

# Solid Waste Biennial Report

October 1, 2018 - September 30, 2020

## 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 Recycling Program, Alabama Recycling Fund (ARF) Grants program, the Solid Waste Fund (SWF) Site Remediation program, the Landfill Operator Certification program, the Coal Combustion Residuals (CCR) Program, the Beneficial Use Program, the Composting Program, and a Statewide Solid Waste Reduction goal.

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 2020, 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 \$20 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 25 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, as well as the impact of the COVID-19 pandemic, 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, 2018 through September 30, 2020.

## 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 FY19	4,861,200	680,220	1,422,930	180,970	1,625,760	30,590
Fiscal Year FY20	5,068,280	861,980	1,444,270	129,790	1,388,190	18,370

\*All volumes reported in tons.

## Disposal Fees Collected & Allocated

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

FUNDING PERIOD	TOTAL
Fiscal Year FY19	\$3,962,730
Fiscal Year FY20	\$4,182,590

### *Funds Allocated:*

FUNDING PERIOD	RECYCLING	UAD REMEDIATION
Fiscal Year 2019	\$1,623,560	\$228,360
Fiscal Year 2020	\$1,467,330	\$1,429,250

## 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	8
Engineering Section	8
Hydrogeologist Support	2
Landfill Inspectors	5
Recycling Program	4
Branch Supervisor	1
Removals and Response Unit	
Inspectors	5
Attorney	1
Clerical Support	1
Unit Supervisor	<u>1</u>
Solid Waste Program	40

Solid Waste State Program Approval

In February of 2018, 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 Department amended the solid waste permitting application regulations [335-13-5-.02 Permit Application] so that solid waste disposal permits obtained in compliance with this Division shall be valid for the design life of the facility or as otherwise determined by the Department, but no longer than a period of ten years.

Next, the Department amended the solid waste permitting application regulations [335-13-5-.03 Public Notice] to reflect a modification to the process in which the Department notifies adjacent landowners of permit actions to a landfill. The Department shall send by certified mail, a written copy of the public notice to landowners adjacent to the subject landfill unit at the address as indicated on county tax records and verified by the applicant within 90 days prior to the public notice date. Documentation that notice was sent shall include copies of the signed receipts of certified mail delivery or a copy of any returned certified mail item, that is refused or otherwise undeliverable.

Additionally, the Department added new solid waste program regulations [335-13-16 Requirements for Beneficial Use of By-Product Materials for the Purpose of Land Application] to establish procedures to encourage and regulate the land application of eligible non-hazardous by-product materials within the

State. These new regulations apply to generators and distributors of material that is generated as a result of water or wastewater treatment or residual materials from industrial or manufacturing processes that, barring any form of alternate or beneficial use of that material, would otherwise be discarded at a landfill or other solid waste disposal facility. These by-product materials are used as a soil amendment or fertilizer, where the by-product material replaces a natural or other resource material by its utilization.

Lastly, the Department anticipates the need for potential revisions to the ADEM Administrative Code to capture changes to the federal CCR rules, enhance the beneficial use program, 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 82 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 490 in FY 2019 and 389 in FY 2020. 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 2019 through FY 2020.

#### *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, 24 training courses have been provided throughout the State. As a result of this training, 860 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 1,810 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 132 remediation projects that have been completed or are in-progress as of the date of this report, 28 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 2019 and FY 2020, the Department issued 24 Notices to Proceed encumbering approximately \$2,387,720 of Solid Waste Fund monies for site remediation activities. As a result, approximately 11,300 tons of solid waste have been removed and properly disposed from these sites. Below is an example of a completed remediation project in Jefferson 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 and to educate community members and leaders about the importance of reducing the solid waste stream. 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). In FY2019, recycling staff was able to utilize outreach events to engage local communities and spread awareness of grant opportunities. In FY2020, due to the COVID-19 pandemic, recycling staff was only able to attend a few events in person, however, staff members adapted and hosted a virtual grant workshop to provide information to attendees in regard to grant writing.

### 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 19 grants for a total of \$1.6 million in FY 2019. In FY 2020, 16 grants were awarded totaling over \$1.4 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 to continue expansion of recycling programs. .

Grant recipients for FY 2019 and FY 2020 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 13<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.



2019

Grantee	Grant Number	Grant Year	Amount Allocated
City of Huntsville	ARF19-01-164	2019	\$326,000
Madison County Commission	ARF9-02-165	2019	\$326,000
City of Tuscaloosa	ARF19-03-166	2019	\$54,490
City of Florence	ARF19-04-167	2019	\$118,278
East Alabama Recycling Partnership	ARF19-05-168	2019	\$27,952
Shoals Solid Waste Authority	ARF19-06-169	2019	\$155,967
West Alabama Recycling Partnership	ARF19-07-170	2019	\$22,250
Town of Triana	ARF19-08-171	2019	\$11,311
Town of Owens Cross Roads	ARF19-09-172	2019	\$25,314
Town of Gurley	ARF19-10-173	2019	\$10,817
City of Madison	ARF19-12-175	2019	\$258,277
Albertville-Boaz	ARF19-13-176	2019	\$7,000
City of Guntersville	ARF19-14-177	2019	\$57,706
Athens-Limestone	ARF19-15-178	2019	\$8,907
City of Troy	ARF19-16-179	2019	\$75,790
Scottsboro Solid Waste Department	ARF19-18-181	2019	\$32,845
City of Northport	ARF19-17-180	2019	\$54,270
Lawrence County Commission	ARF19-19-182	2019	\$8,000
City of New Hope	ARF19-11-174	2019	\$42,281

2020

Grantee	Grant Number	Grant Year	Amount Allocated
City of Huntsville	ARF20-01-183	2020	\$200,000
Madison County Commission	ARF20-02-184	2020	\$200,000
City of Madison	ARF20-03-185	2020	\$100,000
City of Montevallo	ARF20-04-186	2020	\$38,313
Scottsboro Solid Waste Department	ARF20-05-187	2020	\$146,535
East Alabama Recycling Partnership	ARF20-06-188	2020	\$40,327
Montgomery Clean City Commission	ARF20-07-189	2020	\$7,500
City of Millbrook	ARF20-08-190	2020	\$28,581
City of Alexander City	ARF20-09-191	2020	\$20,334
City of Eufaula	ARF20-10-192	2020	\$30,907
City of Florence	ARF20-11-193	2020	\$113,208
Clay County Commission	ARF20-12-194	2020	\$25,302
Athens-Limestone	ARF20-13-195	2020	\$116,014
Lawrence County Commission	ARF20-14-196	2020	\$48,926
West Alabama Recycling Partnership	ARF20-15-197	2020	\$207,898
City of Northport	ARF20-16-198	2020	\$151,474

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 drop-off and curbside programs.



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 semiannually with public schools around the state to participate in the School Recycling Challenge. This Challenge is a recycling event in which schools compete against each other during a one 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. Moving forward, the program will partner with recycling programs to encourage more community involvement in the Challenge. In the summer months, the program plans to involve summer camps throughout the State of Alabama.

### 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, 127 State agencies and 244 recycling facilities are registered and reporting.



### Statewide Solid Waste Reduction Goal

ADEM Admin. Code r. 335-13-13-.02 specifies a Statewide Solid Waste Reduction Goal of 25%. In FY2019-2020, the Solid Waste Reduction Rate was calculated to exceed the 25% goal again to extend the trend set in FY2018. 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 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. Finally, the recycling grant program will be a part of the new Alabama Environmental Permitting and Compliance System (AEPACS) that will be launched in FY2021. AEPACS is an electronic application where all registration applications/reports for facilities and grant applicants will be submitted and accepted for further ADEM processing. This system also establishes workflows for processing as well as an enhanced method of data storage.