



MARYLAND SCRAP TIRE ANNUAL REPORT – Fiscal Year 2017 –

Prepared by:
Land and Materials Administration

Prepared for:
Senate Education, Health and Environmental Affairs Committee
House Environment and Transportation Committee

September 2018



MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard | Baltimore, MD 21230 | www.mde.maryland.gov/recycling
410-537-3314 | 800-633-6101 x3314 | TTY Users: 800-735-2258
Larry Hogan, Governor | Boyd Rutherford, Lt. Governor | Ben Grumbles, Secretary



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Executive Summary

Introduction

This is the Fiscal Year (“FY”) 2017 Scrap Tire Annual Report as required by Environment Article, Section 9-275(c), Annotated Code of Maryland. This report is prepared for the Senate Education, Health, and Environmental Affairs Committee and the House Environment and Transportation Committee of the Maryland General Assembly to advise the Standing Committees of the Maryland Department of the Environment’s (“the Department”) progress in implementing the law and ensuring the proper management of scrap tires in Maryland. The report addresses Maryland’s Scrap Tire Program activities as undertaken by the Department and the Maryland Environmental Service (“MES”) from July 2016 through June 2017, and describes planned activities for the coming year.

Accomplishments and Results

- Maryland generated an estimated 6.0 million scrap tires in FY 2017 that were managed in the following manner: recycled or used as fuel in Maryland (74 percent) and exported to other states for disposal, recycling, or use as fuel (26 percent) (see Figure 2).
 - Maryland’s licensed scrap tire facilities processed 7.5 million scrap tires in FY 2017, including 4.4 million Maryland-generated scrap tires and 3.1 million scrap tires imported from out-of-State (see Figure 1).
 - Approximately 99 percent of the scrap tires processed in Maryland were recycled and 1 percent were used as supplemental fuel in a cement kiln.
 - Since the inception of the Scrap Tire Program in 1992, over 10.8 million scrap tires have been recovered from 1,082 stockpile cleanup sites.
 - During FY 2017, a total of 52 illegal scrap tire stockpile sites were cleaned up and approximately 191,120 scrap tires were removed (see Table II).
 - 98 percent of all stockpile site cleanups accomplished in FY 2017 were achieved by administrative enforcement, without using the Used Tire Cleanup and Recycling Fund (“the Fund”).
 - A total of 216 new scrap tire licenses were issued (see Table V).
 - A total of 158 scrap tire licenses were renewed (see Table V).
 - At the end of FY 2017, there were a total of 3,211 valid Maryland scrap tire licenses (see Table V).
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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) per tire recycling fee on the first sale of any new tire in the State.
- There was a decrease, to \$3,574,453.52, in the amount of gross tire fee revenues deposited into the Fund in FY 2017, as compared to FY 2016 (\$3,904,971.28) (see Table I).

- Section 9-275(a) of the Environment Article 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.
- The Department used \$692,055.42 of the revenues received by the Fund in FY 2017 for administrative expenses of the Land and Materials Administration.

**Table I – Maryland Used Tire Cleanup and Recycling Fund
FY 2017 Revenues and Expenditures**

Fund Balance (7/1/2016)	<u>\$ 4,265,841.80</u>
Add Open Prior Year Encumbrances	\$2,077,363.83
Adjusted Beginning Balance	<u>\$ 6,343,205.63</u>
FY 2017 Revenues	
Gross Used Tire Fees Revenues after Comptroller Adjustment	\$3,574,453.52
Cost Recovery	\$ 176,409.61
Total Revenue for FY 2017	<u>\$3,750,863.13</u>
FY 2017 Expenditures	
Scrap Tire Program Expenses	\$2,264,529.48
Land and Materials Administration Expenses	\$692,055.42
Department Expenses	\$0.00
Department Indirect Costs	\$845,027.72
Stockpile Cleanups	\$2,108,309.25
MES Projects and Administration	\$103,471.12
Total FY 2017 Expenditures	<u>\$ 6,013,392.99</u>
Total Open Encumbrances	<u>\$343,441.27</u>
Total Fund Balance (6/30/2017)	<u>\$3,737,234.50</u>

* Note: Revenue collected from scrap tire penalties is deposited into the Maryland Clean Water Fund, not the Used Tire Cleanup and Recycling Fund. Scrap tire penalties for FY 2017 were \$7,250.00.

Overview

The Scrap Tire Recycling Act (“Act”), which was passed in 1991, 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 Scrap Tire Program, scrap tire 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, 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

Objective

In FY 2017, the Department accomplished its goal to initiate the planning and cleanup process for 100 percent of illegal scrap tire stockpile sites identified during the year. Approximately 26,684 scrap tires in 39 stockpiles were newly identified in FY 2017. During FY 2017, the Scrap Tire Program continued to oversee the cleanup and recovery of 831,776 scrap tires identified in stockpiles at the end of FY 2016.

In order to ensure that illegal stockpiles are cleaned up, the Scrap Tire Program initially attempts to use administrative enforcement procedures to persuade property owners to remove stockpiles using their own resources. If administrative enforcement efforts are unsuccessful, the Fund may be used. In cases in which the Fund is used, the Scrap Tire Program seeks cost recovery from responsible parties for any expenses incurred at sites that are not eligible for exemption from paying cost recovery.

Accomplishments

Since the inception of the Scrap Tire Program in 1992, over 10.8 million scrap tires have been recovered from stockpile cleanup sites.

During FY 2017, the Scrap Tire Program successfully completed cleanup of 52 illegal scrap tire stockpiles, consisting of approximately 191,120 scrap tires (see Table II). These sites were located in 17 of the state’s 24 jurisdictions and ranged in size from 14 to 133,600 scrap tires. The Scrap Tire Program also initiated the planning and cleanup process for the 39 illegal scrap tire stockpile sites newly identified during FY 2017.

All but one of the scrap tire stockpile cleanups conducted in FY 2017 (98 percent) occurred without using the Fund.

Table II – Scrap Tire Cleanup Sites Completed in FY 2017

Site Name	County	Initial Number of Scrap Tires
Boehm/Crownsville	Anne Arundel	133,600
Williams #2/Street	Harford	20,000
Harford County Auto Parts/Street	Harford	10,000
Prince Frederick Tire Dump	Calvert	5,000
Banks Auto Recyclers/Conowingo	Cecil	3,000
Spargo Enterprises, Inc./Capitol Heights	Prince George's	3,000
Northeast Used & New Tire	Cecil	3,000
Schultz #2/Denton	Caroline	1,500
Latham/Lusby (Mike's Works, LLC)	Calvert	1,500
Foy/Pasadena	Anne Arundel	1,000
Murray/Bishopville	Worcester	949
Bigham/Mt. Rainier	Prince George's	800
Patuxent Research Refuge 2/Laurel	Anne Arundel	750
McKenzie/Frostburg	Allegany	658
Bare/Manchester (Bachman Valley Road)	Carroll	600
Lipman/Owings Mills	Baltimore	500
Glover/White Hall	Baltimore	452
Wayne's Auto Service/Denton	Caroline	450
U.S. Army/Fort Meade	Anne Arundel	400
West 23rd Street, LLC/Baltimore	Baltimore City	385
CSX Realty Development/Glen Burnie	Anne Arundel	300
Kit Kat Road Partners II, LLC/Elkridge	Howard	300
Camp Brown Road, LLC/Scotland	St. Mary's	300
Bond/White Hall	Baltimore	280
Keel's 9339 Liberty, LLC/Randallstown	Baltimore	250
Beauchamp/Princess Anne	Somerset	225
SHA Spirit Master/Edgewater (Church Creek)	Anne Arundel	200
Oxbow Natural Area/Laurel	Anne Arundel	200
Berg/Federalburg	Caroline	200
Federal Home Loan Mortgage Corp Property/ Westminster	Carroll	200
Holter/Jefferson	Frederick	135
Potomac Edison Company/Adamstown	Frederick	100
Wooden/Bel Air	Harford	100
Corwell/Clear Spring	Washington	100
Twigg/Mt. Airy	Frederick	80
Whisner/Smithsburg	Washington	74
Cole/Baltimore	Baltimore	74
Baker/Woodbine	Carroll	60
GJBLYW LLC/Frederick	Frederick	54
Muller/Jessup	Howard	50
Scotts Cove Road Dump	Anne Arundel	40
Scott/Hancock	Washington	40

Site Name	County	Initial Number of Scrap Tires
Ezenwajiaku/Upper Marlboro	Prince George's	32
Broadwater/Westernport	Allegany	30
Richard E. Forton Properties, LLC/Havre de Grace	Harford	25
ABC Rental Company/Rosedale	Baltimore	24
Hurlock/Fallston	Harford	20
Prak/Frederick	Frederick	20
Lightbown/ Mt. Airy	Frederick	19
Mt Aetna 1185 Associates LLP/Hagerstown	Washington	15
Dushane/Silver Spring	Montgomery	15
Thompson/Elkton	Cecil	14
TOTAL SCRAP TIRES REMOVED		191,120

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

FY 2018 Ongoing Stockpile Cleanups

New stockpile sites are continually being identified for cleanup in Maryland. The Scrap Tire Program expects to continue or complete cleanup on 53 stockpile sites in FY 2018. Most of the stockpiles will be cleaned up using administrative efforts and enforcement actions. Table III details the scrap tire cleanups to be continued during FY 2018.

Table III – Scrap Tire Stockpile Cleanups Pending or Ongoing in FY 2018

Site Name	County	Legislative District	Initial Number of Scrap Tires
Nationwide Tire Recycles, Inc./Hanover	Anne Arundel	32	200,000
Tyler Towing/Clarksville†	Howard	13	61,376
Mt. Airy Auto & Truck Parts, LLC/Mt. Airy	Frederick	4A	15,000
Elkton Used Tires/Elkton	Cecil	35A	10,000
Insley/Cambridge #2	Dorchester	37B	6,655
G & TL Smith Contracting LLC/Chesapeake Beach	Calvert	27B	5,000
Ewings Used Cars & Parts, Inc./Middle River	Baltimore	7	4,500
Johns-Gibbs/Marydel	Caroline	36	3,050
Howard 2/Reisterstown	Baltimore	4	3,000
Tilghman/Easton	Talbot	37B	3,000
Harpers/Elkton	Cecil	36	3,000
Hackett/Rhodesdale	Dorchester	37B	2,500
Bopst/Randallstown	Baltimore	10	2,460

Site Name	County	Legislative District	Initial Number of Scrap Tires
Lieske/Perryman	Harford	34A	2,000
Irene Glenwood Place Property	Charles	28	2,000
Zepp/Pasadena	Anne Arundel	31	1,000
McIntyre/Huntingtown	Calvert	13	1,000
DNR/Mardela Springs	Wicomico	35A	1,000
Frederick/Crownsville	Anne Arundel	33A	1,000
Tucker Enterprises, LLC/Clarksville	Howard	13	800
Szymanski/Rock Hall #2	Kent	36	600
Decatur/Cumberland	Allegany	1C	500
Turner Transit/Capitol Heights	Prince George's	24	500
Munson/Waldorf	Charles	28	500
Beachwood North H.O.A./Sparrows Point	Baltimore	6	500
Carter/Nanjemoy	Charles	4	500
Urciolo Associates/Point of Rocks	Frederick	3B	500
Nabely/Landover (7410 Jefferson) SWP	Prince George's	22	480
Stewart/Ijamsville	Frederick	4	400
DayTR et al/Mt. Airy	Frederick	4	400
Legore Bridge Road/Monocacy River	Frederick	4A	375
Johnson Auto Parts & Recycling	Charles	28	300
Rodenhauer/Bowie	Prince George's	23B	250
Route 144 In Hancock, LLC/Hancock	Washington	1C	250
Bruner/Galena	Kent	36	200
Sarver/Hill/Cumberland	Allegany	1B	200
Womack Brothers, Inc./Baltimore SWP	Baltimore City	44A	200
WMATA/Landover	Prince George's	18	200
Farrow/Hurlock	Dorchester	37B	125
Kaminski/Baltimore	Baltimore City	46	120
Ramsey/Marydel	Caroline	36	100
Cross Roads Park Limited Partnership/Jessup	Howard	13	100
Monocacy River at Devilbiss Bridge Road/ Frederick	Frederick	4	100
AA County Board of Edu/Brooklyn Park	Anne Arundel	31A	100
Mazcko/Millington	Kent	36	100
Anne Arundel County/Pasadena	Anne Arundel	2	100
Mickley/Savage	Howard	13	100
Robinson/Hurlock SWP	Dorchester	37B	65
Roberts/Trappe	Talbot	37B	60
McAleer/Dickerson	Montgomery	15	60
Birch-Burns/Ocean City	Worcester	38C	50
Trust Williamsburg M. E. Church/Trappe	Talbot	37B	30
Sel Properties, Inc./Joppa SWP	Harford	34A	20
TOTAL SCRAP TIRES REMAINING TO BE REMOVED			336,426

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

† Cleanup preparations began using the Fund before the property was sold. The remainder of the cleanup is expected to be performed without use of the Fund.

State-Funded Cleanups

The following are descriptions of each of the active State-funded scrap tire cleanup sites during FY 2017.

Garner/Brandywine Scrap Tire Stockpile Cleanup – Located in Prince George’s County, this was one of the few remaining very large scrap tire dumps in Maryland. This stockpile consisted of approximately 1,135,160 scrap tires in seven ravines on the property. In FY 2005, the Board of Public Works approved funding for the cleanup. Due to the inheritance exemption in the law, there is no cost recovery for this cleanup.

Status: Cleanup activities on the first ravine began in FY 2010 and were completed in June



2011. Cleanup of the remainder of the site began in June 2011 and was completed in June 2012, a year and a half ahead of schedule. Monitoring of tree growth continued for five years, until 2017, to ensure that the site stabilization and restoration efforts are successful. The total cost for cleanup of the entire site, including permitting activities and project management, is estimated at \$10,509,118. MES has secured a loan from the Department’s Water Quality Financing Administration to help finance this cleanup.

Boehm/Crownsville Scrap Tire Stockpile Cleanup – This was the site of an old commercial landfill in Anne Arundel County that had approximately 133,600 scrap tires in ravines, both loose and partially buried in the ground.

Status: In November 2012, the Department commenced litigation against the owners to compel them to clean up the scrap tires or grant access to the State for the cleanup of the scrap tires, and to pay for all expenses incurred by the State related to the cleanup. The case was settled in February 2014, and the Department and property owners entered into a consent order that stipulates that the Department would clean up the scrap tires on site using the Fund and the property owners would place a portion of the property into an environmental trust. The design and permitting phase of the cleanup was completed in FY 2016. Scrap tire removal and site restoration activities began in FY 2016 and were completed during FY 2017. Monitoring of tree growth will continue for two years, until 2019, to ensure that the site stabilization and restoration

efforts are successful. The total cost for cleanup of the entire site, including permitting activities and project management, is estimated at \$2,050,000.



Boehm/Crownsville Cleanup

Tyler Towing/Clarksville Scrap Tire Stockpile Cleanup – This property was used as a junkyard for decades in Howard County. There are currently estimated to be 46,900 scrap tires in stockpiles throughout the property. Some scrap tires are mixed with scrap metal, soil, and other solid wastes in a berm that roughly follows the property perimeter.

Status: All administrative and enforcement efforts by the Department were exhausted, and the property owners failed to remove and properly dispose of the scrap tires on the site. The Department worked with the Office of the Attorney General (“OAG”) to obtain court ordered access to the property for the purpose of conducting a State-funded cleanup. The design and permitting phase of the cleanup began, and scrap tire removal and site restoration activities were expected to take place during FY 2017. However, the property was sold at tax sale at the end of FY 2016. The Department entered into an agreement that the property owner would be responsible for cleanup of the scrap tires and the Department would retain legal access to the property for the purposes of assessing the status of the scrap tires.

Tyler Towing/Clarksville Cleanup



Cost Recovery Actions

- The Department continues to use the services of the Office of the Attorney General to handle scrap tire cost recovery actions (see Table IV for details).
- Since the inception of the program, a total of 148 cleanups have been performed using the Fund.
- In total, 32 property owners have been pursued in cost recovery actions for cases in which the State used the Fund to initiate scrap tire cleanups.
- Cost recovery has not been sought against:
 - 95 sites because they were on publicly owned property;
 - 12 sites because the property owner qualified for the inheritance exemption;
 - 5 sites because the property owner passed away and the estate was closed before a cost recovery action could be completed;
 - 3 sites because the cost to pursue the case was higher than the cost recovery amount that could be sought; and
 - 1 site because the Department entered into a Consent Order with the property owners exempting the owners from cost recovery in exchange for placing a portion of the property into an environmental trust.
- To date, the Department has sought a total of \$3,088,508.90 from property owners (see Table IV) and has collected a total of \$499,758.85 in cost recovery actions. Many of these cases are still in litigation or have been sent to the Central Collections Unit. Some cases were settled out-of-court for less than the amount originally sought due to the Defendant's inability to pay.
- The Garner/Brandywine site (significantly completed in FY 2012, except for monitoring of restoration efforts) qualifies for the inheritance exemption. In accordance with a consent order, Boehm/Crownsville was cleaned up using the Fund and the property owners will not be required to reimburse the Department. Therefore, cost recovery will not be sought for these sites.
- Cost recovery funds in the amount of \$176,409.61 were collected in FY 2017.

Table IV – Initiated Cost Recovery Actions Through FY 2017

Site Name	County	Cleanup Year	No. of Scrap 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
Snyder/Calvert	Cecil	1996	129,526	\$151,266.00
Tull/Federalburg	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
Dotson/Preston	Caroline	2000	24,000	\$26,403.70

Site Name	County	Cleanup Year	No. of Scrap Tires	Amount Sought
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
Turner/White Hall	Harford	2003	500	\$500.00
Miller/Churchton	Anne Arundel	2004	16,000	\$231.50
Total Scrap Tires Removed			2,127,441	
Total Amount Sought (Through FY 2017)				\$3,088,508.90

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 Continuing from Previous Years

Agricultural Scrap Tire Drop-Off Event Project

- The Department, in conjunction with MES, the Maryland Farm Bureau, Inc. ("MFB"), and the Anne Arundel Economic Development Corporation, initiated an Agricultural Scrap Tire Drop-Off Event in 21 Maryland counties (Allegany, Anne Arundel, Baltimore, Calvert, Caroline, Carroll, Cecil, Dorchester, Frederick, Garrett, Harford, Kent, Montgomery, Prince George's, Queen Anne's, Somerset, St. Mary's, Talbot, Washington, Wicomico, and Worcester).
- The events were held during FY 2015 and FY 2016. Removal and hauling of the agricultural scrap tires concluded in FY 2017.

- Over 3,417 tons of agricultural scrap tires (the equivalent of over 341,700 passenger tires) were collected from farmers during the events.

Licensing

Under Section 9-228 of the Environment Article, the Department is required to license facilities that collect or process scrap tires, as well as scrap tire haulers.

This comprehensive licensing program allows for the efficient management of scrap tires:

- **From** the point of generation;
- **Via** a licensed or approved transportation system; and
- **To** a licensed or approved scrap tire facility for the transfer, collection, or processing of the scrap tires.

The Department issues the following types of scrap tire licenses and approvals:

- **Scrap Tire Recycler License** – For a facility that converts scrap tires into marketable products.
- **Scrap Tire Collection Facility License** – For a facility that collects or accumulates scrap tires temporarily on a site and transfers 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, based on the capacity of the facility.
- **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 a facility that uses whole or chipped scrap tires to replace or supplement 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 2017

- A total of 216 new and 158 renewal scrap tire licenses were issued (see Table V).

Table V – Scrap Tire Licenses in FY 2017

Type	New	Renewed	Total Issued (FY 2017)	Total Valid Licenses
General Collection	62	N/A	62	1,430
Secondary Collection	81	90	171	1,075
Primary Collection	0	2	2	4
Recyclers	0	2	2	5
TDF Facility	0	1	1	2
Solid Waste	0	0	0	1
Haulers	73	63	136	694
TOTAL	216	158	374	3,211

Scrap Tire Markets and Market Development

Market Analysis

- All licensed or approved scrap tire facilities and haulers are required to submit semi-annual reports to the Department. The reports must include:
 - The origin and number of scrap tires received, collected, or processed at the facility;
 - The scrap tire haulers that transported the scrap tires;
 - The quantity of scrap tires transported, in number or weight; and
 - The facilities where the scrap tires were deposited.
- There is no data currently available on actual amounts of scrap tires generated, so an estimate based on population is used. Based on the assumption that scrap tires are generated at a rate of one tire per person per year, the most recent census numbers were used to estimate that 6.0 million scrap tires were generated in Maryland during FY 2017. The actual number of scrap tires generated could vary (up or down) from the estimate due to factors such as economic conditions, special government programs, product recalls, etc.
- During FY 2017, the State’s scrap tire processing facilities managed approximately 7,541,072 scrap tires generated from Maryland and out-of-State facilities (see Table VI).
 - This represents a 13.2 percent increase from the previous year (see Figure 1). The 7,541,072 scrap tires processed include approximately 59 percent (4,418,972) Maryland generated and 41 percent (3,122,100) imported scrap tires.
 - Of the 7,541,072 scrap tires processed, approximately 99 percent (7,446,217) were recycled, a 19 percent increase from the percentage reported in FY 2016. The remaining 1 percent (94,855) were used as fuel.
 - Table VI provides details on the scrap tires processed at Maryland licensed scrap tire processing facilities in FY 2017.

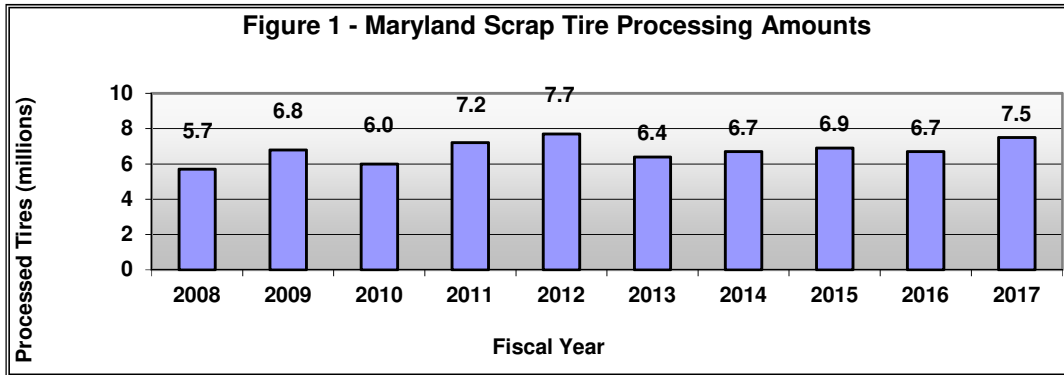


Table VI – Maryland Licensed Scrap Tire Processing Facilities

Facility Name/Type	Location	Operation	Telephone	Tires Processed in FY 2017
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	6,184,478
Auston Tire Recycling/ Recycler	1202 Pauls Lane Joppa MD 21085	Processes scrap tires into products, such as rubber mulch material for landscaping or playgrounds.	(410) 335-1016	1,257,964
Holcim US, Inc./ 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	61,923
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	32,890
K & K Tire, Inc./ Recycler	816 Oregon Avenue Linthicum MD 21090	Processes scrap tires into products, such as rubber mulch material for landscaping or playgrounds.	(410) 636-2002	3,775
Fort Detrick	393 Beasley Road Frederick MD 21702	The facility burns scrap tires with solid waste and medical waste.	(301) 619-2323	42
A2Z Scrap Tire Recycling Facility	250 S. Kresson Street, Baltimore, MD 21224	The facility has been approved to process scrap tires into products, such as rubber mulch material for landscaping or playgrounds.	(410) 679-8877	0
TOTAL				7,541,072

- Of the estimated 6.0 million Maryland-generated scrap tires, approximately 73 percent (4,349,983) were recycled in Maryland facilities and 1 percent (68,989) were used as fuel in Maryland facilities during FY 2017. The remaining 26 percent of the scrap tires (1,581,028) were exported (see Figure 2 and Figure 3).
 - Overall, the scrap tire generation, processing, and handling of Maryland-generated scrap tires follow the traditional trends, although the percent of Maryland scrap tires recycled versus used as tire derived fuel increased from 61 percent in FY 2016 to 98 percent in FY 2017 (4,349,983 scrap tires recycled versus 68,989 scrap tires used as fuel in FY 2017). This was, in large part, due to Harford Waste-to-Energy permanently ceasing operations during FY 2016 and Holcim temporarily ceasing use of tire derived fuel in FY 2016.

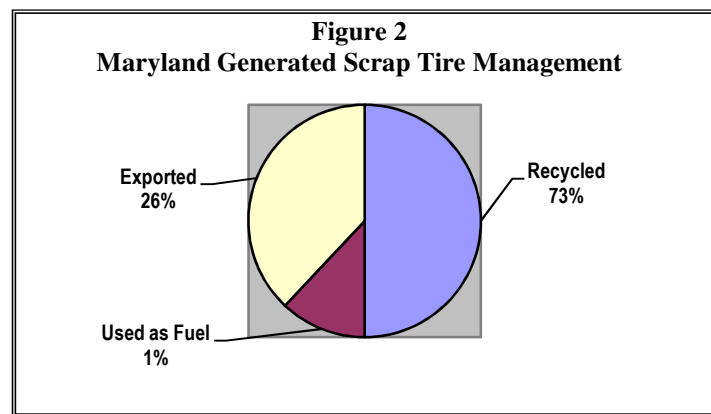
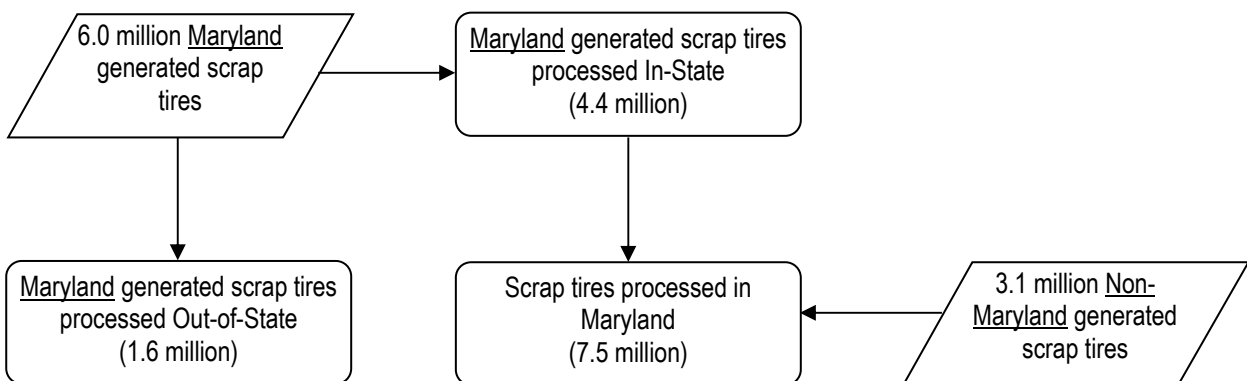


Figure 3 – Scrap Tire Flow in FY 2017



Market Challenges

Although the scrap tire markets data indicates a 13% increase in the amount of scrap tires processed in Maryland during FY 2017, the Department is aware through communication with stakeholders, licensees, and property owners with illegal stockpiles that the scrap tire markets in the Mid-Atlantic and New England regions have been slowing and/or declining in recent years. This is, in part, due to the current low petroleum prices, which impact the tire-derived fuel markets. The market slowdown is negatively affecting how quickly scrap tires are hauled from licensed sites and illegal stockpile sites to the scrap tire processing facilities, the amount of scrap tires able to be processed by the processors, the prices of recycled scrap tire products, and the cost for hauling and processing of scrap tires.

Continued emphasis needs to be given to market development of scrap tire products and processed raw materials. One potential development in the scrap tire markets is the emergence of pyrolysis as a potential viable option for processing scrap tires. Pyrolysis is the process of breaking chemical bonds in the rubber using heat and pressure to produce other products such as pyrolytic oils and carbon black. The Department has tasked MES with researching the technology of pyrolysis and laws and regulations developed by other states.

The Department has also tasked MES with exploring other potential solutions to the slow and declining scrap tire markets, including revisiting the Scrap Tire System that MES is required to establish and maintain under Section 9-228(c) of the Environment Article to ensure that there is processing capacity to manage all of the scrap tires generated in Maryland.