



# MARYLAND SCRAP TIRE ANNUAL REPORT

## – Fiscal Year 2009 –

Prepared by:

Technical Services and Operations Program  
Land Management Administration

Prepared for:

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

June 2010



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# **Executive Summary**

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## **Introduction**

This is the Fiscal Year (FY) 2009 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 2008 through June 2009, and describes activities for the coming year.

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## **Accomplishments and Results**

- Maryland generated 5.6 million scrap tires in FY 2009 that were managed in the following manner: Recycled or used as fuel in Maryland (63 percent) and exported to other states for disposal, recycling, or used as fuel (37 percent).
  - Maryland's licensed scrap tire facilities processed 6.8 million scrap tires in FY 2009, including 3.5 million Maryland-generated scrap tires and 3.3 million scrap tires imported from out-of-State.
  - Approximately 79 percent of the tires processed in Maryland were recycled and 21 percent 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 780 stockpile cleanup sites.
  - A total of 38 illegal scrap tire stockpile sites were cleaned up and approximately 21,456 tires were removed.
  - Approximately 97 percent of all stockpile site cleanups accomplished in FY 2009 were achieved by using administrative enforcement (without using the Used Tire Cleanup and Recycling Fund).
  - A total of 352 new scrap tire licenses were issued.
  - A total of 188 scrap tire licenses were renewed.
  - At the end of FY 2009, there were a total of 3,178 valid Maryland scrap tire licenses.
  - MDE inspectors performed 765 scrap tire site inspections/investigations.
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## **Financial Statement Summary**

- ★ The 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 (\$0.80) tire recycling fee on the first sale of any new tire in the State.
- ★ Due to the economic downturn, revenues to the Fund were less in FY 2009 than in previous years and may continue to decline in the next fiscal year. This is caused by the reduction in sales of new vehicles and new tires, and a reduction in the number of miles driven, causing tires to last longer than in the past and be replaced less often. Used tire sales (not subject to the tire fee) increased during FY 2009.
- ★ Table I summarizes the Scrap Tire Program expenditures for FY 2009.

**Table I – Maryland Used Tire Cleanup and Recycling Fund**  
**FY 2009 Revenues and Expenditures**

<b>Fund Balance (7/1/2008)</b>	<b>\$8,771,111.62</b>
Add Open Prior Year Encumbrances	\$4,348,388.35
<b>Adjusted Beginning Balance</b>	<b><u>\$13,119,499.97</u></b>
<b>FY 2009 Revenues</b>	
Gross Used Tire Fees Revenues	\$3,604,438.76
Adjustment for Comptroller's Fees	(\$86,855.44)
Cost Recovery (Cash and Accruals)	\$1,878.67
Revenue Reduction	(\$3,000,000.00)
<b>Total Revenue for FY 2009</b>	<b><u>\$519,461.99</u></b>
<b>FY 2009 Expenditures</b>	
MDE Program Expenditures	(1,197,854.74)
Stockpile Cleanups	(38,252.00)
MES Projects and Administration	(1,975,362.15)
Prior Year Encumbrance Payments	(2,024,770.81)
<b>Total FY 2009 Expenditures</b>	<b><u>(5,236,239.70)</u></b>
<b>Outstanding Encumbrances</b>	<b><u>(3,378,407.64)</u></b>
<b>MDE Indirect Costs</b>	<b><u>(689,089.14)</u></b>
<b>Total Fund Balance (6/30/2009)</b>	<b><u>\$4,335,225.48</u></b>

### **Legislative Update**

- ✓ During the FY 2009 legislative session, House Bill 101 reduced the Fund by \$3,000,000.
- ✓ House Bill 101 also allows the Department to use up to 50 percent of the revenues received by the Fund in FY 2010, and each fiscal year thereafter, for administrative expenses of the Department.

### **Overview**

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 to support 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.
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## **Scrap Tire Stockpile Cleanups**

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### **Objective**

The Departmental Scrap Tire Cleanup Objective for FY 2009 was to initiate the planning and cleanup process within 30 days of discovery for 100 percent of illegal scrap tire stockpile sites identified during the year. During FY 2009, the Scrap Tire Program continued clean up and recovery of the remaining 1.8 million scrap tires identified in stockpiles at the end of FY 2008, along with those scrap tires from 31 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 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.
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### **Accomplishments**

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 2009, the Scrap Tire Program successfully completed cleanup of 38 illegal scrap tire stockpiles, consisting of approximately 21,456 scrap tires. These sites were located in

12 of the State's 24 jurisdictions and ranged in size from 33 to 4,037 tires (see Table II for a list of stockpiles completed during FY2009).

Most of the scrap tire stockpile cleanups occurred without using the Fund. Ninety-seven percent of all stockpile abatements completed in FY 2009 – 37 of 38 completed stockpile cleanups – used the administrative approach. The remaining site, located on public lands for which cleanup was completed in FY 2009, was conducted using the Fund for cleanup activities.

**Table II – Scrap Tire Cleanup Sites Completed in FY 2009**

Site Name	County	Initial Number of Tires
Reiders Garage / Rising Sun	Cecil	4,037
Allegany County Commissioners / Cumberland	Allegany	2,500
Fruhling / Joppa	Harford	1,749
B & R, LLC / Upper Marlboro	Prince George's	1,695
Biggers / North East	Cecil	1,000
Lynn / Upper Marlboro	Prince George's	1,000
Spruce Avenue / Beltsville	Prince George's	1,000
O.S.T. Trucking Co., Inc.	Baltimore	880
Nicely / Middle River	Baltimore	841
CSX Transportation Inc. / Elkton	Cecil	740
Martin / Pylesville	Harford	581
Harris / Tyaskin	Wicomico	579
Alwine / Thurmont	Frederick	500
Lowes Home Centers Inc. / Abingdon	Harford	434
Kelly / Rockville	Montgomery	418
Olvera / Chesapeake City	Cecil	400
Battle / Brandywine	Prince George's	367
Kilson / Golts	Kent	350
Mackall / Prince Frederick	Calvert	350
Ney / Flintstone	Allegany	332
McGuire / Golts	Kent	300
Lakshman / Elkton	Cecil	147
320 North Point Road / Baltimore	Baltimore	141
Rando / Rising Sun	Cecil	141
Cooper / Sparks	Baltimore	100
Jeffers / Chestertown	Kent	100
T L Properties – Joppa, LLC / Joppa	Harford	100
Szymanski / Rock Hall #3	Kent	94
Abby Holdings, LLC / Perryville	Cecil	87
Two Thousand One Partnership / Bel Air	Harford	79
Tenby Ridge Joint Ventures, LP / Elkton	Cecil	70
Polansky / North East	Cecil	68
Majors / Baltimore	Baltimore	63
Kirtland / Cambridge	Dorchester	54
DNR / Elk Mills	Cecil	45
Lofstrand Associates, LLP / Rockville	Montgomery	41
Siddiqui / Frederick	Frederick	40
Bartholomew / Crownsville	Anne Arundel	33
<b>TOTAL TIRES REMOVED</b>		<b>21,456</b>

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## FY 2010 Ongoing Stockpile Cleanups

During FY 2010, the Department plans to complete or initiate the cleanup of the majority of known scrap tire stockpiles throughout Maryland using administrative enforcement actions. Unfortunately, funding is limited for State funded cleanups. Numerous new stockpile sites are continually being identified for cleanup in Maryland. A total of 80 stockpile sites have been targeted for either continuation of cleanup efforts or completion during FY 2010. (See Table III for details.) Following are the cleanups continuing during FY 2010.

**Table III – Scrap Tire Stockpile Cleanups Ongoing in FY 2010**

Site Name ▲	County	Legislative District	Initial Number of Tires
<b>Garner / Brandywine</b>	Prince George's	27A	1,400,000
<b>Boehm / Crownsville</b>	Anne Arundel	33	301,125
<b>Morgan / Mechanicsville</b>	Saint Mary's	29B	121,335
Polvi / Brandywine	Prince George's	27A	100,000
<b>Suraci Family LTD / Davidsonville</b>	Anne Arundel	33B	56,800
Tyler Towing / Clarksville	Howard	13	50,000
<b>Tucker / West River</b>	Anne Arundel	30	36,400
Schwartz / Eagle Harbor	Prince George's	27A	25,000
<b>St. Mary's / Sandy Acres Lane</b>	St. Mary's	29A	25,000
<b>Waterview Hotel / Nanticoke</b>	Wicomico	37A	19,500
Mt. Airy Auto & Truck Parts, LLC / Mt. Airy	Frederick	4A	15,000
Midshore Recyclers, Inc. / Hurlock	Dorchester	37A	11,750
Gough / Lusby	Calvert	49C	10,000
Howard 2 / Reisterstown	Baltimore County	04	10,000
Wise / Clarksville	Howard	13	9,343
Mona Equipment Inc. / Port Tobacco	Charles	28	7,000
<b>Insley / Cambridge #2</b>	Dorchester	37B	6,655
SOMCO Towing & Salvage / Westover	Somerset	38A	6,000
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 / Linthicum	Anne Arundel	D32	4,000
Mizzell / Aquasco	Prince George's	27A	4,000
Cotler / Rockville	Montgomery	27A	3,300
Gilbert / Joppa	Harford	34A	3,000
Harpers / Elkton	Cecil	36	3,000

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▲ Sites listed in **bold** represent planned State funded cleanups.

<b>Site Name ▲</b>	<b>County</b>	<b>Legislative District</b>	<b>Initial Number of Tires</b>
Larchmont Ave. Dump / Capitol Heights	Prince George's	24	2,500
Bruso / Aquasco	Prince George's	27A	2,100
Pechin / Sudlersville	Queen Anne's	36	1,500
Laudenklos / Union Bridge	Carroll	4B	1,200
MacFarland / Ridgely #2	Caroline	37B	1,100
McIntyre / Huntingtown	Calvert	27B	1,000
Metro Golf Cart Rentals S&S, LLC / Brandywine	Prince George's	27A	1,000
Christian Homes & Buildings / Ijamsville	Frederick	3B	700
<b>Reid / Darlington</b>	<b>Harford</b>	<b>35A</b>	<b>700</b>
<b>Ting, LLC / Delmar</b>	<b>Wicomico</b>	<b>38B</b>	<b>650</b>
<b>DNR / Green Ridge State Forest</b>	<b>Allegany</b>	<b>1C</b>	<b>600</b>
Edwards / Sparrows Point	Baltimore	6	600
<b>Harris / Nanticoke</b>	<b>Wicomico</b>	<b>37A</b>	<b>600</b>
Peterson / Baltimore	Baltimore City	31	600
Szymanski / Rock Hall #2	Kent	36	600
Carter / Nanjemoy	Charles	28	500
Decatur / Cumberland	Allegany	1C	500
Delano / Federalsburg	Caroline	37B	500
Ervin / Millington	Queen Anne's	36	500
Johnson / Baltimore	Baltimore City	44	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
<b>DNR / Savage River State Forest</b>	<b>Garrett</b>	<b>1A</b>	<b>400</b>
Lofland / Sudlersville #2	Queen Anne's	36	400
Mechanics Valley / North East #2	Cecil	36	400
McGrady / Aberdeen	Harford	35A	400
DNR / Cedarville State Park #2	Prince George's	27A	350
Barrow / Rising Sun	Cecil	34B	300
Beachwood North H.O.A / Sparrows Pt.	Baltimore	06	250
Rodenhauser / Bowie	Prince George's	23B	250
Sorteberg / Glen Arm	Baltimore	02	250
Thomas / Baltimore	Baltimore	7	250
Triplin / Baltimore	Baltimore	46	250
Zepp / Pasadena	Anne Arundel	31	250

<b>Site Name ▾</b>	<b>County</b>	<b>Legislative District</b>	<b>Initial Number of Tires</b>
3801 North Point Blvd, LLC / Baltimore	Baltimore	6	200
Lounsbury / Port Deposit	Cecil	34B	200
Opus East, LLC. / Hanover	Anne Arundel	32	200
Sarver / Cumberland	Allegany	1B	200
<b>DNR / Gunpowder Falls State Park</b>	<b>Baltimore</b>	<b>5B</b>	<b>175</b>
Webster Investment / Capitol Heights	Prince George's	24	150
Dove / Pasadena	Anne Arundel	2	100
Squires / Elkton	Cecil	36	100
Anne Arundel County / Brooklyn Park	Anne Arundel	31	80
Bowie / Nanjemoy	Charles	28	75
Chesapeake / Port Republic	Calvert	27B	71
McAleer / Dickerson	Montgomery	15	60
Harmony / Westminster	Carroll	5a	50
River Ventures, LLC / Riverdale	Prince George's	22	42
Bauer / Middle River	Baltimore	29A	40
Sweatt / Capitol Heights	Prince George's	24	40
Wolfepack LLC / Severn	Anne Arundel	32	30
<b>TOTAL TIRES REMAINING TO BE REMOVED</b>			<b>2,267,821</b>

### **State Funded Cleanups**

Garner/Brandywine Scrap Tire Stockpile Cleanup – This is one of the few remaining very large scrap tire dumps in Maryland. This stockpile consists of approximately 1,400,000 tires in seven ravines on the property. 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 Fund, and the property owner qualifies for the inheritance exemption. The property is located in Prince George's County.

Status: The Maryland Environmental Service (MES) completed 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

took place at the end of FY 2009, resulting in very competitive bid prices for cleanup of the scrap tires. The planning, permitting, and bid activities cost the Department approximately \$420,000. Cleanup activities on the first ravine began in FY 2010. If cleanup of the second ravine is not initiated by the end of December 2010, the permits will begin to expire. The total cost for cleanup of the entire site is estimated at \$8,837,500.00.

Morgan/Mechanicsville Scrap Tire Stockpile Cleanup – The project is being funded through the 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 were performed, including stabilization of the slopes and reforestation of the site. This cleanup will not be considered fully complete until the permits have been closed out. The permits require that the Department and MES monitor growth of the vegetation on the slope and the replacement trees for a period of two years after site restoration.

Suraci Family LTD/Davidsonville Scrap Tire Stockpile Cleanup – Funding for this project was encumbered through the 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: When the Department was unable to get the property owners to remove the scrap tires from the property through administrative efforts, court ordered access was obtained for the purpose of conducting a State-funded cleanup. MES began working to delineate the limits of the scrap tire stockpile, obtain necessary permits, and determine an estimate of cleanup costs. After incurring expenditures of approximately \$69,171 related to these efforts, in addition to court costs and attorney fees, the Suraci Family LTD (property owners) agreed to complete the cleanup on their own. Cleanup of the site began during FY2009 and is expected to be completed during FY2010. Once the cleanup has been completed, the Department will seek cost recovery for all State funds expended on this site.

Waterview Hotel/Nanticoke Scrap Tire Stockpile Cleanup – This site, which contained a stockpile of approximately 19,500 scrap tires, is located along the shoreline at the mouth of the Nanticoke River in Wicomico County. The scrap tires were located below the mean high tide level. The Fund is being used to pay for this cleanup, as the tires were located in the waters of the State.

Status: All necessary permits were obtained and the bid process took place during early Fall 2009. Scrap tire removal and most site restoration activities were completed during FY 2009. The remaining site restoration work is expected to take place during Spring 2010. Final inspection, contractor payments, and closeout of permits will take place during FY 2010.

Tucker/West River Scrap Tire Stockpile Cleanup – The project is being funded through the 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 delineated the limits of the scrap tire stockpile and obtained necessary permits. These cleanup development activities have cost the Department approximately \$53,810 to date. The Department is considering its options for moving forward with this cleanup, if sufficient funding can be obtained to complete the cleanup.

Boehm/Crownsville Scrap Tire Stockpile Cleanup – This is an old commercial landfill in Anne Arundel County that has approximately 301,125 scrap tires in ravines and partially buried in the ground.

Status: Due to insufficient funding, loss of legal access to the site, and permitting difficulties, cleanup planning activities were placed on hold prior to FY2009. The Department is considering its options for moving forward with this cleanup.

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## 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 IV for details).
- ♦ To date, 136 cleanups have been performed using the Fund.
- ♦ Cost recovery actions have been pursued against 32 scrap tire property owners in which cleanup was initiated by the State utilizing Fund monies.
- ♦ Cost recovery actions have not been performed against:
  - 92 sites because they were on publicly owned property;
  - 6 sites because they qualified for the inheritance exemption;
  - 3 sites because the property owner passed away and the estate was closed before a cost recovery action could be completed; and
  - 3 sites 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 were settled out-of-court for less than the amount originally sought for inability to pay.
- ♦ The Garner/Brandywine (State-funded cleanup efforts continued in FY 2010), Morgan/Mechanicsville (significantly completed in FY 2009), and Tucker/West River (on hold due to insufficient funding), sites all qualify for the inheritance exemption. The Waterview Hotel/Nanticoke site (significantly completed during FY 2009) is located on publicly-owned land. Therefore, cost recovery will not be sought after cleanup efforts conclude on these sites.

**Table IV – Initiated Cost Recovery Actions Through FY 2009**

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
Mack 1, 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	\$231.50
<b>Total Amount Sought (Through FY 2009)</b>				<b>\$3,438,877.55</b>

\* Cost to pursue recovery of funds will exceed amount sought.

\*\* Owner died before costs were recovered.

# **Scrap Tire Projects**

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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.

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## **Projects Initiated During FY 2009**

### **Public School Playground and Athletic Field Construction (Statewide)**

- Ⓐ The Department and MES worked with the Department of Education in the past to construct and/or renovate several playground and athletic facilities using recycled tires and recycled tire materials. Since this ongoing program began, 85 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 FY 2007, the scope of this project was expanded to include athletic venues at elementary, middle, and high schools.
- Ⓐ The FY 2009 project was cancelled because the State Department of Education was no longer able to support the program and continued funding from the Department was uncertain.

### **State Park Tire Playground Improvement Project**

- Ⓐ This is the seventh year that MDE and MES have worked 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.

### **Citizen Drop-Off Day Project**

- ◎ The Scrap Tire Citizen Drop-Off Day project was executed as five regional one-day events held during weekends throughout April and May, 2009.
- ◎ Participating jurisdictions were Allegany, Anne Arundel, Calvert, Caroline, Carroll, Cecil, Charles, Dorchester, Frederick, Garrett, Howard, 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 49,008 scrap tires were collected for proper recycling, disposal, or use as fuel during the Citizen Drop-Off Day event.
- ◎ Between FY 1998 and FY 2009, the Department has sponsored eight Citizen Drop-Off Day (formerly called Amnesty Day) events. Twenty counties and Baltimore City participated in all or some of the eight events, resulting in the collection and proper disposal of approximately 1,019,725 scrap tires.

### **Septic Tank Leach Field Project (Caroline County)**

- ◎ The Department and MES planned to demonstrate the beneficial use of tire-derived aggregate (TDA) as a drainage media substitute during the construction of a septic system.
- ◎ This project was cancelled during FY 2009 due to insufficient funds.

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## **Projects Continuing from Previous Years**

### **Rubber-Modified Asphalt Project (Talbot County)**

- In FY 2007, 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 FY 2009, MDE and MES began working with the 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 FY 2009, a portion of River Road in front of the Midshore II Regional Landfill near the Town of Ridgely in Caroline County was selected as the paving location.
- The rubber modified asphalt will be installed in conjunction with construction of the Midshore II Regional Landfill, scheduled to open on January 1, 2011.

- 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)**

- 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 FY 2009. Construction of the walking path was completed during Fall 2009.
- 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 2009.
- The pathway developed some drainage and uplift problems that were not covered by the manufacturer's warranty. The Department paid for repairs to the pathway performed in the Spring of 2009.

### **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 FY 2008, 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.
- During FY 2009, the crumb rubber media mix study and plant evaluation were completed.
- The objectives of the study were 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. The observations and conclusions reached from the study were published in a summary report submitted to the Department.

- The study identified plant species that are suitable for use in crumb rubber media and in green roof applications. It also identified problems associated with this media, which could be subjects for further study.
- The University of Maryland presented their study and findings at numerous seminars and workshops throughout the country. The small study commissioned and paid for by the Fund has grown into a much larger project with other sources of funding for the University of Maryland, who plan to continue and expand their work with recycled crumb rubber in green roof growth media.
- This study, and those that have grown out of the initial study, will help refine the design of green roofs in the future and will encourage their use.

### **Landfill Environmental Monitoring Project**

- This project will allow the Department and MES to perform long-term monitoring at various landfill demonstration projects that have been constructed using scrap tire materials, including additional monitoring of existing projects.
- The Department plans to conduct additional monitoring of the Reichs Ford, Newland Park, Garrett County Cell 2, Westernport, and Westover Landfill Demonstration Projects.
- Additional monitoring may include items such as the collection of leachate and gas samples from landfill cells, the collection of stormwater monitoring samples, and the exhumation and testing of tire chips installed within the landfill(s). For existing projects with on-site monitoring data acquisition equipment, testing of the equipment may be required to determine the functionality of the equipment.
- This project will continue the collection of environmental and field performance data from landfill demonstration projects. This data is intended to provide supplemental information to enhance scientifically defensible conclusions regarding the suitability of scrap tire materials for use in various landfill applications.
- The funding for this project was encumbered at the end of FY2009. Work is expected to be performed and completed during FY2010.

### **Scrap Tire Projects Planned for FY 2010**

There are insufficient funds to conduct any new scrap tire projects during FY 2010.

# Licensing

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

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

The Department issues the following types of scrap tire licenses:

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



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## Licensing Accomplishments in FY 2009

- ❖ A total of 352 new and 188 renewal scrap tire licenses were issued. (see Table V).
- ❖ Most of the license applications received (82%) were processed within the standard license application processing time of 60 days.

**Table V – Scrap Tire Licenses in FY 2009**

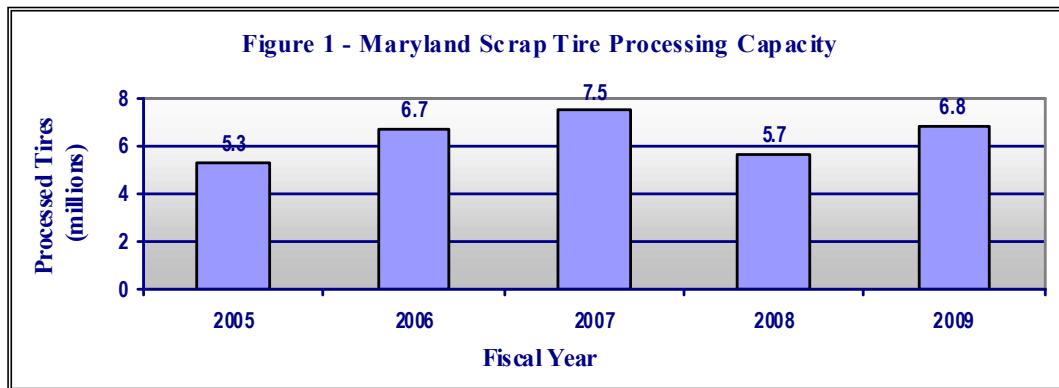
Type	New	Renewed	Total Issued (FY 2009)	Total Valid Licenses
General Collection	97	N/A	97	1,573
Secondary Collection	134	109	243	782
Primary Collection	0	0	0	2
Recyclers	0	0	0	3
TDF Facility	0	0	0	1
Solid Waste	0	0	0	3
Haulers	121	79	200	814
<b>TOTAL</b>	<b>352</b>	<b>188</b>	<b>540</b>	<b>3,178</b>

## Scrap Tire Markets and Market Development

### Market Analysis

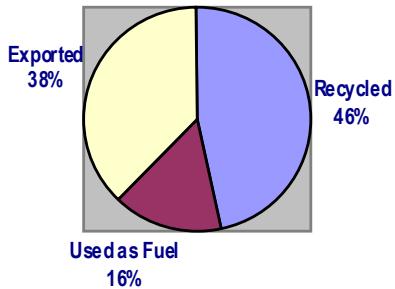
During FY 2009, the State's scrap tire processing capacity managed approximately 6.8 million tires generated from Maryland and out-of-state facilities.

- ✖ This represents a significant 15% increase from the previous year. (See Figure 1.). The nearly 6.8 million tires processed include approximately 52% (3,489,233) Maryland generated and 48% (3,285,141) imported tires.



- ✖ Of the 6.8 million scrap tires processed, approximately 79% (5,322,496) were recycled, as compared to 65% reported in FY 2008. The remaining 21% (1,451,878) were used as fuel.
- ✖ Approximately 46% (2,561,255) of the 5.6 million Maryland-generated scrap tires were recycled and the remaining 16% (927,978) were used as fuel in Maryland facilities during FY 2009. Approximately 38% tires (2,110,767) were exported. (See Figure 2).

**Figure 2**  
**Maryland Generated Scrap Tire Management**



- ✖ Emanuel Tire Company (Maryland's largest scrap tire recycling facility) processed about 5 million tires in FY 2009, a 52% increase from the number processed in FY 2008 (3.3 million).
- ✖ The Auston Tire Recycling facility in Harford County processed 268,900 tires in FY 2009, a noticeable decrease of 27% from the 366,100 tires processed in FY 2008.
- ✖ During FY 2009, the St. Lawrence Cement Company, in Washington County, processed approximately 800,000 tires, a significant decrease from the reported quantity (1.3 million tires) in FY 2008.
- ✖ The Harford Waste-to-Energy Facility processed 639,400 tires during FY 2009, a slight decrease from the number of tires processed during FY 2008 (678,500).

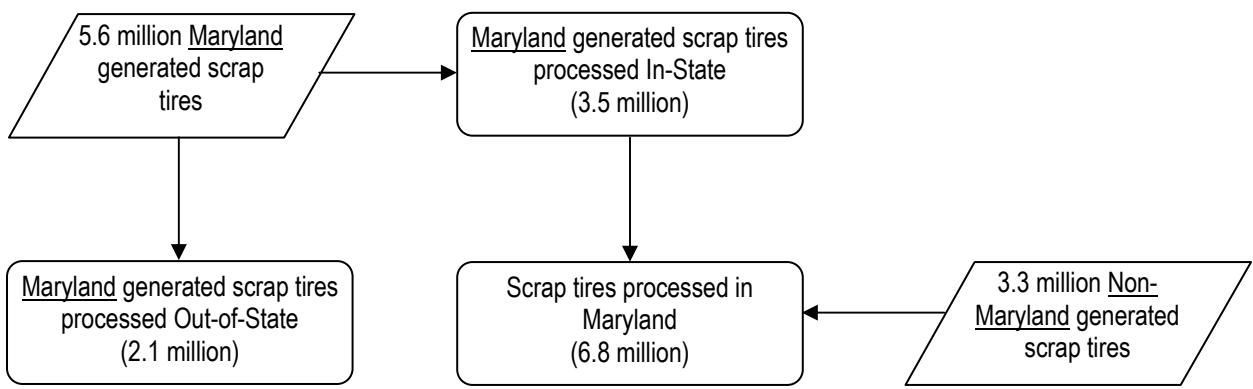
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## Maryland's Scrap Tire Flow and Destinations

- ▶ 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.
- ▶ The overall processing of scrap tires (Maryland and out-of-state) increased 15% from reported capacity for FY 2008. This change is primarily due to the fact that the State's scrap tire recycling capacities increased significantly and an additional one million tires were imported to Maryland from neighboring states. The use of scrap tires as fuel in Maryland decreased 14% during FY 2009 due to the decline of processing capacities of cement companies and the subsequent impact on the sources of fuels. Lehigh Portland Cement's approval for processing scrap tires expired during the fiscal year and Essroc Cement did not process any tires. Overall, the scrap tire generation, processing, and handling of Maryland scrap tires follow the traditional trends: approximately 2.6 million were recycled, 2.1 million were exported, and the remaining approximately 900,000 were used as fuel.

- 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 Maryland Department of the Environment’s website at: [www.mde.state.md.us/Programs/LandPrograms/Solid\\_Waste/ScrapTire/index.asp](http://www.mde.state.md.us/Programs/LandPrograms/Solid_Waste/ScrapTire/index.asp) and on Maryland Environmental Service’s website at: <http://www.menv.com/tiredemoprojects.shtml>.

**Figure 3 – Scrap Tire Flow in FY 2009**



## 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 2009

- ✗ 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.

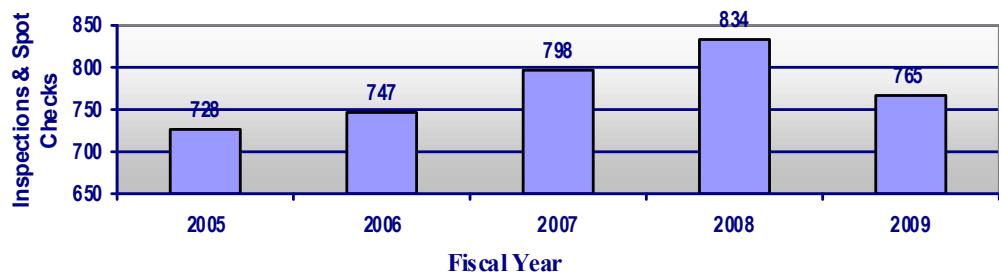
**Table VI – Maryland Licensed Scrap Tire Processing Facilities**

<b>Facility Name/Type</b>	<b>Location</b>	<b>Operation</b>	<b>Telephone</b>	<b>Tires Processed in FY 2009</b>
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	5,053,596
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	268,900
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	0
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	811,400
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	639,400
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	1,000
Fort Detrick	393 Beasley Road Frederick MD 21702	The facility burns scrap tires with solid waste and medical waste.	(301) 619-2323	78
<b>TOTAL</b>				<b>6,774,374</b>

### **Accomplishments in FY 2009**

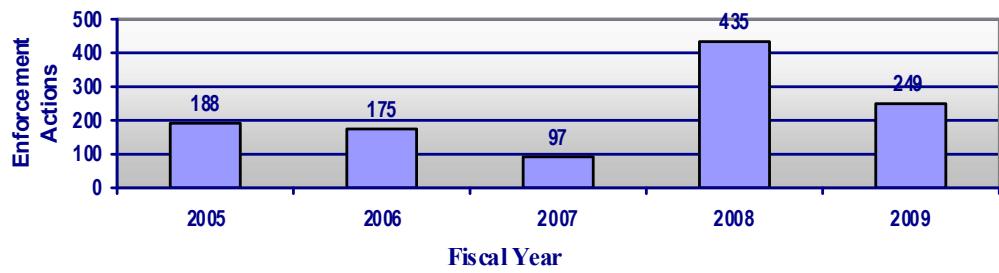
- A total of 765 scrap tire investigations and inspections.

**Figure 4 - Inspections and Spot Checks**



- There was a decrease (8.3%) in the number of scrap tire inspections conducted in FY 2009 to 765 from 834 in FY 2008. The inspection coverage rate of 15% in FY 2009 is a slight decrease from the coverage rate (16%) reported in FY 2008.
- The percentage of inspected facilities in significant compliance was 98% during FY 2009, the same as in FY 2008, and a total of 201 significant violations were resolved, an 88% increase over the number resolved in FY 2009. The number of compliance assistance actions rendered decreased from 7 in FY 2008 to 1 in FY 2009.
- 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 249 enforcement actions during FY 2009 including one Civil Corrective Order/Injunction, 238 Notices of Violation and 10 Site Complaints. Of these, one referral was made to the Office of the Attorney General for possible criminal action. The number of Notices of Violation issued in FY 2009 is a reflection of the Program's efforts to achieve compliance from licensees during the reporting period.
- In FY 2009, 201 significant violations were resolved, as compared to 107 in FY 2008.
- Table VII displays the FY 2009 enforcement data as reported in the annual *MDE Enforcement Report*.

**Figure 5 - Number of Enforcement Actions**



**Table VII – Scrap Tire Compliance and Enforcement in FY 2009**

<b>Permitted Sites/Facilities</b>	
Number of Permits/Licenses issued	540
Number of Permits/Licenses in effect at Fiscal Year End	3,178
<b>Other Regulated Sites/Facilities</b>	
Stockpiles to be cleaned up	80
<b>Inspections</b>	
Number of Sites inspected (“inspected” defined as “at the site”)	473
Number of Sites audited but not inspected (“not inspected” defined as “places where MDE reviewed submittals but did not go to the site”)	2,749
Number of Sites evaluated for compliance (sum of the two measures above)	3,222
Number of Inspections and Spot Checks (captures the number of compliance activities at sites)	765
Number of Audits (captures the number of reviews of file/submittals for compliance)	3,316
Number of Inspections, Audits, Spot Checks (sum of the two measures above, same as current count)	4,081
<b>Compliance Profile</b>	
Number of Inspected Sites/Facilities with Significant Violations	8
Percent of Inspected Sites/Facilities with Significant Violations	2%
Inspection Coverage Rate*	15%
<b>Significant Violations</b>	
Number of Significant Violations involving Environmental or Health Impact	0
Number of Significant Violations based on Technical/Preventative Deficiencies**	119
Number of Significant Violations carried over awaiting disposition from Previous Fiscal Year	480
Total	599
<b>Disposition of Significant Violations</b>	
Resolved	201
Ongoing	398
<b>Enforcement Actions</b>	
Number of Compliance Assistance rendered	1
Number of Administrative Corrective Orders issued	0
Number of Civil Corrective Orders/Injunctions issued	1
Number of Criminal Corrective Orders issued	0
Number of SEP's entered into	0
Number of Other Enforcement Actions	248
Number of Referrals to Attorney General for possible Criminal Action	1
<b>Penalties</b>	
Number of Administrative Penalties issued	0
Number of Civil Penalties issued	0
Number of Criminal Penalties issued	0
Amount of Penalties obtained	\$0.00
<b>Citizen Suits</b>	
Number of Notifications received of 3 <sup>rd</sup> Party Lawsuits being filed against regulated entities	0

\* 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 6 of these violations were a result of failure to submit required reports.