

# Solid Waste Biennial Report

October 1, 2020 - September 30, 2022

## 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 (UADs) and an increase in the overall compliance rate at permitted landfills from 57% for FY 2008 to 92% in FY 2022, 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 \$23 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 34 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 market forces are presenting significant challenges to recycling programs in Alabama and throughout the United States, as well as the lasting impact of the COVID-19 pandemic, ADEM is continuing 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, 2020 through September 30, 2022.

## 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 2021	5,182,872.92	888,976.29	1,632,778.81	137,092.42	1,616,187.51	17,065.17
Fiscal Year 2022	5,247,851.71	1,182,382.26	1,679,630.09	154,797.32	1,389,539.70	6,105.49

\*All volumes reported in tons.

## Disposal Fees Collected & Allocated

*Recycling/Solid Waste Funds Collected:*

*Funds Allocated:*

FUNDING PERIOD	TOTAL
Fiscal Year 2021	\$4,031,707.07
Fiscal Year 2022	\$4,249,055.90

FUNDING PERIOD	RECYCLING	UAD REMEDIATION
Fiscal Year 2021	\$1,470,330.22	\$228,362.34
Fiscal Year 2022	\$1,700,000.00	\$1,429,250.67

## 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	3
Landfill Inspectors	6
Recycling Program	4
Beneficial Use Program	2
Branch Supervisor	1
Removals and Response Unit	
Inspectors	5
Attorney	1
Clerical Support	1
Unit Supervisor	1
Solid Waste Program	42

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.

In December 2021, the Department submitted its program approval application to USEPA for the CCR program. The Department is currently awaiting final review and approval by EPA.

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 regulations to ensure consistency with State and Federal statutes and provide clarification of State requirements for the management of solid waste. These changes included updating language to conform to the revised statute for alternate cover material and minor technical revisions to provide better clarity on regulatory requirements and address regulatory concerns. The provisions for obtaining a permit for landfill units, composting facilities, and coal combustion residual (CCR) facilities was relocated to 335-13-5 [Procedures for Obtaining a Permit], to provide a single location for all permitting requirements. Additionally, changes were made to the permit modification process [335-13-5-.06 Permit Modification] to provide greater public participation for certain types of modifications. The Department also amended the solid waste permitting application regulations [335-13-5-.03 Public Notice] to reflect changes made to the public notice procedures to provide for clarity and greater opportunity for public participation.

Additionally, the solid waste program regulations [335-13-16 Requirements for Beneficial Use of By-Product Materials for the Purpose of Land Application] has been in effect for over 2 years. These 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. Within these 2 years of the program's operation, regulated facilities have been brought into compliance and subsequently, complaints received by the Department have significantly decreased. The Department utilized the experience gained within the initial years of the program's operation to update the 335-13-16 regulations in order to hold more materials to similar standards, as well as enhance program oversight.

Lastly, the Department anticipates the need for potential revisions to the ADEM Administrative Code to capture changes to the federal CCR rules, establish closure requirements for surface impoundments, and to develop a post closure permitting program for solid waste landfills.

#### Solid Waste Landfill Permitting

The State of Alabama currently has 30 Municipal Solid Waste Landfills, 53 Industrial Landfills, 79 Construction and Demolition Landfills, and 8 Coal Combustion Residual (CCR) 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. The Department has also employed an inspector dedicated to conducting early morning inspections at all landfills to confirm cover activities have been properly performed. 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 413 in FY 2021 and 423 in FY 2022. As a result of this increased compliance presence at permitted landfills, the Department has continued to see high compliance rates of approximately 92% from FY 2021 through FY 2022.

#### 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, during FY 2021 and FY 2022 the Landfill Operator Certification Program training courses has been provided five times throughout the State. As a result of these trainings, 313 landfill operator certifications were issued by the Department to landfill operators from FY2021-2022. 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 better resources to investigate potential UAD sites in a expeditious 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 1997 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.

To initiate remediation activities, the Department obtains 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 143 remediation projects that have been completed or are in-progress as of the date of this report, 35 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 2021 and FY 2022, the Department issued 15 Notices to Proceed encumbering approximately \$444,118.54 of Solid Waste Fund monies for site remediation activities. As a result, approximately 1,747 tons of solid waste have been removed and properly disposed from these sites. Below is an example of a completed remediation project in Hale 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). After COVID-19 restrictions began to loosen in FY 2021, recycling staff were able to conduct more outreach events than the previous year, in order to engage local communities and spread awareness of grant opportunities. In FY 2022, with COVID-19 restrictions largely absent, recycling staff resumed conducting even more in person outreach in order to engage local communities about recycling, conduct school recycling challenges, and cultivate connections with local officials to promote grant opportunities.

### Recycling Grants

The SWRMMA provides 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 16 grants for a total of \$1.7 million in FY 2021. In FY 2022, 22 grants were awarded totaling over \$2.3 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 2021 and FY 2022 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 15<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.



**FY 2021**

Grantee	Grant Number**	Grant Year	Amount Allocated
City of Huntsville	ARF22-01-199	2022	\$200,000.00
Madison County Commission	ARF22-02-200	2022	\$200,000.00
City of Madison	ARF22-03-201	2022	\$100,000.00
City of Florence	ARF22-04-202	2022	\$171,470.26
Scottsboro SWD	ARF22-05-203	2022	\$172,381.32
Albertville-Boaz	ARF22-06-204	2022	\$44,900.00
Athens-Limestone	ARF22-07-205	2022	\$144,419.80
Shoals SWA	ARF22-08-206	2022	\$120,647.23
City of Dothan	ARF22-09-207	2022	\$98,560.00
City of Luverne	ARF22-10-208	2022	\$32,841.00
City of Troy	ARF22-11-209	2022	\$84,370.18
EARP	ARF22-12-210	2022	\$24,618.00
Keep Oxford Beautiful	ARF-22-13-211	2022	\$27,000.00
Town of Vance	ARF22-14-212	2022	\$21,800.00
WARP	ARF22-15-213	2022	\$158,844.71
City of Northport	ARF22-16-214	2022	\$98,147.50

**FY 2022**

Grantee	Grant Number	Grant Year	Amount Allocated
City of Mobile	ARF23-01-215	2023	\$340,000.00
Mobile County Commission	ARF23-02-216	2023	\$197,624.00
EARP	ARF23-03-217	2023	\$88,428.02
City of Millbrook	ARF23-04-218	2023	\$14,615.00
City of Opp	ARF23-05-219	2023	\$87,945.50
City of Selma	ARF23-06-220	2023	\$40,000.00
City of Florence	ARF23-07-221	2023	\$191,818.00
Shoals Solid Waste Authority	ARF23-08-222	2023	\$201,487.12
WARP	ARF23-09-223	2023	\$315,572.86
City of Cullman	ARF23-10-224	2023	\$154,000.00
City of Fayette	ARF23-11-225	2023	\$24,545.75
City of Irondale	ARF23-12-226	2023	\$311,777.00
City of Northport	ARF23-13-227	2023	\$4,714.47
City of Alexander City	ARF23-14-228	2023	\$1,535.59
Albertville-Boaz	ARF23-15-229	2023	\$5,225.00
Calhoun County	ARF23-16-230	2023	\$45,070.00
City of Gadsden	ARF23-17-231	2023	\$22,518.00
Keep Oxford Beautiful	ARF23-18-232	2023	\$37,614.00
City of Guntersville	ARF23-19-233	2023	\$147,299.75
City of Prattville	ARF23-20-234	2023	\$11,797.94
City of Rainbow City	ARF23-21-235	2023	\$41,103.00
City of Talladega	ARF23-22-236	2023	\$15,309.00

These tables show FY21 and FY22 grantees and the amount each of them has been awarded. Over 2 years, a total of 38 applicants were awarded for a total of \$4,000,000.00.

\*\*Note: ARF Grant Number changed to accurately reflect execution year of grant.





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.



### 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. The School Recycling Challenge has been augmented, when possible, by focusing on schools within a single county and increasing the number of schools that participate in each challenge. This focused approach, paired with the increased school participation, is used to target specific recycling program areas in order to both promote the areas local recycling efforts and educate the public about their local program's abilities.

### 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, 136 State agencies have accounts. The Alabama Environmental Permitting and Compliance System (AEPACS) was launched in 2020 and currently, 274 recycling facilities are registered. AEPACS is an electronic application where all registration applications/reports for facilities and grant applicants are submitted and accepted for further ADEM processing. This system also establishes workflows for processing as well as an enhanced method of data storage.

### Statewide Solid Waste Reduction Goal

ADEM Admin. Code r. 335-13-13-.02 specifies a Statewide Solid Waste Reduction Goal of 25%. In FY 2021-2022, the Solid Waste Reduction Rate was calculated to exceed the 25% goal again to extend the trend set in FY 2018. Continually striving to increase recycling in the State, the Department is working to increase this reduction goal in the future. 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 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. Future plans include incorporating the rest of the solid waste program (landfills, CCR, and beneficial use) into the Department's electronic database, AEPACS.

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.