included in the overall system costs. Where the local government is providing any of these services through contractual arrangements with private companies, the costs should be estimated as operational to the governmental entity and it shall not be necessary to show any proprietary information of the waste service company concerning a further breakdown of such costs. Likewise, where the private sector is providing a service without a contractual relationship to a governmental entity and therefore does not require an expenditure of public funds, no breakdown of costs shall be necessary. The costs identified should generally include the following information, where applicable:

- a) Collection system costs may include such items as personnel, building and grounds, equipment, utilities, vehicles, maintenance, and administrative costs.
- b) Treatment, storage and disposal and/or processing system costs can be divided generally into the following five cost centers: development costs, construction costs, annual operating costs, closure costs, and post-closure costs. These cost centers may include the following costs:

Development costs may include such items as land acquisition, site mapping, facility design, geotechnical investigations, development of permit applications, and administrative costs.

Construction costs may include such items as land clearing, roadway construction, drainage and sediment control, buildings, utilities, air pollution control equipment, land excavation, liner systems, leachate/storm water collection systems, ground water monitoring wells/leak detection systems, gas venting/recovery systems, landscaping, scales, construction support, and administrative costs.

Annual operating costs may include such items as personnel, building and grounds, equipment, road maintenance, monitoring system maintenance, facility operating costs, ash/residuals/waste/recyclables management, balers, grinders, environmental monitoring, contractual costs, engineering services and administrative costs.

Closure costs may include such items as decommissioning, design and installation of the final cover system, landscaping, final leachate collection system, gas venting system, removal of operational facilities, and development and submittal of documentation.

Post-closure costs may include such items as site inspection and maintenance, groundwater and surface water monitoring systems, gas monitoring systems, leachate collection system maintenance, leachate treatment and submittal of documentation.

- c) Other System Costs would include costs incurred in cleanup and prevention of illegal dumps, corrective actions at old closed landfills, emergency management of storm debris, public outreach and education programs on solid waste and other various solid waste management costs that are not included in either collection system costs, or in treatment, storage, processing or disposal costs.

The plan must clearly itemize the costs of the municipal solid waste management system to the local government. Costs for the waste minimization and special waste management portions of the system should be included. The system costs for treatment, storage, processing and disposal components should also be shown in dollars per ton (\$/ton).

2. Financing Options.

The plan shall identify the method(s) of financing the public expenditures for solid waste management system components and services. Financing options may be generally divided into two categories, capital financing and operating financing.

- a) Capital financing may generally be derived from four primary sources: borrowed funds, grants, current revenues, and private financing. Borrowed funds includes general obligation and revenue bonds, bank loans, leasing and other government debt instruments. For additional guidance, Section 17-17-101 et seq of the Mississippi Code, Annotated addresses the bonding authority of municipal governments for solid waste projects. Section 17-17-301 et seq of the Mississippi Code, Annotated addresses the bonding authority of county governments and regional solid waste authorities for solid waste projects. Grant funds may be obtained from governmental sources to fund a portion of the capital expenditures. MDEQ has several grants programs that may be available to local governments for certain components of the local solid waste system. Current revenues are commonly used to finance smaller capital costs from sources such as reserve funds. Private funding allows governments to shift the financing of capital expenditures to a private firm.
- b) Operating revenue may generally be obtained from three sources, tax financing, user fees, and selected grants. Tax financing is the option most used to finance nonhazardous solid waste management systems from property taxes, sales tax, utility taxes, and/or special tax levies. User fees provide funds through three methods, uniform rate user fees, variable rate user fees, and disposal fees. Uniform rate user fees allocate costs equally to all users in the area served. Variable rate user fees allocate the costs based on the amount of nonhazardous solid waste generated. Disposal fees, commonly referred to as tipping fees, are charges levied at a management facility and are based on the amount of waste accepted for disposal.

Another type of fee that may be available to provide solid waste management services would be a host fee. Host fees are fees that are paid to a local government that “hosts” a privately-owned disposal or other waste management facility which generally services areas outside of the local government’s jurisdiction. Such fees are generally the result of an agreement between the private landfill company and the local government and vary from situation to situation and are not available in all circumstances. Host fees are generally added on to the tipping fee and should be directly proportional to that fee. In addition, selected grants may provide for operational expenditures. Examples of grants programs that may provide funding for such activities include the MDEQ Local Government waste tire Collection and Clean-Up Grants and the MDEQ Local Government’s Solid Waste Assistance Grants.

The plan should describe the financing method(s) that are utilized or that are proposed to be utilized by the local government(s) to finance the local municipal solid waste management system. Financing options must provide sufficient funds for both the amortized capital costs and the annual operating costs. The methods of financing could include user fees, millage rates, taxes, grants, loans, local general funds, bonds, host fees or other financing mechanisms allowed by state law.

The plan should also identify state/public grant or other financial assistance (SWAG, Waste Tire, Solid Waste Planning, Corrective Action Trust Fund, or other) for each member county/city of the planning entity and the activities, programs and services that the grants are providing financial assistance to support.

Based on the needs identified in the plan and summarized in Section III.F, the plan should assess the need for additional or alternative methods of financing the solid waste management system services and components. The plan should also propose a schedule and method for attaining such additional financing mechanisms as part of Section III.G.

F. SOLID WASTE NEEDS ASSESSMENT SUMMARY

The plan should include a comprehensive summary of solid waste needs assessment conducted by the planning entity to evaluate the existing solid waste management system. The needs identified previously in the sections of the planning guidance on the primary solid waste system components and special waste management components should be summarized to indicate the overall needs of the solid waste management system components for the planning area. The needs assessment summary should include, at a minimum, the following information:

- a) A projection of the overall quantities of municipal solid waste generated annually within the planning area over the next 20 years as identified in Section III.C.2;
- b) The expected composition of the municipal solid wastes to be generated and managed over the next 20 years as identified in Section III.C;
- c) A summary (derived from the applicable needs assessment for the Residential Garbage Management and Rubbish Management Sections of the Primary Program Components in Section III.D) of the adequacy of existing disposal capacity (at SWM facilities located within the planning area and facilities used by the planning entity but located outside planning area) to handle the anticipated/projected waste volume for the next 20 years;
- d) A summary of the needs assessment and an evaluation of additional solid waste management services and disposal capacity needed for the next 20 years as identified in the previous sections of the plan on residential garbage and rubbish in the primary program components;
- e) A summary of additional wastewater sludge/bio-solids management needs as identified in applicable needs assessment of Section III.D.3 of this guidance document;
- f) A summary of additional special waste management needs as identified in applicable needs assessments of Section III.D.4 of this guidance document;
- g) A summary of additional disaster debris management needs as identified in applicable needs assessment of Section III.D.5 of this guidance document;
- h) A summary of additional recycling or waste reduction needs as identified in needs assessment of Section III.D.6 of this guidance document;
- i) A summary of additional illegal dumping prevention and abatement program needs as identified in applicable needs assessment of Section III.D.8 of this guidance document;
- j) An inventory of the currently planned new SWM facilities, facility expansions, recycling programs, public education and information programs, household hazardous waste collection programs, etc., to meet the future needs. This inventory should include facilities which are proposed and recognized in the plan as well as facilities that are only conceptual in nature;
- k) A summary of financing needs identified in Section III.E.

G. PROPOSED IMPLEMENTATION SCHEDULE.

The purpose of this section is to summarize the proposed implementation schedule for each new, expanded, renewed or alternate system component previously identified in Section III.E of the plan. The summary should describe a schedule or expected timeline for meeting the specific solid waste management needs of the local planning jurisdiction. This information should include:

- a) A summary description of the implementation schedules identified for the various components of the plan. The description should address new or planned facilities, identification of specific details for proposed conceptual facilities, renewal of contractual arrangements, expansion of existing facilities, implementation of new programs or services, trial or test programs for recycling or special waste management, planned household hazardous waste management programs, public outreach and education initiatives and other features identified in the plan.
- b) Identification of specific strategies/barriers/actions necessary to implement the future plans as described in the timeline. These actions should include acquisition of additional funding sources; adoption of new local laws, regulations or ordinances; solicitation of private proposals, development of regional or public-private partnerships and any other actions that the local government identifies as needed to remove a barrier or to implement the proposed planning schedule.
- c) A graphic presentation of the timeline for implementation of the various components of the plan as described in the above referenced narrative;
- d) A description of the planning entity's plans and schedule for annual review and adjustment of the proposed implementation schedule in the plan;
- e) Final conclusions and recommendations to accomplish the proposed timeline in the plan.

H. ADMINISTRATIVE PROCEDURAL INFORMATION.

The plan should include a description of the process utilized in developing and finalizing the local comprehensive plan and any documentation necessary to demonstrate that the statutory or regulatory procedures for adopting the local plan were followed. A description of the process required by state law is previously described in the document in Section I. Copies of all public notices, required correspondence, resolutions and other required documentation as cited below should be included in the appropriate Appendices. This information should include, at a minimum, the following:

- a) A description of the efforts in the planning process to coordinate with state regulatory agencies, municipalities, adjacent counties, regions, or states. Copies of the letters notifying the adjacent counties of the proposed comprehensive plan should be included in the appendices and the appendix reference in this description.
- b) A description of the public participation efforts of the planning process should be provided. This should include copies of public notices, a summary or transcript of public hearings conducted, press releases, and other public notification documents. Please note that public notices should accurately describe the location of a physical copy of the proposed plan for review by the public. The public notice should also include specific details of any new or expanded solid waste management facility proposed by the plan.
- c) When a new or expanded facility is proposed, copies of the notification letters to contiguous property owners and copies of the signed certified mail delivery receipts or of any returned certified mail item that is refused or otherwise undeliverable should also be submitted. Additionally, the facility description for the new or expanded facility must include the demonstration of need for the facility as developed or adopted by the planning body.
- d) A discussion of the relevant issues/concerns raised during the public hearings and comment period and a description of how the local government considered the comments and the local government's response(s) to the issues identified in the public comment process.
- e) A description of any modifications or additions made to the draft plan as a result of the public participation process;
- f) Documents confirming formal adoption of the plan by the planning authority including copies of the resolution of the governing body and supporting resolutions from other the member entities (cities, counties, or other political subdivisions).
- g) The date and means of submission of the plan to the Department;
- h) The provisions for monitoring and implementation of the plan and the proposed timetables by the local government; and
- i) A plan and schedule for ongoing annual review and monitoring of local plan implementation.

IV. APPENDICES.

The Appendices of the proposed plan should include all relevant information important to substantiate organizational structure, demonstrations, plans, schedules and provisions of the overall solid waste plan. Such information could include survey responses, solid waste facility information sheets, data collection summaries, copies of laws, ordinances, or agreements, copies of reference materials, public notices and procedural documentation and other information as needed to support the conclusions of the plan. The appendices should generally be organized in the order of reference in the plan.

APPENDIX A

INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL
NONHAZARDOUS SOLID WASTE GENERATOR SURVEY

1. Name: _____
 Address: _____

 Standard Industrial Classification (SIC) Code: _____

2. Nonhazardous Solid Waste Generation (Quantification)

Please provide information on the annual amount of nonhazardous solid waste generation:

	Volume (cu. yds.)	Density (lbs./yd.)	Weight (tons)
Process waste	_____	_____	_____
Non-process waste	_____	_____	_____

Measured _____ or Estimated _____

3. Nonhazardous Solid Waste Management

a. Collection: (check one)

	Contractor	County	City
Process waste	_____	_____	_____
Non-process waste	_____	_____	_____

Please list collection contractors _____

b. Treatment and/or Disposal: (check one)

	Treatment	Landfill
Process waste	_____	_____
Non-process waste	_____	_____

Please describe type of treatment, disposal or recycling _____

c. Recycling

Does your firm / organization recycle process waste? _____

If yes, briefly describe: _____

Does your firm / organization recycle non-process waste? _____

If yes, briefly describe: _____

4. Nonhazardous Solid Waste Generation (Composition)

Please estimate the percentage of the following components in your firm's / organization's total nonhazardous solid waste stream:

	Process Waste (%)	Non-process Waste (%)
Cardboard / Corrugated	_____	_____
Newsprint	_____	_____
Other Paper	_____	_____
Plastic	_____	_____
Textiles	_____	_____
Metals (ferrous, aluminum, etc.)	_____	_____
Glass	_____	_____
Wood / Yard Waste	_____	_____
Food Waste	_____	_____
Other Organics (rubber, leather, etc.)	_____	_____
Other:		
_____	_____	_____
_____	_____	_____
_____	_____	_____

APPENDIX B

MUNICIPAL SOLID WASTE COLLECTORS SURVEY

1. Name: _____
 Address: _____

2. Collection

Please provide the following regarding your company's nonhazardous solid waste collection services:

Collection Area	Population	Residential					Commercial	Destination Facility Name
		Type of Waste	Freq. per wk	Type of Service	No. Pickups	% Coverage	% Coverage	
City of:								
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

Collection Area: Please describe the areas served by incorporated areas (city of) and unincorporated areas (i.e. X county)

Population: Please provide the 2000 population of each collection area listed.

Residential Collection: Please provide the following information regarding residential collection services:

Type of Waste: G = Garbage R = Rubbish O = Other

Frequency: Collections per week

Type of Service: C/M = Curbside / Mailbox D = Dumpster

No. of Pickups: Number of Pickups

% Coverage: Percentage of residences in listed incorporated or unincorporated area covered by your company

Commercial Collection: Please provide the following information regarding commercial (industrial, commercial and institutional) collection services

% Coverage: Percentage of commercial establishments in listed incorporated or unincorporated area covered by your company

Destination: Please provide the name of the facility to which your company delivers nonhazardous solid waste collected in each listed incorporated or unincorporated area.

APPENDIX C

MUNICIPAL SOLID WASTE CHARACTERIZATION
COMPONENT CATEGORIES

Cardboard / Corrugated

Newsprint

Other Paper

Plastic

Textiles

Metals
(ferrous, aluminum, etc.)

Glass

Wood / Yard Waste

Food Waste

Other Organics
(rubber, leather, etc.)

Other:

APPENDIX D

WORKSHEET: CONDUCTING A FIELD WEIGHING PROGRAM

- Step 1: Identify each disposal site within the study area and those outside that receive waste from within the study area.
- Step 2: Obtain the cooperation of the disposal site operators.
- Step 3: Set the weighing program dates.
- Step 4: Determine the operating schedule for each site identified in Step 1.
- Step 5: Derive a breakdown of vehicle arrivals on an hourly basis.
- Step 6: Identify the number and type of vehicles that use the site(s) on a daily basis.
- Step 7: Identify the refuse haulers that use the sites.
- Step 8: Determine the split between residential and commercial waste.
- Step 9: Check with local organizations about borrowing weigh scales or contract to rent the equipment
- Step 10: Develop a survey program.
- Step 11: Review survey program and the other previous steps to insure that there are no biasing factors.
- Step 12: Determine the actual survey site at the landfill.
- Step 13: Arrange for the survey crew.
- Step 14: Make sufficient copies of the survey form.
- Step 15: Setup scale before the collection trucks arrive, if it is an unfenced area the scale must be removed at night and setup again in the morning.
- Step 16: Record the weight of each vehicle, or a sample, depending on the survey program. Tare weights only need to be measured once.
- Step 17: Analyze the weight data recorded.

APPENDIX E

WORKSHEET: CONDUCTING A FIELD COMPOSITION PROGRAM

- Step 1: Identify each disposal site within the study area and those outside that receive waste from within the study area.
- Step 2: Identify the number and type of vehicles that use the site(s) on a daily basis.
- Step 3: Identify the refuse haulers that use the site(s).
- Step 4: Determine the split between residential and commercial waste.
- Step 5: Select a disposal site that received a representative amount of waste (A composition analysis is not necessary at each disposal site).
- Step 6: Obtain the cooperation of the selected disposal site operator.
- Step 7: Set the date for the composition survey to be conducted.
- Step 8: Arrange to borrow, rent, or buy the necessary equipment.
- Step 9: Develop the sampling approach to be used.
- Step 10: Review the sampling method and other previous steps to insure that there are no biasing factors.
- Step 11: Determine the site at the landfill where the sampling will actually be done.
- Step 12: Arrange for the sampling crew.
- Step 13: Make sufficient copies of the survey form.
- Step 14: Set up the equipment so that sampling can begin on time and be sure the entire crew is on-site at the appropriate time.
- Step 15: Conduct sampling program.
- Step 16: Conduct analysis of sampling data.

APPENDIX F

NONHAZARDOUS SOLID WASTE
RECYCLING SURVEY

1. Name: _____
Address: _____

Number of Locations: _____

Estimated population served: _____

Date recycling operation began: _____

2. Type of organization (check one):

_____ County _____ City
_____ Non-profit Organization
Please describe, _____
_____ Commercial recycling company

3. Type of program (check one):

_____ Buy-back centers
_____ Drop-off centers
_____ Curbside (Voluntary)
_____ Curbside (Mandatory)

4. Marketing

Briefly describe your organization's marketing of recovered materials. _____

5. Nonhazardous Solid Waste Recycling

Please indicate which materials are collected and processed at your facility and the annual amount of those materials collected:

	Material Recycled (Y or N)	Amount Collected (lbs.)
Cardboard / Corrugated	_____	_____
Newsprint	_____	_____
Other Paper	_____	_____
Plastic	_____	_____
Textiles	_____	_____
Metals	_____	_____
(ferrous, aluminum, etc.)		
Glass	_____	_____
Wood / Yard Waste	_____	_____
Food Waste	_____	_____
Other Organics	_____	_____
(rubber, leather, etc.)		
Other:		
_____	_____	_____
_____	_____	_____
_____	_____	_____

APPENDIX G

TIRE RETAILER WASTE TIRE
MANAGEMENT SURVEY

1. Name: _____
Address: _____

2. Estimated number of new and used tires sold per month: _____
Estimated number of waste tires generated per month: _____
3. Who collects your waste tires? (check one)
_____ Commercial hauler - name: _____
_____ Hauls own tires, MS Hauler I.D. # _____
_____ County _____ City
_____ Not applicable
4. How often are your waste tires generally collected? (check one)
_____ Weekly _____ Bi-weekly
_____ Monthly _____ Not applicable
_____ Other, how often? _____
5. Where are your waste tires managed? (check one)
_____ On-site
_____ At a location owned by me
_____ Landfill, which one: _____
_____ Other, please state how: _____
_____ Management unknown
6. Please estimate your cost of waste tire collection and management for a used passenger car tire.
\$ _____ / passenger car tire

APPENDIX H

WORKSHEET
PRELIMINARY ASSESSMENT OF
PESTICIDE CONTAINER MANAGEMENT

_____ COUNTY

(A) Crop	(B) <u>No. of Acres Planted</u>	(C) <u>Multiplier</u>			(D)
Cotton	_____	X 1	=		_____
Rice	_____	X 1	=		_____
Soybeans	_____	X 0.25	=		_____
Corn	_____	X 0.25	=		_____
		Sum of Column (D)	=		_____

If the sum of Column (D) is equal to or greater than 20,000, the county **must** develop a pesticide container management plan as a component of its local nonhazardous solid waste management plan.

If the sum of Column (D) is less than 20,000, the county may choose voluntarily to develop and implement a pesticide container management plan.

If any county has already established a pesticide container collection and management program and plans to continue with implementation, the local nonhazardous solid waste management plan should include a chapter describing the program.

APPENDIX I

SOLID WASTE MANAGEMENT FACILITY
(SAMPLE) INFORMATION SHEET

1. Facility Name _____

2. Existing Facility _____ Proposed Facility _____

3. Location: Section _____ Township _____ Range _____
 Physical Address _____

4. General Description of Facility: _____

5. Types of Waste Received _____

6. Owner _____ Operator _____

7. MDEQ Permit Number (existing only) _____

8. Design Capacity _____ (Tons/Yr.; Cubic Yd/Yr.) Estimated Life _____
Size in Acres: Disposal Area _____ Total Property _____

9. Service Area of Facility _____

10. Additional Information _____
