

ALABAMA SOLID WASTE MANAGEMENT PLAN

May 2008



EXECUTIVE SUMMARY

In 1989 the Alabama State Legislature enacted Alabama Law 89-824 to amend the Solid Wastes Disposal Act by adding Article 3, the prime directive of which was the development of an Alabama Solid Waste Management Plan. This Act is codified at Code of Alabama 1975, §§22-27-40 through 48. The first phase of the Plan was completed in November 1989. Phase II of the Plan was completed in April 1991. Both phases of the Alabama Solid Waste Management Plan were adopted by the Alabama Environmental Management Commission to the extent allowed by law, as appendices to the State's solid waste program regulations in March 2002.

The results of a statewide survey performed for the first phase of the Plan indicated Alabamians generated an average of 6.5 pounds of solid waste per person per day. The survey also indicated that approximately five percent of the State's waste stream was recycled. Later data supplied by local governments and compiled as part of the second phase of the Plan indicated that the average solid waste production per person per day is 6.3 pounds and that 2.6 percent of the waste stream was actually recycled. More recent data supplied by local governments during the period of 2004 – 2007 indicates that the total average daily solid waste generation by Alabamians is 9.9 pounds per person combining the municipal, construction/demolition and industrial waste streams, and that approximately 8.3 percent of the non-hazardous solid waste stream in the State is recycled or beneficially reused.

In accordance with the requirements of the Solid Wastes Disposal Act, Ala. Code § 22-27-45, (2006 Rplc. Vol.), this document is intended to provide updated information on both the quantities of solid waste generated, disposed and recycled in the State, as well as on some of the programs being implemented to manage these activities. Additionally, this Plan outlines a mechanism to be used in evaluating local solid waste management and recycling programs.

SECTION I INTRODUCTION

The Solid Wastes Disposal Act, amended by Alabama Law 89-824, required several actions to be completed that addressed solid waste management in the State. One of these actions required the Alabama Department of Environmental Management (ADEM) to prepare an Alabama Solid Waste Management Plan. The Law required that the Plan be initially prepared in two phases. The first phase was completed in November 1989, and served as a guide to local governments in the development of their local solid waste management plans. Phase II was completed in April 1991, and refined previously gathered solid waste management data, as well as identified a number of recommended statutory improvements to the State's management of solid waste. The law also established the criteria that should be included in any amendment or periodic revision to the Plan. In 2002, the Alabama Environmental Management Commission (EMC) adopted these original two phases of the Solid Waste Management Plan into the ADEM solid waste regulations.

Another requirement of the amendments to the Act was that each of the State's regional planning and development commissions were to develop regional solid waste management needs assessment to assist local governments in the development of their own solid waste management plans. These regional solid waste needs assessments are required to be annually evaluated and revised. These initial assessments were completed in 1989. The most recent updates to these needs assessments were submitted to the Department in 2003-2004.

The other major requirement of the amendments was to require local governments to prepare and adopt local solid waste management plans. Criteria were established under which the local solid waste management plans were to be developed. Each county was responsible for developing a solid waste management plan for its incorporated and unincorporated areas. However, municipalities were given the option to submit to the jurisdiction of the county plan, or to develop their own plan for solid waste management within their boundary. Similarly, counties were authorized to establish regional solid waste authorities through the development of joint solid waste management plans. A total of 80 plans (67 counties and 13 municipalities) were developed across the State and were initially submitted to ADEM in November 1990.

Coincidental with the adoption of the State plan into the regulations in 2002, the EMC required that revised regional solid waste needs assessments be prepared by the regional planning and development commissions and councils as required by the Act. The EMC established a regulatory deadline of November 2003 for submittal of these revised assessments. The regulations also required the development of revised local solid waste management plans by the governing body of each county or municipality with responsibility for overseeing solid waste management. These revised plans were to have been submitted to the Department by September 2004.

In July 2006, ADEM initiated administrative enforcement actions against those governing bodies that had not yet completed the revisions to their local plans. This step proved to be productive as several overdue plans were submitted to the Department for review. Likewise, a number of draft plans that had been previously reviewed by ADEM were subjected to public review and approval by the governing bodies. During this most recent round of local plan development, additional municipalities made the decision to opt-out of their respective county plans and to prepare their own solid waste management plans. As of February 2008, 67 local plans had been approved and another 14 have been drafted and are in various stages of review and approval by ADEM. To date, only two counties and two municipalities have failed to make an effort to comply with the statutory and regulatory requirements to develop revised local solid waste plans. Further actions may be taken to bring these local governments into compliance.

The data presented in this report represent the most current information on solid waste management that was made available to the State. The data and information presented in this report were obtained primarily from the approved local plans, which were the result of months of study by the counties and municipalities and their consultants. This report does not evaluate the accuracy and completeness of the local plans nor comment on the methods of future solid waste management selected by a county or municipality. The completeness of each plan is evaluated by ADEM as part of its review.

A key component of Phase II of the State Solid Waste Plan was the list of recommendations for improvements in the State's solid waste management system. Throughout the 1990's, the Department made repeated efforts to obtain legislative approval of a number of the recommendations included in Phase II of the Plan. Despite ADEM's efforts, only a portion of one of the recommendations listed in Phase II of the Plan was passed by the Alabama Legislature. The previous recommendations not adopted by the Legislature into law have been eliminated from this version of the State Plan. Further, since the Act requires that the Plan and all subsequent revisions be adopted into the ADEM regulations, it is not appropriate to include legislative recommendations as regulations. Rather, the Department will continue to work to identify potential improvements to the State's solid waste management program and to work to obtain approval of those improvements through both statutory and regulatory means.

In this regard, the Department has offered a bill entitled the "Solid Wastes and Recyclable Materials Management Act" for consideration during the 2008 Regular Session of the Alabama Legislature. This bill would provide for a comprehensive, statewide program for the effective management of solid wastes and recyclable materials by implementing a number of recommendations of the previous version of the State Solid Waste Management Plan. Specifically, the bill would establish the Solid Waste Fund that would be used to pay for the costs associated with the remediation of unauthorized solid waste dumps; establish the Alabama Recycling Fund to be used to provide grants to local governments and non-profit organizations within Alabama to develop and enhance recycling and waste minimization programs; and provide adequate funding resources to ADEM to carry out its duties related to the regulation of solid waste management and to fund educational programs related to solid waste management and recycling. These programs would be funded by a \$1.00 per ton statewide solid waste disposal fee.

The future success of solid waste management in Alabama rests with the implementation of programs designed to minimize the State's dependence on disposal and to increase efforts to re-use and recycle. Without a change of focus to these areas, Alabama will continue to meet its solid waste management needs through disposal. To continue the long term viability of this path, significant increases in resources must be devoted to the regulatory oversight of both permitted landfills and to the closure of illegal solid waste dumps. Public education and political support either for a fundamental paradigm shift to waste minimization and recycling, or for increased resources and significant revisions to the State's existing solid waste management system must be achieved if Alabama is to fully embrace the statutory purpose of the orderly management of solid wastes resulting from decisions based on comprehensive planning at the local, regional and state level.

SECTION II WASTE GENERATION AND DISPOSAL VOLUME NEEDS

An accurate accounting of the quantity of waste in Alabama's solid waste stream is a key element of producing a solid waste management plan which reflects the present and future needs of the State. The Act stipulates that each revision of the State Solid Waste Management Plan may include:

1. a revised estimate of the solid waste generation and disposal in the State for a 10-year period;
2. the total amounts of solid waste generated, recycled, and disposed of during the calendar year prior to the Plan's revision; and
3. the methods of solid waste disposal and recycling used during the prior calendar year.

In past waste accountings there were two basic methods utilized by counties and municipalities in quantifying their waste streams:

Method I Evaluation of historical waste stream quantities landfilled, incinerated, and recycled. Projection of waste quantities by determining overall trends in the historical waste quantities;
or

Method II Evaluation of historical waste stream quantities landfilled, incinerated, and recycled. Projection of waste quantities by applying unit waste generation factors derived from historical waste stream quantities and population estimates.

Projections utilizing Method I were made through the assumption that future waste stream quantities will follow historical trends. This method did not acknowledge individual factors affecting waste quantities but considers the trend in overall changes in waste stream quantities over a period of time.

In Method II, total waste stream quantities were projected by modifying historical waste quantities through expected changes in population. A unit waste generation factor (i.e., pounds per capita per day) was calculated from historical data and was applied to the projected annual population. Pounds per capita per day rates varied greatly across the State, and the variations can be attributed to commercial, industrial activity, individual waste disposal practices, and the various data collection techniques utilized by local governments. Many local solid waste management plans utilized the national average of 5.3 pounds per capita per day. Appendix A contains the total annual solid waste generation and recycling projections for the State for a period of ten years, as well as actual information on waste disposal for 2007.

SECTION III
DEVELOPMENT AND IMPLEMENTATION OF LOCAL SOLID WASTE
MANAGEMENT PLANS

Both the Act and the ADEM Solid Waste regulations require periodic updating of local solid waste management plans. Rulemaking undertaken in 2002 required submittal of the local plans to ADEM by September 2004. As of February 2008, 67 plans have been reviewed and approved by the Department. An additional 14 draft plans have been reviewed by ADEM and are undergoing further revisions or are awaiting public final action by the local governing body. Only two counties, Talladega and Cleburne, and two municipalities who opted out of their respective County Plans, Eutaw and Oneonta, have failed to develop draft local plans and submit them to the Department for review and comment. A complete listing of the local solid waste management plans and their approval status as of February 2008 is included in Appendix B.

Despite previous efforts to encourage recycling and waste minimization, a number of local jurisdictions have not fully developed and implemented recycling programs as part of their local solid waste management strategy.

SECTION IV SOLID WASTE REDUCTION AND RECYCLING EFFORTS

Both the Act and the ADEM regulations encourage waste minimization and recycling as key components of the State's overall solid waste management program. Pursuant to Ala. Code §22-27-45, (2006 Rplc. Vol.), the State Solid Waste Management Plan developed in 1991 and adopted into the regulations in 2002 recommended a statewide municipal solid waste recycling goal of 25%. In the U.S. Environmental Protection Agency's 2006 Strategic Plan, the EPA established a nationwide municipal solid waste recycling goal of 40% by 2011, while maintaining its prior goal of 35% recycling by 2008.

To further state government's commitment to recycling and waste reduction, under Alabama Law 90-564 §3(b), and subsequently Ala. Code §22-22B-3(b), (2006 Rplc. Vol.), state agencies and public school systems are required to report recycling activities annually to ADEM. Initially the Department jointly employed a staff member with the Alabama Department of Economic and Community Affairs (ADECA) to handle the annual state recycling report. In subsequent years, recycling reports from state agencies and public school systems were handled solely by ADECA, which supplied ADEM with a report summary of state agency recycling activities. In 2003, ADEM's Permits & Services Division took over all tasks required for compiling this report. During 2005, nearly 30,000,000 pounds of materials were recycled. The largest amounts recycled were paper waste (30%) and automotive batteries and oil (22%).

Today, ADECA's Recycling Program is a grant program which helps municipalities start or expand recycling services in their communities. ADECA provides publications and outreach for certain events (e.g. Earth Day, America Recycles Day, etc.). Alabama's Recycling Coordinator, who is employed by ADECA, assists with the public's questions regarding recycling in the state and maintains a Recycling/Recovered Materials Processors listing. The purpose of this list is to match buyers and sellers of waste material with potential economic value.

Currently, the Department addresses solid waste minimization through its regulations only in the Hazardous Waste Program, "Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities" (or TSDF), Rule 335-14-5-.05(4)(b)9. This rule requires TSDF to certify annually that they have a program in place to reduce the volume and toxicity of hazardous waste to a degree determined to be economically practicable. The proposed method of treatment, storage or disposal is to be the most practicable method available to the facility which minimizes the present and future threat to human health and the environment. The waste minimization certification must be maintained in the facility operating records on an annual basis.

Also under the Hazardous Waste Program, in February 2007, the EMC adopted revised regulations that would exempt certain electronics waste destined for recycling from the definition of solid waste. These revisions followed similar federal regulatory revisions promulgated by EPA in July 2006. These changes should encourage a greater level of recycling electronics by eliminating certain requirements relating to the management of these items.

To foster a better understanding by the Department as to the waste reduction and recycling efforts of local solid waste management programs, this Plan establishes an annual reporting requirement for local solid waste management authorities. This reporting would simplify the recommendation for a comprehensive annual solid waste report that was made as part of Phase II of the State Solid Waste Management Plan. This streamlined reporting format is included in Appendix C.

SECTION V NEW SOLID WASTE MANAGEMENT PROGRAMS

In its 2003 session, the Alabama Legislature passed the Alabama Scrap Tire Environmental Quality Act. This legislation was developed as a result of a recommendation made in Phase II of the State Solid Waste Management Plan. This statute established the Scrap Tire Fund and required ADEM to develop and implement a statewide scrap tire management program by October 1, 2004. ADEM Administrative Code, Division 4, which contains the scrap tire regulations and requirements, became effective August 4, 2004.

With input from the Scrap Tire Commission, ADEM began the process of staffing the program, and developing information systems and supporting documents as well as standard operating procedures. In conjunction with trade and industry associations and the media, the Department initiated strategies to notify those subject to regulation. The regulatory program instituted provided for the registration of Scrap Tire Receivers, which included separate classes for tire retailers and salvage and fleet operations. The permitting program initiated provided for permitting of scrap tire transporters, processors and end-users, and included provisions for the storage and transportation of scrap tires as well as other requirements. Manifesting shipments utilizing an approved form was a requirement to provide ADEM with information useable in determining proper reuse or disposal of scrap tires within the state. Procedures were also established by regulation for the use of the Scrap Tire Fund for remediation of scrap tire sites in Alabama. Included were those for an approved contractor and site ranking systems.

Since initiated, the ADEM Scrap Tire Program has issued over 2000 receiver registrations, 150 transporter and processor permits, and performed over 1800 inspections of scrap tire facilities and scrap tire sites. In the area of site cleanup, cooperative efforts by property owners and ADEM enforcement actions have resulted in the removal of nearly 1,000,000 scrap tires from illegal disposal sites, without expending Scrap Tire Fund resources. The site ranking process identified the State's largest illegal scrap tire site in Attalla, Etowah County, Alabama. After completing the initial contractor approval, competitive bidding and contract award processes, removal from the site began in August 2006. In the first eighteen months of this site remediation project, more than 30,000 tons of scrap tire material were removed. Of this amount, more than 50% of the material has been beneficially re-used. The project is on track to be completed in 2009.

APPENDIX A-1
10-YEAR SOLID WASTE GENERATION AND RECYCLING PROJECTIONS

Year	Projected Population ⁱ	Projected Waste Generated (tons) ⁱⁱ	Per Capita Rate (lbs/per person/day)	Projected Waste Recycled (tons)	Percent Recycled
2007	4,625,091	8,391,468 (reported)	9.94	694,813	8.28
2008	4,650,991	8,418,294	9.94	697,034	8.28
2009	4,703,227	8,512,841	9.94	704,863	8.28
2010	4,729,565	8,560,512	9.94	708,810	8.28
2011	4,756,050	8,608,450	9.94	712,779	8.28
2012	4,782,683	8,656,656	9.94	716,771	8.28
2013	4,809,466	8,705,133	9.94	720,785	8.28
2014	4,836,399	8,753,882	9.94	724,821	8.28
2015	4,863,482	8,802,902	9.94	728,880	8.28
2016	4,890,717	8,852,197	9.94	732,962	8.28

ⁱ Alabama population in 2006-2007 is from the US Census Bureau estimates. 10-year projected population estimates are based on historical trend calculations using US Census Bureau figures for Alabama from 2000 to 2006.

ⁱⁱ Projected waste generation figures are calculated using the combined volume of MSWLF, C&DLF, and ILF (off-site only) waste reported to ADEM in FY2007. Waste generation estimates do not include out-of-state waste disposed of in Alabama.

APPENDIX A-2
2007 SOLID WASTE DISPOSAL IN ALABAMA*

Municipal Solid Waste Disposal (Public)	4,697,915 tons
Industrial Solid Waste (Public)	1,908,001 tons
Construction and Demolition Waste	2,383,340 tons
Industrial Waste (On-Site Facilities)	1,276,040 tons
Total Waste Disposal (Public)	8,989,465 tons
Total Waste Disposal (Combined)	10,265,505 tons

*Note: Based on quantities reported to the Alabama Department of Environmental Management.

APPENDIX B

APPROVED LOCAL SOLID WASTE MANAGEMENT PLANS*

Autauga County	Jefferson County
Baldwin County	Town of Sylvan Springs
Barbour County	City of Birmingham
Bibb County	City of Florence
Blount County	Lauderdale County
Bullock County	Lawrence County
Butler County	Lee/East Alabama Regional SWDA
Calhoun County	Limestone County
Chambers/East Alabama Regional SWDA	Lowndes County
Cherokee County	Macon County
Chilton County	Madison County
Choctaw County	Marengo County
Clay County	Marion County
Coffee County	Marshall County
Colbert County	City of Mobile
Conecuh County	Mobile County
Coosa County	Montgomery County
Cullman County	Perry County
Dale County	Pickens County
City of Selma	City of Brundidge
Dallas County	City of Troy
City of Ft Payne	Pike County
DeKalb County	Randolph County
Elmore County	Russell/East Alabama Regional SWDA
Escambia County	Shelby County
City of Red Bay	St Clair County
Geneva County	Sumter County
Greene County	City of Alexander City
Hale County	Tallapoosa County
Henry County	Tuscaloosa County
Houston County	Washington County
Jackson County	Wilcox County
City of Adamsville	Winston County
City of Fultondale	

LOCAL PLANS REVIEWED BY ADEM WITH FURTHER ACTION PENDING*

City of Thomasville
Clarke County
Covington County
Etowah County
Fayette County
Franklin County
City of Dothan

City of Scottsboro
Lamar County
City of Huntsville
Monroe County
City of Montgomery
Morgan County
Walker County

LOCAL PLANS NOT SUBMITTED FOR ADEM REVIEW*

Cleburne County
Talladega County

City of Eutaw
City of Oneonta

*Status as of February 2008.

APPENDIX C

ANNUAL SOLID WASTE GENERATION & RECYCLING REPORTING FORM

Local Government Entity: _____

Contact Person: _____

Telephone Number: _____

Reporting Year: _____

**Total Solid Waste Generated
In the County/Municipality
For the Reporting Year in
Tons:** _____

Type of Recycling Operation(s): _____

MATERIALS RECYCLED

TONS RECYCLED

Newspaper	_____
Corrugated Cardboard	_____
Mixed Paper	_____
Aluminum	_____
Glass	_____
Plastic	_____
Ferrous Metals	_____
Other Metals	_____
Composting	_____
Other _____	_____
TOTAL	_____