



Solid Waste Biennial Report

October 1, 2022 - September 30, 2024

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 93% in FY 2024, 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 \$34 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 increased to 40% in the 2024 update to the Alabama Solid Waste Program. 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, 2022 through September 30, 2024.

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 2023	5,497,483.71	1,222,213.20	1,712,625.06	103,988.34	1,306,238.10	0
Fiscal Year 2024	4,769,714.26	1,678,898.66	1,511,718.66	126,590.73	1,018,383.60	64.11

*All volumes reported in tons.

Disposal Fees Allocated

Solid Waste Program Funds Allocated:

FUNDING PERIOD	TOTAL
Fiscal Year 2023	\$4,159,833.89
Fiscal Year 2024	\$4,074,407.62

Recycling/Remediation Funds Allocated:

FUNDING PERIOD	RECYCLING	UAD REMEDIATION
Fiscal Year 2023	\$2,311,019.54	\$2,311,019.54
Fiscal Year 2024	\$2,263,560.27	\$2,263,560.27

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 statewide 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	3
Beneficial Use Program	2
Branch Supervisor	1
Removals and Response Unit	
Inspectors	5
Attorney	1
Clerical Support	1
Unit Supervisor	<u>1</u>
Solid Waste Program	41

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 regulations to provide clarification of State requirements for the management of solid waste. Changes were also made to include a provision to restrict the disposal of whole tires in landfills, to update the requirements for landfill permit applications and ADEM – initiated permit modifications, to remove the requirement that Landfill Certified Operator experience only be achieved in Alabama, to refine the remediation contracting requirements and invitation to bid, to update the State Solid Waste Management Plan, better clarify the Alabama Recycling Fund Grants Program requirements, and to increase the statewide solid waste reduction goal from 25% to 40%.

Additionally, the solid waste program regulations [335-13-16 Requirements for Beneficial Use of By-Product Materials for the Purpose of Land Application] have been in effect for over 4 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 4 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. In 2024, the Beneficial Use program transitioned to the Department's online database (Alabama Environmental Permitting and Compliance System (AEPACS)). Facilities are now able to apply for registration and submit reports online using this system.

The Department has developed and is currently implementing a State Coal Combustion Residuals (CCR) program, including the issuance of permits for all currently regulated facilities. As part of this program, the Department is also overseeing the implementation of required remedial actions as a result of identified groundwater contamination. The Department applied for Program Approval from the EPA, the decision for which was delayed and ultimately denied. The Department is currently considering options for appeal or request for reconsideration of this decision.

Lastly, the Department anticipates the need for potential revisions to the ADEM Administrative Code to capture additional changes to the federal CCR rules, 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, 51 Industrial Landfills, 77 Construction and Demolition Landfills, and 8 Coal Combustion Residual (CCR) Landfills. The personnel limitations prior to the passage of SWRMMA resulted in excessive review timeframes for solid waste landfill permit applications. The Solid Waste Program has significantly reduced its review and processing time for permit applications 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 has 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 required 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 406 in FY 2023 and 414 in FY 2024. In addition to these compliance inspections, inspections were performed during this period to investigate complaints received by the Department and during early morning hours to evaluate landfill cover compliance. As a result of this increased compliance presence at permitted landfills, the Department has continued to see high compliance rates of approximately 93% during FY 2023 and FY 2024.

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 2023 and FY 2024 the Landfill Operator Certification Program training course was provided four times throughout the State with a total attendance of 518. As a result of these trainings, 267 landfill operator certifications were issued by the Department to landfill operators from FY2023-2024. 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

Past 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 timelier 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 2075 UADs have been remediated by responsible parties subject to enforcement actions issued by the Department.

Unauthorized Solid Waste Dump Site Remediation

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

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

When sites rank sufficiently high on the remediation list, the Department initiates remediation activities by obtaining site access from the property owner. Once the site access agreement is executed, the Department will either utilize a local government entity through an interagency cooperative agreement or will solicit competitive bids for the project. Of the 31 remediation projects that have been completed or are in-progress as of the date of this report, 16 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 2023 and FY 2024, the Department contracted the remediation of 31 sites encumbering approximately \$4,363,448.00 of Solid Waste Fund monies for site remediation activities. As a result, approximately 14,011 tons of solid waste have been removed and properly disposed from these sites.

Below is an example of a completed remediation project in Sumter County:



In addition, during FY 2023 using funding generated by SWRMMA, the Department created a new program available to counties of the State called the Unauthorized Dump Right of Way (UDROW) program. This new 3-year program offers grant money to counties for the remediation of small UADs along their county road right of ways. To date, 48 counties have enrolled. Since the program's inception, 86 small UAD sites have been remediated under the UDROW program with many more sites under review. The Department continues to work to engage counties and municipalities regarding the many programs it offers such as the UDROW, its sister program the Scrap Tire Right of Way program (STROW), the Interagency Cooperative Agreement (ICA) program, and the Memorandum of Understanding (MOU) program. The goal of all of these programs is to encourage further local government engagement and participation in the remediation of UADs and STSs within their jurisdictions by offering guidance, coordination, and funding.

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 40%. 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, and the Alabama Recycling Coalition (ARC). Inspections have continued to increase, and more outreach events are possible as COVID-19 restrictions have ended.

Recycling Grants

The SWRMMA provided funding through the ARF for local governments and solid waste authorities to introduce or improve recycling. Each year grant applications submitted by the March 1 deadline are reviewed and ranked for funding. Communities are designated as Category 1 (greater than 40,000 households), which must receive at least 60% of funds, or Category 2 (less than 40,000 households), which must receive at least 20% of grant funds. The remaining 20% can be awarded to either category, with no single award being for more than 20% of funds available. The program awarded 22 grants for a total of \$6 million in FY 2023. The Department was also able to give supplemental funding to FY22 grantees totaling over \$1.5 million during the FY2023 grant period. In FY 2024, 18 grants were awarded totaling over \$2.5 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 infrastructure to continue growth and expansion of recycling programs.

Grant recipients for FY 2023 and FY 2024 are listed on the following page according to the 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 17th year, and in accordance with recommendations made through a 2016 Southeast Recycling Development Council (SERDC) research project funded by the Department, priority continues to be given 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 2023

Grantee	Grant Year	Amount Awarded	Grant Number
FY 2023			
City of Albertville	2024	\$68,754.15	ARF24-01-250
City of Arab	2024	\$258,360.00	ARF24-02-251
City of Birmingham	2024	\$752,931.22	ARF24-03-252
City of Brewton	2024	\$98,035.00	ARF24-04-253
City of Decatur	2024	\$630,000.00	ARF24-05-254
City of Eufaula	2024	\$172,109.96	ARF24-06-255
City of Fairhope	2024	\$43,000.00	ARF24-07-256
City of Florence	2024	\$120,442.00	ARF24-08-257
City of Gadsden	2024	\$73,371.56	ARF24-09-258
Baldwin County Commission	2024	\$350,000.00	ARF24-10-259
City of Irondale	2024	\$283,698.00	ARF24-11-260
City of Montgomery	2024	\$216,775.00	ARF24-12-261
City of Northport	2024	\$292,638.06	ARF24-13-262
City of Prattville	2024	\$65,000.00	ARF24-14-263
City of Rainbow City	2024	\$16,826.40	ARF24-15-264
City of Scottsboro	2024	\$340,504.90	ARF24-16-265
City of Talladega	2024	\$15,000.00	ARF24-17-266
East Alabama Recycling Partnership (EARP)	2024	\$21,962.00	ARF24-18-267
Fayette County Commission	2024	\$85,000.00	ARF24-19-268
City of Oxford	2024	\$118,959.00	ARF24-20-269
Limestone County Commission	2024	\$600,000.00	ARF24-21-270
Montgomery Clean City Commission	2024	\$14,000.00	ARF24-22-271
Montgomery County Commission	2024	\$350,000.00	ARF24-23-272
Shelby County Commission	2024	\$101,590.00	ARF24-23-273
Shoals Solid Waste Disposal Authority	2024	\$310,747.03	ARF24-25-274
Solid Waste Disposal Authority of the City of Huntsville	2024	\$220,000.00	ARF24-26-275
West Alabama Recycling Partnership (WARP)	2024	\$380,295.72	ARF24-27-276
FY2023 Supplemental			
East Alabama Recycling Partnership (EARP)	2024 S	\$2,870.98	ARF23-03-217S
City of Florence	2024 S	\$376,734.71	ARF23-07-221S
Shoals Solid Waste Disposal Authority	2024 S	\$16,615.75	ARF23-08-222S
West Alabama Recycling Partnership (WARP)	2024 S	\$32,703.90	ARF23-09-223S
City of Northport	2024 S	\$14,087.74	ARF23-13-227S
Albertville-Boaz	2024 S	\$5,000.00	ARF23-15-229S
City of Prattville	2024 S	\$4,627.00	ARF23-20-234S
City of Talladega	2024 S	\$11,000.00	ARF23-22-236S
City of Gulf Shores	2024 S	\$350,000.00	ARF23-23-237S
Calhoun County Commission	2024 S	\$73,642.89	ARF23-24-238S
City of Montgomery	2024 S	\$133,225.00	ARF23-25-239S
City of Decatur	2024 S	\$50,000.00	ARF23-26-240S
City of Atmore	2024 S	\$20,000.00	ARF23-27-241S
City of Troy	2024 S	\$84,618.80	ARF23-28-242S
City of Guntersville	2024 S	\$114,050.00	ARF23-29-243S
City of Alexander City	2024 S	\$26,040.00	ARF23-30-244S
City of Dothan	2024 S	\$150,000.00	ARF23-31-245S



City of Luverne	2024 S	\$40,431.60	ARF23-32-246S
City of Brewton	2024 S	\$9,000.00	ARF23-33-247S
Dunnavant Valley	2024 S	\$11,770.00	ARF23-34-248S
City of Southside	2024 S	\$63,985.50	ARF23-35-249S

FY 2024

Grantee	Grant Year	Amount Allocated	Grant Number
Alabama Recycling Coalition	2025	\$164,500.00	ARF25-01-277
Calhoun County Commission	2025	\$93,410.00	ARF25-02-278
City of Alexander City	2025	\$104,110.00	ARF25-03-279
City of Birmingham	2025	\$438,105.00	ARF25-04-280
City of Florence	2025	\$95,797.00	ARF25-05-281
City of Fort Payne	2025	\$43,329.00	ARF25-06-282
City of Gadsden	2025	\$67,323.00	ARF25-07-283
City of Gulf Shores	2025	\$148,135.00	ARF25-08-284
City of Guntersville	2025	\$137,779.00	ARF25-09-285
City of Irondale	2025	\$300,447.00	ARF25-10-286
City of Northport	2025	\$47,780.00	ARF25-11-287
City of Southside	2025	\$52,578.00	ARF25-12-288
City of Troy	2025	\$104,070.00	ARF25-13-289
Lawrence County Commission	2025	\$5,582.00	ARF25-14-290
Mobile County Commission	2025	\$126,872.00	ARF25-15-291
Shoals Solid Waste Disposal Authority	2025	\$158,593.00	ARF25-16-292
Solid Waste Disposal Authority of Baldwin County	2025	\$419,977.00	ARF25-17-293
West Alabama Recycling Partnership (WARP)	2025	\$72,683.00	ARF25-18-294

These tables show FY23 and FY24 grantees and the amount each of them has been awarded. Over 2 years, 45 different applicants were awarded for a total of over \$10,000,000.00.



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 infrastructure that aid in efforts for transporting and processing recyclables.

Recycling Challenge

ADEM has partnered 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 program is currently being reorganized to focus on education and outreach at schools

to set up long term recycling programs in schools. The program will educate faculty members at each school on how to start and implement a recycling program tailored to their individual goals. This focused approach at each school, will be 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 has been the web-based tool which allows the reporting of recycling data to the Department. Alabama Re-TRAC Connect was launched in 2013 and used for State agencies to report to the Department. The Alabama Environmental Permitting and Compliance System (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. AEPACS was launched in 2020 and currently, 225 recycling facilities are registered and using this improved system. The Department is in the process of transitioning State agencies to AEPACS to create accounts and reports. The Department is also in the process of working with stakeholders to update and modernize the 2010 regulations based on lessons learned and to further improve Alabama's successful recycling program.

Statewide Solid Waste Reduction Goal

Revisions to ADEM Admin. Code r. 335-13-13-.02 established a Statewide Solid Waste Reduction Goal of 40% (updated from the previous goal of 25%). In FY 2023-2024, the Solid Waste Reduction Rate was calculated to exceed the previous 25% goal again, extending the trend set in FY 2018.

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 remainder of the solid waste program (landfill permitting and compliance, and CCR) 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 compliance assistance and outreach efforts will continue to be a priority to aid in the education of regulated entities and the continued improvement of solid waste management in Alabama.

While significant progress has been made in addressing the continuing challenge of unauthorized dumps in the State, the Department anticipates the need for continued resources to adequately address the cleanup of existing eligible sites and future eligible sites. In addition, resources are also needed 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.