

# Solid Waste Biennial Report

October 1, 2012 - September 30, 2014

## Executive Summary

The Solid Wastes and Recyclable Materials Management Act (SWRMMA) was signed into law by Governor Riley on April 15, 2008. This legislation marked the culmination of nearly two decades of effort on behalf of 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:

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

The Act 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. Since 2008, the ADEM Solid Waste staff has grown from six full-time equivalents to more than twenty-five. This increased presence by the Department has, at least in part, been responsible for an increase in the overall compliance rate at permitted landfills from 57% for FY08 to nearly 98% in FY14, as determined by the number of formal enforcement actions relative to the number of compliance inspections conducted.

Since the passage of the Act, 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 regulation of recycling efforts in the State is a new area of emphasis for the Department, but is one that the ADEM has fully embraced. Through the ARF grants, local governments have been awarded more than \$10.5 million dollars by the Department since its inception in 2009. By returning these funds to local communities, the ADEM has played a role in the creation or expansion of nearly twenty 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.

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.

## Background

In accordance with the requirements of the SWRMMA, this biennial report contains information on the ADEM Solid Program's activities and accomplishments for the period of October 1, 2012 through September 30, 2014.

### *Solid Waste Program Regulatory Development*

No revisions to the Solid Waste Program regulations (Division 13 of the ADEM Administrative Code) have been made during this reporting period. The Department anticipates future revisions to these regulations to address new requirements regarding the management of coal combustion residual wastes. The Department also anticipates the need for potential revisions to Division 13 regulations to establish closure requirements for surface impoundments, to develop a post closure permitting program for solid waste landfills, and to address the possible land disposal prohibition of certain waste types.

### *Alabama Solid Waste Study*

In 2011, the Alabama Legislature directed the Department to work with the Alabama Department of Public Health to evaluate and make recommendations regarding solid waste management in the State of Alabama. As a result of this directive, the Department partnered with Auburn University to conduct an independent assessment of Alabama's solid waste permitting process. In addition, the Department also tasked Auburn University to evaluate Alabama's overall solid waste management practices.

Auburn University completed the Alabama Solid Waste Study in November of 2013. The Alabama Solid Waste Study was a two phased project: Phase 1 examined the solid waste landfill permitting process currently in place in Alabama, and Phase 2 studied strategies for future solid waste management in Alabama. Reports for Phase 1 and 2 were submitted to the Department on May 30, 2013, and November 3, 2013, respectively. The reports of the complete study can be found on the ADEM website at <http://www.adem.state.al.us/programs/land/SolidWasteReport.cnt>

Since the Study did not identify any significant potential enhancements to the Department's role in the current solid waste landfill permitting process, ADEM does not anticipate proposing any statutory or regulatory changes to the landfill permitting process as a result of the Alabama Solid Waste Study. However, the Department is committed to working with State, regional, and local leaders to address any potential actions noted in the Alabama Solid Waste Study.



## 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 <sup>st</sup> Quarter FY13	993,164.60	77,478.82	248,821.34	14,834.69	264,010.39	9,013.86
2 <sup>nd</sup> Quarter FY13	1,102,630.85	75,905.11	279,320.52	17,857.52	307,840.57	8,464.81
3 <sup>rd</sup> Quarter FY13	1,112,191.21	30,300.83	279,970.21	16,513.02	305,396.02	9,273.24
4 <sup>th</sup> Quarter FY13	1,083,902.05	98,556.17	316,609.55	18,243.45	355,952.98	9,905.19
1 <sup>st</sup> Quarter FY14	1,133,497.29	127,979.31	240,417.22	20,871.68	323,777.48	9,245.91
2 <sup>nd</sup> Quarter FY14	954,426.03	68,453.31	209,217.45	16,059.02	303,983.60	8,639.00
3 <sup>rd</sup> Quarter FY14	1,061,077.25	112,987.46	328,428.76	20,213.53	338,287.48	9,346.63
4 <sup>th</sup> Quarter FY14	979,831.70	96,733.58	302,561.13	19,153.13	352,517.22	9,480.61

\*All volumes reported in tons.

## Disposal Fees Collected & Allocated

Funding is generated from \$1.00 per ton or \$0.25 per cubic yard on all solid waste disposed in the State of Alabama. The fees are collected by the Alabama Department of Revenue. The volumes reported quarterly to the Alabama Department of Revenue for fees are periodically verified against the volume reports submitted to the Alabama Department of Environmental Management.

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

FUNDING PERIOD	TOTAL
1 <sup>st</sup> Quarter FY13	\$395,934
2 <sup>nd</sup> Quarter FY13	\$424,545
3 <sup>rd</sup> Quarter FY13	\$389,806
4 <sup>th</sup> Quarter FY13	\$412,719
1 <sup>st</sup> Quarter FY14	\$404,647
2 <sup>nd</sup> Quarter FY14	\$395,194
3 <sup>rd</sup> Quarter FY14	\$381,109
4 <sup>th</sup> Quarter FY14	\$423,431

### *Funds Allocated:*

FUNDING PERIOD	RECYCLING	UAD REMEDIATION
Fiscal Year 2013	\$1,670,650	\$3,436,919
Fiscal Year 2014	\$2,081,123	\$1,796,571

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 two permit writers and two landfill compliance inspectors/unauthorized solid waste dump (UAD) site investigators. In addition to a supervisor and clerical support, the Program was supported by less than half of a hydrogeologist's time and an ADEM attorney. These personnel limitations resulted in a backlog of solid waste landfill permit reviews, a limited number of compliance inspections at permitted landfills, and a backlog of unresolved unauthorized dump 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 established in 1991 by the State Solid Waste Management Plan (SWMP).

## Program Accomplishments

### Solid Waste Landfill Permitting

Since the passage of the Act, the Solid Waste Program has increased its staffing to five permit engineers and two full-time geologists. In addition, 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.

### Solid Waste Landfill Compliance

Prior to fiscal year 2009, the two staff solid waste compliance inspectors inspected each permitted landfill once per year on average. These two 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 Act enabled the Department to employ four dedicated personnel for solid waste landfill compliance inspections as well as adequate staffing to address the investigation of potential UAD sites, along with legal support from two staff attorneys. During this reporting period, the number of solid waste landfill compliance inspections was 612 in FY2013 and 613 in FY2014. As a result of this increased compliance presence at permitted landfills, the Department has continued to see a high compliance rates for these facilities of approximately 97% compliance rate from FY2013 through FY2014.

### Landfill Operator Certification Program

In November 2009, the Department held its first landfill operator certification training class. Since that time, eight additional training courses have been provided throughout the State. As a result of the training, 471 applications for certified landfill operators have been received by the Department, 449 applications have been approved, 6 applications have been denied and 16 applications are pending as of the writing of this report. 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

As with the review of solid waste landfill permit applications, 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.

### 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 is eligible for remediation using monies from the Solid Waste Fund, which was established by the SWRMMA.

Once a site has been deemed eligible for remediation funded by the Solid Waste Fund, 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. For example, 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 Environmental Justice areas. This ranking process ensures that sites with the greatest potential impacts to human health and environmental safety are made a priority.

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 124 remediation projects that have been completed or are in-progress as of the date of this report, 74 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 2013 and FY 2014, the Department has issued 78 Notices to Proceed encumbering \$5,233,490 of Solid Waste Fund monies for site remediation activities. As a result, approximately 20,827 tons of solid waste has been removed and properly disposed from these sites. Examples of some of these remediation projects are found below:

This project was located on 35th Street in Holt, Tuscaloosa County, Alabama. The project was completed for a cost of approximately \$543,000. The project began in February 2013 and was completed in September 2013. The contractor removed and disposed of approximately 2,900 tons of solid waste material from the site.



35 Streets, Holt (Tuscaloosa County) Pre-Removal



35 Streets, Holt (Tuscaloosa County) Post-Removal





35 Street, Holt (Tuscaloosa County) Pre-Removal



35 Street, Holt (Tuscaloosa County) Post-Removal

This project was located on County Road 37 near Marion, Perry County, Alabama. The project was conducted by the Perry County Commission, as an interagency cooperative agreement, at a cost of \$233,472.52. The project began in August 2013 and was completed in November 2013. The contractor removed and disposed of approximately 690 tons of solid waste material from the site.



Perry Co. Road 37 Site (Perry County) Pre-Removal



Perry Co. Road 37 Site (Perry County) Post-Removal

The Department completed several remediation projects in Autauga County, including one in the community of Jones, Alabama. The remediation project located along several county roads in Jones was conducted at a cost of \$212,730 and was completed in less than three months. The contractor removed and disposed of approximately 1,100 tons of solid waste material.



County Road, Jones (Autauga County) Pre-Removal



County Road, Jones (Autauga County) (Post-Removal)

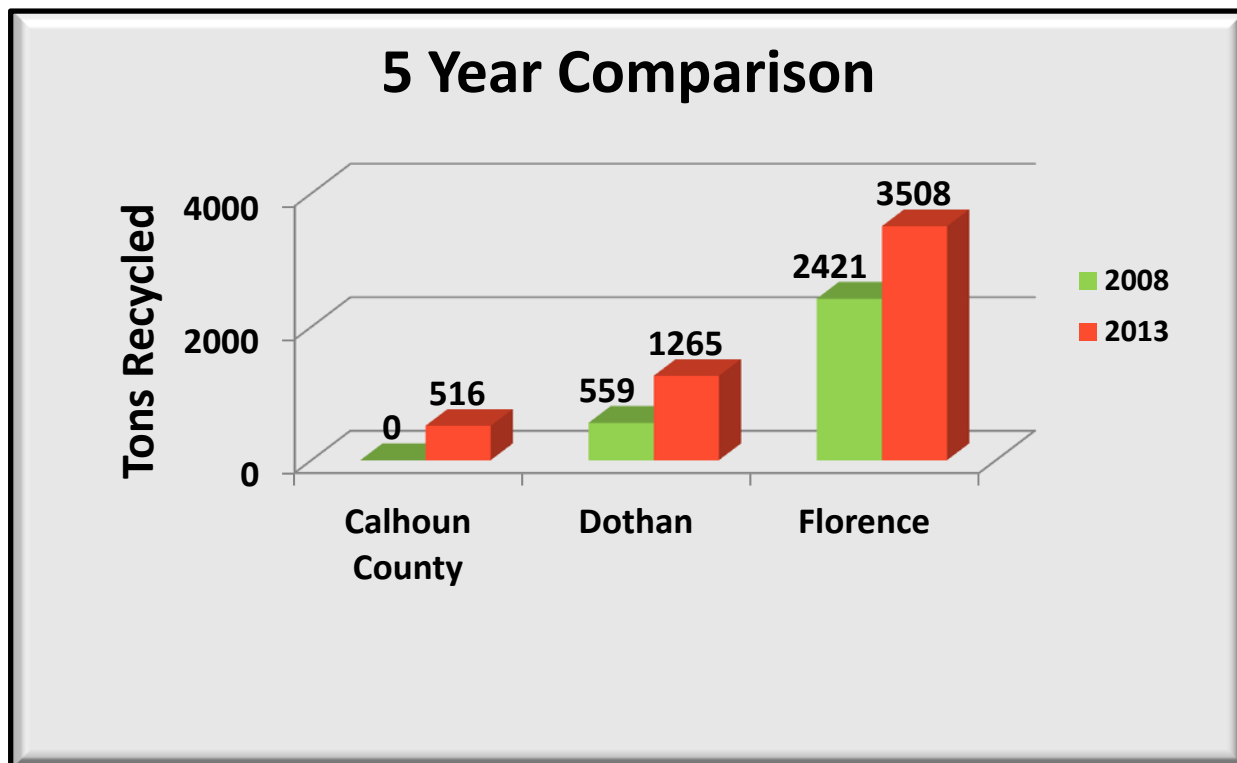
### Recycling and Waste Minimization

Funding through the Act 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 regulations, 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.

The ADEM Recycling Program staff members are assigned geographic service areas and are responsible for overseeing the registration, inspection, data management and compliance of registered facilities, as well as recycling grant management within those service areas. In addition, staff 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 Re-TRAC reporting training workshops as well as ARF Grant writing workshops held throughout the state in FY 2014.

Recycling Grants

The Act provided funding through the Alabama Recycling Fund 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. Priority is given to joint projects of regional nature and designated Category 1 (greater than 40,000 households), which must receive at least 60% of funds and 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 18 grants for a total of \$2.3 million in FY2013. In FY2014, 16 grants were awarded totaling over \$1.6 million. As seen in the examples shown below, these grants can assist Alabama communities in realizing large increases in diversion from the disposal of recyclable commodities.





## 2013 Alabama Recycling Fund Grant Recipients



1 – City of Columbiana	\$11,335
2 – City of Cullman	\$194,887
3 – City of Daphne	\$37,000
4 – City of Dothan	\$298,500
5 – City of Florence	\$282,723
6 – City of Mobile	\$10,000
7 – City of Prattville	\$43,960
8 – City of Selma	\$57,853
9 – City of Tuscaloosa	\$332,887
10 – Albertville/Boaz Recycling Authority	\$126,728
11 – City of Alexander City	\$56,890
12 – Athens-Limestone Recycling Center	\$158,471
13 – East Alabama Recycling Partnership	\$286,785
14 – Elmore County Commission	\$42,627
15 – North Alabama Regional Partnership	\$169,500
16 – Scottsboro Solid Waste Authority	\$13,916
17 – Shoals Solid Waste Department	\$164,586
18 – Statewide Recycling Campaign	\$75,000

## 2014 Alabama Recycling Fund Grant Recipients



1 – City of Andalusia	\$127,000
2 – City of Daphne	\$36,287
3 – City of Decatur	\$123,252
4 – City of Dothan	\$150,000
5 – City of Eufaula	\$187,500
6 – City of Florence	\$156,500
7 – City of Gadsden	\$122,811
8 – City of Pritchard	\$64,892
9 – City of Troy	\$125,000
10 – City of Tuscaloosa	\$213,606
11 – Albertville/Boaz Recycling Authority	\$14,500
12 – City of Alexander City	\$40,125
13 – Athens-Limestone Recycling Center	\$49,690
14 – East Alabama Recycling Partnership	\$112,948
15 – Jackson County Commission	\$63,300
16 – Jefferson County Board of Health	\$79,560

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.

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 dropoff and curbside programs.

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 requiring a one-time registration and certain compliance activities for recycling facilities were adopted in June 2010, and can be found in ADEM Administrative Code 335-13-3. Prior to this, 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. The registration form includes a facility description, general site information, and operational plans. 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 a web-based tool which allows the reporting of recycling data to the Department. Alabama Re-TRAC Connect was launched in 2013 and currently 199 state agencies and 139 recycling facilities have registered and are reporting.

### Statewide Solid Waste Reduction Goal

ADEM Admin. Code R. 335-13-.02 specifies a Statewide Solid Waste Reduction Goal of 25%. The Solid Waste Reduction Rate based on facilities who have completed the reporting process via Alabama Re-TRAC Connect is currently calculated to be 10.7%. It should be noted that certain facilities have obtained recycling registrations, but have not yet completed the Alabama Re-TRAC Connect reporting process. Based upon evaluation of data from all facilities, the actual Solid Waste Reduction Rate in Alabama is expected to be approximately 16% when all current facilities have fully completed the reporting process via Alabama Re-TRAC Connect. The Department fully expects that this data will become much more robust and reliable over time.



## 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.

With a greater inspection presence by the ADEM staff and a better trained network of operators, permitted landfills are expected to continue 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 90 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. Further, as authorized by the SWRMMA, the Department may consider the development of regulations requiring bans on landfill disposal of certain wastes in order to promote recycling. Solid wastes that may be subject to such a ban could include whole scrap tires; beverage containers; and appliances, also referred to as “white goods.”

The Department will continue to take measures to locate and register recycling facilities. In addition, improvements with the Alabama Re-TRAC Connect to allow for more effective reporting by registered facilities and tracking by the ADEM. These efforts should allow the ADEM to continue to make progress in achieving the State Solid Waste Reduction Goal. In accordance with ADEM Admin. Code R. 335-13-13-.02, the Department will re-evaluate the current solid waste reduction goal in FY2015.