

# Solid Waste Biennial Report

October 1, 2016 - September 30, 2018

## 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 96% in FY 2018, 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 and their partners more than \$17 million dollars since its inception in 2009. By returning these funds to local communities, ADEM has played a key role in the creation or expansion of approximately 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 online reporting has resulted in the solid waste reduction rate increasing to exceed the 25% goal. The solid waste reduction rate is currently calculated at over 25%, more than three times the rate calculated in 2008. Although



current international recycling market forces are presenting significant challenges to recycling programs in Alabama and throughout the United States, ADEM will continue to work to promote and advance solid waste reduction programs in Alabama.

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 Kay Ivey, 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, 2016 through September 30, 2018.

## 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
Fiscal Year FY17	4,790,267.86	410,119.14	1,236,722.64	122,936.09	1,225,857.69	39,224.45
Fiscal Year FY18	4,797,454.21	425,618.73	1,353,468.63	119,979.41	1,438,437.46	19,118.12

\*All volumes reported in tons.

## Disposal Fees Collected & Allocated

### *Recycling/Solid Waste Funds Collected:*

FUNDING PERIOD	TOTAL
Fiscal Year FY17	\$3,403,750
Fiscal Year FY18	\$3,591,700

### *Funds Allocated:*

FUNDING PERIOD	RECYCLING	UAD REMEDIATION
Fiscal Year 2017	\$944,562	\$997,411
Fiscal Year 2018	\$1,247,186	\$517,920

## 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>
Solid Waste Branch	
Attorneys	2
Certified Operator Support	1
Clerical Support	1
Compliance and Enforcement Section	7
Engineering Section	7
Hydrogeologist Support	2
Landfill Inspectors	5
Recycling Section	3
Supervisor	1
Removals and Response Unit	
Inspectors	5
Attorney	1
Clerical Support	1
Supervisor	<u>1</u>
Solid Waste Program	37

Solid Waste State Program Approval

During this reporting period, the Environmental Protection Agency (EPA) completed its review of ADEM’s Financial Assurance Criteria (335-13-4-.28) regulations and approval package and determined the information to be complete. This completeness determination by EPA gives ADEM full Solid Waste Program approval and authority over all solid waste issues in the State.

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 [335-13-15 Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments.] applies to owners and operators of new and existing landfills and surface impoundments that dispose or otherwise engage in solid waste management of coal combustion residuals (CCR) generated from the combustion of coal at electric utilities and independent power producers and established a permitting program for these CCR units.

The Department also amended the solid waste permitting application regulations [335-13-5-.02 Permit Application] to reflect a modification in the local host government approval process due to a statutory change to the Code of Alabama. Additionally, the Department amended the definition of “municipal solid waste landfill unit” [335-13-1-.03 Definitions] in accordance with EPA’s Hazardous Waste Generation Improvements Rule along with correcting a number of typographical and citation errors.

The Department 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 32 Municipal Solid Waste Landfills, 54 Industrial Landfills, and 83 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 5 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 along with each Construction & Demolition landfill and Industrial landfill on a semi-annual 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 540 in FY 2017 and 484 in FY 2018. As a result of this increased compliance presence at permitted landfills, the Department has continued to see high compliance rates of approximately 96% from FY 2017 through FY 2018.

### 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, 19 training courses have been provided throughout the State. As a result of this training, over 700 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 1,170 UAD's 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 108 remediation projects that have been completed or are in-progress as of the date of this report, 20 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 2017 and FY 2018, the Department issued 53 Notices to Proceed encumbering approximately \$2,761,000 of Solid Waste Fund monies for site remediation activities. As a result, approximately 6,250 tons of solid waste have 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



### Recycling and Waste Minimization

Personnel in the Materials Management Section of the Solid Waste Branch, who are provided through funding from the SWRMMA, 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 maintain 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 attend 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 Recycling Partnership, EPA Region 4, 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 2017. In addition, staff provided training on regulatory compliance at events in FY 2017 and FY 2018.

### 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 11 grants for a total of \$1.0 million in FY 2017. In FY 2018, 13 grants were awarded totaling over \$1.8 million. The recycling grants assist Alabama communities in realizing increases in diversion from the disposal of recyclable commodities. Furthermore, recycling grants provide additional assistance to communities with the purchasing of necessary infrastructures as commodity values have decreased both domestically and overseas.

Grant recipients for FY 2017 and FY 2018 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, has 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 11<sup>th</sup> year, and in accordance with recommendations made through a 2016 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.

2017

Grantee	Grant Number	Grant Year	Amount Allocated
City of Auburn	ARF17-03-139	2017	\$288,896.00
East Alabama Recycling Partnership	ARF17-04-140	2017	\$81,390.00
City of Gulf Shores	ARF17-05-141	2017	\$97,979.33
City of Florence	ARF17-06-142	2017	\$140,250.00
Shoals SWA	ARF17-07-143	2017	\$26,176.00
City of Gadsden	ARF17-08-144	2017	\$14,204.67
Pickens County	ARF17-09-145	2017	\$67,284.35
Town of Brantley	ARF17-10-146	2017	\$12,909.00
Lawrence County	ARF17-11-147	2017	\$148,259.67
Athens-Limestone Recycling Center	ARF17-12-148	2017	\$46,651.65
City of Troy	ARF17-13-149	2017	\$76,000.00

2018

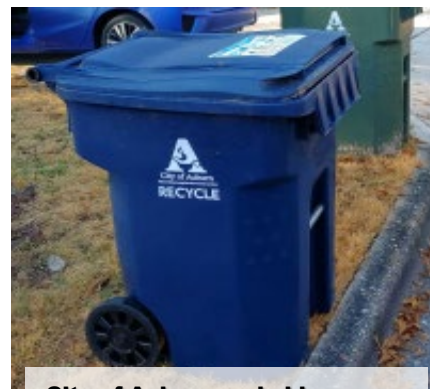
Grantee	Grant Number	Grant Year	Amount Allocated
Calhoun County Commission	ARF18-01-150	2018	\$21,176.00
City of Gulf Shores	ARF18-02-151	2018	\$178,604.00
City of Florence	ARF18-03-152	2018	\$111,374.35
Shoals Solid Waste Authority	ARF18-04-153	2018	\$140,350.78
East Alabama Recycling Partnership	ARF18-05-154	2018	\$167,950.00
West Alabama Recycling Partnership	ARF18-06-155	2018	\$203,169.00
City of Hartselle	ARF18-07-156	2018	\$245,000.00
Lawrence County	ARF18-08-157	2018	\$72,500.00
City of Northport	ARF18-09-158	2018	\$92,323.50
City of Troy	ARF18-11-160	2018	\$112,914.72
City of Guntersville	ARF16-12-161	2018	\$49,230.00
City of Auburn	ARF16-13-162	2018	\$350,000.00
Autauga County Commission	ARF16-14-163	2018	\$12,000.00

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.



**Collection bins from the City of Guntersville.**



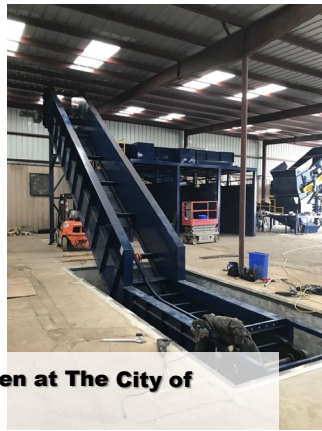
**City of Auburn curbside collection bins.**

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 fiber sorting screen at The City of Florence.**



**New baler for Pickens County Solid Waste.**

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

Grants allow for the purchasing of necessary infrastructures that aid in efforts for transporting recyclables.

### Recycling Challenge

ADEM partners annually with local schools in surrounding counties to participate in the School Recycling Challenge. This Challenge is a recycling event in which schools compete against each other during a two week period to collect the most recyclable materials. Each school that participates in the competition receives both the proceeds from the sale of the recyclable materials and a modest recycling grant from the Alabama Recycling Fund. The purpose of this challenge is to not only collect valuable recyclable materials but to engage and inform students about recycling and its effects on both the environment and the economy. The program will be expanded during the next reporting period to hold two competitions per year and extend school participation to previously underserved areas of the State.

### 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, 123 State agencies and 296 recycling facilities have registered and are reporting.

### Statewide Solid Waste Reduction Goal

ADEM Admin. Code r. 335-13-13-.02 specifies a Statewide Solid Waste Reduction Goal of 25%. In FY2018, the Solid Waste Reduction Rate was calculated to exceed the 25% goal for the first time since the rate began being tracked and reported. 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 to 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 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 20 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, ADEM will continue to work with recycling stakeholders through its involvement in groups such as the Recycling Partnership, 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.