

Maryland's Scrap Tire Program



Annual Report for Fiscal Year 2005

Report for the
Senate Education, Health and Environmental
Affairs Committee
and the
House Environmental Matters Committee

November 1, 2005

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Department of the
Environment

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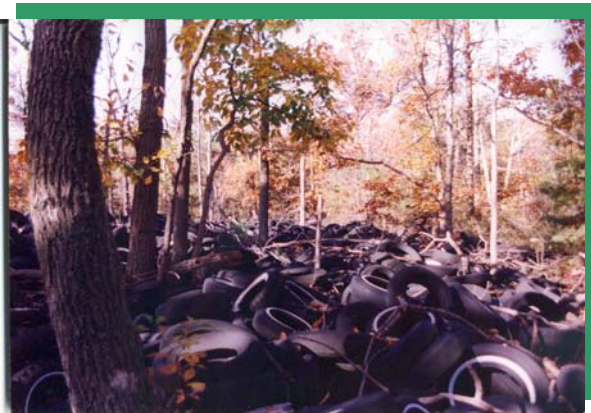
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Executive Summary

This document is the Fiscal Year (FY) 2005 Scrap Tire Annual Report as required by Environment Article, Section 9-275(b) and prepared for the standing committees of the Maryland General Assembly. The report addresses Maryland's Scrap Tire Program activities as undertaken by the Maryland Department of the Environment (Department) and the Maryland Environmental Service (MES) from July 2004 through June 2005, and describes activities for the coming year.

FY 2005 Accomplishments & Results

- *Maryland generated **5.6 million** scrap tires in FY2005 and they were managed in the following manner: **Recycled in Maryland (53%), Exported to other states for disposal (30%), Used as Fuel in Maryland (17%).***
- *A total of **5.3 million** scrap tires from all sources (including imports from surrounding states) were processed by Maryland licensed scrap tire facilities. Approximately **75%** of these tires were recycled and **25%** were used as supplemental fuel in cement plants and waste-to-energy facilities.*
- *Since the inception of the Scrap Tire Program in 1992, over **8.4 million** scrap tires have been recovered from **625 stockpile** cleanup sites.*
- *A total of **43 illegal scrap tire stockpile** sites were cleaned up in FY 2005 and approximately **199,000** tires were removed.*
- *Approximately **91%** of all stockpile site cleanups accomplished in FY 2005 were achieved by using administrative means (without using the Scrap Tire Fund).*



- *A total of **340** new scrap tire licenses were issued*
 - *A total of **258** scrap tire licenses were renewed*
 - *At the end of FY 2005, there were a total of **3,135** valid Maryland scrap tire licenses.*
- *Over **700** scrap tire site inspections/investigations were performed.*
 - *Approximately **98%** of inspected facilities were in significant compliance.*

Financial Statement Summary*

The Fund, as authorized by the Environment Article, Section 9-275, provides the funding for administration of the Scrap Tire Program. In FY 2005:

- *The Fund generated fee revenues of:* **\$ 2,980,945**
- *Scrap Tire Program Expenditures by the Department and MES totaled:* **\$ (2,206,187)**
- *The Fund balance at the end of FY 2005 was:* **\$ 4,903,325**

**See Table VII for additional detail*

Due to the new inheritance exemption established by the Maryland Legislature, cost recovery will not be sought for some of the completed, ongoing, and planned scrap tire cleanup sites. This is expected to reduce the amount of Fund revenues in future years.

Legislative Update

- *During the FY2005 legislative session, the scrap tire law (Environment Article 9-276) was amended to exempt certain inherited scrap tire stockpiles sites from cost recovery. The new law exempts from cost recovery provisions those sites where tires were stored or disposed of prior to 1989, and where the owner is not in the tire business and did not allow or cause the tires to be stored or disposed, and obtained the property or an interest in the property by inheritance, bequest, or otherwise at the death of the transferor prior to January 1, 2000.*



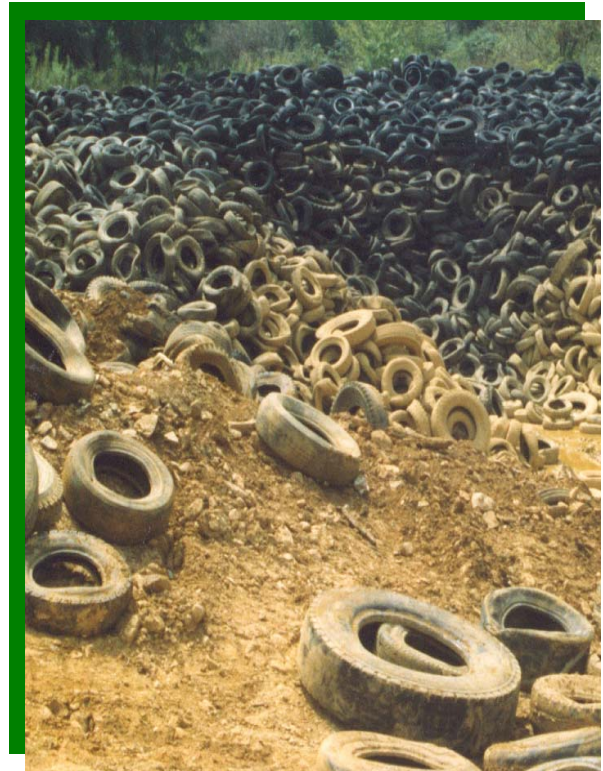
Introduction

This report has been prepared for the Senate Education, Health, and Environmental Affairs Committee and the House Environmental Matters Committee as required by the scrap tire law to advise the Standing Committees of the progress the Department is making in implementing the law and ensuring the proper management of scrap tires in Maryland. This report is structured to include additional information about the program and future activities.

The Scrap Tire Recycling Act established a mechanism for the cleanup of scrap tire stockpiles and for the collection, transportation and recycling or processing of all scrap tires that are generated annually in Maryland. The Act established the State Used Tire Cleanup and Recycling Fund (Fund) as the funding support for the Scrap Tire Program.

- ❖ The Department uses the Fund for administration of the program, licensing activities, stockpile cleanups, enforcement/compliance, remedial actions, and for the development and distribution of public information concerning scrap tire issues.

- ❖ Under the Department's authorization, the Maryland Environmental Service (MES) may use portions of the Fund to implement and oversee programs established as part of a Scrap Tire Recycling System and other projects that reduce, recover and/or recycle scrap tires.



Scrap Tire Stockpile Cleanups

The cleanup goal for FY 2005 was the continued clean up and recovery of the remaining 1.7 million scrap tires identified in stockpiles at the end of FY 2004, along with those tires which were newly identified from stockpiles during the year.

In order to achieve this goal, the following strategies were undertaken:

- The initial employment of administrative procedures to persuade property owners to remove stockpiles using their own resources;
- Use of the Fund to clean up stockpile sites only when administrative efforts were unsuccessful; and
- Targeting efforts toward eliminating the larger scrap tire stockpile sites (over 5,000 tires).



Cleanup Accomplishments in FY 2005

- ❖ Since the inception of the Scrap Tire Program in 1992, over 8.4 million scrap tires have been recovered from completed and ongoing stockpile cleanup sites.
- ❖ During FY 2005, the Scrap Tire Program successfully completed clean up of 43 illegal scrap tire stockpiles, consisting of approximately 199,000 scrap tires. These sites were located in 15 of the State's 24 jurisdictions and ranged in size from 40 to 50,000 tires. (See Table I for list of large stockpiles.)
- ❖ Much of this scrap tire stockpile cleanup success occurred without using the Fund. Ninety one percent (91%) of all stockpile abatements completed in FY 2005 (39 out of 43 completed stockpile cleanups) used the administrative approach. The remaining 4 sites for which cleanup was completed in FY 2005 (9% of the stockpile abatements) were conducted using the Fund for cleanup activities. Cost recovery is being pursued for these sites.

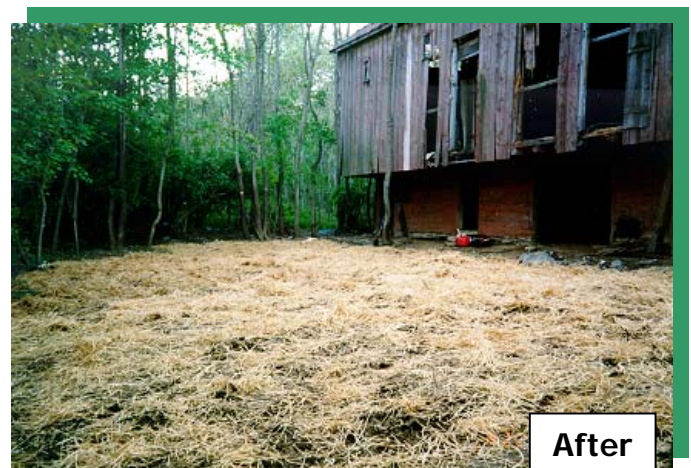


Table I

Large Stockpile Cleanups (5,000 tires or more) Completed in FY 2005

<i>Site Name</i>	<i>County</i>	<i>Number of Tires</i>
<i>A Plus Auto Recyclers Inc./Baltimore</i>	<i>Baltimore</i>	<i>50,000</i>
<i>Millenium Unlimited Recycling/White Hall</i>	<i>Baltimore</i>	<i>45,000</i>
<i>Easton Auto Parts/Preston</i>	<i>Caroline</i>	<i>26,500</i>
<i>Auto Wreckers of Edgewood/Edgewood</i>	<i>Harford</i>	<i>22,000</i>
<i>Miller/Churchton</i>	<i>Anne Arundel</i>	<i>16,000</i>
<i>Palmer State Park #2/Bel Air</i>	<i>Harford</i>	<i>8,100</i>
<i>Reynolds/Joppa</i>	<i>Harford</i>	<i>5,000</i>
<i>Various smaller sites</i>	<i>Various</i>	<i><u>26,722</u></i>
	Total	199,322

Stockpile Cleanup Actions Planned for FY 2006

The Department plans to complete or initiate the cleanup of the majority of known scrap tire stockpiles throughout Maryland. Unfortunately, numerous new stockpile sites are continually being identified for cleanup in Maryland. Twenty-two large stockpile sites (over 5,000 tires) have been targeted for either continuation of cleanup efforts or completion in FY2006. (See Table II)

- ❖ The Department gained access to two large tire stockpile sites during FY2005. The Garner/Brandywine site is located in Prince George's County and contains approximately 722,900 scrap tires, and the Morgan/Mechanicsville site located in St Mary's County consists of approximately 150,000 scrap tires. Cleanup development activities will begin in FY2006 and the costs for cleanups of the two sites will be paid by the Tire Fund because of their eligibility for the cost recovery inheritance exemption.
- ❖ In instances in which administrative efforts are not successful in encouraging owner cleanups, the Department will file (or has filed) complaints with the court system for State access to these properties.
- ❖ The Department will seek cost recovery for expenses incurred for those sites determined to be non-eligible for exemption from those determined to be responsible parties.

Table II

Large Stockpile Cleanups (5,000 tires or more) Ongoing in FY 2006

<i>Site Name</i>	<i>County</i>	<i>Initial Number of Tires</i>
<i>Garner/Brandywine*</i>	<i>Prince George's</i>	<i>722,900</i>
<i>Boehm/Crownsville*</i>	<i>Anne Arundel</i>	<i>301,125</i>
<i>St. Mary's County/Sandgates*</i>	<i>St. Mary's</i>	<i>159,881</i>
<i>Morgan/Mechanicsville*</i>	<i>St. Mary's</i>	<i>150,000</i>
<i>PDC Collingbrook LLC/Bowie</i>	<i>Prince George's</i>	<i>100,000</i>
<i>Tyler Towing/Clarksville</i>	<i>Howard</i>	<i>50,000</i>
<i>Polvi/Brandywine</i>	<i>Prince George's</i>	<i>50,000</i>
<i>Suraci Family LTD/Davidsonville</i>	<i>Anne Arundel</i>	<i>45,000</i>
<i>Sachs/Linthicum</i>	<i>Anne Arundel</i>	<i>25,000</i>
<i>Howard 2/Reisterstown</i>	<i>Baltimore</i>	<i>15,000</i>
<i>Era's Auto Salvage/Hurlock</i>	<i>Dorchester</i>	<i>10,000</i>
<i>Christensen Auto/North East</i>	<i>Cecil</i>	<i>10,000</i>
<i>Patuxent Research Refuge/Laurel</i>	<i>Anne Arundel</i>	<i>10,000</i>
<i>Insley/Cambridge #2</i>	<i>Dorchester</i>	<i>6,655</i>
<i>Henderson/Mechanicsville*</i>	<i>St. Mary's</i>	<i>6,425</i>
<i>SOMCO Towing & Salvage/Westover</i>	<i>Somerset</i>	<i>6,000</i>
<i>Brown's Auto Parts/White Hall</i>	<i>Baltimore</i>	<i>10,000</i>
<i>Mason Dixon Sand & Gravel/North East</i>	<i>Cecil</i>	<i>5,400</i>
<i>Kern/Northeast</i>	<i>Harford</i>	<i>5,000</i>
<i>Burnett/Beltsville</i>	<i>Prince George's</i>	<i>5,000</i>
<i>Szymanski/Rock Hall</i>	<i>Kent</i>	<i>5,000</i>
<i>Various Smaller Sites</i>	<i>Various</i>	<i>12,140</i>
<i>Total Tires Remained</i>		<i>1,694,386</i>

* Sites in **bold** referred to MES for a State sponsored cleanup by using Tire Fund.

Cost Recovery Actions

- ❖ The Department continues to use the services of the Attorney General’s Office to handle scrap tire cost recovery actions (see Table III for details).
- ❖ To date, 128 cleanups have been performed using the Used Tire Cleanup and Recycling Fund.
- ❖ Cost recovery actions have been pursued against 34 scrap tire cleanups initiated by the State and utilizing the Used Tire Cleanup and Recycling Fund.
- ❖ Cost recovery actions were not performed against:
 - 84 sites because they were on publicly owned property;
 - 5 sites because they qualified for the inheritance exemption;
 - 1 site because the property owner died and the estate was closed before a cost recovery action could be completed;
 - 1 site because the cost to pursue the case was higher than the amount sought; and,
 - 3 sites because cost recovery actions have not yet been initiated. Cost recovery actions for these sites will be initiated once all cleanup documentation has been collected and ongoing legal issues have been resolved.
- ❖ To date, the Department has sought a total of **\$3,893,631.00** and has collected a total of **\$305,668.22** in cost recovery actions. Many of these cases are still in litigation. Some cases are on payment plans, with the property owners making monthly payments against their cleanup debts. Some cases were settled out-of-court for less than the amount originally sought.

Collected through FY 2005 from Cost Recovery actions:	\$305,668.22	(7.9 %)
Amount sought in cases still in litigation:	\$252,588.19	(6.5 %)
Amount still owed on cases with installment plans:	\$10,051.00	(0.2 %)
Amount adjusted due to out-of-court settlements:	\$849,212.09	(21.8 %)
Outstanding amount sought by Central Collections Unit:	\$2,375,595.20	(61.0 %)
Amount still owed on cases without installment plans:	\$100,516.30	(2.6 %)
Total:	\$3,893,631.00	(100 %)

- ❖ During the FY2005 legislative session, the scrap tire law was revised to require that MDE not seek cost recovery for State-funded cleanups on sites where scrap tires were stored, disposed or processed before July 1, 1989 if the owner of the site: 1) was not engaged in the business of storage, disposal, or processing of scrap tires; 2) did not cause or allow scrap tires to be stored, disposed, or processed on the site; and 3) obtained the site or an interest in the site by inheritance, bequest, or otherwise at the death of a transferor prior to January 1, 2000.

- ❖ The Garner/Brandywine and Morgan/Mechanicsville sites, slated for State-funded cleanup efforts to continue in FY2006, both qualify for the inheritance exemption. Therefore, cost recovery will not be sought after cleanup efforts conclude.
- ❖ Several smaller cleanup sites and one large cleanup site (where scrap tire cleanup activities had been completed, but cost recovery efforts had not yet concluded) also qualified for the inheritance exemption, and the Department will not seek cost recovery for those sites.
- ❖ The loss of cost recovery revenue due to exemption of the qualifying inherited sites is expected to reduce the Fund balance in future years.



Table III
Initiated Cost Recovery Actions Through FY 2005

<i>Site Name</i>	<i>County</i>	<i>Cleanup Year</i>	<i>No. of Tires</i>	<i>\$ Amount Sought</i>
Hughesville/Underwood	Charles	1996	720,000	\$1,015,300
WesternCommercial-Grove/Smithburg	Washington	1996	505,500	\$770,174
Western Commercial-Bromley/Smithburg	Washington	1996	505,500	\$770,174
Oak Hill Realty/Easton	Talbot	1997	158,325	\$375,294
Lofland/Sudlersville	Queen Anne's	1996	120,000	\$226,084
Mack/Reisterstown	Baltimore	2000	44,087	\$184,451
Snyder/Calvert	Cecil	1996	129,526	\$151,266
Tull/Federalsburg	Caroline	1997	61,688	\$104,586
Insley/Cambridge	Dorchester	2002	20,747	\$60,909
Hustle Tire/Ingleside	Queen Anne's	1998	26,852	\$48,438
Brown/Williamsport	Washington	1998	18,672	\$27,482
Dotson/Preston	Dorchester	2000	24,000	\$26,404
Sproates/Golts	Kent	1998	6,825	\$26,119
Warfield/Bethlehem	Caroline	1997	14,338	\$24,596
Myers/Baltimore	Baltimore	2002	7,179	\$22,349
Williams/Vienna	Dorchester	2002	3,642	\$14,611
Elwood's Auto/Smithburg	Washington	2000	266,664	\$11,388
Husted/Crisfield	Somerset	2003	1,650	\$7,598
Clark/Choptank	Caroline	2004	2,007	\$5,495
Betts/Crisfield	Somerset	2002	922	\$3,877
Heath Salvage/Millington	Kent	2001	3,478	\$3,200
Thomas/Rhodesdale	Dorchester	2003	350	\$2,450
Joy & Morgan Developers/Temple Hills	Prince George's	2002	238	\$1,855
Truxon/Hillsboro	Caroline	2003	758	\$1,799
Goodyear/Elkton	Cecil	2003	1,013	\$1,200
McMannis/Cumberland	Allegany	1997	887	\$998
Carter/Queenstown	Queen Anne's	1998	1,117	\$982
Spencer/Golts	Kent	1997	230	\$950
Wilkinson/Oldtown	Allegany	2002	248	\$800
Holley/Collins Road	Somerset	1997	217	\$788
Lane/Princess Anne	Somerset	2003	300	\$750
King/Annapolis Junction	Anne Arundel	1999	0	\$533
Turner/White Hall	Harford	2003	500	\$500
Miller/Churchton	Anne Arundel	2004	16,000	<u>\$231</u>
Total Amount Sought (Through FY2005):				\$3,893,631

Scrap Tire Projects

MES has the primary role in the planning and implementation of scrap tire projects to promote the development of new technologies for recycling scrap tires while reducing, recovering and recycling scrap tires from stockpiles in Maryland.

Projects Initiated During FY 2005

Public School Playground Construction (Statewide)

- The Department and MES are working with the Department of Education to construct and/or renovate several playground facilities using recycled tires and recycled tire materials. Since this ongoing program began, 48 schools throughout the State have participated in and benefited from the program.



Citizen Drop-Off Day Project (*formerly Amnesty Day*)

- During FY2005, the Scrap Tire Citizen Drop-Off Day project was planned for five regions in two phases. The first phase was executed as three regional one-day events held during Saturdays throughout September and October, 2004.
- The participants were Allegany, Calvert, Caroline, Cecil, Charles, Garrett, Kent, Prince George's, Queen Anne's, St. Mary's, and Talbot Counties.
- County residents were encouraged to participate in the project by delivering scrap tires using non-commercial vehicles to a primary event location chosen by each participating County.
- Residents were permitted to deliver up to 10 scrap tires per vehicle on Citizen Drop-Off Day free of charge.
- The event resulted in the recovery of over 440 tons of scrap tires.
- The second phase was planned for the remaining two regional (4 & 5) one-day events held during Saturdays throughout August and September, 2005 (during FY2006).
- The fourth region included Dorchester, Somerset, Wicomico, and Worcester Counties on the Eastern Shore. The fifth region included Carroll, Frederick, and Washington Counties in Western Maryland.

MES Tire Fiber Removal Unit (Baltimore County)

- This project involves field proving a new crumb rubber fiber removal system developed by the United States Department of Agriculture (“USDA”).
- The machine will close the recycling loop by turning what is currently a waste material (crumb rubber commingled with textile fiber) into two separate products (crumb rubber and textile fiber) that will be sold on the market.
- The machine is scheduled to be installed at the MES facility in September 2005.

Rubberized Asphalt Project (Talbot County)

- MDE and MES, in conjunction with Talbot County, are conducting a project to install a rubberized asphalt product on a County owned parking lot, in lieu of traditional materials.
- This project will demonstrate and encourage the use of rubberized asphalt products by public agencies and private contractors in Maryland.
- The rubberized asphalt is expected to show several advantages over traditional materials including:
 - Increased flexibility and durability, and
 - Decreased slumping, reflective cracking, and noise.
- This project will be a physical demonstration of how to work with and install rubberized asphalt, and is intended to familiarize public

agencies and contractors with how to utilize the product in an actual application.

Rubberized Natural Grass Athletic Field (Howard County)

- MDE, MES, and Howard County are participating in a demonstration of the beneficial use of scrap tires in the refurbishment of an existing athletic field.
- The application involves topdressing the field with crumb rubber.
- The crumb rubber application is expected to improve field conditions by decreasing compaction of the soil and increasing drainage capacity, thereby minimizing the impact of inclement weather events.
- This application provides an option for improving the quality of existing grass fields by utilizing crumb rubber and providing some of the same benefits of a synthetic field, primarily increased play hours, for a fraction of the cost without requiring a complete renovation of the field or additional maintenance.

Multi-Media Outreach Campaign

- The Department was awarded a grant through the EPA to raise awareness regarding the health and environmental dangers attributed to illegal dumping and stockpiling of scrap tires and solid wastes. The grant work began in March 2004 and ended in December 2004.
- TV Commercials - The Department partnered with Fox 45 and WB54 to create a 30 second TV commercial advertisement.
- The focus of the commercial was to increase public awareness of illegal dumping, stockpiling tires and the productive reuse of scrap tires.

- The commercial highlights the risks of scrap tire dumps serving as a breeding ground for rats, creating a good living condition for mosquitoes that can spread disease, and posing a potential fire hazard.
- An overview was also included in the commercial on alternative uses for scrap tires and information on how citizens can properly dispose of and recycle their scrap tires.
- The TV commercials were aired from November through December 2004.

Projects Continuing from Previous Years

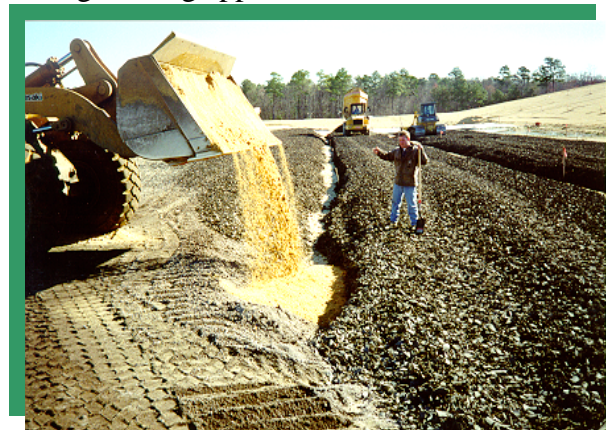
Community Public Playground Improvement Project

- The Department worked in partnership with the Maryland Department of Natural Resources in cooperation with the Baltimore City School System, Baltimore City Department of Recreation and Parks, the Washington Village/Pigtown Community and EPA Region III.
- The Department, DNR and the Baltimore City Department of Recreation and Parks have begun construction of the Carroll/Archer Street Tot Lot. The Tot Lot will be constructed in the heart of the Washington Village/Pigtown Community of Baltimore and will have a rubberized, athletic safety surface comprised of recycled rubber and scrap tires. The Tot Lot is expected to be completed in the Spring of 2006.
- The Department and its partners

are working closely with the Washington Village Pigtown Community Association for the purpose of incorporating community volunteers into some of the construction related activities. These activities include the painting of concrete curbs, the planting of trees and shrubs, and the spreading of mulch. The volunteer workdays will be scheduled to coincide with the various phases of the project.

Development of Scrap Tire Chip Design Manual Project

- The Department, MES, and GeoSyntec Consultants have partnered to develop a guidance manual, for using scrap tire chips in various civil and environmental engineering applications.



- The purpose of the manual is to provide design guidelines that would be used as a practical reference tool by both regulators and engineers.
- Some scrap tire recycling applications that would likely be included in the manual would be engineering properties of scrap tires, use as light weight backfill in retaining walls and trenches, drainage layers, gas collection media, and light weight aggregate in pavements.
- The project is funded through encumbered monies for the Newland Park Landfill scrap tire demonstration project.

Beulah Landfill Closure Cap (Dorchester County)

- This project involves the use of tire chips in combination with stone aggregates as an alternative to sand aggregates and/or a geotextile drainage net in the closure cap of the landfill.
- Design work on the stormwater monitoring plan and scrap tire chip specification and testing protocol continued during FY 2005.

Continuing Project Monitoring

- Several scrap tire projects that were completed in previous years have ongoing monitoring programs to assess the suitability of these scrap tire applications and their success in meeting project goals.
- Monitoring continues for the following projects:
 - **Round Glade Landfill**
Garrett County
 - **Garrett County Landfill**
Garrett County
 - **Nicholson Road Landfill**
Kent County
 - **Newland Park Landfill**
Wicomico County
 - **Reich's Ford Landfill**
Frederick County
 - **Westernport Landfill**
Allegany County
 - **Westover Landfill**
Somerset County
- At the completion of the project monitoring periods final reports will be prepared that summarize the data collected and conclusions reached.

Scrap Tire Projects Planned for FY 2006

- **Public School Scrap Tire Playgrounds Project - (Statewide)**
- **Scrap Tire Citizen Drop-Off Day Program (formerly Amnesty Day) - (Statewide)**
- **State Park Tire Playground Improvement Project – (Statewide)**
- **Rubber Mulch Project – (TBD)**
- **Rubberized Natural Grass Athletic Field Project – (TBD)**
- **Green Roof Rubberized Growth Medium Comparison Project – (TBD)**
- **Berlin Rubberized Walking Path Project – (Worcester County)**
- **Annie's Playground Project - (Harford County)**

Licensing

By Maryland law (Section 9-228 of the Environment Article), the Department is required to regulate scrap tire facilities and scrap tire haulers.

- ❖ Facilities that collect or process scrap tires are required to obtain an appropriate license for their respective operations.
- ❖ Scrap tire haulers are also required to obtain licenses for their activities.
- ❖ This comprehensive licensing program allows for the efficient management of scrap tires from the point of generation through a licensed or approved transportation system to a licensed or approved scrap tire facility for the transfer, collection, or processing of scrap tires.



The Department issues the following types of scrap tire licenses:

- **Scrap Tire Recycler License:**
For activities that convert scrap tires into a marketable product.
- **Scrap Tire Collection Facility License:**
For operations that collect or accumulate scrap tires temporarily on a site and transfer scrap tires to licensed or approved scrap tire facilities. There are three categories of collection facility licenses:
 - **General License:** Sites with up to 50 scrap tires at any given time.
 - **Secondary License:** Sites with up to 1,500 scrap tires at any given time.
 - **Primary License:** Sites with more than 1,500 scrap tires at any given time.
- **Scrap Tire Hauler License:**
For a person who, as a part of a commercial business, transports scrap tires in the State.
- **Substitute Fuel/Tire Derived Fuel (TDF) Facility Approval:**
For operations that use scrap tires (whole or chips) to replace existing fuel sources.
- **Solid Waste Acceptance Facility Approval:**
For a permitted refuse disposal or acceptance facility that accepts scrap tires for collection or processing.

Licensing Accomplishments in FY 2005

- ❖ A total of 598 scrap tire licenses (340 new licenses and 258 renewals) were issued. (see Table IV).
- ❖ All (100%) of the license applications received were processed within the standard license application processing time of 60 days, exceeding the Department's goal of 90%. Approximately 38% of the license applications were processed within 30 days.

Table IV
Scrap Tire Licenses – FY 2005

Type	Total Issued (FY05)	Renewed	New	Total Valid Licenses
General Collection	131	N/A	131	1557
Secondary Collection	237	129	108	783
Primary Collection	1	1	---	2
Recyclers	1	1	---	2
TDF Facility	0	0	---	3
Solid Waste	2	1	1	3
<u>Haulers</u>	<u>UUUUUU2</u>	<u>126</u>	<u>100</u>	<u>785</u>
	<u>26</u>			
Total	598	258	340	3,135

Scrap Tire Markets and Market Development

Market Analysis

During FY 2005, the State's scrap tire processing capacity handled approximately 5.3 million tires generated from Maryland and out-of-state facilities.

- This represents a 4% decrease from the previous year. (See Figure 1.)
- Emanuel Tire Company processed about 20% fewer tires than in FY 2004.
- The new MES scrap tire crumb rubber production facility in Baltimore, which began operations in 2003, processed a significant number of tires and increased its capacity by 9.8% from FY 2004. The plant produces a crumb rubber material used in athletic fields, including the Baltimore Ravens' stadium field and the Louisiana Superdome.

In addition, MES produces a recycled rubber mulch that can be used for both landscaping and playgrounds.

Maryland's Scrap Tire Flow and Destinations

All licensed scrap tire facilities and haulers are required to submit semi-annual reports to the Department. Reports must include:

- The origin and number of scrap tires received, collected, or processed at the facility.
- Identification of scrap tire haulers transporting the scrap tires, quantities in number or weight, and delivery facility information.

Figure 2 (on the following page) shows how scrap tires generated in Maryland were managed in FY 2005.

Figure 1

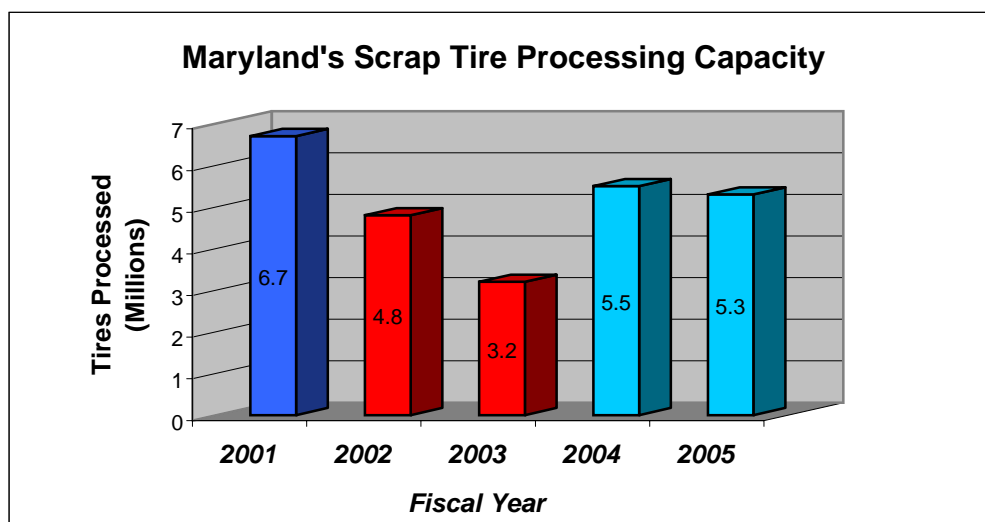
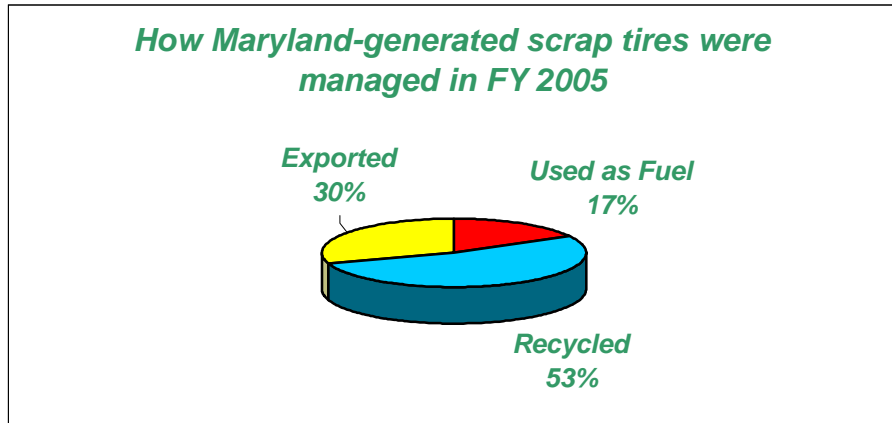


Figure 2 illustrates that 17% of the scrap tires generated in Maryland were used as fuel in Maryland facilities. The Statewide capacity slightly increased from last year (FY 2004) even though Lehigh Cement Company has not been accepting or processing scrap tires for more than two years due to process changes at the plant.

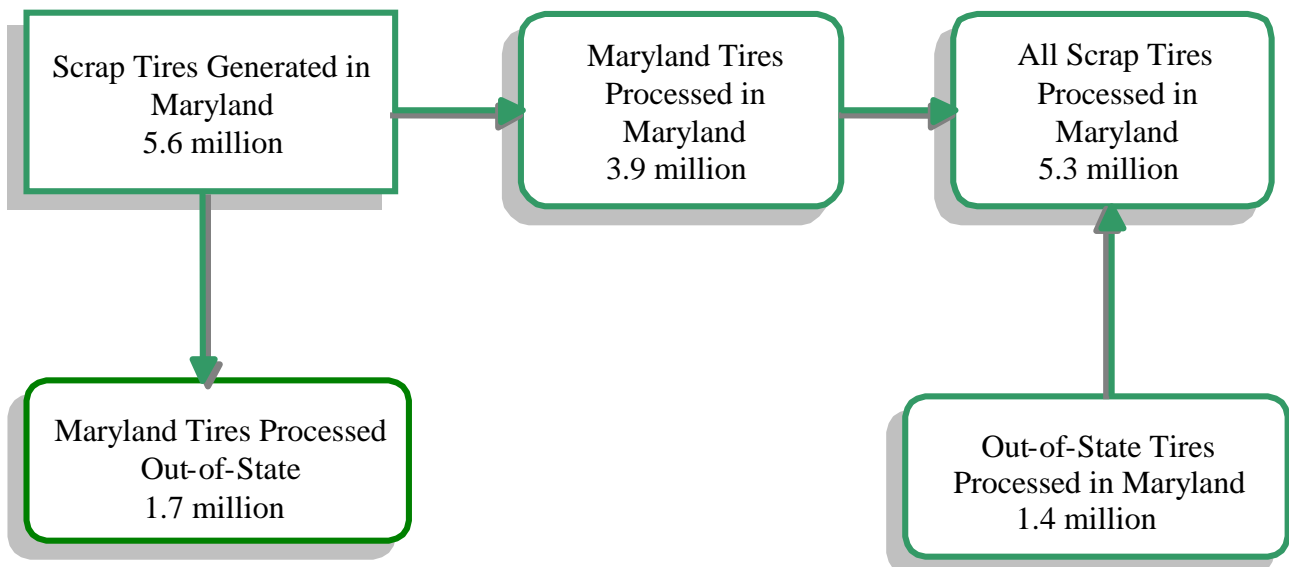
Figure 2



More scrap tires were exported to out-of-state facilities in FY2005 than during FY2004, resulting in a reduction of the recycled within Maryland portion to 53%, a 7% reduction from last year.

Figure 3 shows schematically the flow and processing of tires into and out of the State of Maryland.

**Figure 3
Tire Flow**



Projected Markets for FY 2006

The Department estimates that the FY 2006 processing capacity for scrap tires in Maryland will be similar to or higher than in FY 2005.

- ❖ The MES crumb rubber facility will continue to increase its scrap tire processing capacity in Maryland to over one million tires per year, and Emanuel Tire Company's processing is expected to remain the same as in FY 2005.
- ❖ St. Lawrence Cement Company in Washington County resumed operation for usage of scrap tires in FY 2004 and processed over 428,200 scrap tires in FY 2005. This represents a 457% increase over the amount processed during FY 2004. The company is expected to continue to increase its processing rate, which will also increase the State's processing capacity by up to 1.2 million tires per year.
- ❖ Essroc Cement Company processed over 242,400 scrap tires in FY 2005, a 4.7% increase over the number of scrap tires processed in FY 2004. This number is expected to increase during FY 2006.



Products made with Recycled Scrap Tires



Scrap Tires in Landfill Applications

Highway Soundwall Barriers constructed from Scrap Tires



Table V
Maryland Licensed Scrap Tire Processing Facilities

Facility Name/Type	Location Address	Operation	Telephone	Tires Processed FY-2005
Emanuel Tire Company/ Recycler	1300 Moreland Avenue Baltimore MD 21216	The company has been processing scrap tires for last three decades. The operation converts scrap tires into 1 to 2 inch size tire chips.	(410) 947-0660	3,013,733
Maryland Environmental Services Facility	4653 Hollins Ferry Road Halethorpe, MD 21227	The operation processes scrap tires into 100 mesh crumb rubber.	(410) 242-5039	969,233
ESSROC Cement Corporation/ TDF	4120 Buckeystown Lime Kiln MD 21702	The operation utilizes whole passenger scrap tires as a supplemental fuel in its two cement kilns to replace 20 to 30 percent of the process heat needed to convert the raw material into cement.	(301) 874-8271	242,482
St. Lawrence Cement Co./ TDF	1260 Security Road Hagerstown MD 21741	The operation utilizes tire chips as a supplemental fuel in its cement kiln to replace up to 35 percent of the process heat needed to convert the raw material into cement.	(301) 739-1150	428,200
Harford Waste-to Energy Facility/ Incinerator	1 Magnolia Road Joppa MD 21085	The facility processes up to 360 tons per day of municipal solid waste with a tire content of up to 72 tons per day. Steam is generated at the facility to generate electricity for Aberdeen Proving Ground Army facility.	(410) 679-6200	628,476
Wheelabrator Baltimore LP (BRESO)	1801 Annapolis Road Baltimore MD 21230	The facility has been approved to burn scrap tires with municipal solid waste.	(410) 234-0808	0
Lehigh Portland Cement Company	675 Quaker Hill Road Union Bridge MD 21791	Same process as ESSROC. Temporarily shut down operations due to installation of the new kiln.	(410) 386-1288	0
Fort Detrick	393 Beasley Road Frederick MD 21702	The facility burns scrap tires with solid waste and medical waste.	(301) 619-2323	144
Total				5,282,268

Source: Submitted Scrap Tire Semi-Annual Reports

Compliance and Enforcement Activities

The goal of the Department's compliance and enforcement program is to ensure that all of Maryland's licensed scrap tire facilities, scrap tire haulers, and scrap tire stockpiles are in full compliance with the scrap tire law, regulations and license conditions.

Goals for Compliance and Enforcement Actions in FY 2005

- ❖ Continue to maintain the quality of compliance and enforcement activities and to perform at least 800 site inspections and investigations.
- ❖ Provide professional high quality service to Maryland's scrap tire business community.

Accomplishments in FY 2005

- ❖ A total of 728 scrap tire investigations and inspections were conducted.
- ❖ Scrap tire sites inspected included both licensed and unlicensed scrap tire facilities, as well as sites that have been designated for cleanup by the Department.

Figure 5
Number of Inspections

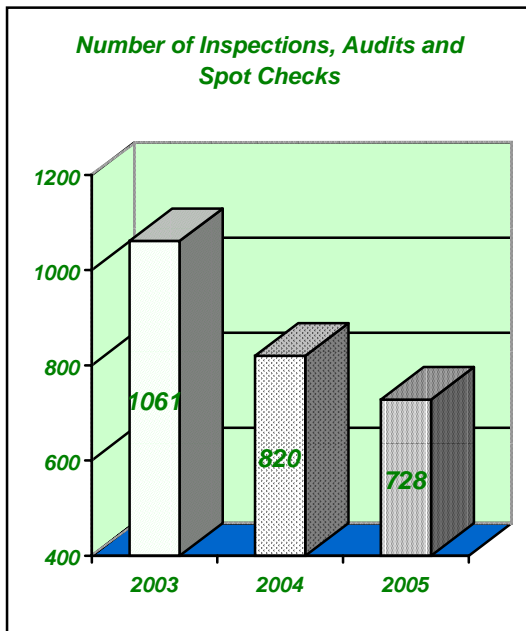
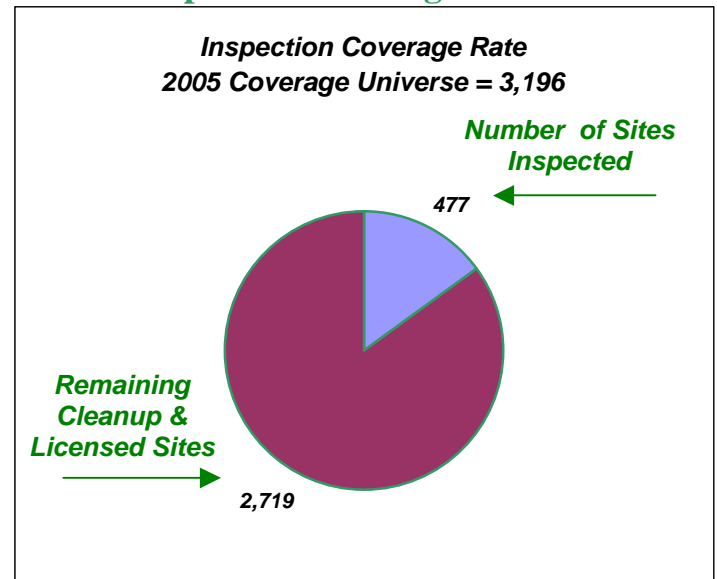


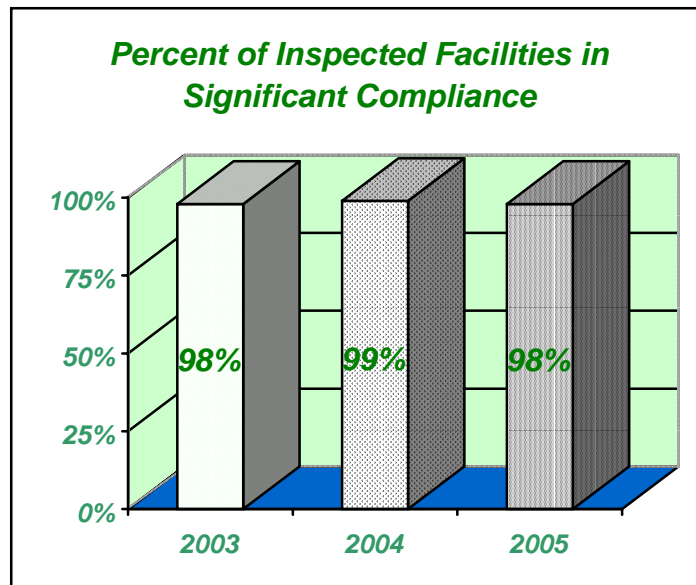
Figure 4
Inspection Coverage



- ❖ There was a decrease in the number of scrap tire site inspections conducted in FY 2005, from 820 in FY 2004 to 728, an 11% reduction. This was due, primarily, to Program staff departures during the year which have significantly reduced the Solid Waste Program enforcement capabilities. Accordingly, this also resulted in a slight decrease in the inspection coverage rate from 16% in FY 2004 to 15% in FY 2005.

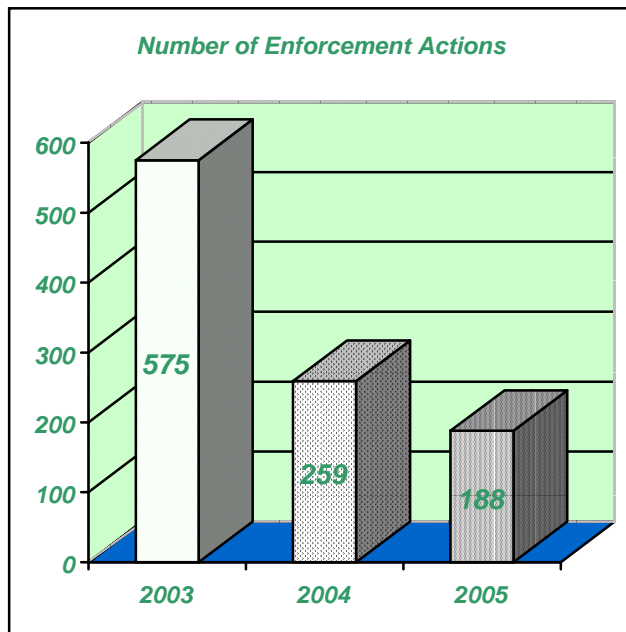
- ❖ 98% of inspected facilities were found to be in significant compliance.

**Figure 6
Compliance Rate**



- ❖ The scrap tire program continues to issue Notices of Violation to license holders who fail to submit required semi-annual reports. The number of scrap tire enforcement actions decreased from 259 in FY2004 to 188 in FY2005, still a significant number. This 27% decrease is a reflection of the program's success in achieving compliance from licensees during the reporting period.

**Figure 7
Number of Enforcement Actions**



- ❖ In FY 2005, 238 significant violations were resolved, as compared to 141 in FY 2004.
- ❖ Table VI displays the FY 2005 enforcement data as reported in the annual *MDE Enforcement Report*.

Table VI
Scrap Tire Compliance & Enforcement – FY 2005

	2005 Totals
PERMITTED SITES/FACILITIES	
Number of Permits/Licenses issued	598
Number of Permits/Licenses in effect at Fiscal Year End	3,135
OTHER REGULATED SITES/FACILITIES	
Stockpiles to be cleaned up	61
INSPECTIONS	
Number of Sites inspected	477
Number of Inspections, Audits, Spot Checks	728
COMPLIANCE PROFILE	
Number of Inspected Sites/Facilities with Significant Violations	8
% of Inspected Sites/Facilities in Significant Compliance	98%
% of Inspected Sites/Facilities with Significant Violations	2%
Inspection Coverage Rate	15%
SIGNIFICANT VIOLATIONS	
Number of Significant Violations involving Environmental or Health Impact	0
Number of Significant Violations based on Technical/Preventative Deficiencies	188
Number of Significant Violations carried over awaiting disposition from Previous Fiscal Year	115
Total	303
DISPOSITION OF SIGNIFICANT VIOLATIONS	
Resolved	238
Ongoing	65
ENFORCEMENT ACTIONS	
Number of Compliance Assistance rendered	11
Number of Show Cause, Remedial, Corrective Actions issued	0
Number of Stop Work Orders	0
Number of Injunctions obtained	0
Number of Penalty and Other Enforcement Actions	188
Number of Referrals to Attorney General for possible Criminal Action	1
PENALTIES	
Amount of Penalties collected	\$19,388

*Coverage rate above is computed as the total number of sites inspected and dividing that by the total number of permits/licenses in effect plus the number of stockpiles to be cleaned up.

Used Tire Cleanup and Recycling Fund Fiscal Report

- ❖ Environment Article, Section 9-275, Annotated Code of Maryland, provides the Department with the responsibility for administering the Fund.
- ❖ The Fund is generated through the collection of an eighty cent tire recycling fee on the first sale of any new tire in the State.
- ❖ Table VII summarizes the scrap tire program expenditures for FY 2005.

Table VII
Maryland Used Tire Clean Up and Recycling Fund
FY 2005 Revenues and Expenditures

Fund Balance (7/1/2004):	\$ 3,449,990.54
Add Open Prior Year Encumbrances:	\$ 5,208,335.40
Adjusted Beginning Balance:	\$ 8,658,325.94
 <u>FY 2005 Revenues</u>	
Refund of Indirect Cost for Prior Years:	\$ 741,255.69
Gross Used Tire Fees Revenues:	\$ 2,258,113.04
Adjustment for Comptroller's Fees:	\$ (89,623.86)
Adjustment of the Department's Prior Costs:	\$ 0.00
Cost Recovery Revenues:	\$ 17,300.00
Fines:	\$ 400.00
Escrow Collected:	\$ 53,500.00
 Total Revenue for FY 2005:	 <u>\$2,980,944.87</u>
 <u>FY 2005 Expenditures</u>	
MDE Program Expenditures:	(\$ 801,448.93)
Stockpile Clean Ups:	(\$ 4,480.00)
MDE Indirect Costs:	(\$ 257,602.84)
MES Projects and Administration:	(\$ 65,075.00)
Outstanding Encumbrance Payments:	(\$ 1,077,580.32)
 Total FY 2005 Expenditures:	 <u>(\$2,206,187.09)</u>
Outstanding Encumbrances:	(\$4,529,758.27)
 Fund Balance (6/30/2005):	 <u>\$4,903,325.45</u>