

Solid Waste Biennial Report

October 1, 2014 - September 30, 2016

Executive Summary

The Solid Wastes and Recyclable Materials Management Act (SWRMMA) was signed into law by Governor Bob Riley on April 15, 2008. This legislation marked the culmination of nearly two decades of effort by the Alabama Department of Environmental Management (ADEM or Department) and numerous stakeholders to pass needed revisions to the State Solid Waste statute. The four main purposes to the SWRMMA are as follows:

- Provide stable funding for ADEM's solid waste and recycling programs;
- Provide fiscal resources to remediate unauthorized dumps/illegal disposal sites;
- Establish a grants program for local recycling efforts; and
- Establish a Statewide waste reduction/recycling program, goal, and measurement methodology.

Since the passage of the SWRMMA, the Department has worked diligently to implement its requirements. Several revisions and additions to the Department's Solid Waste program regulations have been made, while others are currently under development for future promulgation. Chief among these revisions were the establishment of the Alabama Recycling Fund (ARF) Grants program, the Solid Waste Fund (SWF) Site Remediation program, the Landfill Operator Certification program, a Statewide Solid Waste Reduction goal, and the Recycling Facility and Composting programs.

The SWRMMA established a statewide solid waste disposal fee of \$1/ton or \$0.25/cubic yard for all solid waste disposed in Alabama landfills. The revenues generated by this fee have enabled the Department to add needed staff necessary to carry out the programmatic requirements of the law. The funding has led to a significant reduction in unauthorized dumps (UAD's) and an increase in the overall compliance rate at permitted landfills from 57% for FY 2008 to 98% in FY 2016, as determined by the number of formal enforcement actions relative to the number of compliance inspections conducted.

The ARF grant program has awarded local governments more than \$13.75 million dollars since its inception in 2009. By returning these funds to local communities, the ADEM has played a key role in the creation or expansion of nearly 20 local recycling programs which have been instrumental in diverting significant quantities of solid waste from landfills, providing economic benefits to the local governments, as well as to their private enterprise partners, and preserving our State's natural resources.



The Solid Waste Reduction Goal of 25% was established in the 1991 State Solid Waste Management Plan and was retained in the 2008 update to the Alabama Solid Waste Management Plan. Recycling facilities are required to register with the Department and report on their activities regarding collection and processing of recyclable commodities using a web based reporting tool. The Solid Waste Reduction rate is currently calculated at 16%, approximately double of the rate calculated in 2008.

This report contains information on the ADEM Solid Waste Program activities and accomplishments since the passage of the SWRMMA. The Department is proud of the accomplishments achieved since passage of the SWRMMA and is excited by the challenges and opportunities that lie ahead for its Solid Waste Program. The Department looks forward to the continued support for these efforts by Governor Bentley, the Legislature, and the citizens of Alabama. In accordance with the requirements of the SWRMMA, this biennial report focuses on the ADEM Solid Waste Program's activities and accomplishments for the period of October 1, 2014 through September 30, 2016.



General Information

Amount of Solid Waste Disposed at Alabama Solid Waste Disposal Facilities

REPORTING PERIOD	MSW/ IN-STATE	MSW/OUT OF STATE	CD/IN-STATE	CD/OUT OF STATE	INDUSTRIAL/ IN-STATE	INDUSTRIAL OUT OF STATE
1 st Quarter FY15	949,092	103,065	319,765	18,462	362,772	8,969
2 nd Quarter FY15	976,583	99,904	312,670	19,176	282,510	8,373
3 rd Quarter FY15	1,155,282	111,488	300,539	24,082	434,181	9,462
4 th Quarter FY15	1,105,416	105,542	288,864	24,981	362,013	9,312
1 st Quarter FY16	1,131,353	105,401	256,390	19,383	313,093	105
2 nd Quarter FY16	1,139,525	100,047	288,431	22,429	307,178	0
3 rd Quarter FY16	1,178,920	121,434	311,743	28,524	338,229	9,412
4 th Quarter FY16	1,049,816	93,997	285,055	24,971	325,182	496

*All volumes reported in tons.

Disposal Fees Collected & Allocated

Recycling/Solid Waste Funds Collected:

FUNDING PERIOD	TOTAL
1 st Quarter FY15	\$413,903
2 nd Quarter FY15	\$437,387
3 rd Quarter FY15	\$381,430
4 th Quarter FY15	\$420,249
1 st Quarter FY16	\$417,120
2 nd Quarter FY16	\$404,839
3 rd Quarter FY16	\$420,519
4 th Quarter FY16	\$410,519

Funds Allocated:

FUNDING PERIOD	RECYCLING	UAD REMEDIATION
Fiscal Year 2015	\$2,129,372	\$1,217,147
Fiscal Year 2016	\$1,252,968	\$1,070,557

Program Highlights

Staffing

Prior to program funding provided by the SWRMMA, the Department's Solid Waste Program had a budget of just over \$700,000 and a staff of 2 permit writers and 2 landfill compliance inspectors/UAD site investigators. In addition to a supervisor and clerical support, the Program was also supported by less than half of a hydrogeologist's time and an ADEM attorney.

The personnel limitations of the Solid Waste Program resulted in a backlog of solid waste permits, a limited number of compliance inspections at permitted landfills, and a backlog of unresolved UAD complaints. Additionally, no personnel or other resources were available to address waste minimization and recycling in the state, or to track the progress towards achieving the 25% solid waste reduction goal. As a result of the funding made available from SWRMMA, the following are the current staffing levels of the ADEM Solid Waste Program:

<u>Staff Type</u>	<u>FTE</u>
Attorneys	2
Certified Operator Support	1
Clerical Support	1
Compliance and Enforcement Section	7
Engineering Section	5
Hydrogeologist Support	2
Landfill Inspectors	4
Recycling Section	5
Supervisor	1
UAD Investigators	4
Solid Waste Program	32

Solid Waste Program Regulatory Development

The Solid Waste Program regulations (Division 13 of the ADEM Administrative Code) were modified during this reporting period. The new regulations [335-13-4-.26(6) Disposal requirements for wood ash waste.] allow for the alternative management of wood ash wastes which exhibit less than 50 percent of each of the toxicity characteristic (TC) levels for metals.

The Department anticipates future revisions of the ADEM Administrative Code to incorporate recently promulgated federal rules regarding the management of coal combustion residual wastes. The Department also anticipates the need for potential revisions to the ADEM Administrative Code to establish closure requirements for surface impoundments and to develop a post closure permitting program for solid waste landfills. In addition, the Department may consider land disposal prohibitions of certain waste types (whole scrap tires, beverage containers, white goods) and may evaluate the management of green waste and inert waste materials.

Solid Waste Landfill Permitting

The State of Alabama currently has 33 Municipal Solid Waste Landfills, 52 Industrial Landfills, and 88 Construction and Demolition Landfills. The personnel limitations prior to the passage of SWRMMA resulted in a backlog of solid waste landfill permit reviews. The Solid Waste Program has eliminated the backlog of permit applications pending review, and has reduced its review and processing time for permit applications by nearly half since passage of the SWRMMA.

Solid Waste Landfill Compliance

Prior to FY 2009, the 2 staff solid waste compliance inspectors inspected each permitted landfill on a once per year basis. These 2 staff members were also tasked with the responsibility of investigating UAD sites and reviewing required reports submitted by permitted landfills. The additional funding provided by the SWRMMA enabled the Department to employ 4 dedicated field office personnel for solid waste landfill compliance inspections which has allowed the Department to conduct inspections of each municipal solid waste landfill on a once per quarter basis. In addition, the funding has allowed for additional staffing for legal support from two staff attorneys.

During this reporting period, the number of solid waste landfill compliance inspections conducted was 523 in FY 2015 and 541 in FY 2016. As a result of this increased compliance presence at permitted landfills, the Department has continued to see high compliance rates of approximately 98% from FY 2015 through FY 2016.

Landfill Operator Certification Program

The SWRMMA requires operators at Municipal Solid Waste Landfills to be certified by the Department and maintain continuing education requirements. In November 2009, the Department held its first landfill operator certification training class. Landfill operator certification classes are currently offered twice per year and since inception of the Landfill Operator Certification Program, 14 training courses have been provided throughout the State. As a result of this training, 626 landfill operator certifications have been issued by the Department to landfill operators. It is the intent of the Department to continue providing and overseeing landfill operator certification training as necessary to meet the requirements of the regulations and the statute.

Unauthorized Solid Waste Dump Site Investigations

The previously limited personnel resources hampered the Department's ability to investigate UAD sites in a timely manner which resulted in an overwhelming backlog of unresolved complaints. With the additional funding created by the SWRMMA, the Department now has adequate resources to investigate potential UAD sites in a timely manner and the Department has eliminated the backlog of unresolved complaints. Numerous enforcement actions have been taken against responsible parties which have required these sites be properly remediated and closed. To date, since the passage of the SWRMMA in 2008, more than 1,100 UADs have been remediated by responsible parties subject to enforcement actions issued by the Department.

Unauthorized Solid Waste Dump Site Remediation

The primary tool for remediating UAD sites identified across Alabama is through enforcement actions taken against the responsible parties. However, when it is determined that the property owner meets the qualifications to be considered an “innocent landowner,” as defined in ADEM Admin. Code r. 335-13-11-.02(1), the UAD site may be eligible for remediation using monies from the SWF.

Once a site has been deemed eligible for remediation funded by the SWF, the site is ranked according to information obtained during the initial site investigation using criteria outlined in ADEM Admin. Code r. 335-13-11-.04. The Department considers factors such as waste volume and type, proximity to public water supply systems and other utilities, proximity to residences, businesses and other populated areas, potential fire hazard, as well as proximity to minority and/or low income populations. This ranking process ensures that sites with the greatest potential impacts to human health and environmental safety are made a priority for remediation.

When sites rank sufficiently high on the remediation list, the Department initiates remediation activities by obtaining site access from the property owner. Once the site access agreement is executed, the Department will either utilize a local government entity through an interagency cooperative agreement or will solicit competitive bids for the project. Of the 61 remediation projects that have been completed or are in-progress as of the date of this report, 29 were remediated using interagency cooperative agreements with local governments. The remaining remediation projects were awarded in accordance with State bid law to private contractors.

During FY 2015 and FY 2016, the Department issued 49 Notices to Proceed encumbering approximately \$2,300,000 of Solid Waste Fund monies for site remediation activities. As a result, approximately 6,500 tons of solid waste has been removed and properly disposed from these sites. Examples of completed remediation projects are found below:



Lord Road, Dozier, Crenshaw County





County Road 155, Roanoke, Chambers County



Clausell Road, Monroeville, Monroe County



Recycling and Waste Minimization

Funding through the SWRMMA has provided for personnel in the Materials Management Section of the Solid Waste Branch who are responsible for the development of programs and activities to provide for regulation and reporting of recycling within the state. Such programs include recycling grants and recycling facility registrations, as well as additional actions to track the current state of recycling in the state and to establish and further progress towards exceeding the statewide solid waste reduction goal of 25%. These activities are supported through a comprehensive program of education and outreach activities either Department led or in partnership with stakeholders to further progress towards program goals.

Recycling staff also attends events throughout the State to promote recycling. Leveraging of resources and assistance with program development is provided through partnerships with other recycling organizations such as the Alabama Recycling Coalition (ARC) and the Southeast Recycling Development Council (SERDC). Examples of these partnership activities include a series of ARF Grant writing workshops held throughout the state in FY 2015. In addition, staff provided training on regulatory compliance at events in FY 2015 and FY 2016.

Recycling Grants

The SWRMMA provided funding through the ARF for local governments and solid waste authorities to introduce or improve recycling. Each year grant applications submitted by the March 1 deadline are reviewed and ranked for funding. Communities are designated as Category 1 (greater than 40,000 households), which must receive at least 60% of funds or Category 2 (less than 40,000 households), which must receive at least 20% of grant funds. The remaining 20% can be awarded to either category, with no single award being for more than 20% of funds available. The program awarded 22 grants for a total of \$1.8 million in FY 2015. In FY 2016, 19 grants were awarded totaling over \$1.25 million. The amount of available grant funds for FY 2016 was less than normal due to the reallocation of funds as required by the 2016 General Fund Budget. The recycling grants assist Alabama communities in realizing large increases in diversion from the disposal of recyclable commodities.

Grant recipients for FY 2015 and FY 2016 are listed on the following page according to organization receiving funds and the amount of the award. As the grants program, which made its first awards in 2009, progressed, specific priorities were added based on information from grantees and staff oversight of the program. For instance, in addition to placing a priority on grantees which acted in partnership, grants funds were targeted to the actual collection of recyclable commodities versus personnel and other request categories. As the grant program enters its 9th year, and in accordance with recommendations made through a Southeast Recycling Development Council (SERDC) research project funded by the Department, priority will be given in the future to applications which focus requests on collection infrastructure in support of a hub and spoke model. Annual review of the grants program may lead to additional prioritizations in future grant years.



2015

Grantee	Grant Number	Grant Year	Amount Allocated
Gulf Shores	ARF15-01-095	2015	\$226,602.23
Mobile County	ARF15-02-096	2015	\$35,000.00
Florence/CVP	ARF15-01-079	2015	\$300,000.00
Baldwin County	ARF15-03-097	2015	\$30,000.00
Calhoun County	ARF15-04-098	2015	\$38,425.00
Shoals SWA	ARF15-05-099	2015	\$123,558.26
East Alabama Recycling Partnership	ARF15-06-100	2015	\$124,420.00
Tuscaloosa/WARP	ARF15-07-101	2015	\$154,210.00
Jefferson County BOH	ARF15-08-102	2015	\$93,573.00
Florence	ARF15-09-103	2015	\$86,832.00
Dothan	ARF15-10-104	2015	\$50,000.00
Alabama Recycling Partnership	ARF15-11-105	2015	\$150,000.00
Statewide Media Campaign	ARF15-12-106	2015	\$75,000.00
Auburn Junior High	ARF15-13-107	2015	\$4,126.88
Pickens County	ARF15-14-109	2015	\$149,600.00
Guntersville	ARF15-15-110	2015	\$26,160.00
Livingston	ARF15-16-111	2015	\$23,800.00
Troy/TU	ARF15-17-112	2015	\$41,275.50
Clay County	ARF15-18-113	2015	\$25,017.06
Alexander City	ARF15-19-114	2015	\$50,441.63
Town of Pike Road	ARF15-20-115	2015	\$46,000.00
Gadsden	ARF15-21-116	2015	\$104,692.90
Eufaula	ARF15-22-117	2015	\$170,638.00

2016

Grantee	Grant Number	Grant Year	Amount Allocated
Calhoun County Commission	ARF16-01-118	2016	\$46,684.00
Mobile County Commission	ARF16-02-119	2016	\$97,736.00
Jefferson County Board of Health	ARF16-03-120	2016	\$48,252.00
Shoals Solid Waste Authority	ARF16-04-121	2016	\$137,194.56
Tuscaloosa County Commission	ARF16-05-122	2016	\$133,677.45
East Alabama Recycling Partnership	ARF16-06-123	2016	\$134,726.00
Florence	ARF16-07-124	2016	\$153,511.00
Brantley School	ARF16-08-125	2016	\$16,523.75
Pickens County Board of Education	ARF16-09-126	2016	\$70,775.00
Pickens County Solid Waste Dept.	ARF16-10-127	2016	\$118,380.34
Andalusia	ARF16-11-128	2016	\$26,250.00
City of Troy / Troy University	ARF16-12-129	2016	\$82,815.00
Guntersville	ARF16-13-130	2016	\$46,180.48
Athens Limestone Recycling	ARF16-14-131	2016	\$79,651.00
Jackson County Commission	ARF16-15-132	2016	\$14,995.00
Albertville Boaz	ARF16-16-133	2016	\$9,168.70
Alexander City	ARF16-17-134	2016	\$4,855.45
Rainbow City	ARF16-18-135	2016	\$10,652.62
Gadsden	ARF16-19-136	2016	\$20,940.00



City of Troy business collection cardboard trailer.

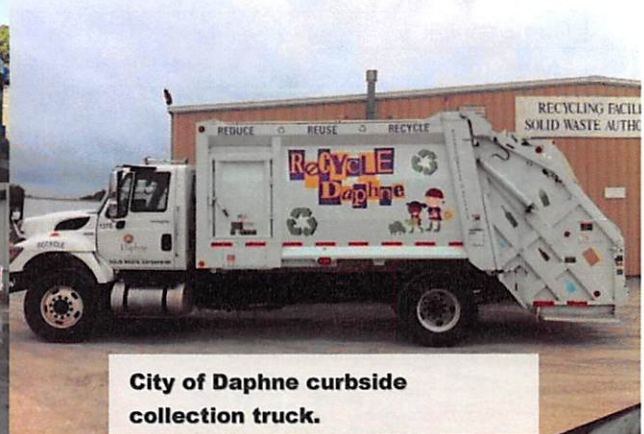


Grant funds may be utilized for development of collection infrastructure including residential and commercial sectors.

Procurement of equipment for collection of recyclable commodities serves a dual purpose when used for education of citizens.



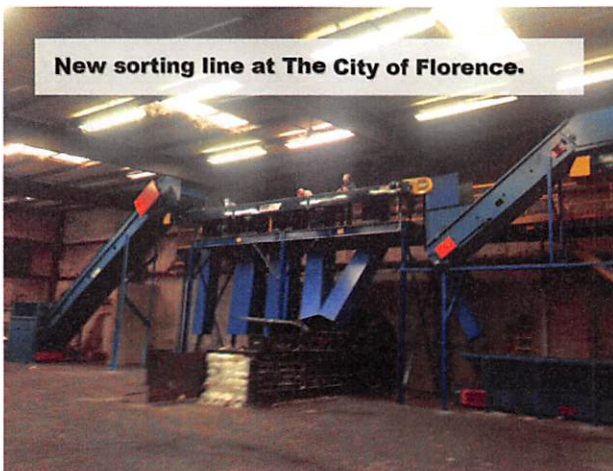
Lauderdale County- Florence Partnership



City of Daphne curbside collection truck.

Grants are issued and funding earmarked to ensure support is awarded to Alabama communities of all sizes.

Equipment purchased may include that associated with collection of recyclables in drop-off and curbside programs.



New sorting line at The City of Florence.



Events recycling trailer in Jefferson County

Equipment for sorting and processing is also eligible under the program.

Special event recycling including exhibitions, fairs and sporting events is a growing component of many local programs

Recycling Facility Regulations

Regulations for recycling facilities were adopted in June of 2010, and can be found in ADEM Administrative Code 335-13-3. Prior to the adopted regulations, the law only required that state agencies report recycling data to the Department. The rules adopted in 2010 require a facility who is the initial receiver of recyclable material from its generator to register with the Department and to comply with facility standards involving receipt and storage of recyclable materials, as well as certain operational requirements. Also required are facility signage, labeling and storage recommendations, record keeping and reporting requirements. Each registered facility is required to submit a Semi-annual Report to assist the Department in tracking progress towards the statewide solid waste reduction goal. Alabama Re-TRAC Connect is the web-based tool which allows the reporting of recycling data to the Department. Alabama Re-TRAC Connect was launched in 2013 and currently 211 state agencies and 166 recycling facilities have registered and are reporting.

Alabama Solid Waste Management Task Force

Building on the findings from the 2013 Solid Waste Study compiled by Auburn University, on September 15, 2016, Governor Bentley issued Executive Order 23, which created the Alabama Solid Waste Management Task Force to further study and identify areas for specific revision regarding the permitting process for solid waste management facilities. Members of the Legislature, ADEM, the Alabama Department of Public Health, local governments, representatives of the solid waste industry and other interested stakeholders are participating in this Task Force. The Executive Order mandates that the Task Force report its finding and recommendations to the Governor by March 1, 2017.

Statewide Solid Waste Reduction Goal

ADEM Admin. Code r. 335-13-13-.02 specifies a Statewide Solid Waste Reduction Goal of 25%. The Solid Waste Reduction Rate is currently calculated to be 16%. In addition to providing data to calculate our statewide goal, Re-TRAC Connect also allows the Department to collect data to submit to the EPA State Data Measurement Program (SDMP). This program allows all states to share and compare data with each other and with the EPA. Alabama was one of the original states to be instrumental in the development of this program and has been recognized by the EPA for their assistance throughout the years. Each year, Re-TRAC Connect improvements allow the Department to add additional data types to the report and further assist the EPA track the progress of waste reduction and recycling on a national level.

Program Goals

The Department will continue to work with local communities, elected officials, the regulated community, and other stakeholders to refine and improve the management of solid waste in Alabama. The accomplishments to date have provided a solid foundation for future program enhancements. One refinement being considered by the Department is the development and implementation of a web-based tool which would allow permitted landfills to electronically submit required disposal volume reports.

With a greater inspection presence by the ADEM staff and a better trained network of operators, permitted landfills are expected to continue to demonstrate a high rate of compliance. While ADEM is a regulatory agency, its staff possesses a wealth of operational and technical knowledge concerning proper solid waste management and efforts will continue to be made in the education of and outreach to regulated entities.

While significant progress has been made toward eliminating unauthorized dumps in the State, the Department anticipates the need for continued resources to adequately address the cleanup of the 38 known existing eligible sites and future eligible sites. In addition, resources are also needed to continue to maintain an enforcement program to ensure responsible parties are held accountable for their actions, and to work to prevent future unauthorized disposal of solid waste.

In expanding recycling efforts within the State, the ADEM will continue to work with recycling stakeholders through its involvement in groups such as ARC and SERDC. Additionally, in order to encourage the development of markets for certain commodities, priority may be given in future grant cycles for projects that focus on certain material streams. As transportation costs are a major component in the economic viability of recycling at the local level, activities will also be engaged to encourage, support and implement a “hub and spoke” approach where diverted materials in smaller communities are transported to larger communities and then to processing or end use.

The Department will also continue to take measures to locate and register recycling facilities. In addition, improvements are being investigated that may be made to the web based reporting tool to allow for reporting from all types of facilities participating in waste reduction activities to the ADEM. These efforts would allow the ADEM to continue to make great strides in accurately calculating the progress towards achieving the State Solid Waste Reduction Goal. It would also allow the ADEM to collect and add more data types to EPA SDMP and be more comparable to the amount of data collected and reported by other states. In accordance with ADEM Admin. Code r. 335-13-13-.02, the Department will re-evaluate the current solid waste reduction goal in FY 2017.