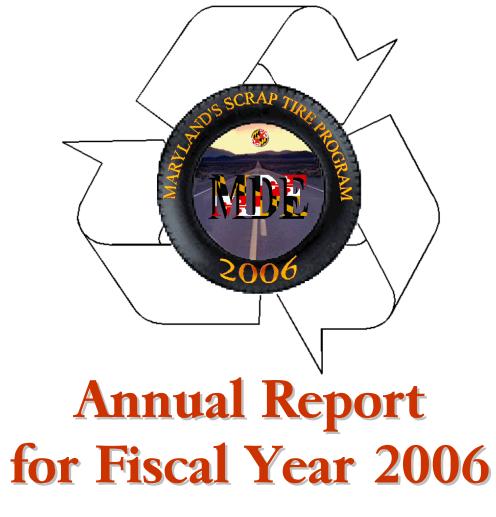
Maryland's Scrap Tire Program



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

November 1, 2006

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Used Tire Cleanup and Recycling Fund Fiscal Report

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Executive Summary

This document is the Fiscal Year (FY) 2006 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 2005 through June 2006, and describes activities for the coming year.

FY 2006 Accomplishments and Results

- Maryland generated **5.6 million** scrap tires in FY2006 that were managed in the following manner: **Recycled in Maryland (78%), Exported to other states for disposal** (1%), Used as fuel in Maryland (21%).
- A total of 6.7 million scrap tires from all sources (including imports from surrounding states) were processed by Maryland licensed scrap tire facilities. Approximately 83% of these tires were recycled and 17% were used as supplemental fuel in cement plants and waste-to-energy facilities.
- Since the inception of the Scrap Tire Program in 1992, over **8.5 million** scrap tires have been recovered from **665 stockpile** cleanup sites.
- A total of **40 illegal scrap tire stockpile** sites were cleaned up in FY 2006 and approximately **158,000** tires were removed.
- Approximately **95%** of all stockpile site cleanups accomplished in FY 2006 were achieved by using administrative means (without using the Scrap Tire Fund).
- A total of 224 new scrap tire licenses were issued.
- A total of 137 scrap tire licenses were renewed.
- At the end of FY 2006, there were a total of **3,184** valid Maryland scrap tire licenses.
- Over 700 scrap tire site inspections/investigations were performed.
- Approximately 99% of inspected facilities were found to be in significant compliance.

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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 2006:

•	The Fund generated revenues of:	\$ 3,819,335
•	Scrap Tire Program Expenditures by the Department	
	and MES totaled:	\$ (2,696,043)
•	The Fund balance at the end of FY 2006 was:	\$ 5,711,261

*See Table VII for additional detail (Page 26).

Due to the 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 stockpile sites from cost recovery. The 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 Departmental Scrap Tire Cleanup Objective for FY 2006 has been to initiate the planning and cleanup process within 30 days of discovery for 100% of illegal scrap tire stockpile sites identified during the year. During FY 2006, the Scrap Tire Program continued clean up and recovery of the remaining 1.7 million scrap tires identified in stockpiles at the end of FY 2005, along with those tires from 26 stockpiles newly identified 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 all scrap tire stockpile sites.
- 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.



Cleanup Accomplishments in FY 2006

- Since the inception of the Scrap Tire Program in 1992, over 8.5 million scrap tires have been recovered from completed and ongoing stockpile cleanup sites.
- During FY 2006, the Scrap Tire Program successfully completed clean up of 40 illegal scrap tire stockpiles, consisting of approximately 158,000 scrap tires. These sites were located in 16 of the State's 24 jurisdictions and ranged in size from 30 to 100,000 tires. (See Table I for a list of stockpiles completed during FY2006.)
- Almost all of this scrap tire stockpile cleanup success occurred without using the Fund. Ninety-five percent (95%) of all stockpile abatements completed in FY 2006 (38 out of 40 completed stockpile cleanups) used the administrative approach. The remaining 2 sites for which cleanup was completed in FY 2006 (5% of the stockpile abatements) were conducted using the Fund for cleanup activities.



Site Name	County	Initial Number of Tires
PDC Collingbrook LLC/Bowie	Prince George's	100,000
Christensen Auto/North East (Site #2)	Cecil	10,000
Brown's Auto Parts/White Hall	Baltimore	10,000
Henderson/Mechanicsville	Saint Mary's	6,425
Mason Dixon Sand & Gravel/North East	Cecil	5,400
Szymanski/Rock Hall	Kent	5,000
Burnett/Beltsville	Prince George's	5,000
Fallstaff Limited Partnership/Forest Hill	Harford	2,380
Industrial Enterprises Inc./Baltimore	Baltimore	1,320
Vallerie Real Estate LLC/Baltimore	Baltimore	1,200
Woodbury Land Trust	Baltimore	1,100
Oxon Cove/Cheverly	Prince George's	1,000
Keithley/Edgewood	Harford	1,000
Grimm2/Hagerstown	Washington	1,000
PECO Energy #2/Elkton	Cecil	1,000
Webb,Caldwell,Ghanshyam/Chesapeake Beach	Calvert	1,000
CSX Realty/Joppa	Harford	700
Perkins/Bowie	Prince George's	500
Girvin/Joppa	Harford	500
Peterson/Baltimore	Baltimore	500
Tolson/Greensboro	Caroline	400
Dickerson/Annapolis	Anne Arundel	400
Jones/Cambridge	Dorchester	365
Gilmore/Poolesville	Montgomery	300
Drake/Westminster	Carroll	200
Ellis/Massey	Kent	200
Martinetti/Cambridge	Dorchester	126
Erwin/Aberdeen	Harford	125
Merkin/Princess Anne	Somerset	125
Whiskey Creek Golf Course/Ijamsville	Frederick	112
Laumann/Pasadena	Anne Arundel	100
Lieske/Aberdeen#2	Harford	100
Nelson Prefab Concrete/Baltimore	Baltimore	100
Hess/Aberdeen	Harford	71
CSX Realty/Brandon Shores	Anne Arundel	60
DNR/Prince Frederick	Calvert	60
Sweetman/Golts	Kent	50
Melber/Forest Hill	Harford	50
Meadowcroft Motors/Freeland	Baltimore	50
Salfner/Warwick	Cecil	30
TOTAL TIRES REMOVED		158,049

Table IScrap Tire Cleanup Sites Completed in FY 2006

Stockpile Cleanups Ongoing in 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. A total of 61 stockpile sites have been targeted for either continuation of cleanup efforts or completion during FY2006. (See Table II for details.) Following are the highlighted cleanups during FY 2006.

Garner/Brandywine scrap tire stockpile cleanup: This is one of the few remaining very large scrap tire dumps remaining in Maryland. This stockpile consists of an estimated 700,000 tires. The Department unsuccessfully pursued obtaining legal access to this site for a State sponsored cleanup for several years. With the recent passage of legislation exempting inherited scrap tire sites like this site from cost recovery requirements, the owners granted the Department access for a State cleanup in FY 2005, and the Board of Public Works approved partial funding to initiate the cleanup. The project will be funded through the Used Tire Cleanup and Recycling Fund.

Status: The Maryland Environmental Service (MES) has initiated planning studies to perform scrap tire removal and cleanup processes. MES has been to the site several times and has met with Prince George's County officials. The permitting process in Prince George's County is very rigorous and is expected to take considerable time. MES will be hiring consultants in September to work through the Fall of 2006 to survey and help delineate the property boundaries, topographic elevations, scrap tire limits, wetlands, forestry, etc. MES will not be able to estimate a cleanup completion schedule until they are much further along in the permitting process.

Boehm/Crownsville scrap tire stockpile cleanup: This site is another one of the largest remaining stockpiles in Maryland. This is an old commercial landfill that has 300,000 scrap tires partially buried in the ground. The project funding was approved by the Board of Public Works in FY2003. <u>Status:</u> MES has completed the initial planning of the cleanup process and currently is in the process of obtaining permits from State and local authorities for the next phase of the project.

Morgan/Mechanicsville scrap tire stockpile cleanup: This is another one of the few remaining very large stockpiles in Maryland. This stockpile consists of an estimated 150,000 tires. With the recent passage of legislation exempting inherited scrap tire sites like this site from cost recovery requirements, the owners granted the Department access for a State cleanup in FY 2005, and the Board of Public Works has approved partial funding to initiate cleanup. The project will be funded through the Used Tire Cleanup and Recycling Fund.

Status: MES has initiated planning studies to perform scrap tire removal and cleanup processes. MES currently is working on the site to delineate the scrap tires, wetlands, and other site features and to obtain the necessary

permitting prior to soliciting bids from cleanup contractors.

St. Mary's County/Sandgates scrap <u>tire stockpile cleanup</u>: This publicly owned property has been successfully cleaned up by removal of approximately 80,000 remaining scrap tires during FY2006. The site is located at the old, closed St. Mary's County landfill and currently is in the process of restoration and stabilization. <u>Status:</u> MES planned and almost completed the project that was to be funded through the Used Tire Cleanup Fund approved in FY2004.

Site Name	County	Legislative District	Initial Number of Tires
Garner/Brandywine	Prince George's	27A	722,900
Boehm/Crownsville	Anne Arundel	33	301,125
St. Mary's County/Sandgates	Saint Mary's	29A	159,881
Morgan/Mechanicsville	Saint Mary's	29B	150,000
Tyler Towing/Clarksville	Howard	13	50,000
Polvi/Brandywine	Prince George's	27A	50,000
Suraci Family LTD/Davidsonville	Anne Arundel	33B	45,000
Sachs/Linthicum	Anne Arundel	32	25,000
Howard 2/Reisterstown	Baltimore	04	10,000
Era's Auto Salvage/Hurlock	Dorchester	37A	10,000
Patuxent Research Refuge/Laurel	Anne Arundel	23A	10,000
Tucker/West River	Anne Arundel	30	10,000
Insley/Cambridge #2	Dorchester	37B	6,655
SOMCO Towing & Salvage/Westover	Somerset	38A	6,000
Kern/Joppa	Harford	35B	5,000
G & TL. SM'site Contracting LLC/Chesapeake Beach	Calvert	27B	5,000
Mizzell/Aquasco	Prince George's	27A	4,000
Joppa Auto Salvage2/Joppa	Harford	07	4,000
Trieschman/Elkridge	Howard	1A	4,000
Harpers/Elkton	Cecil	36	3,000
Waterview Hotel/Nanticoke	Wicomico	37A	2,800
Larchmont Ave. Dump/Capitol Heights	Prince George's	24	2,500
Bryant/Elkton	Cecil	34B	2,000
MacFarland/Ridgely #2	Caroline	37B	1,100
Wise/Clarksville	Howard	13	1,000
Schillaci/Westminster	Caroll	5A	1,000

Table IIScrap Tire Stockpile Cleanups Ongoing in FY 2006

Sites listed above in bold represent State funded cleanups.

Table II (Continued)

Site Name	County	Legislative District	Initial Number of Tires
Vlamis/Elkton	Cecil	36	1,000
Sherling/Fort Washington	Prince George's	26	1,000
Dwyer/Elkton	Cecil	36	900
King/Annapolis Junction	Anne Arundel	33	600
Harris/Nanticoke	Wicomico	37A	600
Sockwell/Fairmount Heights	Prince George's	24	500
Decatur/Cumberland	Allegany	1C	500
Delano/Federalsburg	Caroline	37B	500
Kramer/Nanticoke	Wicomico	37A	500
Turner Transit/Capitol Heights	Prince George's	24	500
Munson/Waldorf	Charles	28	500
Mechanics Valley/North East #2	Cecil	36	400
Lofland/Sudlersville#2	Queen Anne's	36	400
Russell/North East	Cecil	34B	400
BCI Consortium Inc/Capitol Heights	Prince George's	24	400
Olsen/Burrsville	Caroline	36	300
Shriver/Westminster	Carroll	5A	300
Zepp/Pasadena	Anne Arundel	31	250
CSX/Knoxville	Frederick	3B	200
Saval Foods/Elkridge	Howard	13	200
Heath Salvage #2/Millington	Kent/Queen Anne's	36	200
Harris Construction/Elkton	Cecil	34B	200
Harford County Investors Trust/Churchville	Harford	35A	200
Warner/Easton	Talbot	37	200
Front Street Properties, LLC/Kennedyville	Kent	36	200
DNR/Severn Run State Park	Anne Arundel	32	150
Delmarva Power Light Company/Elkton	Cecil	36	150
DNR/Deep Creek State Park	Garrett	1A	125
Howard County/Ellicott City	Howard	9A	100
Fincham/North East	Cecil	34B	100
DNR/Poolsville	Montgomery	15	100
DNR/Potomac-Garrett State Forests	Garrett	1A	100
Comer/Darlington	Harford	35A	100
	TOTAL TIRES	S REMAINING	1,691,947

Sites listed above in bold represent State funded cleanups.

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, 131 cleanups have been performed using the Used Tire Cleanup and Recycling Fund.
- Cost recovery actions have been pursued against 36 scrap tire cleanups initiated by the State and utilizing the Used Tire Cleanup and Recycling Fund.
- ✤ Cost recovery actions were not performed against:
 - o 84 sites because they were on publicly owned property;
 - 6 sites because they qualified for the inheritance exemption;
 - 2 sites because the property owner died and the estate was closed before a cost recovery action could be completed; and,
 - o 1 site because the cost to pursue the case was higher than the amount sought.
- To date, the Department has sought a total of \$3,438,877.55 and has collected a total of \$314,018.24 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.

Total:	\$3,438,877.55	(100%)
Amount still owed on cases without installment plans:	\$192,494.30	(5.6%)
Outstanding amount sought by Central Collections Unit:	\$2,346,650.11	(68.2%)
Amount adjusted due to deaths with closed estates:	\$138,435.19	(4.0%)
Amount adjusted due to out-of-court settlements:	\$164,037.62	(4.8%)
Amount still owed on cases with installment plans:	\$6,901.00	(0.2%)
Amount sought in cases still in litigation:	\$276,341.09	(8.0%)
Collected through FY 2006 from Cost Recovery actions:	<mark>\$314,018.24</mark>	(9.2%)

- 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 FY2007, both qualify for the inheritance exemption. Therefore, cost recovery will not be sought after cleanup efforts conclude on these sites.

- 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 qualifying inheritance sites is expected to reduce the Fund balance in future years.



Oakville (St. Mary's County/Sandgates) Scrap Tire Cleanup Site

	st Recovery			
Site Name	County	Cleanup Year	No. of Tires	\$ Amount Sought
Hughesville/Underwood	Charles	1996	720,000	\$1,015,299.72
Western Commercial/Smithburg	Washington	1996	505,500	\$770,174.47
Oak Hill Realty/Easton	Talbot	1997	158,325	\$375,294.16
Lofland/Sudlersville	Queen Anne's	1996	120,000	\$226,083.74
Mack1,2,&3/Reisterstown	Baltimore	2000	44,087	\$184,451.09
Snyder/Calvert	Cecil	1996	129,526	\$151,266.00
Shorter/Waldorf	Charles	1998	129,626	\$137,902.00
Tull/Federalsburg	Caroline	1997	61,688	\$104,586.00
Johnson/Sunderland	Calvert	2003	10,735	\$91,123.00
Howard/Crisfield	Somerset	2002	21,505	\$86,395.00
Insley/Cambridge	Dorchester	2002	20,747	\$60,908.91
Hustle Tire/Ingleside	Queen Anne's	1998	26,852	\$48,437.69
Brown/Williamsport	Washington	1998	18,672	\$27,482.37
Dotson/Preston	Caroline	2000	24,000	\$26,403.70
Sproates/Golts	Kent	1998	6,825	\$26,118.75
Warfield/Bethlehem	Caroline	1997	14,338	\$24,596.24
Myers/Baltimore	Baltimore	2002	7,179	\$22,349.00
Williams/Vienna	Dorchester	2002	3,642	\$14,611.00
Elwood's Auto/Smithburg	Washington	2000	266,664	\$11,388.02
Husted/Crisfield	Somerset	2003	1,650	\$7,598.00
Clark/Choptank	Caroline	2004	2,007	\$5,495.00
Betts/Crisfield	Somerset	2002	922	\$3,877.00
Heath Salvage/Millington	Kent/Queen Anne's	2001	3,478	\$3,200.00
Thomas/Rhodesdale	Dorchester	2003	350	\$2,450.00
Joy & Morgan Developers/Temple Hills	Prince George's	2002	238	\$1,855.00
Truxon/Hillsboro	Caroline	2003	758	\$1,799.00
Goodyear/Elkton	Cecil	2003	1,013	\$1,200.00
McMannis/Cumberland	Allegany	1997	887	\$998.00
Carter/Queenstown	Queen Anne's	1998	1,117	\$982.00
Spencer/Golts	Kent	1997	230	\$950.00
Wilkinson/Oldtown	Allegany	2002	248	\$800.00
Holley/Collins Road	Somerset	1997	217	\$788.00
Lane/Princess Anne	Somerset	2003	300	\$750.00
King/Annapolis Junction	Anne Arundel	1999	0	\$533.19
Turner/White Hall	Harford	2003	500	\$500.00
Miller/Churchton	Anne Arundel	2004	16,000	<u>\$231.50</u>
Tot	al Amount So	ught (Throu	igh FY200	6): \$3,438,877.55

Table IIIInitiated Cost Recovery Actions Through FY 2006

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 2006

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, 57 schools throughout the State have participated in and benefited from the program.

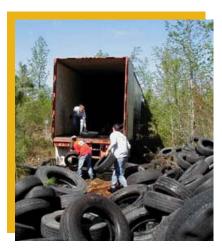
Citizen Drop-Off Day Project (formerly Amnesty Day)

• During FY2006, the Scrap Tire Citizen Drop-Off Day project was planned for five regions. The project is being executed as five regional one-day events held on Saturdays throughout September and October, 2006.

- Participating jurisdictions are Allegany, Calvert, Caroline, Carroll, Cecil, Charles, Dorchester, Frederick, Garrett, Kent, Queen Anne's, St. Mary's, Somerset, Talbot, Washington, Wicomico, and Worcester Counties.
- County residents are 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 are permitted to deliver up to 10 scrap tires per vehicle on Citizen Drop-Off Day free of charge.

Annie's Playground (Harford County)

- The Department and MES participated in a demonstration of the beneficial use of scrap tires in a community playground by providing ground cover made from shredded scrap tires.
- Annie's Playground is a volunteer effort to remember and honor Annie Cumpston, a 6-year old resident of Harford County who was hit and killed by a drunk driver as she was leaving the circus with her family in Baltimore City.





- The Annie McGann Cumpston Playground Foundation is a nonprofit organization that received land from Harford County Department of Parks and Recreation to build a creative community playground and sports and recreation complex in her honor.
- The playground covers 60,000 square feet and includes a treehouse, amphitheater/outdoor classroom, puppet theater, dragon, baseball area, courtyard and memorial garden.
- The Department contributed \$40,000 worth of recycled rubber ground cover toward this project.
- This playground not only provides recreational opportunities for Maryland residents, but also functions as a key element in MDE's public outreach efforts to promote scrap tire recycling and the beneficial uses of scrap tire rubber.

State Park Tire Playground Improvement Project

• MES is again participating with the Department of Natural Resources (DNR) in continuing to provide repairs and improvements



to nine of the ten previously constructed scrap tire playgrounds.

- This project is intended to foster cooperation between State agencies (Department, DNR and MES) in a statefunded parks recycling improvement project.
- A secondary objective of the project is to educate citizens about the beneficial uses for scrap tire material and to promote scrap tire recycling.
- The intended playground repairs and improvements will focus on the reapplication of ground cover (both tire and wood mulch), the repair/replacement of structures to ensure compliance with current guidelines, and the training of park staff to perform routine maintenance inspections and repairs.
- Funding for project materials and services is to be provided through the Tire Fund.
- MDE, MES, DNR and community volunteers will provide all necessary labor to complete the improvements.

Green Roof Rubberized Growth Medium Comparison Project (Cecil County)

- The Department and MES are working to develop a green roof growth medium that incorporates recycled scrap tire crumb rubber into the mixture.
- MES is communicating with a private soil blending company to perform studies to refine the mixture.
- Once the growth medium mixture has been finalized, MES will work in conjunction with a green roof expert to conduct comparison studies in a controlled test setting.

Rubber Mulch Project (Location has not been decided)

- This project will involve a comparison study of the performance over time of rubber mulch versus traditional wood mulch in a real world application.
- The Department and MES are working with interested local, County, and State agencies to identify a suitable location to conduct this project.
- The project is intended to demonstrate the benefits of using recycled rubber mulch in lieu of traditional landscaping materials.

Rubberized Natural Grass Athletic Field (Frederick County)

- MDE, MES, and Frederick County are participating in a demonstration of the beneficial use of scrap tires in the refurbishment of an existing athletic field.
- The installation involves topdressing the field with crumb rubber in three applications. The first application was done in July 2006, the second in August 2006, and the third will be completed during the Spring of 2007.



- 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.

Public Outreach Television Ad Project (Various Counties)

- The Department and MES worked in conjunction with Comcast Cable to produce a 30-second advertisement for Treadspread, a recycled rubber mulch product produced by MES.
- The advertisement aired during home and garden programming on various cable stations in Howard, Baltimore, and Harford Counties during March through April 2006.
- This advertising campaign was intended to promote scrap tire recycling and the use of recycled scrap tire products and to build upon MDE's previous public outreach efforts to highlight the beneficial uses of scrap tire rubber products.

Financial Assistance (Grant) for MES Tire Recycling Facility (Baltimore County)

• MDE will provide financial assistance from the State Used Tire Cleanup and Recycling Fund to MES in the form of a grant in the amount of \$3,343,263 for its crumb rubber scrap tire recycling facility. This amount equals 50 percent of the total cost (\$6,686,524) of existing capital equipment at the tire recycling facility devoted to non-organic recycling operations in conformance with Tire Fund Grant requirements of Environment Article § 9-275 (a)(2) and COMAR 26.04.08.27.

- The financial assistance will be granted in the form of separate annual payments over three fiscal years (FY2006, FY2007, and FY2009).
- The MES tire recycling facility has the capability of recycling over 20 percent of the scrap tires generated annually in the State of Maryland.
- The facility serves nine Counties throughout the State of Maryland by providing trailers for local tire recycling programs on an ongoing basis.
- This grant will allow MES to continue to operate the facility as a vital part of the State's scrap tire recycling system.

Projects Continuing from Previous Years

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 roadway and parking lot, in lieu of traditional paving materials.
- On May 2 and 3, 2006, rubber modified asphalt was manufactured and installed on a section of Glebe

Road near the Talbot County Department of Public Works offices (the old Black & Decker Plant).

• The asphalt contractor was David A. Bramble, Inc., located in Wye Mills, Queen Anne's County, under the guidance of Rubber Asphalt Solutions ("RAS") of Illinois who patented the paving process.



- Representatives from various local, County, and State agencies, as well as private contractors and members of the press, toured the asphalt plant during production of the rubber modified asphalt and observed the application of the material on the road surface.
- In the second phase of this project, (October 2006) approximately 1,330 tons of rubber modified asphalt were overlain to rehabilitate in the Talbot County Community Center parking lot.
- Representatives from government agencies, private industry, and the press will again be invited to attend and observe the application of this portion of the project.

- 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.
- Talbot County has expressed enthusiastic approval of the project thus far and has committed to participate in an additional rubber asphalt project to take place during FY2007.
- Additionally, this project has already inspired rubberized asphalt paving projects that were fully funded without use of the Used Tire Cleanup and Recycling Fund.

Rubberized Natural Grass Athletic Field (Howard County)

- MDE, MES, and Howard County participated in a demonstration of the beneficial use of scrap tires in the refurbishment of an existing athletic field.
- The application involved topdressing the field with crumb rubber in two separate applications. The first application occurred in

April 2005 and the second occurred in July 2006.



• 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. Initial feedback from Howard County personnel indicates that these benefits have already been noted in the performance and maintenance of the field.



• This application provides an option for improving the quality of existing grass athletic fields by utilizing scrap tire derived 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.

Community Public Playground Improvement Project

- The Department, DNR and the Baltimore City Department of Recreation and Parks completed construction of the Carroll/Archer Street Tot Lot. The playground is located in the heart of the Washington Village/Pigtown Community of Baltimore and has a rubberized, athletic safety surface comprised of recycled rubber and scrap tires. The Tot Lot was completed in June 2006.
- 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 and its partners worked closely with the Washington Village Pigtown Community Association for the purpose of incorporating community volunteers into some of the construction related activities. These activities included the painting of concrete curbs, the planting of trees and shrubs, and the spreading of mulch.

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.

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

- The second phase of the FY2005 Scrap Tire Citizen Drop-Off Day project was executed as two regional one-day events held during Saturdays throughout August and September, 2005.
- Participating jurisdictions were Dorchester, Somerset, Wicomico, and Worcester Counties on the Eastern Shore and Carroll, Frederick, and Washington Counties in Western Maryland.
- 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 events resulted in the recovery of over 276 tons of scrap tires.

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
 - **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 2007

- Public School Scrap Tire Playgrounds and Athletic Fields Project - (*Statewide*)
- Scrap Tire Citizen Drop-Off Day Program - (*Statewide*)
- State Park Tire Playground Improvement Project – (*Statewide*)
- Rubberized Asphalt Project (*Talbot County & Local Municipalities*)
- Berlin Rubberized Walking Path Project - (Worcester County)



Licensing

Under 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

A-March	Waste Management Administration Solid Waste Program Ioulevard, Suite 605, Baltimore, Maryland 21230-1719 Kauf Philos		
General Scrap	Tire Collection Facility License		
	No. 200x-RGC-xxxxx		
ISSUE DATE: (NO EXPIRATION DATE)			
Issued to:			
Authorizing: the accumulation of no your application of	more than fifty (50) scrap tires at any one time, and as specified in		
At:			
	provisions of Title 9 of the Environment Article, Annotated Code of Maryland, der, and is subject to the attached terms and conditions, and compliance with all applicable laws and regulations		
Edward M. Dexter, Administrator Solid Waste Program	Horacio Tablada, Acting Director Waste Management Administration		

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.
- o **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 2006

- ✤ A total of 361 scrap tire licenses (224 new licenses and 137 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 34% of the license applications were processed within 30 days.

Туре	New	Renewed	Total Issued (FY06)	Total Valid Licenses
General Collection	78	N/A	78	1560
Secondary Collection	53	71	125	791
Primary Collection	0	0	0	2
Recyclers	2	0	2	4
TDF Facility	0	0	0	3
Solid Waste	0	1	1	3
Haulers	<u>91</u>	<u>65</u>	<u>155</u>	<u>821</u>
Total	224	137	361	3,184

Table IVScrap Tire Licenses – FY 2006



Scrap Tire Markets and Market Development

Market Analysis

During FY 2006, the State's scrap tire processing capacity handled approximately 6.7 million tires generated from Maryland and out-of-state facilities.

- This represents a 21% increase from the previous year. (See Figure 1.)
- Out of the 6.7 million scrap tires processed, approximately 83% were recycled, as compared to 53% reported in FY 2005.
- Ninety-five percent (95%) of the total (5.56 million) scrap tires generated in Maryland were recycled or used as fuel in Maryland. Approximately 78% of Maryland generated scrap tires were recycled and 21% were used as fuel in Maryland facilities during FY 2006. (See Figure 2.)
- Emanuel Tire Company (Maryland's largest scrap tire recycling facility) processed about 30% more tires than in FY 2005.
- The MES scrap tire crumb rubber production facility in Baltimore, processed a significant number of tires

and increased its capacity to 1.1 million tires, a gain of 14% from FY 2005. 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.

• Two new scrap tire recycling facilities were licensed in Anne Arundel and Harford Counties and these facilities recycled approximately 240,000 tires.

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.

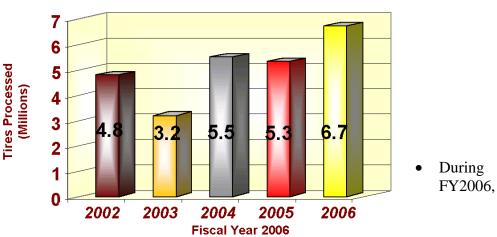


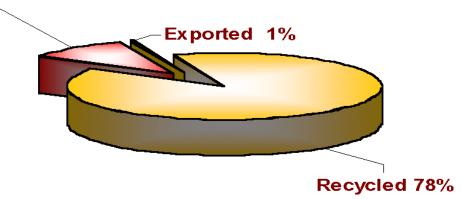
Figure 1 Maryland's Scrap Tire Processing Capacity

Maryland processed 99% of all scrap tires that were generated in Maryland. The portion of scrap tires recycled in Maryland increased significantly to 78% in Maryland during FY2006 from 53% reported in FY2005. Thus, 4.4 million scrap tires that Maryland generated during FY2006 were recycled into marketable products. This progress reflects the success of scrap tire recycling initiatives and markets that Maryland offers to its business community in accordance with the legislative priority established in 1991. This primarily was due to several factors involving the expansion of existing recycling operations, and the offering of competitive tipping fees. The existing operations increased their processing capacities and reported 40% more recycling than in FY2005. Two new scrap tire facilities were licensed to enhance this trend during this year resulting in an additional 240,000 scrap tires being recycled.

The overall capacity of processing scrap tires (Maryland and out-of-state) increased by 21% from that reported during FY2005. This significant increase is due to a relatively constant rate of importation of scrap tires from out-of-state sources and a lesser exportation of Maryland scrap tires to out-of-state facilities. Only approximately 32,000 (1% of Maryland generated scrap tires) scrap tires were exported during FY2006, a noticeable reduction from previous years. Maryland cement kilns continued to use scrap tires as a supplemental fuel and consumed a little over 1.1 million scrap tires during the fiscal year.

Figure 2 How Maryland-Generated Scrap Tires Were Managed In FY 2006

Used as Fuel 21%



- The overall data suggests an upward trend for Maryland scrap tire recycling and processing markets. Additions of new recycling facilities in future years would increase recycling or scrap tires and improve the marketability of tire products in the Mid-Atlantic States. The markets for Tire Derived Fuel (TDF) will improve as the two large cement kilns resume their scrap tire burning operations in coming years. Additional facilities in the area and competitive bid prices likely will bring more tires into Maryland and increase its processing capabilities.
- Continued emphasis needs to be given to market development of scrap tire products and processed raw materials. The Department is continuing to work with the Maryland Environmental Service and the private sector on a project to develop a "best practices" manual to encourage engineers and designers to incorporate the use of tire-derived products into civil engineering projects. The manual will be able to advise the design engineer of possible uses for engineering materials derived from scrap tires, including the use of tire chips in drainage layers. The guidance will increase the utilization of these materials, and using these alternatives will help conserve natural resources, such as gravel and crushed stone.

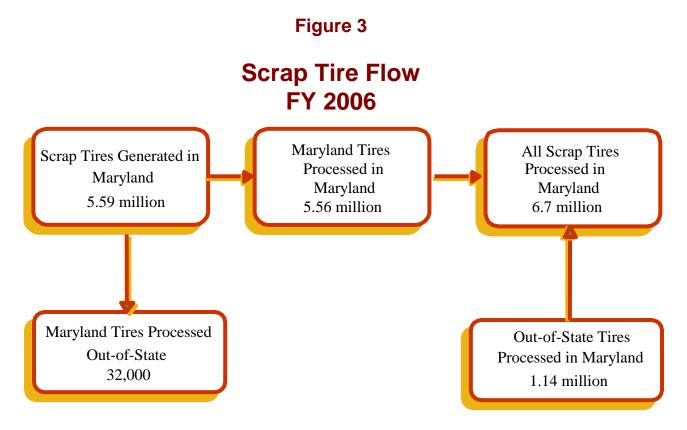


Figure 3 shows schematically the flow and processing of tires into and out of the State of Maryland.

Table V
Maryland Licensed Scrap Tire Processing Facilities

IT		censeu Scrap The Trocessing	I ucilities	
Facility Name/Type	Location Address	Operation	Telephone	Tires Processed FY-2006
Emanuel Tire Company/ Recycler	1300 Moreland Ave Baltimore MD 21216	The company has been processing scrap tires for the last four decades. The operation converts scrap tires into 1 to 2 inch size tire chips.	(410) 947-0660	4,433,629
Maryland Environmental Services Facility/ Recycler	4653 Hollins Ferry Rd Halethorpe MD 21227	The operation processes scrap tires into crumb rubber.	(410) 242-5039	1,126,082
K & K Tire, Inc./ Recycler	816 Oregon Avenue Linthicum MD 21090	Processes scrap tires into products.	(410) 636-2002	132,547
Auston Tire Recycling/ Recycler	1202 Pauls Lane Joppa MD 21085	Processes scrap tires into products.	(410) 335-1016	106,843
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 generate 20 to 30 percent of the process heat needed to convert the raw material into cement.	(301) 874-8271	31,473
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 generate up to 35 percent of the process heat needed to convert the raw material into cement.	(301) 739-1150	583,097
Lehigh Portland Cement Company/TDF	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
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	576,656
Wheelabrator Baltimore LP (BRESCO)	1801 Annapolis Road Baltimore MD 21230	The facility has been approved to burn scrap tires with municipal solid waste.	(410) 234-0808	728
Fort Detrick	393 Beasly Road Frederick MD 21702	The facility burns scrap tires with solid waste and medical waste.	(301) 619-2323	157
			Total	6,751,772

Source: Submitted Scrap Tire Semi-Annual Reports

Compliance and Enforcement Activities

The goal of the Department's compliance and enforcement activities 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.

Strategies for Compliance and Enforcement Actions in FY 2006

- Continue to maintain the quality of compliance and enforcement activities and routinely perform site inspections and investigations.
- Maintain inspection, compliance assistance, and enforcement actions of scrap tire licensees to discourage illegal scrap tire stockpiles.
- Continue coordinating with the State Fire Marshal's Office to ensure that plans for tire recycling and storage facilities meet applicable fire prevention standards and have adequate provisions for fighting fires should they occur.
- Continue identification and cleanup of illegal scrap tire stockpiles.

Accomplishments in FY 2006

- ✤ A total of 747 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.
- There was a slight increase (3%) in the number of scrap tire inspections conducted in FY 2006 to 747 from 728 in FY 2005. Subsequently, the inspection coverage rate increased by 1% in FY 2006 to 16% from 15% in FY 2005, as all scrap tire stockpiles were inspected.
- ✤ In addition, the percentage of inspected facilities in significant compliance increased during FY 2006 to 99% (from 98% in FY 2005) and a total of 134 significant violations were resolved. The number of compliance assistance actions rendered decreased from 11 in FY 2005 to 8 in FY 2006.

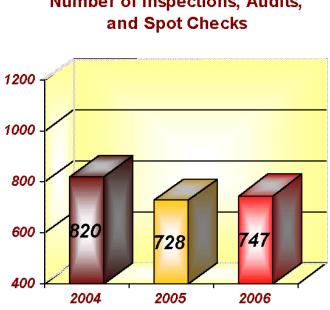


Figure 4 Number of Inspections, Audits,

The Program continues to issue Notices of Violation to license holders who fail to submit required semi-annual reports and initiated a process of issuing administrative orders to those who did not respond to outstanding Notices of Violation. The Program issued 175 enforcement actions during FY 2006 including 157 Notice of Violations and 18 administrative orders with penalties. This represents a 9% decrease from FY2005 and is a reflection of the Program's success in achieving compliance from licensees during the reporting period, and in compliance assistance efforts.



♦ In FY 2006, 134 significant violations were resolved, as compared to 238 in FY 2005.

Figure 6

Table VI displays the FY 2006 enforcement data as reported in the annual MDE Enforcement Report.



Table VI Scrap Tire Compliance & Enforcement Data FY 2006

	2006 TO TALS
PERMITTED SITES/FACILITIES	
Number of Permits/Licenses is sued	361
Number of Pennits/Licenses in effect at Fiscal Year End	3,184
OTHER RE GULATED SITES/FACILITIES	
Stockpiles tobe cleaned up	61
INSPECTIONS	
Number of Sites inspected	505
Number of Inspections, Audits, Spot Checks	747
COMPLIANCE PROFILE:	
Number of Inspected Sites/Facilities with Significant Violations	7
% of Inspected Sites/Facilities in Significant Compliance	99%
% of Inspected Sites/Facilities with Significant Violations	1%
Inspection coverage Rate *	16%
SIGNIFICANT VIOLATIONS	
Number of Significant Violations involving Environmental or Health Impact	n
Number of Significant Violations based on Technical/Preventative Deficiencies**	175
Number of Significant Violations carried over awaiting disposition from Previous	1/5
Fiscal Year	65
Total	240
DISPOSITION OF SIGNIFICANT VIOLATIONS	
Resolved	134
Orgoing	106
ENFORCEMENT ACTIONS	
Number of Compliance Assistance rendered	8
Number of Show Cause, Remedial, Corrective Actions is sued	0
Number of Stop Work Orders	0
Number of Injunctions obtained	0
Number of Penalty and Other Enforcement Actions	175 3
Number of Referrals to Attorney General for possible Criminal Action	د
PENALTIES	400.000
Amount of Penalties collected	\$27,775

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

** All but 8 of these violations were a result of failure to submit required reports.

Used Tire Cleanup and Recycling Fund Fiscal Report

- Environment Article, Section 9-275, UU<u>Annotated Code of Maryland</u>, 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 2006.

Table VIIMaryland Used Tire Clean Up and Recycling FundFY 2006 Revenues and Expenditures

Fund Balance (7/1/2005)	Add Open Prior Year Encumbrances: Adjusted Beginning Balance:	\$4,903,325.45 <u>\$4,529,758.27</u> \$9,433,083.72
<u>FY2006 Revenues</u>	Gross Used Tire Fees Revenues: Adjustment for Comptroller's Fees: Adjustment: Cost Recovery (Cash and Accruals): Escrow Collected:	\$3,804,589.44 (\$65,127.12) \$70,526.00 \$5,247.00 <u>\$4,100.00</u>
	Total Revenue for FY2006	<u>\$3,819,335.32</u>
<u>FY2006 Expenditures</u>	MDE Program Expenditures: Stockpile Cleanups: MDE Indirect Costs: MES Projects and Administration: Outstanding Encumbrance Payments: Total FY2006 Expenditures: Outstanding Encumbrances:	(\$ 938,067.58) (\$ 182,911.57) (\$ 382,240.28) (\$ 733,270.95) <u>(\$ 459,553.03)</u> (<u>\$ 2,696,043.41)</u> (\$ 4,845,114.30)
Fund Balance (6/30/2006)		<u>\$5,711,261.33</u>