



MARYLAND

Department of the Environment

Maryland Scrap Tire Annual Report Fiscal Year 2008

Prepared for the

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

November 2008



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Executive Summary

This is the Fiscal Year (FY) 2008 Scrap Tire Annual Report as required by Environment Article, Section 9-275(b), which is 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 (the Department or MDE) and the Maryland Environmental Service (MES) from July 2007 through June 2008, and describes activities for the coming year.

FY 2008 Accomplishments and Results

- *Maryland generated **5.6 million** scrap tires in FY2008 that were managed in the following manner: Recycled or used as fuel in Maryland (**64%**) and exported to other states for disposal, recycling, or used as fuel (**36%**).*
- *Maryland's scrap tire facilities processed **5.7 million** scrap tires in FY2008, including **3.6 million** Maryland-generated scrap tires and **2.1 million** scrap tires imported from out-of-State.*
- *A total of **5.7 million** scrap tires from all sources (including imports from surrounding states) were processed by Maryland licensed scrap tire facilities. Approximately **78%** of these tires were recycled and **22%** were used as supplemental fuel in cement plants and waste-to-energy facilities.*
- *Since the inception of the Scrap Tire Program in 1992, over **8.8 million** scrap tires have been recovered from **742** stockpile cleanup sites.*
- *A total of **52** illegal scrap tire stockpile sites were cleaned up in FY 2008 and approximately **251,637** tires were removed.*
- *Approximately **96%** of all stockpile site cleanups accomplished in FY 2008 were achieved by using administrative enforcement (without using the Used Tire Cleanup and Recycling Fund).*
- *A total of **221** new scrap tire licenses were issued.*
- *A total of **124** scrap tire licenses were renewed.*
- *At the end of FY 2008, there were a total of **3,232** valid Maryland scrap tire licenses.*
- *Over **800** scrap tire site inspections/investigations were performed.*

Financial Statement Summary*

The Used Tire Cleanup and Recycling Fund (the "Fund"), as authorized by the Environment Article, Section 9-275, provides the funding for administration of the Scrap Tire Program. In FY 2008:

• <i>Fund beginning balance:</i>	\$ 11,545,865
• <i>The Fund generated revenues of:</i>	\$ 3,830,945
• <i>Scrap Tire Program Expenditures by the Department and MES totaled:</i>	\$ (2,257,311)
• <i>Outstanding encumbrances:</i>	<u>\$ (4,348,388)</u>
• <i>The Fund balance at the end of FY 2008 was:</i>	\$ 8,771,112

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

Due to the inheritance exemption discussed below and 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 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 2008 was 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 2008, 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 2007, along with those scrap 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 enforcement procedures to persuade property owners to remove stockpiles using their own resources.
- Use of the Fund to clean up stockpile sites only when administrative enforcement efforts were unsuccessful.
- Targeting efforts toward eliminating all scrap tire stockpile sites.
- In instances in which administrative enforcement 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 2008

- ❖ Since the inception of the Scrap Tire Program in 1992, over 8.8 million scrap tires have been recovered from completed and ongoing stockpile cleanup sites.
- ❖ During FY 2008, the Scrap Tire Program successfully completed Cleanup of 52 illegal scrap tire stockpiles, consisting of approximately 251,637 scrap tires. These sites were located in 17 of the State's 24 jurisdictions and ranged in size from 30 to 159,881 tires. (See Table I for a list of stockpiles completed during FY2008.)
- ❖ Most of the scrap tire stockpile cleanup success occurred without using the Fund. Ninety-six (96%) of all stockpile abatements completed in FY 2008 (50 out of 52 completed stockpile cleanups) used the administrative approach. The remaining 2 sites (all located on public lands) for which cleanup was completed in FY 2008 (4% of the stockpile abatements) were conducted using the Fund for cleanup activities.



Morgan Scrap Tire Cleanup
December 11, 2007
An ongoing multi-year cleanup

Table I
Scrap Tire Cleanup Sites Completed in FY 2008

Site Name	County	Initial Number of Tires
St. Mary's County/Oakville/Sandgates	St. Mary's	159,881
Sachs / Linthicum	Anne Arundel	56,392
Kern / Joppa	Harford	5,000
Patuxent Research Refuge / Laurel	Anne Arundel	4,995
Joppa 420 LLC / Joppa	Harford	4,800
Trieschman / Ekridge	Cecil	3,600
Reimann / Forest Hill	Harford	1,881
Reichert / White Hall	Baltimore	1,596
Schillaci / Westminster	Carroll	1,592
Cheshmah LLC / Bel Air	Harford	1,000
Dwyer / Elkton	Cecil	900
CSX Transportation Inc. / Halethorpe	Baltimore	800
CG Beltsville LTD Partnership / Beltsville	Prince George's	751
Geipe / Jessup	Howard	700
Sherling / Fort Washigton	Prince George's	700
Ragan / Conowingo	Cecil	530
Crownsville Investment LLC / Hanover	Anne Arundel	500
Heath Salvage #2 / Millington	Queen Anne's	500
Smith / Hagerstown	Washington	368
Comer / Darlington	Harford	349
Beechwood Limited Partnership / Frederick	Frederick	333
Omni Excavators, Inc. / Bladensburg	Prince George's	304
Lashbaugh / McCoole	Allegany	279
Kris-Leigh / Severna Park	Anne Arundel	269
Grinder Waldorf	Charles	266
Shri, LLC / Elkridge	Howard	250
St. Mary's / California	St. Mary's	250
CSX / Knoxville	Frederick	217
CSX / Elk Mills	Cecil	210
Banks / North East	Cecil	200
KST, LLC / North East	Cecil	200

Table I (Continued)

Site Name	County	Initial Number of Tires
Susquehanna / Conowingo	Cecil	180
Johns / Hurlock	Dorchester	175
Beazer Homes Corp. / Capitol Heights	Prince George's	170
Delmarva Power Light Company / Elkton	Cecil	150
MD Forests & Parks / Boonsboro	Washington	150
CSX Realty / Joppa #2	Harford	141
Western Pochantas Property Ltd/ Kitzmiller	Garrett	132
Defender Packing Company, Inc. / Trappe	Talbot	123
Mountain Properties, LLC / Joppa	Harford	100
Saathof / Easton	Talbot	100
Warner / Easton	Talbot	100
Boyce / Mt. Airy	Frederick	78
Hairston / Brandywine	Prince Georges	77
Craemer / Baltimore	Baltimore	60
6188 Oxon Hill Ltd Partnership/ Oxon Hill	Prince George's	55
Gab Realty / Joppa	Harford	53
Kirwan Properties / Cambridge	Dorchester	50
Danville Terminals of Maryland, Inc. / Baltimore	Baltimore City	35
Davis / Cambridge	Dorchester	35
Cross / Elkton	Cecil	30
Kilchenstein / Finksburg	Carroll	30
TOTAL TIRES REMOVED:		251,637

Stockpile Cleanups Ongoing in FY 2009

During FY2009, 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 91 stockpile sites have been targeted for either continuation of cleanup efforts or completion during FY2009. (See Table II for details.) Following are the highlighted cleanups continuing during FY 2009.

❖ **Garner/Brandywine scrap tire stockpile cleanup:**

This is one of the few remaining very large scrap tire dumps in Maryland. This stockpile consists of over one million tires. With the passage of legislation exempting inherited scrap tire sites 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 is being funded through the Used Tire Cleanup and Recycling Fund, and the property owners qualify for the inheritance exemption. The property is located in Prince George's County.

Status: The Maryland Environmental Service (MES) has initiated planning studies and permitting activities to perform scrap tire removal and cleanup processes. MES and MDE have been to the site numerous times with contractors, surveyors, and other Federal, State, and County government representatives. MES and MDE have also met with Prince George's County officials on several occasions regarding

the permitting process. The permits Prince George's County requires for this process include grading, sediment control, and forest stand delineation approvals. A State/federal wetlands permit is required as well. MES hired consultants to survey and help delineate the property boundaries, topographic elevations, scrap tire limits, wetlands, forestry, etc. The bid process is expected to take place at the end of FY2009. Cleanup activities are expected to begin in FY2010 and should conclude by the end of FY2011.

❖ **Morgan/Mechanicsville scrap tire stockpile cleanup:**

The project is being funded through the Used Tire Cleanup and Recycling Fund, and the property owner qualifies for the inheritance exemption. The property is located in St. Mary's County.

Status: Cleanup activities began in November 2007. All scrap tires, estimated at 121,335 tires, have been removed from the site for proper disposal, recycling, and/or use as fuel. Site restoration activities are currently being performed, including stabilization of the slopes and reforestation of the site. (See picture of the work in progress on page 2).

❖ **Suraci Family LTD/Davidsonville scrap tire stockpile cleanup:**

The project is being funded through the Used Tire Cleanup and Recycling Fund, and the property owner will be required to reimburse the Fund for all expenditures related to the cleanup. The stockpile consists of approximately 56,800 scrap tires and the property is located in Anne Arundel County.

Status: MES is working to delineate the limits of the scrap tire stockpile,

obtain necessary permits, and determine an estimate of cleanup costs. Cleanup of the site is expected to begin during FY2009.

- ❖ **Waterview Hotel/Nanticoke scrap tire stockpile cleanup:** This stockpile of approximately 10,947 scrap tires is located along the shoreline at the mouth of the Nanticoke River in Wicomico County. The scrap tires are located below the mean high tide level. The Used Tire Recycling and Cleanup Fund will be used to pay for this cleanup, as the tires are located in the waters of the State.
Status: All necessary permits have been obtained and the bid process took place during early Fall 2008. The cleanup is expected to be completed during FY2009.

- ❖ **Tucker/West River scrap tire stockpile cleanup:** The project is being

funded through the Used Tire Cleanup and Recycling Fund, and the property owner qualifies for the inheritance exemption. The stockpile is estimated at 10,000 scrap tires, and the property is located in Anne Arundel County.

Status: MES is working to delineate the limits of the scrap tire stockpile, obtain necessary permits, and determine an estimate of cleanup costs.

- ❖ **Boehm/Crownsville scrap tire stockpile cleanup:** This is an old commercial landfill in Anne Arundel County that has approximately 301,125 scrap tires partially buried in the ground. **Status:** Due to legal and funding issues, cleanup of the site is not expected to take place until after FY2011.



Table II
Scrap Tire Stockpile Cleanups Ongoing in FY 2008

Site Name	County	Legislative District	Initial Number of Tires
Garner/Brandywine	Prince George's	27A	1,000,000
Boehm/Crownsville	Anne Arundel	33	301,125
Morgan/Mechanicsville	Saint Mary's	29B	121,335
Polvi/Brandywine	Prince George's	27A	100,000
Suraci Family LTD/Davidsonville	Anne Arundel	33B	56,800
Tyler Towing/Clarksville	Howard	13	50,000
Schwartz / Eagle Harbor	Prince George's	27A	25,000
Mt. Airy Auto & Truck Parts, LLC/Mt. Airy	Frederick	4A	15,000
Midshore Recyclers, Inc./Hurlock	Dorchester	37A	11,750
Waterview Hotel/Nanticoke	Wicomico	37A	10,947
Gough / Lusby	Calvert	49C	10,000
Howard 2 / Reisterstown	Baltimore County	04	10,000
Tucker/West River	Anne Arundel	30	10,000
Wise / Clarksville	Howard	13	9,343
Mona Equipment Inc. / Port Tobacco	Charles	28	7,000
Insley / Cambridge #2	Dorchester	37B	6,655
G & TL. Smith Contracting LLC/ Chesapeake Beach	Calvert	27B	5,000
Don's Sales / Swanton	Garrett	1A	4,600
Compton Inc. / Port Tobacco	Charles	28	4,000
DNR (State of Maryland) / Linthicum	Anne Arundel	D32	4,000
Mizzell/Aquasco	Prince George's	27A	4,000
Reiders / Rising Sun	Cecil	34B	3,500
Cotler / Rockville	Montgomery	27A	3,000
Fruhling / Joppa	Harford	07	3,000
Gilbert / Joppa	Harford	34A	3,000
Harpers/Elkton	Cecil	36	3,000
Larchmont Ave. Dump/Capitol Heights	Prince George's	24	2,500
Herbert Properties, LLC / Westover	Somerset	38A	2,400
Bruso / Aquasco	Prince George's	27A	2,100
Pechin / Sudlersville	Queen Anne's	36	1,500
MacFarland/Ridgely #2	Caroline	37B	1,100
Lynn / Upper Marboro	Prince George's	24	1,000
McIntyre / Huntingtown	Calvert	27B	1,000
CSX Transportation/ Elkton	Cecil	36	740
Christian Homes & Buildings/ljamsville	Frederick	3B	700

Table II (Continued)

Site Name	County	Legislative District	Initial Number of Tires
Reid / Darlington	Hartford	35A	700
Harris/Nanticoke	Wicomico	37A	600
Nicely / Middle River	Baltimore	07	600
Peterson / Baltimore	Baltimore City	31	600
Szymanski Rock Hall #2	Kent	36	600
Alwine / Thurmont	Frederick	4A	500
Carter / Nanjemoy	Charles	28	500
Decatur/Cumberland	Allegany	1C	500
Delano/Federalsburg	Caroline	37B	500
Ervin / Millington	Queen Anne's	36	500
Kramer/Nanticoke	Wicomico	37A	500
Munson/Waldorf	Charles	28	500
Roop / Rising Sun	Cecil	34B	500
Sockwell/Fairmount Heights	Prince George's	24	500
Turner Transit/Capitol Heights	Prince George's	24	500
Lowes Home Centers Inc. / Abingdon	Harford	07	434
Kelly – Rockville	Montgomery	19	418
Battle / Brandywine	Prince George's	29A	400
Lofland/Sudlersville#2	Queen Anne's	36	400
Mechanics Valley/North East #2	Cecil	36	400
McGrady / Aberdeen	Harford	35A	400
Olvera / Chesapeake City	Cecil	36	400
Kilson / Golts	Kent	36	350
Mackall / Prince Frederick	Calvert	27B	350
Barrow / Rising Sun	Cecil	34B	300
McGuire / Golts	Kent	36	300
O.S.T. TruckingCo., Inc.	Baltimore	06	300
Lashbaugh / Mccoole	Allegany	11	279
Beachwood North H.O.A/Sparrows Pt.	Baltimore	06	250
Rodenhauser / Bowie	Prince George's	23B	250
Sorteberg / Glen Arm	Baltimore	02	250
Triplin / Baltimore	Baltimore	46	250
Zepp / Pasadena	Anne Arundel	31	250
Lakshman / Elkton	Cecil	34B	200
Opus East, LLC. / Hanover	Anne Arundel	32	200
Rando / Rising Sun	Cecil	34B	200

Table II (Continued)

Site Name	County	Legislative District	Initial Number of Tires
320 North Point Road / Baltimore	Baltimore	D6	150
Harris / Tyaskin	Wicomico	37B	150
Webster Investment / Capitol Heights	Prince George's	24	150
Ting, LLC / Delmar	Wicomico	38B	125
B & R	Prince George's	27A	150
Cooper / Sparks	Baltimore	5B	100
Paris / Chestertown	Kent	36	100
Dove / Pasadena	Anne Arundel	2	100
Szymanski / Rock Hall #3	Kent	36	94
Bowie / Nanjemoy	Charles	28	75
McAleer / Dickerson	Montgomery	15	60
Harmony / Westminster	Carroll	5a	50
DNR / Elk Mills	Cecil	36	45
River Ventures, LLC / Riverdale	Prince George's	22	42
Bauer / Middle River	Baltimore	29A	40
Siddiqui / Frederick	Frederick	3A	40
Sweatt / Capitol Heights	Prince George's	24	40
Majors / Baltimore	Baltimore	38A	30
Wolfepack LLC / Severn	Anne Arundel	32	30

TOTAL TIRES REMAINING TO BE REMOVED: 1,811,347

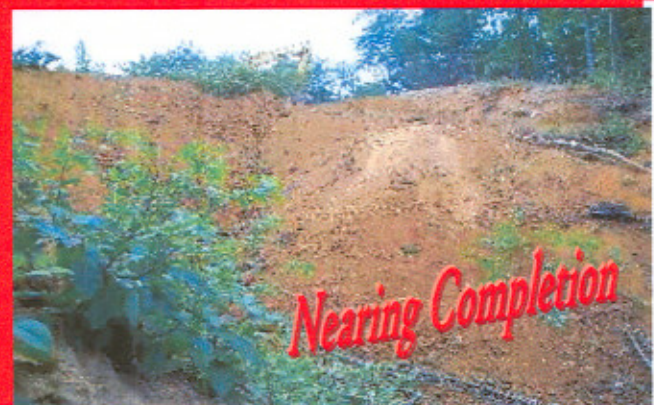
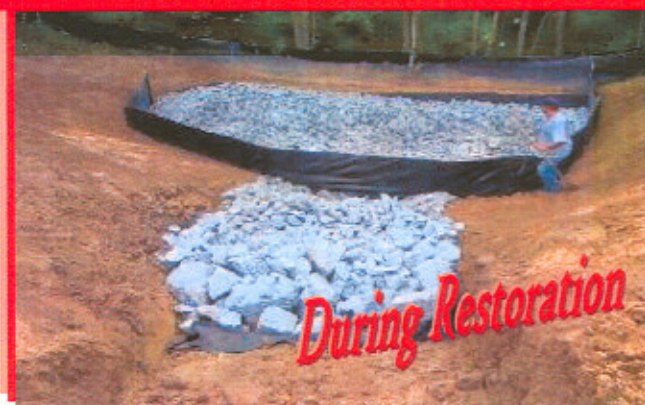
Sites listed above in bold represent State-funded cleanups.

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, 136 cleanups have been performed using the Fund.
- ❖ Cost recovery actions have been pursued against 36 scrap tire property owners in which cleanup was initiated by the State and utilized the Fund.
- ❖ Cost recovery actions have not been performed against:
 - 89 sites because they were on publicly owned property;
 - 6 sites because they qualified for the inheritance exemption;
 - 2 sites because the property owner passed away and the estate was closed before a cost recovery action could be completed; and,
 - 1 site because the cost to pursue the case was higher than the cost recovery amount that could be sought.

- ❖ To date, the Department has sought a total of **\$3,438,877.55** and has collected a total of **\$323,349.24** 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.
- ❖ The Garner/Brandywine, Morgan/Mechanicsville, and Tucker/West River sites, slated for State-funded cleanup efforts to continue in FY2009, all qualify for the inheritance exemption. The Waterview Hotel/Nanticoke site, slated for cleanup during FY2009 is located on public-owned land. Therefore, cost recovery will not be sought after cleanup efforts conclude on these sites.

MORGAN/MECHANICSVILLE SCRAP TIRE SITE BEFORE, DURING, AND NEARNING THE END OF RESTORATION WORK



**Table III
Initiated Cost Recovery Actions Through FY2008**

<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	\$1,015,299.72
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/Federsburg	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	\$231.50
Total Amount Sought (Through FY2008):				\$3,438,877.55

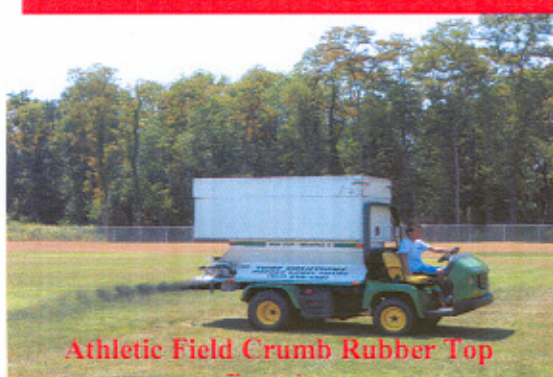
Scrap Tire Projects

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 2008

Public School Playground and Athletic Field Construction (Statewide)

- The Department and MES are working with the Department of Education to construct and/or renovate several playground and athletic facilities using recycled tires and recycled tire materials. Since this ongoing program began, 86 schools throughout the State have participated in and benefited from the program.
- In past years this project was used to renovate playground facilities at public elementary and middle schools. During FY2007, the scope of this project was expanded to include athletic venues at elementary, middle, and high schools.
- The FY2008 project funded refurbishment of playgrounds and athletic fields at 10 elementary schools and 1 high school using various types of recycled scrap tire products.



Athletic Field Crumb Rubber Top

State Park Tire Playground Improvement Project

- This is the sixth year that MDE and MES will work with the Department of Natural Resources (DNR) to provide repairs and improvements to the ten previously constructed scrap tire playgrounds.
- This project is intended to promote recycling improvement projects in state-funded parks.
- Due to enormous popularity and high usage of these sites, coupled with the age of the equipment, many of these playgrounds are in need of repairs and improvements beyond normal maintenance.
- The intended playground repairs and improvements focused on the reapplication of ground cover (both tire and wood mulch), the repair/replacement of parts of structures to ensure compliance with current guidelines, and the training of park staff to perform routine maintenance inspections and repairs. Wear mats were purchased and installed under swings and slides to limit groundcover kick-out and reduce weekly maintenance; structures were sealed to protect the wood and increase longevity; stone dust was applied to top-off existing ADA access paths; and licensed professionals conducted safety inspections of the completed repairs.



State Park Tire Playground

Septic Tank Leach Field Project (Caroline County)

- The Department and MES are working to demonstrate the beneficial use of tire-derived aggregate (TDA) as a drainage media substitute during the construction of a septic system at the new Midshore II Landfill (to be constructed at the site of the old Holly Road Landfill in Caroline County).
- This project will yield a functional septic system using TDA for the administration/ maintenance building and scale house at the new Midshore II Landfill.
- A secondary objective is to educate citizens and health department personnel throughout the State about the beneficial uses for scrap tire material in septic tank installations and to promote scrap tire recycling.
- During FY2008, the TDA septic leach field system was incorporated into the engineering and design plans for the new landfill's administration building.
- The construction of the TDA septic leach field system will be completed during FY2009.



Projects Continuing from Previous Years

Rubber-Modified Asphalt Project (Talbot County)

- In FY2007, MES worked with Talbot County to identify potential sites for rubber-modified asphalt installations. However, Talbot County did not provide MES with identified sites and paving schedules.
- In FY2008, MDE and MES began working with Midshore Regional Landfill (which involves the intergovernmental cooperation between Caroline, Kent, Queen Anne's, and Talbot Counties) to install rubber-modified asphalt product in lieu of traditional paving materials on County, municipal, and/or landfill roads in several targeted high/diverse use areas in conjunction with the construction of the Midshore II Regional Landfill in Caroline County.
- In FY2009, paving locations will be selected.
- In FY2010, bid documents will be prepared and the rubber-modified asphalt will be produced and installed at the selected locations.
- 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 demonstrate and encourage the use of rubberized asphalt products by public agencies and private contractors in Maryland.
- Informational signs will be placed at the project site educating the public about the project and scrap tire recycling.

BERLIN WALKING PATH, WORCESTER COUNTY



Berlin Walking Path (Worcester County)

- The Department, MES, and the Town of Berlin are participating in a demonstration of the beneficial use of scrap tires in a community park by constructing a walking path utilizing ground rubber from scrap tires.
- Planning and procurement activities continued during FY2008. Construction of the walking path was completed during Fall 2008.
- To meet ADA accessibility guidelines, the pathway has a required minimum width of five feet.

- Informational signs were placed at the path entrance and will be placed at several locations along the pathway.
- The official dedication and grand opening ceremony took place in Fall, 2008.

Green Roof Crumb Rubber Growth Media Project

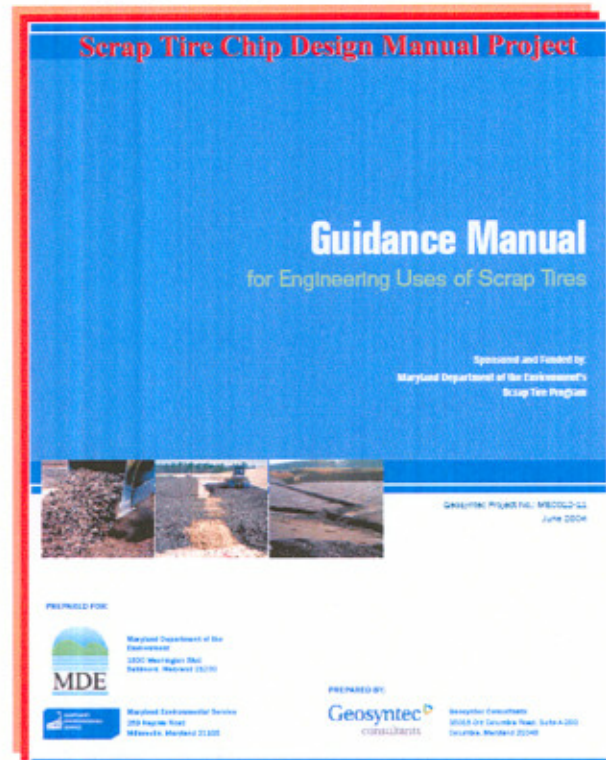
- MES coordinated with Mr. Ed Snodgrass, a local green roof plant expert and owner of Emory Knoll Farms, and Dr. Steven Cohan of the University of Maryland to develop a growth media mix and design the laboratory testing to be performed.

- In FY2008, the University of Maryland, lead by Dr. Cohan, developed a study to evaluate several different crumb rubber media mixes to determine which mix provided the most suitable inorganic, lightweight component that would drain well.
- The University is also conducting a study of green roof plants to determine which plants thrive the best in the various crumb rubber media mixes. The plant studies are being conducted in a controlled greenhouse setting and a natural, outdoor setting.
- Project tasks scheduled for FY2009 include the completion of the crumb rubber media mix study and plant evaluation.
- The objectives of the study are to determine if there are any leachates or toxic substances associated with crumb rubber that may be detrimental to the growth of green roof plants; to evaluate the physical properties of crumb rubber in regard to plant available water; and to determine potential horticultural benefits from crumb rubber as a growing medium for green roof plants.

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.



- During FY2008, the draft manual underwent technical review by the Department.
- The finalized manual was completed during FY2008. A copy of the manual is available to the public on MDE's website at www.mde.state.md.us and on MES's website at www.menv.com.

Citizen Drop-Off Day Project (formerly Amnesty Day)

- The Scrap Tire Citizen Drop-Off Day project was executed as five regional one-day events held during Saturdays throughout April and May, 2008.

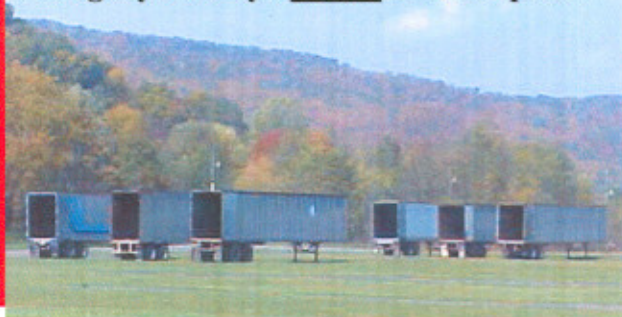
- Participating jurisdictions were Allegany, Calvert, Caroline, Carroll, Cecil, Charles, Dorchester, Frederick, Garrett, Kent, Queen Anne's, St. Mary's, Somerset, Talbot, Washington, Wicomico, and Worcester Counties.
- County residents were encouraged to participate in the project by delivering scrap 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.

- A total of 121,200 scrap tires were collected for proper recycling, disposal, or use as fuel during the Citizen Drop-Off Day event.

Scrap Tire Projects Planned for FY 2009

- **Public School Scrap Tire Playgrounds and Athletic Fields Project - (Statewide)**
- **State Park Scrap Tire Project – (Statewide)**
- **Citizen Drop-Off Day Project - (Statewide)**
- **Landfill Environmental Monitoring**

Allegany County: Before Tire Drop-Off



Allegany County: After Tire Drop-Off



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 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.

MARYLAND DEPARTMENT OF THE ENVIRONMENT
Waste Management Administration
Solid Waste Program
1800 Washington Boulevard, Suite 605, Baltimore, Maryland 21230-1719
MDE
KIM T. PALMER
COMMISSIONER

General Scrap Tire Collection Facility License
No. 200x-RGC-xxxx

ISSUE DATE: _____ (NO EXPIRATION DATE)

Issued to: _____

Authorizing the accumulation of no more than fifty (50) scrap tires at any one time, and as specified in your application of _____

At: _____

This license is issued pursuant to the provisions of Title 9 of the Environment Article, Annotated Code of Maryland, and regulations promulgated thereunder, 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

Page 1 of 1

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 2008

- ❖ A total of 345 scrap tire licenses (221 new licenses and 124 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 80% of the license applications were processed within 30 days.

Table IV
Scrap Tire Licenses – FY 2008

Type	New	Renewed	Total Issued (FY08)	Total Valid Licenses
General Collection	82	N/A	82	1,559
Secondary Collection	66	47	113	812
Primary Collection	0	0	0	2
Recyclers	0	0	0	4
TDF Facility	0	0	0	3
Solid Waste	0	0	0	3
Haulers	<u>73</u>	<u>77</u>	<u>150</u>	<u>849</u>
Total:	221	124	345	3,232



Scrap Tire Markets and Market Development

Market Analysis

During FY 2008, the State's scrap tire processing capacity handled approximately 5.7 million tires generated from Maryland and out-of-state facilities.

- This represents a significant 24% decrease from the previous year. (See Figure 1.)
- Of the 5.7 million scrap tires processed, approximately 65% (3.7 million) were recycled, as compared to 78% reported in FY 2007. The remaining 35% (2 million) were used as fuel.
- Approximately 64% (3.6 million) of the 5.6 million Maryland-generated scrap tires were recycled and the remaining 36% (2 million) were used as fuel in Maryland facilities during FY2008. (See Figure 2)
- Emanuel Tire Company (Maryland's largest scrap tire recycling facility) processed about 3.3 million tires in FY 2008, an 18% decrease from the number processed in FY2007 (4 million).
- The Auston Tire Recycling facility in Harford County processed 366,100 tires in FY2008, a significant decrease (66%) from the 1.1 million tires processed in FY 2007.

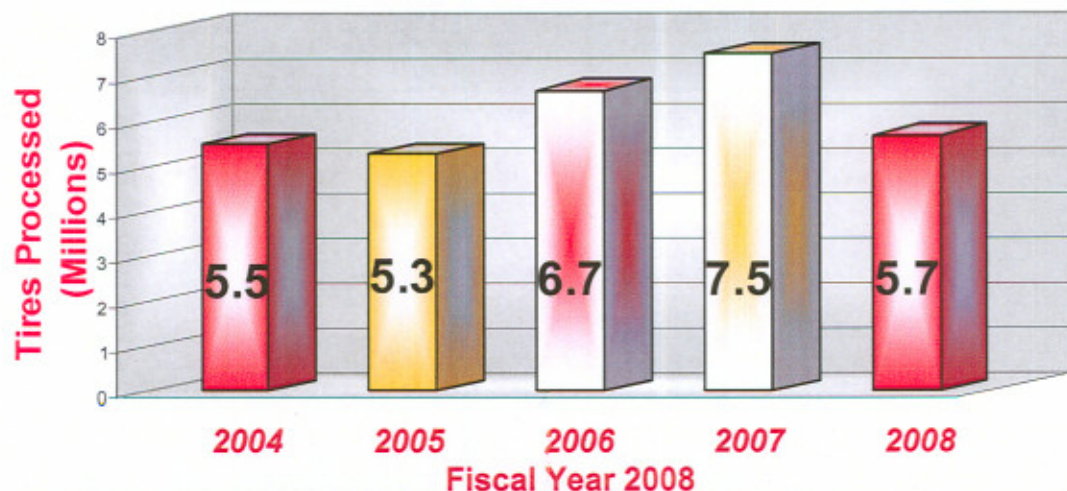
- During FY2008, the St. Lawrence Cement Company, in Washington County, processed 1.3 million tires, a slight increase from the reported quantities in FY2007.
- The Harford Waste-to-Energy Facility processed 678,500 tires during FY2008, a 44% increase over the number of tires processed during FY2007 (472,100).
- The MES scrap tire crumb rubber production facility in Baltimore, processed 83,618 tires, a significant decrease from the reported quantity of 591,099 tires in FY2007. The facility shut down entirely during FY2008 and was sold. The new owner is not processing whole 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:

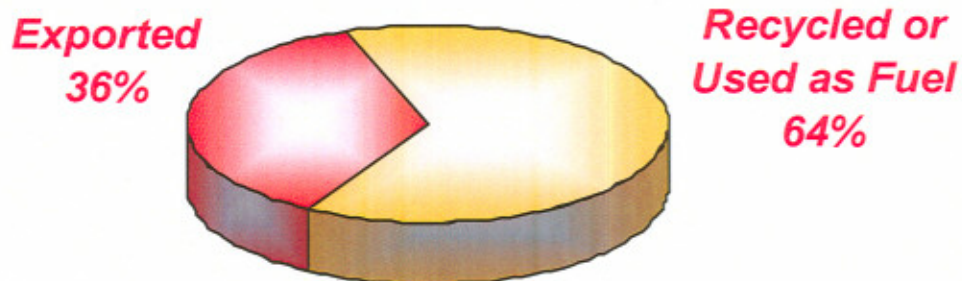
- The origin and number of scrap tires received, collected, or processed at the facility.
- Identification of scrap tire haulers transporting the scrap tires, quantities in number or weight, and delivery facility information.

Figure 1
Maryland's Scrap Tire Processing Capacity



- The overall capacity of processing scrap tires (Maryland and out-of-state) decreased by 24% over FY2007. This significant change is due to a relatively lower rate of importation of scrap tires from out-of-state sources, an increase in exportation of Maryland scrap tires to out-of-state facilities, and an overall lower number of scrap tires processed by Maryland facilities. Approximately 2 million tires (36% of Maryland-generated scrap tires) were exported during FY2008. Emanuel Tire Company and Auston Tire Recycling processed significantly fewer tires during FY2008 than during FY2007. Maryland facilities continued to use scrap tires as a supplemental fuel and consumed a little over 2 million tires during the fiscal year.

Figure 2
How Maryland-Generated Scrap Tires
Were Managed In FY2008



- Continued emphasis needs to be given to market development of scrap tire products and processed raw materials. The Department worked 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 is 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. The manual is available free of charge online at the Department’s website at: http://www.mde.state.md.us/Programs/LandPrograms/Solid_Waste/ScrapTire/index.asp and on MES’s website at: <http://www.menv.com/tiredemoprojects.shtml>.

Figure 3

**Scrap Tire Flow
FY 2008**

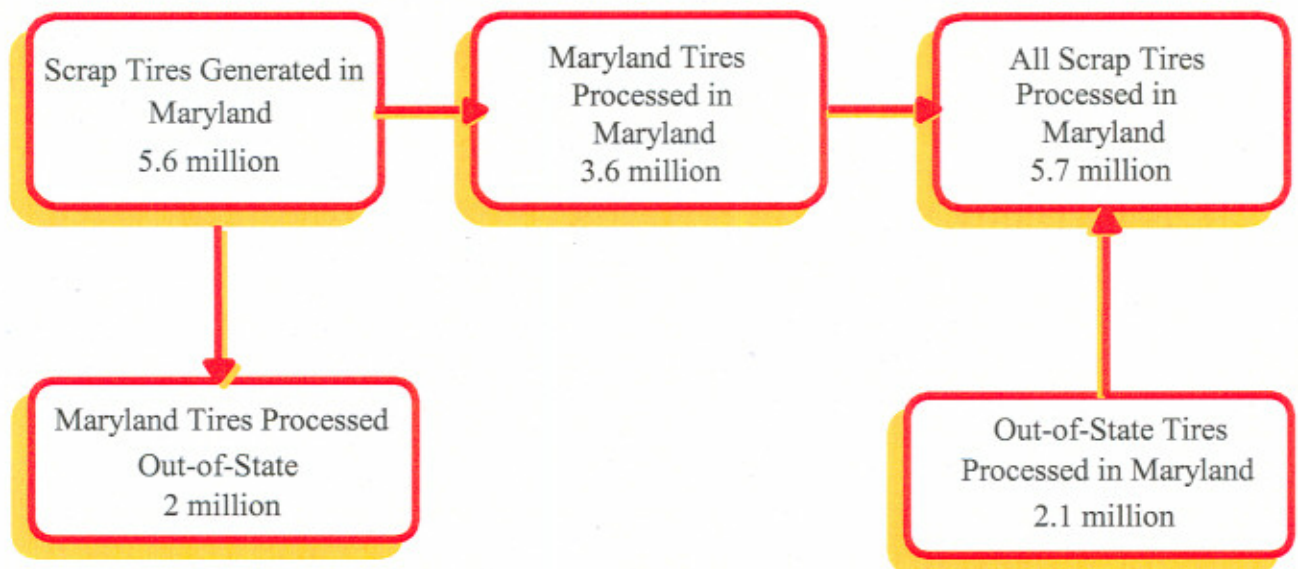


Figure 3 schematically shows the flow and processing of tires into and out of the State of Maryland.

Table V
Maryland Licensed Scrap Tire Processing Facilities

Facility Name/Type	Location Address	Operation	Telephone	Tires Processed FY-2008
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	3,265,277
Maryland Environmental Services Facility/ Recycler	4653 Hollins Ferry Rd Halethorpe MD 21227	The operation processes scrap tires into crumb rubber.	(410) 242-5039	83,618
K & K Tire, Inc./ Recycler	816 Oregon Avenue Linthicum MD 21090	Processes scrap tires into products.	(410) 636-2002	0
Auston Tire Recycling/ Recycler	1202 Pauls Lane Joppa MD 21085	Processes scrap tires into products.	(410) 335-1016	366,100
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	7,000
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	1,308,219
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	678,500
Wheelabrator Baltimore LP (BRESKO)	1801 Annapolis Road Baltimore MD 21230	The facility has been approved to burn scrap tires with municipal solid waste.	(410) 234-0808	8,234
Fort Detrick	393 Beasley Road Frederick MD 21702	The facility burns scrap tires with solid waste and medical waste.	(301) 619-2323	100
Total:				5,717,048

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.

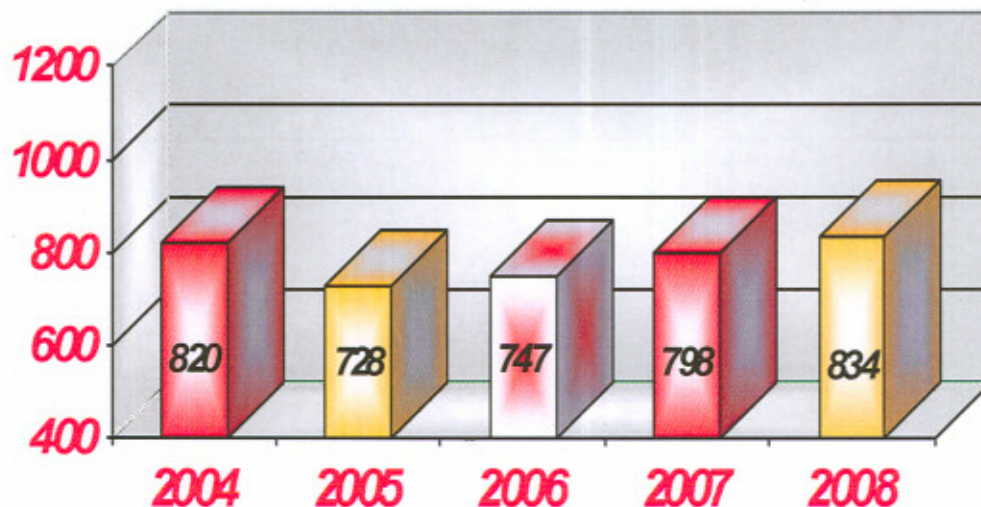
Strategies for Compliance and Enforcement Actions in FY 2008

- ❖ 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 2008

- ❖ A total of 834 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 an increase (4.5%) in the number of scrap tire inspections conducted in FY 2008 to 834 from 798 in FY 2007. The inspection coverage rate of 16% in FY 2008 remained the same as reported in FY 2007.
- ❖ The percentage of inspected facilities in significant compliance decreased slightly to 98% during FY2008 but a total of 107 significant violations were resolved which is an 88% increase over the number resolved in FY2007. The number of compliance assistance actions rendered decreased from 16 in FY2007 to 7 in FY 2008.

Figure 4
Number of Inspections & Spot Checks



- ❖ 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 435 enforcement actions during FY2008 including 420 Notice of Violations and 15 Site Complaints. Of these, three referrals were made to the Office of the Attorney General for possible criminal actions. The number of Notices of Violation issued in FY2008 is a reflection of the Program's increased efforts to achieve compliance from licensees during the reporting period.
- ❖ In FY 2008, 107 significant violations were resolved, as compared to 57 in FY 2007.
- ❖ Table VI displays the FY 2008 enforcement data as reported in the annual *MDE Enforcement Report*.

**Figure 5
Number of
Enforcement Actions**

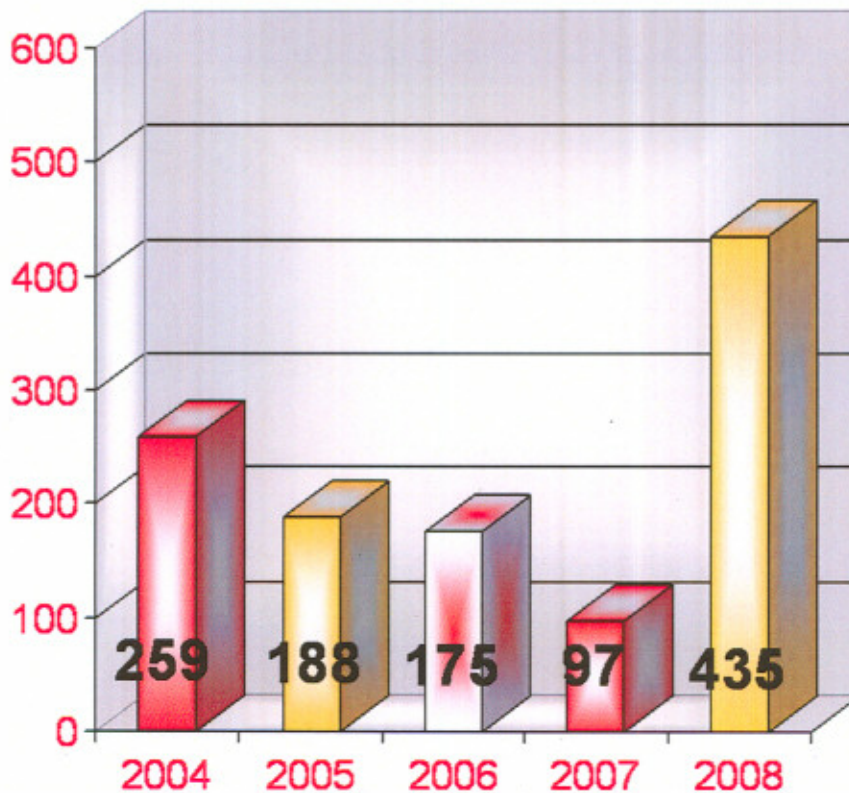


Table VI
Scrap Tire Compliance & Enforcement – FY 2008

	2008 Totals
PERMITTED SITES/FACILITIES	
Number of Permits/Licenses issued	345
Number of Permits/Licenses in effect at Fiscal Year End	3,232
OTHER REGULATED SITES/FACILITIES	
Stockpiles to be cleaned up	88
INSPECTIONS	
Number of Sites inspected (“inspected” defined as “at the site”)	532
Number of Sites audited but not inspected (“not inspected” defined as “places where MDE reviewed submittals but did not go to the site”)	2,068
Number of Sites evaluated for compliance (sum of the two measures above)	2,600
Number of Inspections, Audits, Spot Checks (captures the number of compliance activities at sites)	834
Number of Audits (captures the number of reviews of file/submittals for compliance)	5,050
Number of Inspections, Audits, Spot Checks (sum of the two measures above, same as current count)	5,884
COMPLIANCE PROFILE	
Number of Inspected Sites/Facilities with Significant Violations	8
Percent of Inspected Sites/Facilities with Significant Violations	1.5%
Inspection Coverage Rate*	16%
SIGNIFICANT VIOLATIONS	
Number of Significant Violations involving Environmental or Health Impact	0
Number of Significant Violations based on Technical/Preventative Deficiencies**	441
Number of Significant Violations carried over awaiting disposition from Previous Fiscal Year	146
Total	587
DISPOSITION OF SIGNIFICANT VIOLATIONS	
Resolved	107
Ongoing	480
ENFORCEMENT ACTIONS	
Number of Compliance Assistance rendered	7
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	435
Number of Referrals to Attorney General for possible Criminal Action	3
PENALTIES	
Amount of Penalties collected:	\$6,500.00

*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.

** All but 15 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, 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 2008.

Table VII
Maryland Used Tire Cleanup and Recycling Fund
FY 2008 Revenues and Expenditures

	Fund Balance (7/1/2007):	\$4,841,151.37
	Add Open Prior Year Encumbrances:	\$6,704,714.10
	Adjusted Beginning Balance:	\$11,545,865.47
	<u>FY2008 Revenues</u>	
	Gross Used Tire Fees Revenues:	\$3,901,196.53
	Adjustment for Comptroller's Fees:	(\$ 77,165.21)
	Cost Recovery (Cash and Accruals):	\$ 6,914.00
	Total Revenue for FY2008	<u>\$3,830,945.32</u>
	<u>FY2008 Expenditures</u>	
	MDE Program Expenditures:	(\$1,102,326.39)
	Stockpile Cleanups:	(\$ 7,015.17)
	MDE Indirect Costs:	(\$ 233,179.88)
	MES Projects and Administration:	(\$ 95,143.20)
	Outstanding Encumbrance Payments:	(\$1,610,461.54)
	Administrative Advance Returns:	\$790,815.36
	Total FY2008 Expenditures:	<u>(\$2,257,310.82)</u>
	Outstanding Encumbrances:	<u>(\$4,348,388.35)</u>
	Fund Balance (6/30/2008):	<u>\$8,771,111.62</u>