

Alabama Scrap Tire Program



Alabama
Department of
Environmental Management

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Biennial Report 2007-2009

Report for the
Alabama Legislature
And the
Alabama Scrap Tire Commission

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Executive Summary

This document is the Second Scrap Tire Biennial Report as required by the Scrap Tire Environmental Quality Act, Code of Alabama 22-40A-21(k), as prepared by the Alabama Department of Environmental Management (ADEM) for the Alabama Scrap Tire Commission (STC) to the Alabama Legislature. The report addresses Alabama's Scrap Tire Program activities as undertaken by ADEM and the STC.

Accomplishments and Results

- Alabama generates an estimated 5 million scrap tires annually. Up to an additional 4 million scrap tires are shipped to Alabama annually from other states.
- An estimated 7,092,000 scrap tires from all sources are beneficially reused annually. Approximately 96.5 % is utilized as fuel or substitute raw material and 3.5 % through engineered and other uses.
- Since the program inception, nearly 1,000,000 scrap tires have been removed from illegal stockpiles or unauthorized disposal sites, not including those removed from the Four Star Recycling Site detailed below.
- The completion of the Scrap Tire Fund remediation project of the former Four Star Recycling site in Attalla, Etowah County resulted in the removal of over 40,000 tons of scrap tires (equivalent to over 4,000,000 passenger tires) with expenditures of \$3,703,863. Over 80% of the material that was removed was beneficially reused.
- 2,417 Scrap Tire Receiver Registrations have been issued since the regulatory program began in late 2004.
- 219 Scrap Tire Permits have been issued for the transporting, sorting and processing of scrap tires.
- Nearly 3,600 inspections of registered and permitted facilities have been conducted.
- Over 270 investigations and assessments of unauthorized scrap tire accumulation and disposal sites have been conducted.
- Over 420 enforcement actions have been initiated in cases of regulatory non-compliance.

Financial Statement Summary
April 2007 through March 2009

The Alabama Scrap Tire Fund, as authorized by the Alabama Scrap Tire Environmental Quality Act, provides the funding for administration of the Alabama Scrap Tire Program and the aspects enumerated in the Act including: regulation and enforcement, site remediation and market development.

Table 1
Alabama Scrap Tire Fund

Since Inception the Fund has generated fee revenues of:	\$17,673,065
Interest Income	\$877,132
Revenue Total	\$18,550,197
Scrap Tire Program expenditures by ADEM (FY07/08):	\$1,700,298
Fund Balance as of March 2009	\$14,835,095
Anticipated/encumbered expenditures for Site Remediation:	\$15,946,367
Estimated ADEM expenditures for FY09	\$811,999

Legislative Update

The Alabama Scrap Tire Environmental Quality Act is amended when necessary to refine the program, and to provide for clarification or procedural changes. The Act was amended during the 2005 and 2006 Sessions of the Alabama Legislature for these purposes. During the 2009 Legislative Session, the Act was revised to enhance efforts for scrap tire market development. ADEM will now take the lead on development and implementation of a market development plan for scrap tires in Alabama and be responsible for providing a report to the Legislature concerning those efforts.

Scrap Tire Regulations contained in ADEM Administrative Code 335-4 have also been revised on two occasions. The amendments and revisions served to allow for clarifications of regulatory provisions, the granting of variances to enhance beneficial reuse, and the remediation of smaller accumulation and illegal disposal sites concurrently with larger Scrap Tire Fund sites.

Introduction

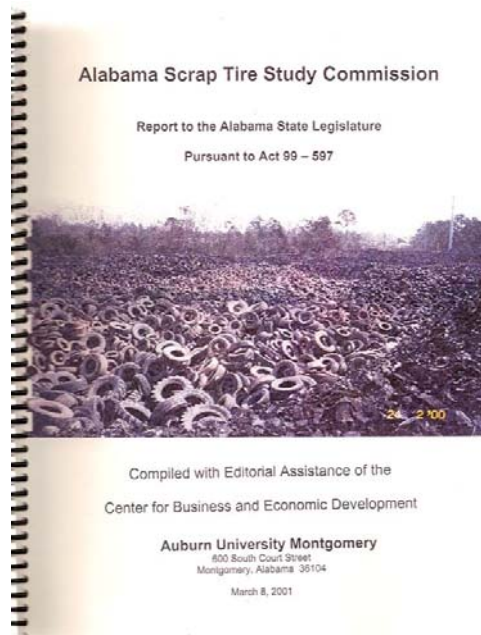
This document is the 2nd Scrap Tire Biennial Report as required by the Scrap Tire Environmental Quality Act, Code of Alabama 22-40A-21(k), as prepared by the Alabama Department of Environmental Management (ADEM) for the Alabama Scrap Tire Commission (STC) to the Alabama Legislature. The report addresses Alabama's Scrap Tire Program activities as undertaken by ADEM and the STC.

The Alabama Scrap Tire Environmental Quality Act established a mechanism for the cleanup of scrap tire stockpiles and for the collection, transporting, processing and recycling or disposal of all scrap tires that are generated or imported into Alabama. The Act established the Scrap Tire Fund (Fund) as support for the Alabama Scrap Tire Program. The Fund is utilized as specified in the Act and as follows:

- ❖ To pay the costs of remediation, abatement, removal, or other remedial action within the range of 45 percent to 75 percent of monies deposited to the Scrap Tire Fund during the previous budget year;
- ❖ To pay the costs of the Alabama Department of Environmental Management associated with the development and enforcement of regulations, up to 20 percent of monies deposited to the Scrap Tire Fund during the previous budget year including personnel, training, materials, and equipment relating to administration of this chapter and for the training of enforcement personnel within the department, county, and other governmental organizations;
- ❖ To administer a program, within the range of zero percent to 20 percent of monies deposited to the Scrap Tire Fund during the previous budget year, directed at promoting and developing markets as an alternative to disposal;
- ❖ To fund the programs delegated by the department to counties for enforcement of regulations, not to exceed 10 percent of monies deposited to the Scrap Tire Fund during the previous budget year;
- ❖ To pay the tire retailer, not to exceed seven percent of fees collected, for collection and accounting costs associated with collection of the fee and the monthly distribution to the Department of Revenue;
- ❖ To pay the costs of administration of the Department of Revenue, not to exceed two percent of monies, associated with establishment of the Scrap Tire Fund, receipt of funds, disbursements, and auditing revenues in the Scrap Tire Fund.

History

On March 8, 2001, the Alabama Scrap Tire Study Commission (STSC), having been formed by and charged to do so by the Alabama Legislature, submitted a report that detailed the generation, accumulation, challenges posed by and opportunities to more effectively manage scrap tires in Alabama. The report was the culmination of work performed by a broad stakeholder group and included more than two years of meetings and research involving representatives of industry, government and the public. The STSC was directed by Act 99-597 of the 1999 Session of the Alabama Legislature to produce this report, and furthermore was charged by Joint Resolution SJR-152 to clarify sections of scrap tire legislation that had been identified. The STSC then drafted legislation to address those issues.



Results of work performed by the STSC revealed informational areas of concern and some that were surprising at the time of the report. Among these were that approximately 5 million scrap tires were estimated to be generated annually in the state, an estimated 14 to 20 million tires were stockpiled or illegally disposed of, an additional 4 to 5 million tires were being shipped to Alabama from out-of-state sources annually, and Alabama was the only state in the Southeast that had not enacted an adequately funded comprehensive cleanup and management program nor extensive regulatory structure to address the problem. While the current system in place did contain licensing and enforcement provisions for scrap tire receivers and transporters, enforcement was at the county level and funding was inadequate to perform routine compliance and enforcement activities at a level that was necessary to combat the problem, especially when faced with the removal of accumulated stockpiles.

To address these and other issues acknowledged in the report, the STSC made a number of recommendations including options for addressing existing stockpiles. Four options were put forth: manage in place without cleanup, cleanup with existing resources, task the Department

of Corrections with the cleanup, or establish a new funding mechanism. Management of accumulations without cleanup would not eliminate the risks to the environment, public and private property or public health and was not deemed a viable option. Existing resources would not provide the estimated \$10-20 million or more to address the problem. The remaining two options were left open but the STSC indicated that the necessity of a cleanup fund supported by scrap tire fees was an essential component of the task to eliminate existing and prevent the formation of future accumulations. As a result, the STSC recommended that a \$1.00 per tire fee collected at the point of sale be instituted to remediate existing stockpiles and the remainder of collected funds be directed toward enforcement and incentive programs to control future problems.

The STSC included these recommendations in the drafting of the Scrap Tire Environmental Quality Bill, and after discussions with scrap tire programs in other states and existing state agencies in Alabama, recommended that the Alabama Department of Environmental Management (ADEM) would be the most appropriate agency in which to house a comprehensive program.

The draft bill was structured around the areas of stockpile remediation, regulation and enforcement, and market development. In addition, the passage of the bill by the Alabama Legislature would abolish the Scrap Tire Study Commission and establish the Scrap Tire Commission which would oversee the implementation of the Act and would be authorized to spend and allocate funds in the Scrap Tire Fund for the purposes authorized in the Act.

The legislation was introduced during the 2003 session of the Alabama Legislature by Senator Larry Means and Representative Craig Ford. The legislation passed and was signed into law by Governor Siegelman in June 2003. The Alabama Scrap Tire Environmental Quality Act provided a funding mechanism for scrap tire management through the use of a \$1.00 per tire point of sale collection system on the sale of each new, used or retreaded tire sold in Alabama. The Act also prescribed how collected funds were to be allocated to support activities of fund disbursement, regulation, marketing, site remediation, and county delegation. Additionally, it directed ADEM to establish a ranking system for accumulation sites and regulations for the management, transportation, disposal or reuse of scrap tires and a regulatory system for site remediation.

The Alabama Scrap Tire Commission (STC) met initially in September of 2003 to establish operating procedures and formed a Regulation Review Team to begin a detailed review of the proposed draft regulations in line with the Act. After revising and expending draft regulations to form a more adequate regulatory structure, the STC submitted draft regulations to the standard public review process and to the Environmental Management Commission for adoption. The Alabama Scrap Tire Environmental Quality Act required ADEM to have its program start October 1, 2004, however, ADEM Administrative Code, Division 4, which contains the regulations and requirements, became effective August 4, 2004.

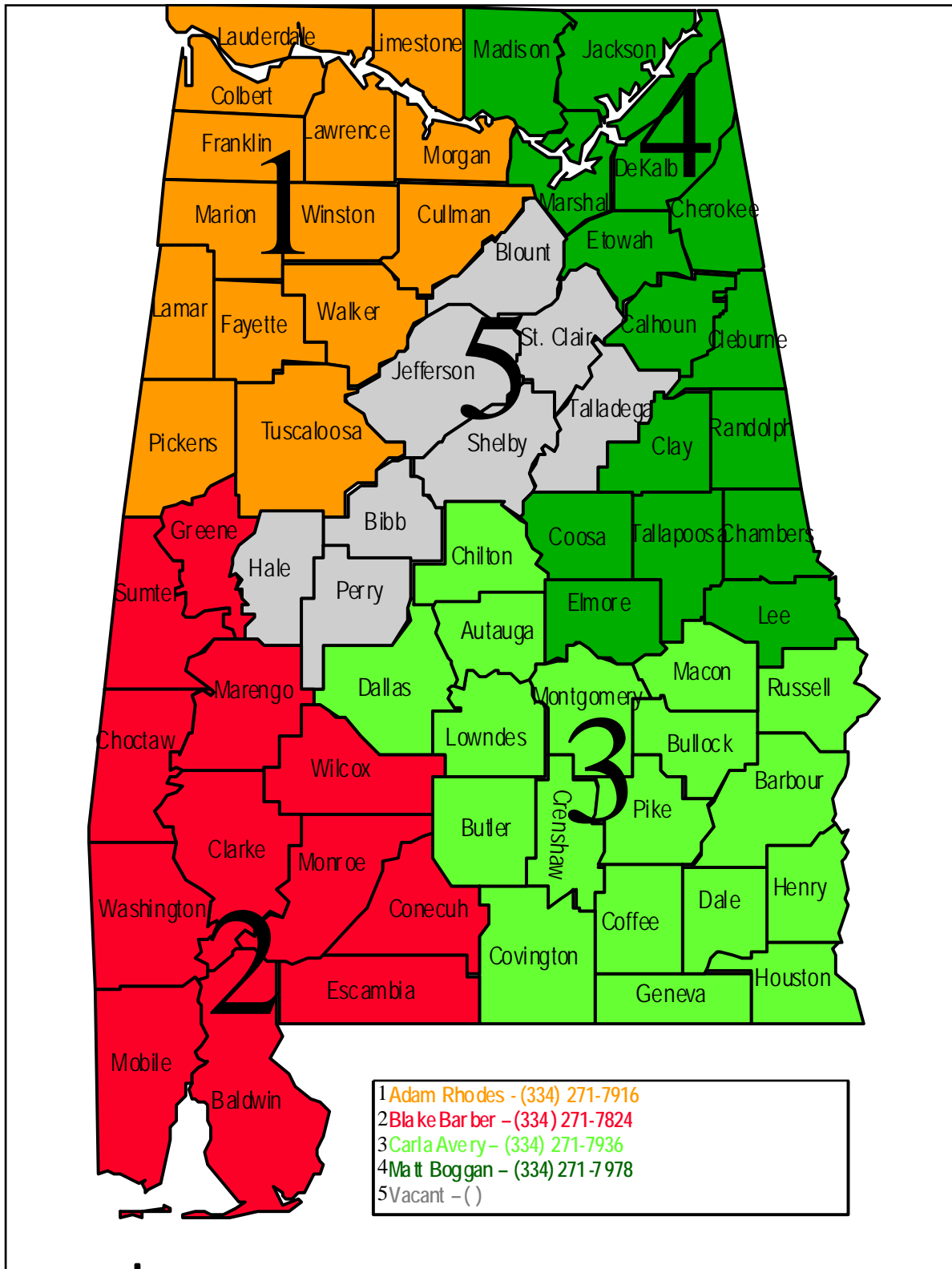
With continued input from the Scrap Tire Commission, ADEM began the process of staffing the program, and developing information systems and supporting documents as well as standard operating procedures. In conjunction with the Alabama Tire Dealers Association, other trade

and industry associations, and the media, the Department initiated strategies to notify those subject to regulation. The regulatory program instituted provided for the registration of Scrap Tire Receivers, which included separate classes for tire retailers and salvage and fleet operations. The permitting program initiated provided for permitting of scrap tire transporters, processors and end-users, and included provisions for the storage and transportation of scrap tires as well as other requirements. Manifesting shipments utilizing an approved form was a requirement to provide ADEM with information useable in determining proper reuse or disposal of scrap tires within the state. Procedures were also established by regulation for the remediation of scrap tire sites in Alabama. Included were those for an approved contractor and site ranking systems. Known instances of scrap tire accumulation, stockpiling and illegal disposal were identified, assessed and prioritized for cleanup.

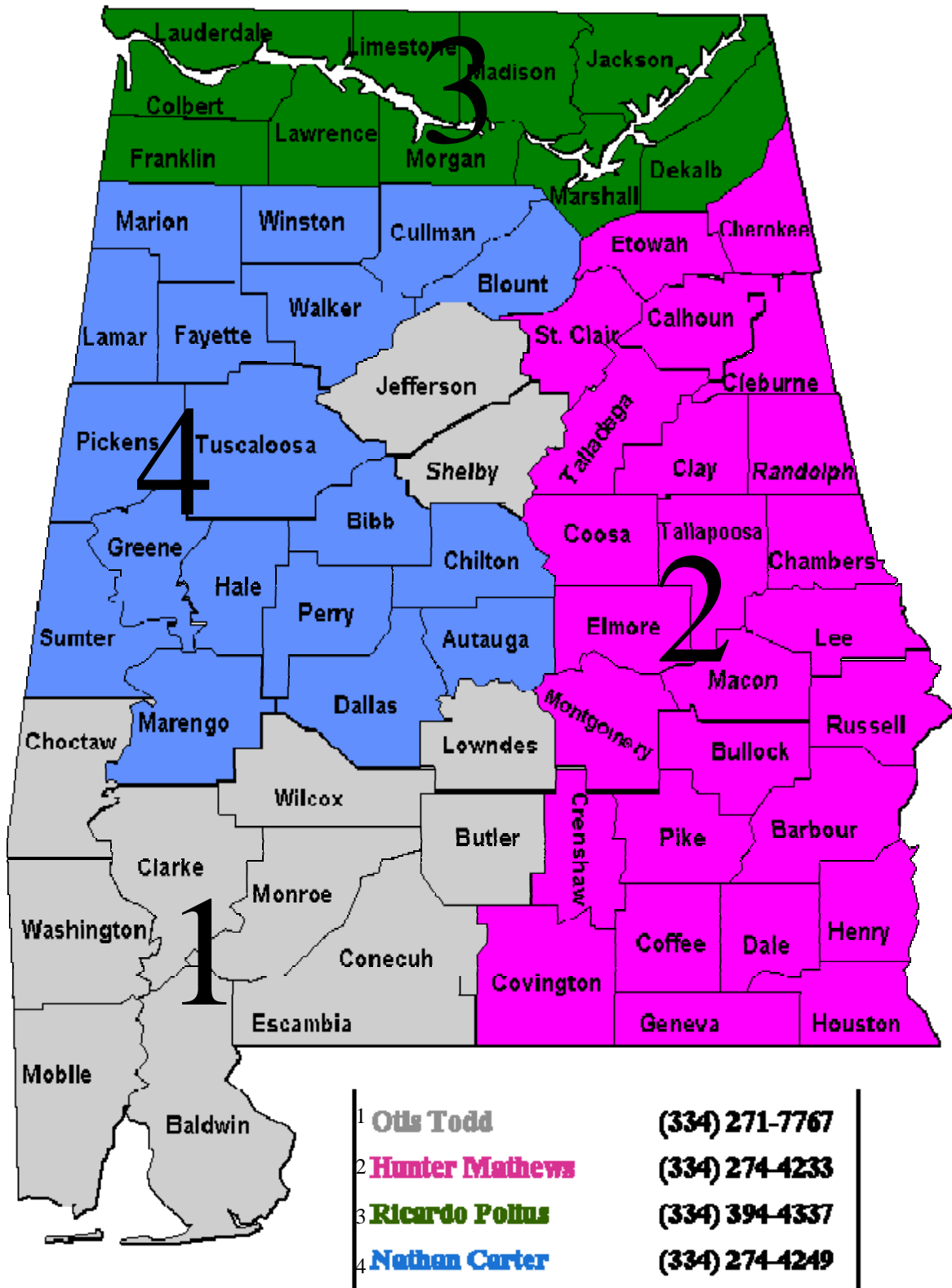
The program has incorporated innovative methods for its registration, permitting and site remediation activities. Staff use Tablet PC's to perform facility inspections and complaint investigations, which provide real time access to facility and site data. Electronic filing eliminates the requirement for maintenance of paper records and speeds data retrieval. Global Positioning System (GPS) points are recorded for each facility and site, facilitating the use of Geographic Information System (GIS) tools and navigation to reduce travel time. An Oracle database is utilized for tracking activities of registered and permitted entities. Information gathered through this and other sources such as data from the Alabama Department of Revenue including collections and delinquencies can be cross-referenced to aid in compliance determinations and to identify geographic areas or facility types for inspection priority. As noted previously in this report, legislative and regulation revisions were initiated as necessary to clarify, refine and increase the efficiency and effectiveness of this program.

The ADEM Scrap Tire Program is operated under the Materials Management Section of the Land Division Solid Waste Branch and is comprised of one Section Chief and five Environmental Scientist positions, one of which is currently vacant. Each staff member is assigned an area geographically by population and is responsible for registration and permitting, inspection, data management of registered and permitted facilities and compliance within that area. Scrap Tire Staff are also designated specialty areas such as database development, software and equipment maintenance and review of financial assurance data for compliance purposes. The Enforcement and Remediation Section handles the enforcement for scrap tire facilities and the remediation and enforcement activities for illegal scrap tire dump sites. The Enforcement and Remediation Section currently has five staff members that are assigned geographic regions for enforcement, illegal dump investigations and remediation oversight.

Figure 1
Scrap Tire Program Areas of Responsibility



**Figure 2
Scrap Tire Complaint Assignments**



Registration and Permitting

In accordance with the provisions of the Alabama Scrap Tire Environmental Quality Act, ADEM is required to regulate facilities involved in the generation, transportation, processing, management and end-use or disposal of scrap tires.

- ❖ Facilities that generate more than 10 scrap tires per year are required to register as scrap tire receivers. Those that sell new, used or retread tires are Class One Receivers, who also must register with the Department of Revenue for collection of the \$1.00 per tire scrap tire environmental fee. All others, including government, fleet management, and dismantling operations that generate more than 10 scrap tires per year must register as Class Two Receivers.
- ❖ Those who transport more than 8 scrap tires per shipment are required to obtain a Scrap Tire Transporter Permit.
- ❖ Processors who alter scrap tires by any physical or chemical means, or who incorporate scrap tires into an end-product must obtain a Scrap Tire Processor Permit.
- ❖ Facilities that have the necessary permits to utilize scrap tires as a fuel source, substitute raw material, or for engineered use must receive exemptions or obtain permits for those activities.

Registered scrap tire receivers are required to comply with regulatory provisions to include the following:

- Storage within approved limits;
- Implementation of vector control for outside storage;
- Maintenance of a scrap tire operating record;
- Use of approved manifest for shipment.

Permitted scrap tire transporters are required to comply with regulatory provisions to include the following:

- Maintenance of a scrap tire operating record;
- Use of approved manifest and transporter decals for shipment;
- Acceptance of scrap tires from registered/permitted facilities only;
- Maintenance of required financial assurance.

Requirements for scrap tire processors and those holding registrations as exempt processors, engineered use and other approved applications may include:

- Maintenance of any required financial assurance;
- Acceptance of scrap tires from registered/permitted facilities only;
- Compliance with storage requirements;
- Requirements for vector control, storage and fire prevention.

Registration and Permitting

Registration and Permitting Accomplishments

Registration and permitting of scrap tire facilities began in fiscal year 2005. While most facilities have contacted the Department concerning their need for registration and permitting, additional facilities continue to be identified. ADEM Scrap Tire Unit staff utilize several means to determine those facilities required to be registered and/or permitted. Included is a review of Department of Revenue scrap tire fee collection data; yellow page and internet searches, field investigations and receipt of facility complaints from citizens.

Since inception, over 2,400 registrations have been issued to Alabama and out-of-state receiver facilities. There have been 219 permits issued to scrap tire transporters and processors. The table below provides a more detailed overview of these activities.

Table 2
Alabama Scrap Tire Registrations and Permits
(Since Inception)
(Fiscal Year)

Type	Total Issued FY04	Total Issued FY05	Total Issued FY06
Class One Receiver	524	809	276
Class Two Receiver	162	120	58
Transporter	27	46	24
Class One Processor	0	3	1
Class Two Processor	0	1	1
Class Three Processor	0	1	1
Exempt Fuel User	1	6	0

Type	Total Issued 2007	Total Issued 2008	Total Issued 2009*	Type Total
Class One Receiver	180	154	36	1979
Class Two Receiver	44	39	15	438
Transporter	22	37	15	171
Class One Processor	1	1	1	7
Class Two Processor	1	1	0	4
Class Three Processor	0	0	0	2
Exempt Fuel User	2	2	0	11

* through March 2009

**Table 3
Registration and Permit Issuance by County (Active)**

County	Receivers	Transporters	Processors	Fuel Users	Total County Facilities
Autauga	20	0	0	0	20
Baldwin	91	0	1	0	92
Barbour	14	1	2	0	17
Bibb	10	0	0	0	10
Blount	18	6	0	0	24
Bullock	3	0	0	0	3
Butler	12	0	0	0	12
Calhoun	79	6	2	0	87
Chambers	23	0	0	0	23
Cherokee	9	1	0	0	10
Chilton	32	0	0	0	32
Choctaw	11	0	0	0	11
Clarke	19	0	0	0	19
Clay	10	0	0	0	10
Cleburne	9	0	0	0	9
Coffee	32	0	0	0	32
Colbert	32	0	0	0	32
Conecuh	7	0	0	0	7
Coosa	1	0	0	0	1
Covington	27	3	1	0	31
Crenshaw	12	1	0	0	13
Cullman	45	10	0	0	55
Dale	23	0	0	0	23
Dallas	19	0	0	0	19
DeKalb	37	2	0	0	39
Elmore	33	1	0	0	34
Escambia	28	0	1	0	29
Etowah	47	0	0	0	47
Fayette	10	0	0	0	10
Franklin	17	2	0	0	19
Geneva	17	0	0	0	17
Greene	3	0	0	0	3
Hale	4	0	0	0	4
Henry	4	0	1	0	5
Houston	60	1	0	0	61
Jackson	22	0	0	1	22
Jefferson	289	15	2	1	306
Lamar	7	0	0	0	7
Lauderdale	31	0	0	0	31
Lawrence	15	0	0	1	15

Registration and Permit Issuance by County - continued

County	Receivers	Transporters	Processors	Fuel User	Total County Facilities
Lee	55	0	0	0	55
Limestone	25	1	1	0	27
Lowndes	4	0	0	0	4
Macon	8	0	0	0	8
Madison	95	7	1	0	103
Marengo	11	0	0	1	11
Marion	17	0	0	0	17
Marshall	64	2	1	0	67
Mobile	172	5	8	2	185
Monroe	12	1	0	0	13
Montgomery	108	4	0	0	112
Morgan	43	0	0	0	43
Perry	7	0	0	0	7
Pickens	10	0	0	0	10
Pike	24	3	0	0	27
Randolph	16	0	0	0	16
Russell	24	2	0	0	26
St. Clair	44	2	0	1	46
Shelby	68	4	1	1	73
Sumter	10	0	0	0	10
Talladega	48	1	0	0	49
Tallapoosa	28	1	0	0	29
Tuscaloosa	77	1	0	0	78
Walker	42	0	0	0	42
Washington	5	0	0	0	5
Wilcox	11	0	0	0	11
Winston	12	2	0	0	14
Out-of-State	0	12	0	0	12
Totals	2222	97	22	8	2341

Compliance and Enforcement

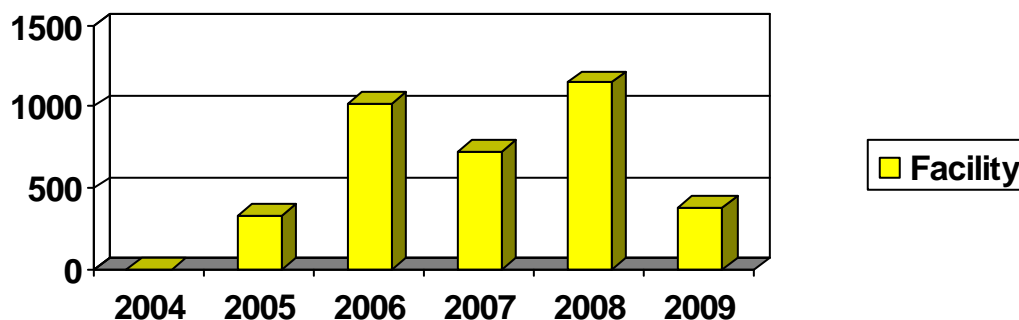
Facility Inspection and Site Investigation

Ensuring the regulatory compliance of scrap tire facilities and proper management of scrap tires in Alabama is a primary component of the ADEM Scrap Tire Program. Efforts to inspect scrap tire facilities and perform site investigations of accumulation and disposal sites is commensurate with the goals of the site remediation program, specifically the elimination of existing instances of scrap tire accumulations and the prevention of new site formation.

Scrap tire program staff perform inspections of registered and permitted facilities to ensure compliance with regulatory provisions. Staff are assigned geographic areas of operation and, following registration and/or permitting activities of facilities within those areas, schedule inspections to determine compliance and any warranted enforcement actions. Even with the existing high facility to inspector ratio, the time between inspections at scrap tire facilities averages 18 to 24 months. Facilities with past issues of non-compliance are inspected more frequently to ensure a return to compliance has been achieved and maintained. Staff perform inspections utilizing Tablet PC's and standardized inspection forms for efficiency and accuracy.

In addition to visual observations of the facility and its operations, records to include manifests and the facility operating record are reviewed on-site to ensure proper scrap tire management and compliance with regulations. Compliance problems noted during the inspection are not only identified to the facility on-site, but are detailed in an inspection report provided to the facility after each inspection. These inspection reports are reviewed by the Enforcement and Remediation Section to determine the need for any type of enforcement action. In instances where enforcement action is warranted and issued, staff perform follow-up inspections to ensure the facility returns to compliance as stated in the action in addition to any required response from the facility. Over 3,500 facility inspections have been performed to date.

Figure 3
Scrap Tire Inspections
(Through March 2009)



The Enforcement and Remediation Section investigates unauthorized scrap tire accumulation complaints. Field inspections of these accumulations are performed including observations of site conditions, noting numbers and condition of scrap tire materials present, photographic documentation, GPS location and determination of property ownership. To date, program staff have investigated over 620 complaints. Investigation into these sites usually necessitates enforcement action for cleanup either by the responsible party or property owner. As a result of these efforts, over 420 enforcement actions have been taken requiring site remediation.



Table 4
Scrap Tire Facility Inspections

County	2005 Facility Inspections	2006 Facility Inspections	2007 Facility Inspections	2008 Facility Inspections	2009* Facility Inspections	Total
Autauga	13	3	4	24	6	50
Baldwin	9	39	32	34	28	142
Barbour	0	7	3	18	0	28
Bibb	0	4	0	9	0	13
Blount	0	6	0	4	10	20
Bullock	0	3	1	11	0	15
Butler	0	6	3	16	9	34
Calhoun	8	27	14	20	10	79
Chambers	0	20	0	8	0	28
Cherokee	5	3	5	11	6	30
Chilton	17	41	10	9	18	95
Choctaw	0	10	4	0	0	14
Clarke	2	14	1	2	3	22
Clay	1	8	0	9	0	18
Cleburne	3	3	0	3	0	9
Coffee	17	24	34	23	20	118
Colbert	6	0	40	14	5	65
Conecuh	0	2	0	5	4	11
Coosa	0	1	0	0	0	1
Covington	3	26	13	24	0	66
Crenshaw	0	1	18	4	6	29
Cullman	0	22	16	26	0	64
Dale	19	3	4	20	16	62
Dallas	5	24	1	0	10	40
DeKalb	1	16	8	9	0	34
Elmore	24	4	2	29	10	69
Escambia	2	24	0	10	6	42
Etowah	2	28	38	22	13	103
Fayette	0	8	9	9	0	26
Franklin	0	5	17	18	0	40
Geneva	0	12	21	4	0	37
Greene	0	4	0	0	0	4
Hale	2	2	0	2	0	6

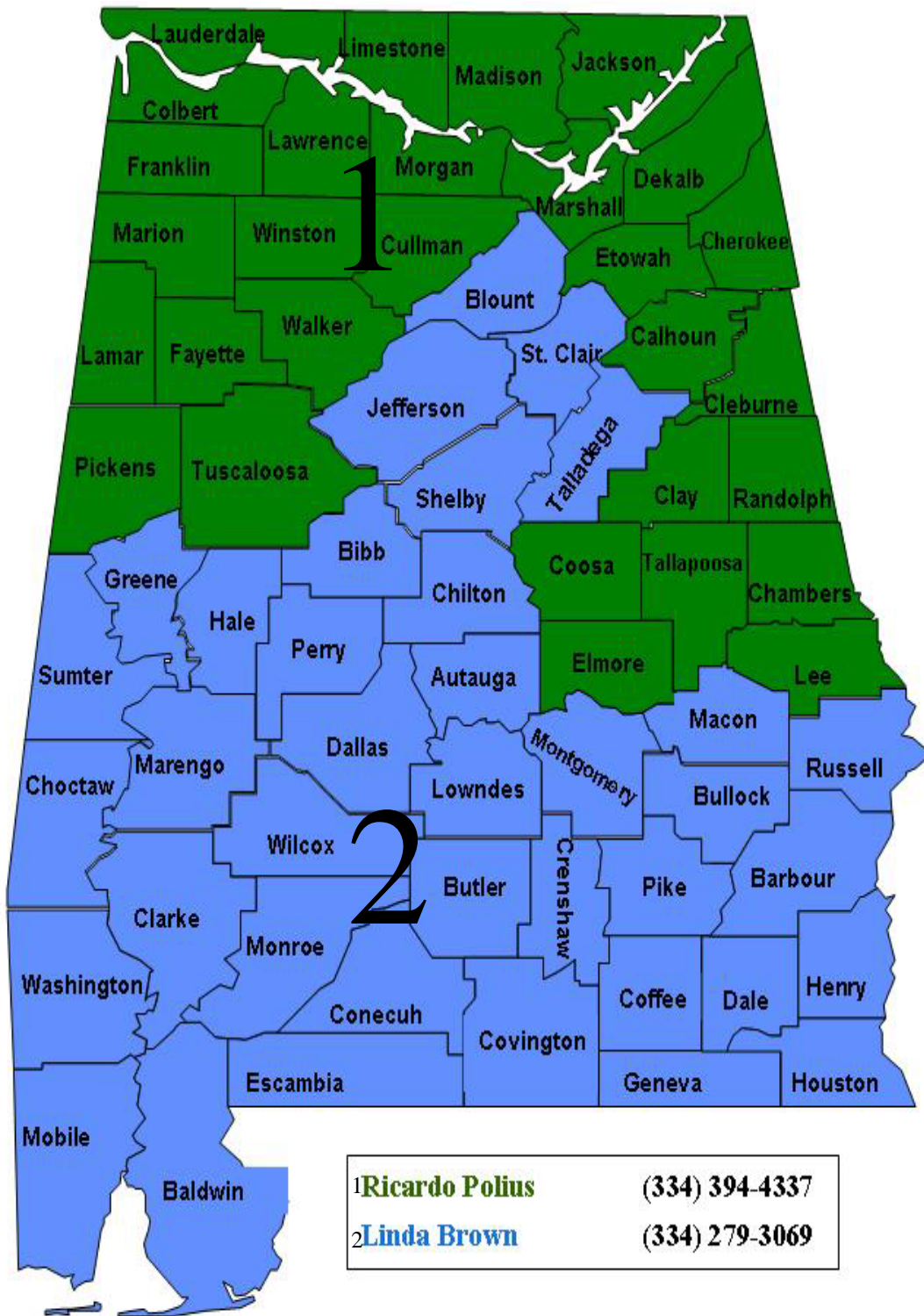
Facility Inspections– continued

County	2005 Facility Inspection	2006 Facility Inspection	2007 Facility Inspection	2008 Facility Inspection	2009* Facility Inspection	Total
Henry	4	0	0	5	2	11
Houston	43	11	37	62	14	167
Jackson	0	8	2	0	0	10
Jefferson	0	26	25	147	62	260
Lamar	0	2	0	7	0	9
Lauderdale	7	12	4	19	0	42
Lawrence	0	3	8	9	4	24
Lee	7	44	1	24	5	81
Limestone	1	9	10	23	3	46
Lowndes	0	2	2	0	0	4
Macon	0	7	9	10	0	26
Madison	10	39	32	3	17	101
Marengo	0	5	0	7	0	12
Marion	0	6	0	12	0	18
Marshall	3	20	45	15	12	95
Mobile	21	87	94	139	24	365
Monroe	4	9	0	13	0	26
Montgomery	0	53	48	39	24	164
Morgan	2	11	14	39	0	66
Perry	1	4	0	7	0	12
Pickens	0	9	8	0	0	17
Pike	0	17	20	16	5	58
Randolph	0	14	0	0	0	14
Russell	0	2	7	12	13	34
St. Clair	11	29	4	10	0	54
Shelby	38	14	41	7	2	102
Sumter	0	10	4	0	0	14
Talladega	9	37	0	11	4	61
Tallapoosa	3	25	0	10	7	45
Tuscaloosa	0	90	3	45	0	138
Walker	20	5	1	50	0	76
Washington	0	3	3	3	0	9
Wilcox	7	0	3	0	1	11
Winston	0	3	0	9	0	12
Totals	330	1016	723	1150	379	0

*through March 2009

Total 3598

Figure 4
Scrap Tire Facility Enforcement Assignments



Scrap Tire Site Remediation

One of the major goals of the Scrap Tire Program is to eliminate existing unauthorized scrap tire accumulation sites in Alabama through either the use of enforcement actions or remediation projects funded by the Scrap Tire Fund. These unauthorized scrap tire accumulation sites are discovered primarily through complaints lodged by private citizens and public officials to the Department. Department personnel investigate these sites by gathering ranking data, obtaining GPS coordinates, quantifying the scrap tires and scrap tire materials at the site, and determining the land owner or the potential responsible party. Once the land owner/potential responsible party is identified, enforcement action is taken by the Department in an attempt to compel those responsible to remediate the scrap tire accumulation at their own expense. The responsible party must provide the Department with a proposed remediation plan; photo documentation of remediation activities (before, during and after); and disposal or reuse receipts. At the completion of the remediation project, Department personnel return to the site to ensure that remediation activities have been completed to the Department's satisfaction. Since the last Biennial Report (2004-2006), over 79,000 scrap tires have been remediated from 30 sites. A list of these sites is provided in Table 6.

Scrap Tire Fund

If a responsible party cannot be identified or if the responsible party refuses to remediate an unauthorized scrap tire accumulation, the site may be eligible for remediation under the Scrap Tire Fund. The Scrap Tire Fund enables the Department to identify, assess, and remediate known unauthorized scrap tire accumulations, both large (>25,000 scrap tire equivalents) and small (<25,000 scrap tire equivalents). Large scrap tire accumulation sites are prioritized using a ranking system with information obtained during the initial investigation. Ranking data used to prioritize these sites include the following:

- quantities of tire materials present;
- presence or threat of disease carrying vectors such as mosquito species, proximity to schools or other sensitive resident populations;
- location of utility and transportation resources;
- threat of fire or other hazard; and
- proximity to sensitive environments.

Small tire accumulation sites may also be prioritized for remediation in the same manner.

Alabama Approved Scrap Tire Remediation Contractors List

The Department is required to maintain a list of Approved Scrap Tire Fund Remediation Contractors who can conduct remediation activities at large scrap tire sites under the Scrap Tire Fund. The Department advertises the opportunity for additional contractors to be added to this list at least annually. Among the requirements to be an approved large scrap tire fund remediation contractor are the possession of a current Alabama General Contractor's License, the possession of or the ability to obtain specified insurance and financial assurance, and the resources (both equipment and personnel) to successfully and effectively complete remediation activities.

Large Scrap Tire Site Remediation Projects

Since the remediation of the large scrap tire sites typically take several months or years to complete, it is necessary to prioritize these sites to ensure that those sites with the greatest potential impacts to health and environmental safety are addressed first. The priority ranking system and approved contracting process are outlined in ADEM Admin. Code r. 335-4-2-.02 and ADEM Admin. Code r. 335-4-2-.04, respectively. The current priority list of large scrap tire site remediation projects is provided in Table 5.

<u>COUNTY</u>	<u>SITE NAME</u>	<u>STATUS</u>	<u>TIRE QUANTITY</u>
Etowah	Four Star Wholesale & Tire Brokerage	Complete	4,200,000
Mobile	Prichard Site	On-going	est. 500,000
Geneva	Geneva County Site	Preliminary Research	est. 3,000,000

Once a large scrap tire site is deemed eligible for remediation utilizing the Scrap Tire Fund, a site-specific Request for Proposals (RFP) is prepared. A public notice is published in the four major State newspapers, a local news paper close to the site, and on the Department’s website soliciting remediation proposals from Alabama Approved Scrap Tire Fund Remediation Contractors. The RFP provides the scope of services, including the percentage of scrap tire material that is required to be beneficially reused, and instructions on preparing the bid submittal. The Alabama Approved Scrap Tire Fund Remediation Contractor must submit bids on a unit rate (dollars per ton of material removed). A mandatory on-site bid preview is held to allow the Approved Scrap Tire Fund Remediation Contractors the opportunity to assess the site. The bidding process is conducted in accordance with the State of Alabama competitive bid process. After the execution of the contract with the selected Alabama Approved Scrap Tire Fund Remediation Contractor, the remediation contractor has ten days to initiate remediation activities. Department personnel conduct oversight inspections at the site to monitor the selected contractor’s progress, to ensure adherence to contract requirements, and to verify that proper documentation is being maintained.

Figure 5

Remediation Project: former Four Star Wholesale & Tire Brokerage

Location: Attalla, Etowah County, Alabama

Status: Completed (August 2006 through November 2008)

Quantity Removed: 41,734 tons (approximately 4,200,000 Passenger Tire Equivalents)

Beneficially Reuse Percentage: Greater than 80%

Project Expenditures: \$3,703,863.19 (\$88.75 per ton)



Four Star Wholesale Site (Etowah County) Pre-Removal



Four Star Wholesale Site (Etowah County) Pre-Removal



Four Star Wholesale Site (Etowah County) Post-Removal



Four Star Wholesale Site (Etowah County) Post-Removal

Figure 6

Remediation Project: Prichard Large Scrap Tire Site

Location: Prichard, Mobile County, Alabama

Estimated Tire Quantity: approximately 500,000 Passenger Tire Equivalents

Status: Projected Completion Date of December 2009

Beneficial Reuse Percentage: Required 75%

Project Proposed Expenditures: \$59.00 per ton (estimated \$275,000.00)



Prichard Site (Mobile County) Pre-Removal

Prichard Site (Mobile County) Pre-Removal

Figure 7

Remediation Project: Geneva Large Scrap Tire Site

Location: near Geneva/Samson, Geneva County, Alabama

Estimated Tire Quantity: approximately 3,000,000 Passenger Tire Equivalents

Status: Preliminary Research



Geneva Site (Geneva County) Pre-Removal

Geneva Site (Geneva County) Pre-Removal

Small Scrap Tire Site Remediation Projects

Since the last Biennial Report (2004-2006), the Department has developed a process for the remediation of small unauthorized scrap tire accumulation sites. Small scrap tire site remediation projects are prioritized and remediated concurrently with the large scrap tire site remediation projects. Small site remediation contractors do not have to be on an approved contractor list with the Department to perform this work. Each small scrap tire site remediation project, which includes contractor requirements and a scope of services to be performed, is published as a public notice in the four major State newspapers, a local paper nearest the site, and on the Department's website. In fiscal year 2008, the Department obligated \$133,897 for the remediation of seven small scrap tire sites, and thus far in fiscal year 2009, the Department has obligated approximately \$28,500 for five small scrap tire site remediation projects utilizing the Scrap Tire Fund.



Elizabeth White Site (Autauga County) Pre-Removal



Elizabeth White Site (Autauga County) Post-Removal



Strickland Site (Clarke County) Pre-Removal



Strickland Site (Clarke County) Post-Removal

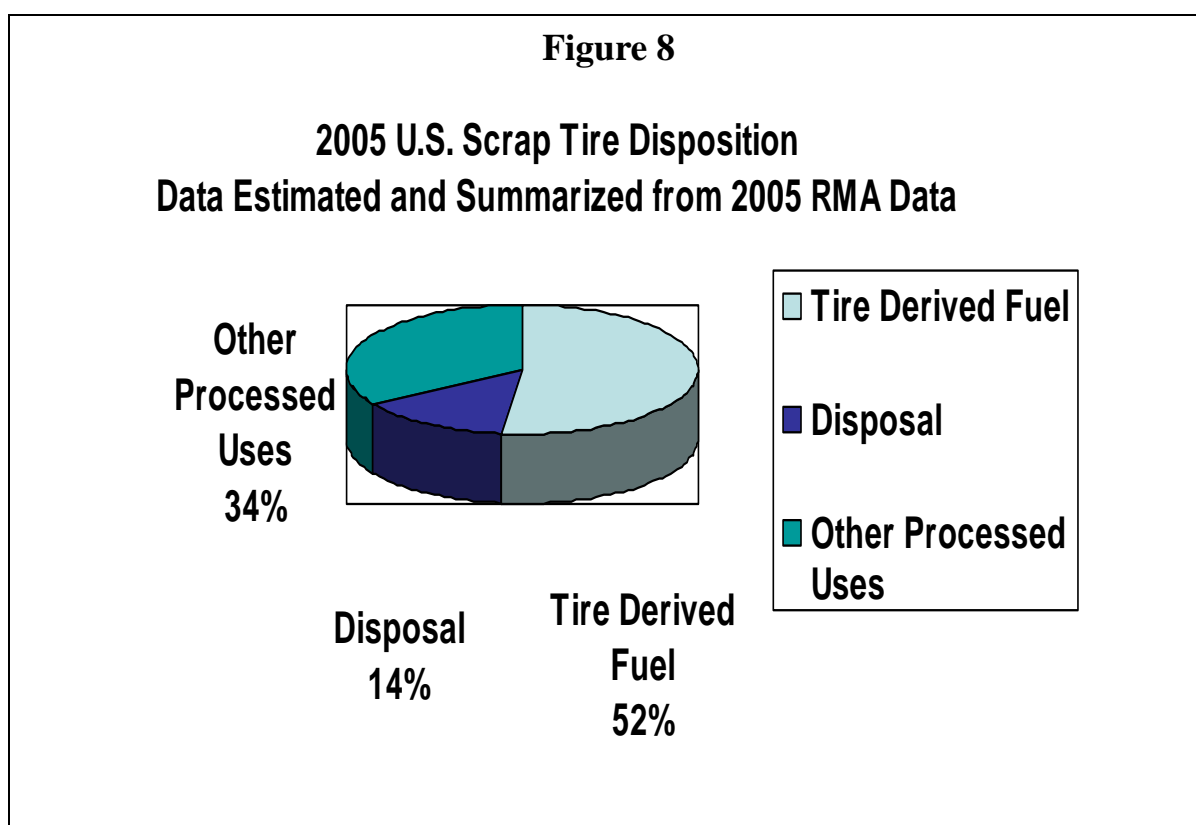
Table 6
Scrap Tire Site Remediation Projects

Enforcement Action and Scrap Tire Fund Removals

<u>COUNTY</u>	<u>SITE NAME</u>	<u>TIRE QUANTITIES</u>
Autauga	Elizabeth White Site	680
	Freddie Jackson Site	260
	Al's Tire Barn and Tire Shredding	1,000
Baldwin	Roy Woerner Site	67
	Elberta Co-op	100
	Timber Company Road Site	75
	Southern Turf Nurseries Site	67
	Norm the Tireman	150
Butler	Ray Skipper Site	1,500
Chilton	A & A Tire Site	400
	Easterling Site	3,128
Clarke	Kearly Site	1,500
	Strickland Site	250
Coosa	Martin Sherer Site	430
DeKalb	Shattuck Site	125
Etowah	McCreliss Site	40
	Cross Street Site	100
	Sullivan Site	408
	Jackie Scott Site	633
	Charles Kelly Site	29,725
	Wallace Site	14,338
	Jim Barron Beaver Warehouse	13,347
Lee	Criswell Site	4,100
Mobile	Cody Road Housing Site	25
	Dept. of Conservation-Lott Road	3,025
	Zeigler Boulevard and Cody Road	2,400
	Diane Lee Site	200
Russell	Key Site	40
	Robinson Site	75
Shelby	Cofer Site	1,007
Total Tires Removed (April 2007-March 2009)		79,195

Scrap Tire Markets and Market Development

In the 2005 report on scrap tire markets in the United States prepared by the Rubber Manufacturers Association, Alabama was recognized as one of the top two states in improvements made in regards to scrap tire issues. Specifically, the state was highlighted for the initiation of stockpile and illegal site remediation projects and in performance in regards to expanding markets for scrap tires. The estimated United States beneficial reuse of scrap tires and scrap tire materials is illustrated in Figure 3, and is similar to the situation that exists within the state with the exception that Tire Derived Fuel (TDF) and landfilling comprise the majority of end destinations for scrap tire materials generated in Alabama. Scrap tire markets existing in Alabama are centered mainly on use of whole or processed tires as TDF by steel and cement manufacturing industries or as a raw material substitution.



Beneficial reuse of scrap tires and scrap tire materials in Alabama is primarily the result of utilization of material by several large end users. As stated by RMA, the initiation of stockpile cleanups and the 2004 implementation of a comprehensive regulatory structure to address scrap tire disposition has enabled increases in reuse to occur. Economic pressures resulting from rising prices of traditional fuel sources have also played a large part in the increase, as coal, electricity and natural gas have seen large price jumps in recent years. In Alabama it is estimated to be such that the reuse of scrap tires and tire materials in the state is almost its generation rate of approximately 5 million per annum. It is the importation of up to an

additional 4 million scrap tires per annum that allows for the disposal of scrap tires in Alabama to remain a viable option in many instances.

Table 7
Alabama Exempt Scrap Tire Fuel and Substitute Raw Material Users
30 Day Usage

Facility	30-Day Permitted Storage in Tons	Current 30-Day Usage in Tons
Lafarge Building Materials, Inc.	4320	364
International Paper Corporation	3168	600
Holcim (US), Inc.-Theodore Plant	7500	1556
Lehigh Cement Company	286	495
Smurfit-Stone Container, Inc.	1200	173
National Cement	4464	42
CEMEX, Inc.	2520	487
IPSCO Steel (Alabama), Inc.	651	218
Tuscaloosa County Sheriff's Department	40	
Walter Marine, Inc.	10	1
World Environmental Solutions	25	no current use
Total	24184	3936

All facilities in Alabama permitted to utilize scrap tires in TDF or raw material substitution applications reported an average current use of 3,936 tons of scrap tires and scrap tire materials per month which represents a monthly usage of approximately 393,600 scrap tires. This results in approximately 4,723,200 scrap tires being beneficially reused annually in Alabama. One facility is not currently utilizing tire materials, although permitted and expected to do so again in the near future, and one facility was only recently permitted and has not yet begun operations.

Although the beneficial reuse of scrap tires in Alabama is somewhat larger than in many other states, both in quantity and as a percentage of generation, the importation of scrap tires from other states still provides ample opportunities for market expansion. The Alabama Scrap Tire Environmental Quality Act provided funding through the Scrap Tire Fund for the Alabama Department of Economic and Community Affairs (ADECA) to promote and develop markets as an alternative to the landfill disposal of scrap tires or processed tire material as an end use. Upon recommendations of the Scrap Tire Commission (STC), these market development activities were put on hold until such time as the remediation of scrap tire sites, also required by the Act, were ongoing. Following initiation of the remediation project at the Attalla scrap tire site, the STC directed ADECA to proceed with research and development of an Alabama scrap tire marketing plan. As a result of 2009 legislative revisions to the Alabama Scrap Tire Environmental Quality Act this responsibility will be performed by ADEM scrap tire personal. Preliminary indications are that such a plan and corresponding program would continue to support

increasing the utilization of scrap tires as fuel and in raw material substitution applications as well as support for new and expanding markets. Examples of markets being pursued by other states include the use of scrap tires for playground and sports field applications, flooring and construction materials, rubber modified asphalt, rubber mulch, and in civil engineering applications.

Rubber Mulch



Innovation and Efficiency

The ADEM Scrap Tire Program has implemented several measures aimed at increasing the efficiency of the program. The program was among the first in the Department to utilize several methods which were later adopted as standard practice. Due to regulatory requirements and the size of the regulated community, several of these measures are important in that they allow for increased facility oversight and determination of inspection and compliance assistance priorities.

Staff utilize TabletPC's to perform facility inspections and site investigations, providing real-time access to facility information and providing for a reduction in the time required to prepare and distribute inspection reports to facilities as required by regulation. Standardized inspection forms are in an electronic format which, as well as being easier to upload to file tracking and database systems, provide for increased staff efficiency.

Locations of all facilities registered or permitted under the program and all investigated scrap tire sites are recorded utilizing Global Positioning System (GPS) units integrated with the Tablet PC. The recording of locations allows for easier determination of property ownership when required by potential enforcement actions and provides directional assistance in returning to scrap tire sites located in rural areas.

Documents produced electronically or in hard copy are retained using an electronic filing system known as Filenet. This system allows for more secure storage, ready retrieval and use by staff, and eliminates the need for printing and storage of paper documents. Documents are encoded with an identifying document identification number and code providing for ease of use.

The 2008 reorganization within the ADEM Solid Waste Branch resulted in the creation of two new organizational units, the Materials Management and the Enforcement and Remediation Sections. Duties within the Scrap Tire Program were allocated to each Section according to function. The Materials Management Section has responsibilities which include registration and permitting, compliance evaluation of regulated facilities and response to complaints received concerning regulated facilities. The Enforcement and Remediation Section was

assigned duties which include complaint investigations, enforcement of Scrap Tire Regulations, and scrap tire site remediation oversight. This reorganization has resulted in more efficient operations by decreasing the time required for registration/permit issuance, investigation of complaints, and remediation of sites from site identification and ranking through bidding, contractor selection and final cleanup.

Other Scrap Tire Program Activities

In addition to traditional activities encompassed in regulatory and site remediation components, the ADEM Scrap Tire Program has led or been involved in other activities aimed at strengthening the program by training staff and those within the regulatory community and providing outreach regarding program requirements. Following the effective date of regulations, question and answer training sessions were held in several locations in Alabama to inform those subject to the new regulations of the requirements. These sessions were held in conjunction with the Alabama Tire Dealers Association (ATDA) and served to provide their members and other interested parties with compliance assistance and the opportunity to determine how their operations would be affected. In addition, the program has issued numerous press releases and made presentations at trade association meetings, tire dealer conferences and other events aimed at increasing knowledge of the program and its requirements and providing compliance assistance.

In March of 2005, responding to a training need not only within Alabama but in other states, the ADEM Scrap Tire Program sponsored a Scrap Tire Fire Prevention, Fire Fighting and Remediation Seminar in Birmingham. The training course was co-sponsored by the Scrap Tire Commission, Rubber Manufacturers' Association, EPA Region IV, ATDA and Alabama Power. The training afforded owners and operators of scrap tire facilities information useful in scrap tire fire prevention, and provided firefighter and other emergency personnel information on responding to and extinguishing scrap tire fires. Topical presentations were provided by experts in scrap tire management as well as those experienced in the response and proper management of scrap tire fires. Attendees included those from several states including scrap tire program staff, owners and operators of scrap tire facilities and local emergency response personnel.

In May 2006, the Alabama program hosted the U.S. EPA Region IV Scrap Tire Forum in Mobile. The Forum provided attendees with up-to-date information regarding the status of scrap tire programs in the Southeast and current issues in scrap tire management as well as future issues. Topics included legal considerations, cost recovery options and site estimation techniques, restoration and recovery. Also included were discussions of local and regional end-use markets and lessons learned by state programs in scrap tire program development and implementation.

In November of 2008, ADEM, the Federal Highway Administration and Industrial Resource Council hosted a one day Byproducts workshop. This workshop focused on the beneficial reuse in highway construction for recycled concrete, foundry sand, pulp and paper products, steel slag, and scrap tires. Following that meeting, the Scrap Tire Unit along with the Rubber Manufacturers Association, and EPA Regions 4 and 6 hosted a two day Scrap Tire Regulators Meeting.

The purpose of that meeting was to share information and develop practices to improve state scrap tire management programs. Program staff from Alabama, Mississippi, Florida and Kentucky as well as EPA and scrap tire consultants attended.

Future Program Activity

The program has achieved success in the development and implementation of standard operating procedures, regulatory mechanisms and tools for the management of scrap tire generation, transportation, processing and disposal. Additionally, procedures and requirements for the remediation of scrap tire sites are well established. However, the program will continue to expand and evolve as necessary to further its mission of properly managing scrap tires in Alabama. Continued emphasis will be placed not only on the elimination of threats posed by scrap tire accumulations and illegal disposal sites, but also on increasing beneficial reuse opportunities of scrap tires as a resource to be utilized instead of a waste to be managed. To this end, the following strategies and activities will be developed and enhanced to strengthen the program and its effectiveness.

- Operating procedures will be continually reviewed to determine opportunities to increase program efficiency and effectiveness
- Educational efforts targeted to department staff, the regulated community and others on existing regulatory requirements as well as emerging technologies in the field of scrap tire management
- The program will continue to identify unregistered and unpermitted facilities, and assess and prioritize sites for cleanup
- Enhance the outreach to and coordination among trade associations, government agencies and public groups in order to maximize program exposure, encourage increased reuse opportunities and reduce instances of non-compliance
- Continue contracting and oversight of scrap tire remediation projects;
- Review data acquired through facility reporting and field activity to prioritize activities such as inspections and site investigations
- Finalize an Alabama Market Development Plan for scrap tires to increase utilization of scrap tires in beneficial reuse and recycling applications

In addition to Departmental efforts to strengthen the program and its effectiveness, amendments to the Alabama Scrap Tire Environmental Quality Act (ASTEQA) enacted following the 2009 Legislative Session added new requirements and activities to the program, revised funding allocations and provided for specific exemptions. Included in the amendments are:

- Assigned market development activities and reporting to ADEM;
- Exempted receivers from certain solid waste disposal fees;
- Increased the retention percentage for Class One Receivers collecting the Scrap Tire Environmental Fee;
- Clarified the definition and responsibilities of responsible parties and innocent landowners;
- Further defined procedures for enforcement and criminal penalties for certain violations.

This Publication was produced by the Alabama Department of Environmental Management on behalf of the Alabama Scrap Tire Commission.

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