



Department of the Environment

MARYLAND SOLID WASTE MANAGEMENT and DIVERSION REPORT

– 2009 –

(Calendar Year 2008 Data)

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Land Management Administration

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Overview

Introduction

The Maryland Department of the Environment (“MDE” or “the Department”) respectfully submits to the Governor, General Assembly, House Environmental Matters Committee, and the Senate Education, Health and Environmental Affairs Committee the Department's Annual Report describing how solid waste was managed in Maryland during calendar year 2008. The information in this report has, in previous years, been reported separately as the Maryland Waste Diversion Activities Report and Solid Waste Management in Maryland Report. It is being combined into one report and submitted in accordance with the requirements of the Environment Article, Annotated Code of Maryland § 9-204(n), that requires the Department to prepare an annual report identifying the amount of solid waste by weight or volume, disposed of in the State during the previous year and § 9-1702(e), that requires the Department to prepare an annual report detailing recycling in Maryland.

Part I of the report addresses solid waste managed by **Maryland permitted solid waste acceptance facilities** and provides information regarding the management of solid waste, by weight or volume, which was captured by permitted solid waste acceptance facilities in the State during the previous calendar year. All permitted solid waste acceptance facilities, including: municipal solid waste landfills; rubble (C&D) landfills; industrial waste landfills; landclearing debris landfills; solid waste transfer stations; solid or medical waste processing facilities; solid waste processing facilities and transfer stations; municipal solid waste incinerator/waste-to-energy facilities; and natural wood waste recycling facilities, must provide MDE with the information needed to prepare this report on an annual basis. The recycling data reported in Part I represents only the recycling activities conducted by Maryland permitted solid waste acceptance facilities.

Part II of the report addresses waste diversion (*i.e.*, recycling and source reduction) in Maryland and provides information on programs covered by Maryland's waste diversion legislation, including statistical local jurisdiction recycling and source reduction (SR) data for calendar year (CY) 2008, and an overview of the State's technical assistance activities from July 2008 thru June 2009. Data contained in Part II comes from annual reports submitted to MDE by Maryland's 23 counties and Baltimore City, annual reports filed by Maryland permitted solid waste acceptance facilities, State government agencies participating in the All StAR (**All State Agencies Recycle**) Program, and newspaper and telephone directory publishers. Counties also provide MDE information on their collection programs, institutional recycling programs, public education efforts, source reduction activities, and disposal facilities.

Executive Summary

In 2008, Maryland counties and Baltimore City generated 13,108,839 tons of solid waste. The total represents solid waste managed by all sources, not just Maryland permitted solid waste acceptance facilities. As businesses in Maryland are not required to report the waste they generate, this total represents the best available solid waste generation data. This total is an increase of 1.6 percent over the 12,901,103 tons generated in 2007. Maryland Recycling Act

(MRA) waste (MRA waste is equal to MSW waste plus industrial waste from non-private industrial waste landfills) comprises 7,678,483 tons of the total waste generated in Maryland.

A total of 9,112,166 tons of waste was accepted at Maryland permitted solid waste acceptance facilities. Of the 9,112,166 tons of solid waste accepted, a total of 8,068,255 tons was managed by Maryland permitted solid waste acceptance facilities during calendar year 2008, by either recycling, disposal (incineration and landfilling), or transportation out of state (see Table 3, page 5). Table 1 gives a breakdown, by Maryland County, of the 13,108,839 tons of waste that was generated. Table 2 details the difference between the amount of waste generated in Maryland, highlighted in green, and the waste managed by Maryland permitted solid waste acceptance facilities, highlighted in yellow.

Table 1 – Maryland Waste Generation Totals

County	Total Waste
Allegany	595,442
Anne Arundel	1,288,619
Baltimore City	1,301,269
Baltimore County	2,993,290
Calvert	135,784
Carroll	322,244
Cecil	262,357
Charles	680,848
Dorchester	92,047
Frederick	425,614
Garrett	89,906
Harford	397,859
Howard	549,378
Mid-Shore *	399,845
Montgomery	1,408,713
Prince George's	1,312,793
Somerset	39,137
St. Mary's	99,346
Washington	272,204
Wicomico	140,949
Worcester	198,194
State Highways	103,000
MARYLAND TOTALS	13,108,839

* Mid-Shore Counties include Caroline, Kent, Queen Anne's, and Talbot.

Table 2 – Waste Generated in Maryland vs. Waste Managed by Maryland Permitted Solid Waste Acceptance Facilities

Waste Detail		Tons
A	Total Maryland Waste Recycled	6,866,428
B	Total Maryland Waste Disposed	6,242,411
C	Total Waste Generated in Maryland (A + B)	13,108,839
D	Recycling total adjusted for amount managed through Maryland permitted solid waste acceptance facilities (6,866,428 - 1,218,884)	(5,647,544)
E	Total waste disposed by Maryland counties but not captured by a Maryland permitted solid waste acceptance facility	(127,687)
F	Natural Wood Waste Disposed	0
G *	Recycled MSW Ash, Back-End Scrap Metal, and By-Pass Adjustment	264,588
H	Total waste imported into Maryland	272,036
I **	Maryland MSW Ash Disposed	186,415
J **	Maryland Incinerator By-Pass Disposed	149
K **	Maryland Special Medical Waste Ash Generated	11,459
Total Waste Managed by Maryland permitted solid waste acceptance facilities (C-D-E+F+G+H+I+J+K)		8,068,255
Waste generated in Maryland		Waste managed by Maryland Permitted Solid Waste Acceptance Facilities

* To avoid double-counting and accurately report the amount of waste generated in Maryland, the amount of recycled product material from the incineration process is subtracted from the amount of material sent to the incinerator. However, this material is managed by permitted facilities.

** To avoid double-counting and accurately report the amount of waste generated in Maryland, disposed product material from the incineration process is not counted as waste generated in Maryland. However, this material is managed by permitted facilities.

Maryland achieved a 47.5 percent waste diversion rate. This was comprised of a 43.9 percent (3,369,057 tons) recycling rate plus a 3.6 percent (290,218 tons reduced) source reduction credit. An additional 3,497,369 tons of materials (*e.g.*, scrap metal, asphalt and concrete, etc.) that do not count towards the recycling rate were also recycled.

Other highlights for CY 2008:

- Approximately 2,798,944 tons (35 percent) of the waste managed by Maryland permitted solid waste acceptance facilities were landfilled, 1,144,321 tons (14 percent) was recycled/reused, 1,406,867 tons (17 percent) was incinerated, and 2,698,856 tons (34 percent) was exported to out of State facilities.
- Maryland remains a significant exporter of solid waste and exports more waste than it imports. A total of 2,718,123 tons of waste was exported from Maryland while only 272,036 tons of waste was imported to Maryland.
- Maryland landfills reported a total available capacity of 75,353,025 tons in 2008.

Part I – Permitted Solid Waste Acceptance Facility Waste Management

Introduction

This part of the report **ONLY addresses waste managed by Maryland permitted solid waste acceptance facilities.** In accordance with § 9-204(n) of the Environment Article, Maryland permitted solid waste acceptance facilities must provide MDE with the information needed to prepare an annual report detailing the amount of solid waste they managed. The annual report must identify:

- ▲ The amount of solid waste managed in each of the following categories:
 - Municipal Solid Waste (MSW);
 - Construction and Demolition Debris (C&D);
 - Land Clearing Debris (LCD);
 - Industrial Waste;
 - Incinerator Ash;
 - Natural Wood Waste (NWW); and
 - Any other solid waste identified by the Department.
- ▲ The amount of solid waste managed in the State that is generated outside the State.
- ▲ The jurisdictions where the solid waste originated.
- ▲ The amount of solid waste generated in the State that is transported outside the State for disposal.
- ▲ An estimate of the amount of solid waste managed or disposed by:
 - Recycling;
 - Composting;
 - Landfilling; and
 - Incineration.

In addition to reporting the above information, permit holders for solid waste acceptance facilities may submit optional information relating to the economic benefits provided by those permit holders to the community where that facility is located. Such information may include:

- ▶ An accounting of the facility's economic benefits provided to the locality where the facility is located.
- ▶ The value of disposal and recycling services provided to the locality at no cost or reduced cost.
- ▶ Direct employment associated with the facility.
- ▶ Other economic benefits resulting from the facility during the preceding calendar year.

Solid Waste Disposal Data

To collect the information necessary to comply with the reporting requirements of § 9-204(n) of the Environment Article, the Department has reviewed and compiled the data reported in the Annual Tonnage Reports submitted by permitted solid waste acceptance facilities that accepted solid waste in calendar year 2008. The reports are required as a condition of each facility's

Refuse Disposal Permit and describe each facility's solid waste management activities for the preceding year. Appendix A provides a summary of the information that the Department received from the facilities that voluntarily chose to report economic benefits in the annual tonnage report.

Recycling Data

To compile the required data summarizing recycling activities during the 2008 calendar year, the Department reviewed and analyzed the information contained in the Annual Tonnage Reports from permitted solid waste acceptance facilities. The recycling data reported in Part I of this report represents **ONLY** the recycling activities conducted by the permitted solid waste acceptance facilities. Statewide recycling information is available in Part II, "Waste Diversion," of this report.

Solid Waste Acceptance Facility Solid Waste Management for 2008

In 2008, over 9.1 million tons of solid waste was accepted by Maryland permitted solid waste acceptance facilities. The 9.1 million tons includes waste stored on site, and waste sent from one facility to another. Of the 9.1 million tons accepted, over 8 million tons were actually managed by recycling/disposal in Maryland, or transportation out of State. Table 3 details the waste managed by Maryland permitted solid waste acceptance facilities.

**Table 3 – Waste Managed in 2008 by
Maryland Permitted Solid Waste Acceptance Facilities***

Solid Waste Category	Tons Accepted ¹	Tons Recycled/ Reused ²	Tons Disposed	Tons Managed ³
Construction & Demolition Debris	1,846,835	364,167	1,408,808	1,772,975
Industrial Waste	86,551	85	86,466	86,551
Land Clearing Debris	42,716	21,514	21,202	42,716
Municipal Solid Waste	5,062,019	15,358	4,303,761	4,319,119
Natural Wood Waste	283,271	283,271	0	283,271
Other Wastes ⁴	1,360,765	290,895	842,719	1,133,614
Total Waste Received	8,682,157	975,290	6,662,956	7,638,246
Tons of MSW Incinerator Ash	430,009	243,594	186,415	430,009
TOTAL MANAGED	9,112,166	1,218,884	6,849,371	8,068,255

* Includes waste generated inside and outside of Maryland.

1 "Tons Accepted" includes all waste accepted by permitted facilities including waste sent from one Maryland permitted facility to another.

2 Only includes recycling/reused waste that was captured by Maryland permitted solid waste acceptance facilities.

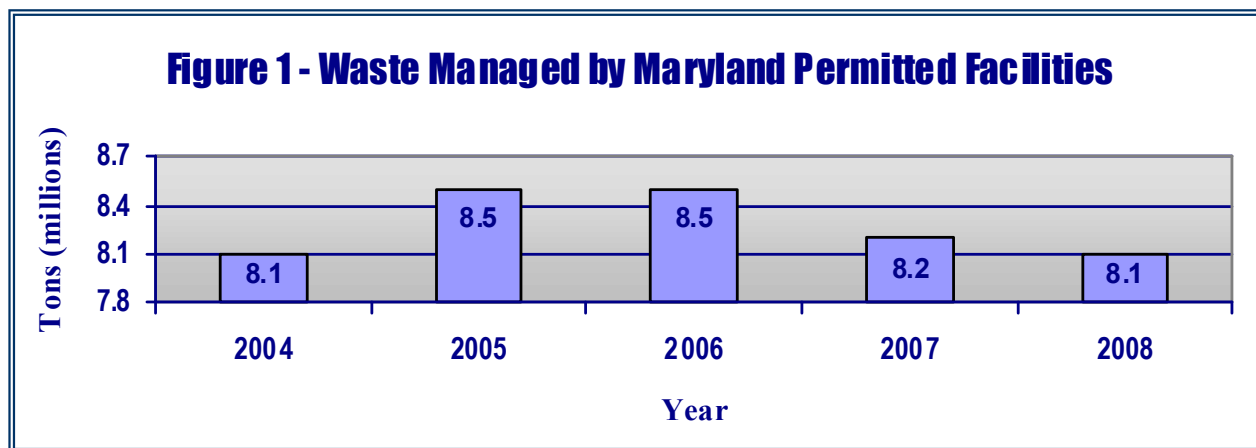
3 "Tons Managed" is equal to "Tons Recycled/Reused" plus "Tons Disposed". "Tons Managed" is waste that was managed both in Maryland and outside of Maryland (see Figures 3 and 4 and Tables 14 and 15).

4 Volume of materials reported as "Other Wastes" includes special medical waste, non-MSW ash, asbestos, and sewage sludge.

There was a more than 43 percent decrease, to 272,036 tons, in the amount of out of State waste that was managed in Maryland in 2008, as compared to 2007. The volume of solid waste accepted, processed, and disposed of at the permitted facilities in Maryland is similar to previous years. A little over 2 million tons of MSW and 0.7 million tons of C&D were landfilled in Maryland. The reclaimed recyclables were collected, sorted, and transferred to recycling facilities. Two municipal landfills used approximately 243,594 tons of incinerator ash as alternative daily cover materials at their landfills.

The use of out of State facilities for disposal of municipal waste generated in Maryland is likely to maintain current levels. Very large out of State commercial landfills can achieve higher efficiencies than that achievable by smaller local landfills, and the cost savings are currently being passed along to customers, and consequently, Counties. Several local governments are using the cost differential to save money by transferring waste out of State while conserving their available landfill space. The cost of motor fuel may make long-haul disposal less attractive, and increase interest in other disposal and recycling options, however.

Figure 1 details the total amount of Maryland permitted solid waste acceptance facility solid waste that is managed via export, disposal (*i.e.*, landfilling and incineration), and recycling/reuse.



Refuse Disposal Systems

Under Maryland law, a refuse disposal system (“System”) is a system that includes the services, facilities, or properties used in connection with the intermediate or final disposal of any solid waste unless these activities are limited to waste generated by an individual, a single corporation or business, or are disposed of as authorized by a permit issued by the Department under Environment Article, § 7-232, § 9-224, or § 9-323, Annotated Code of Maryland. Appendix B gives a complete list of permitted solid waste acceptance facilities. The regulated activities that are part of this System are as follows:

Municipal Solid Waste (MSW) Landfill

A MSW landfill is designed, constructed and operated so that all types of waste generated by a community, except waste specifically prohibited by

solid waste regulations, can be accepted. During 2008, 21 facilities accepted waste, managed/disposed waste, and/or transferred recyclables to the market place. A little more than 2 million tons of solid waste were disposed of at these facilities. The two facilities that disposed of the most waste tonnage were Brown Station Road Landfill (426,986 tons) in Upper Marlboro and Quarantine Road Landfill (364,499 tons) in Baltimore City. Details are presented in Table 4.

Table 4 – MSW Landfills

Jurisdiction	Facility Name	Ownership	Waste Accepted *	Waste Handled	
				Waste Disposed	Waste Transported
Allegany	Mountainview Sanitary Landfill	Private	107,379	107,368	0
Anne Arundel	Millersville Landfill & Resource Recovery Facility	County	133,126	88,578	8,775
Baltimore City	Quarantine Road Landfill	City	364,499	364,499	356
Baltimore County	Eastern Sanitary Landfill	County	193,944	133,808	3,558
Calvert	Appeal Sanitary Landfill	County	10,159	907	9,252
Carroll	Northern Municipal Landfill	County	17,615	17,218	397
Cecil	Cecil County Central Landfill	County	193,369	109,060	3,784
Charles	Charles County Municipal Landfill	County	88,745	71,684	1,137
Dorchester	Beulah Municipal Landfill	County	74,352	73,608	744
Frederick	Fort Detrick – Area B & Main Post	Federal	686	686	0
	Reichs Ford/Site B Municipal Sanitary Landfill	County	232,262	31,190	187,406
Garrett	Garrett County Solid Waste Disposal & Recycling Facility	County	61,246	60,348	898
Harford	Harford Waste Disposal Center	County	105,373	30,317	28,332
Howard	Alpha Ridge Municipal Landfill	County	25,829	3,599	22,230
Prince George's	Brown Station Road Landfill	County	429,704	426,986	2,718
St. Mary's	St. Andrew's Municipal Landfill	County	11,063	0	11,063
Somerset	Somerset County Landfill – Fairmount Site	County	24,330	24,330	0
Talbot	Midshore Regional Solid Waste Facility	County	219,409	117,838	2,406

Jurisdiction	Facility Name	Ownership	Waste Accepted *	Waste Handled	
				Waste Disposed	Waste Transported
Washington	Forty West Municipal Landfill	County	137,198	131,372	2,683
Wicomico	Newland Park Municipal Landfill	County	109,905	109,905	0
Worcester	Central Sanitary Landfill	County	114,523	110,266	4,257
TOTAL			2,654,716	2,013,567	289,996

* Waste Accepted will not always equal the sum of the waste handled columns. For example, waste may be accepted in 2008, but not managed until 2009.

Rubble (Construction and Demolition (C&D)) Landfill

A rubble (C&D) landfill is a solid waste acceptance facility that is restricted to accepting waste derived from building construction, demolition, or remodeling, such as: wood, metal, bricks (excluding refractory type) and masonry, cement and concrete, glass, shingles and roofing material, plaster and plasterboard, carpets, floor and wall tile, asphalt, insulation material, pipes, wires, and appliances; debris derived from land clearing operations such as: tree stumps, root mats, brush and limbs, logs, topsoil, vegetation, and rock; paper or cardboard packaging, or building materials, are accepted provided that they do not exceed ten percent by volume of the waste. Empty paint containers, empty caulk or glaze containers are accepted provided any remaining residual material is dried before being accepted and the waste category does not exceed one percent by volume of the waste accepted at the rubble landfill. During 2008, there were four active, permitted rubble landfills that disposed of approximately 693,995 tons of waste. The two that disposed of the most waste by weight were Honeygo Run Reclamation Center in White Marsh, Baltimore County, (296,098 tons) and Ritchie Reclamation – Marlboro Road in Upper Marlboro, Prince George's County, (244,954 tons). Details are presented in Table 5.

Industrial Waste Landfill

An industrial waste landfill is a solid waste acceptance facility restricted to the acceptance of only non-hazardous industrial waste. Industrial waste is defined as any liquid, gaseous, solid, or other waste substance, or combination thereof, resulting from (a) any process of industry, manufacturing, trade or business; or (b) the development of any natural resource, including agriculture. The definition is generally applied to materials that are not generated from homes or offices, and may include materials such as dusts, powders or sludges from pollution control devices, residuals from filters or cleaning of items or areas, and residual materials from a variety of processes (e.g., sandblasting grit, paint sludge, oil/water separator grit, etc). These materials must be characterized prior to disposal to ensure that they are not hazardous wastes. Industrial wastes may also be disposed of in permitted MSW landfills. During 2008, there were three permitted industrial waste landfills that accepted waste. The Millennium Inorganic Chemicals – HPP Landfill in Baltimore City accepted the most industrial waste, 58,383 tons, for disposal. Details are presented in Table 6.

Table 5 – Rubble (C&D) Landfills

Jurisdiction	Facility Name	Ownership	Waste Accepted *	Waste Handled	
				Waste Disposed	Waste Transported
Baltimore County	Days Cove Rubble Landfill – Lateral Expansion	Private	130,452	129,718	734
	Honeygo Run Reclamation Center	Private	395,961	296,098	99,863
Harford	Oak Avenue Rubble Fill	Private	0	0	0
Prince George's	Ritchie Reclamation – Marlboro Road	Private	346,942	244,954	5,723
Queen Anne's	Baker Rubble Landfill	Private	23,524	23,225	49
TOTAL			896,879	693,995	106,369

* Waste Accepted will not always equal the sum of the waste handled columns. For example, waste may be accepted in 2008, but not managed until 2009.

Table 6 – Industrial Waste Landfills

Jurisdiction	Facility Name	Ownership	Waste Accepted *	Waste Handled	
				Waste Disposed	Waste Transported
Baltimore City	Millennium Inorganic Chemicals – HPP Landfill	Private	58,383	58,383	0
	W. R. Grace and Co. – Davison Chemical Division	Private	24,381	24,381	0
Frederick	Eastalco Aluminum Company	Private	0	0	0
TOTAL			82,764	82,764	0

* Waste Accepted will not always equal the sum of the waste handled columns. For example, waste may be accepted in 2008, but not managed until 2009.

Landclearing Debris (LCD) Landfill

A landclearing debris (LCD) landfill is a solid waste acceptance facility that is restricted to acceptance of the following waste: earthen material such as clays, sands, gravels, and silts, topsoil, tree stumps, root mats, brush and limbs, logs, vegetation, and rock. During 2008, only three of the five permitted facilities were operational and disposed of 8,618 tons of waste. Details are presented in Table 7.

Solid Waste Transfer Station

A solid waste transfer station is a solid waste acceptance facility where waste materials are taken from one collection vehicle (*e.g.*, compactor truck, etc.) and placed in another transportation unit (*e.g.*, over-the-road tractor-trailer, railroad gondola car, barge or ship, etc.) for movement to other solid waste acceptance facilities. Individuals and businesses can dispose of a wide variety of solid waste

materials at the transfer station. A typical transfer station may accept: MSW, C&D, metals, wood waste, yard waste, recyclables, etc. During 2008, there were ten permitted transfer stations in operation that accepted a total of 550,887 tons of solid waste. The two busiest transfer stations in Maryland during 2008 were the Western Acceptance Facility in Baltimore County (193,257 tons) and the Appeal Sanitary Landfill in Calvert County (140,683). Details are presented in Table 8.

Table 7 – Landclearing Debris Landfills

Jurisdiction	Facility Name	Ownership	Waste Accepted *	Waste Handled	
				Waste Disposed	Waste Transported
Calvert	Hance Land Clearing Debris Landfill	Private	6,385	0	6,385
	Hill Land Clearing Debris Landfill	Private	0	0	0
	M. T. Parran Landclearing Debris Landfill	Private	0	30	0
	Howlin Land Clearing Debris Landfill	Private	8,588	8,588	0
St. Mary's	Knott Land Clearing Debris Landfill	Private	7	0	0
TOTAL			14,980	8,618	6,385

* Waste Accepted will not always equal the sum of the waste handled columns. For example, waste may be accepted in 2008, but not managed until 2009.

Table 8 – Solid Waste Transfer Stations

Jurisdiction	Facility Name	Ownership	Waste Accepted *	Waste Handled	
				Waste Stored	Waste Transported
Baltimore City	Northwest Transfer Station	Municipal	54,253	0	54,253
	Cannon Hygiene (USA), Inc.	Private	10	0	10
Baltimore County	Eastern Sanitary Landfill	County	99,339	0	99,339
	Western Acceptance Facility	County	193,257	0	193,257
Calvert	Appeal Sanitary Landfill	Private	140,683	0	140,683
Cecil	Stemmers Run Transfer Station	County	1,539	0	1,538
	Woodlawn Transfer Station	County	2,913	0	2,913
Howard	Workplace Essentials Transfer Station	Private	120	120	0
Talbot	Midshore Regional Solid Waste Facility	Maryland Environmental Service/State	25,087	0	25,087

Jurisdiction	Facility Name	Ownership	Waste Accepted *	Waste Handled	
				Waste Stored	Waste Transported
Worcester	Ocean City Transfer Station	Municipal	33,797	0	33,797
TOTAL			550,998	120	550,877

* Waste Accepted will not always equal the sum of the waste handled columns. For example, waste may be accepted in 2008, but not managed until 2009.

Solid or Medical Waste Processing Facility

A solid or medical waste processing facility is a facility where a combination of structures, machinery, or devices are used to reduce or alter the volume, chemical, or physical characteristics of solid waste. This can include sorting for diversion of recyclables. In general, processes are performed either to remove recyclables or to reduce the volume that the waste occupies, for example by shredding, so the waste takes up less volume during transport or at final disposal. A wide variety of solid waste can be processed at these facilities. A typical solid waste processing facility accepts MSW, C&D, metals, wood waste, etc. During 2008, a total of seven permitted processing facilities were in operation in Maryland. A total of approximately 291,640 tons of waste was accepted at these facilities. During 2008 the largest of these facilities was Roll-Off Express, Inc. in Carroll County, which accepted 93,214 tons, and the C&D Recovery Processing facility in Montgomery County which accepted 63,292 tons of solid waste. Details are presented in Table 9.

Table 9 – Solid and Medical Waste Processing Facilities

Jurisdiction	Facility Name	Ownership	Waste Accepted *	Waste Handled	
				Waste Stored	Waste Transported
Baltimore City	Patuxent Materials, Inc. – Edison Highway Recycle Plant	Private	62,198	33,867	50,572
Baltimore County	Recovermat Mid-Atlantic	Private	29,338	0	53,201
Calvert	Southern Maryland Processing Facility	Private	43,592	0	43,592
Carroll	Roll-Off Express, Inc.	Private	93,214	464	92,750
Montgomery	C&D Recovery Processing Facility	Private	63,292	624	63,510
Wicomico	Peninsula Regional Medical Center	Private	6	0	6
	Bennett Processing Facility	Private	0	0	0
TOTAL			291,640	34,955	303,631

* Waste Accepted will not always equal the sum of the waste handled columns. For example, waste may be accepted in 2008, but not managed until 2009.

Solid Waste Processing Facility & Transfer Station

Solid waste processing facilities and transfer stations are facilities which perform the functions of both a transfer station and a processing facility. During 2008, a total of eleven facilities were in operation which processed and transferred approximately 2,459,558 tons of waste. The two facilities that accepted the most tonnage of waste in 2008 were Annapolis Junction Recycling and Transfer Station in Anne Arundel County (613,623 tons) and the Montgomery County Solid Waste Transfer Station in Montgomery County (750,362 tons). Details are presented in Table 10.

Table 10 – Solid Waste Processing Facilities and Transfer Stations

Jurisdiction	Facility Name	Ownership	Waste Accepted *	Waste Handled	
				Waste Stored	Waste Transported
Anne Arundel	Curtis Creek Recovery Systems	Private	169,291	0	169,291
	Annapolis Junction Recycling and Transfer Station	Private	613,623	0	613,623
Baltimore City	BFI Baltimore Processing and Transfer Center	Private	124,068	0	124,068
	Stericycle, Inc.	Private	21,838	0	21,838
Baltimore County	Baltimore County Resource Recovery Facility	County	418,223	4,401	414,433
Carroll	Northern Municipal Landfill	County	74,467	0	74,467
Harford	Auston Processing and Transfer Facility	Private	5,053	0	4,880
Howard	Alpha Ridge Municipal Landfill	Private	31,080	0	31,080
	Ameriwaste Processing and Transfer Station	Private	159,223	0	159,223
Montgomery	Montgomery County Solid Waste Transfer Station	County	750,362	0	750,362
Prince George's	Brandywine Enterprises	Private	92,330	0	91,998
St. Mary's	St. Andrew's Waste Processing and Transfer Station	County	0	0	0
TOTAL			2,459,558	4,401	2,455,263

* Waste Accepted will not always equal the sum of the waste handled columns. For example, waste may be accepted in 2008, but not managed until 2009.

Municipal Solid Waste Incinerator/Waste-to-Energy Facility

A MSW incinerator/waste-to-energy facility is equipped with a furnace or combustion unit that uses controlled flame combustion for the thermal destruction

of municipal solid waste, industrial waste, or special medical waste. Incinerators which are “waste-to-energy” facilities use the heat generated by combustion to create steam that is either used directly for heat, or is used to drive electrical power generators. During 2008, a total of nine facilities were in operation, which accepted approximately 1.4 million tons of solid waste. Wheelabrator Baltimore, LP. in Baltimore City and the Montgomery County Resource Recovery Facility accepted the bulk of material in this category, accounting for 688,799 tons and 575,213 tons, respectively. Details are presented in Table 11.

Table 11 – Incinerator Facilities

Jurisdiction	Facility Name	Ownership	Waste Accepted *	Waste Handled	
				Waste Incinerated	Waste Transported
Baltimore City	Wheelabrator Baltimore, LP.	Private	688,799	685,970	214,336
	Curtis Bay Energy	Private	29,052	29,052	10,831
	University of Maryland – Baltimore	State	192	138	57
Charles	Naval Support Facility Indian Head Incinerator	Federal	119	0	119
Frederick	Fort Detrick – Area B & Main Post	Federal	3,030	3,012	2,275
Harford	Harford County Resource Recovery Facility	County	113,796	115,092	50,380
Montgomery	Montgomery County Resource Recovery Facility	County / Northeast MD Waste Disposal Authority	575,213	573,293	190,375
Somerset	Smith Island Incinerator	County	193	103	120
Washington	Washington County Hospital	Private	207	207	44
TOTAL			1,410,601	1,406,867	468,537

* Waste Accepted will not always equal the sum of the waste handled columns. For example, waste may be accepted in 2008, but not managed until 2009.

Natural Wood Waste Recycling Facility

MDE views natural wood waste (NWW) as vegetation, in its natural state, that has been discarded or designated for disposal and requires owners or operators of facilities that receive or process natural wood waste to obtain a permit to operate. A natural wood waste recycling (NWWR) facility manages and recycles NWW and is regulated under Code of Maryland Regulations 26.04.09. NWW is considered solid waste until it is recycled and includes trees and other natural vegetative materials including: tree stumps and limbs, brush, root mats, logs, leaves, grass clippings, and unadulterated wood wastes that are generated when land is cleared for construction purposes. NWW does not include pallets, crates, lumber, wood chips, firewood, or other products that may be made from NWW, but have subsequently been processed.

NWWR facilities produce a variety of products that may be sold to consumers. They are valued because they prevent NWW from entering landfills, thereby extending their useful lives, and make useful products from such waste. A NWWR facility does not include a collection or processing facility operated by a nonprofit or governmental organization located in the State, or a single individual or business that provides recycling services solely for its employees or for its own recyclable materials generated on its own premises. Additionally, facilities that only accept processed wood are not required to obtain a NWWR Facility Permit from MDE. During 2008, there were 28 permitted operations of which 25 reported approximately 283,271 tons of NWW managed. The two highest volume facilities were L and W Recycling of Anne Arundel County and Edrich Lumber in Baltimore County accepted approximately 59,833 tons and 45,454 tons, respectively. Details of the NWWR facilities are presented in Appendix C. Waste managed details are presented in Table 12.

Table 12 – Natural Wood Waste Recycling Facilities

Jurisdiction	Facility Name	Permittee	Waste Accepted *	Waste Handled	
				Waste Stored	Waste Marketed
Anne Arundel	A-A Recycle & Sand	A-A Recycle & Sand, Inc.	17,044	0	30,909
	Chesterfield Farms	William Alan Boehm	5,189	0	0
	L and W Recycling	L & W Recycling, Inc.	59,833	0	59,833
Baltimore County	King Mulch and Pallet	Albert J. Bierman	8,500	100	8400
	Edrich Lumber	Edrich Lumber, Inc.	45,454	13,948	31,506
	Northwest Recycling	Northwest Recycling LLC.	9,717	5,748	3,969
	Wirtz & Daughters	Wirtz And Daughters, Inc.	21,864	0	44,592
	Hollins Organic Products	Hollins Organic Products, Inc.	12,676	7,808	4,868
Calvert	Sawmill Road Natural Wood Waste Recycling Facility	Quality Built Homes, Inc.	15,434	7,443	7,991
Carroll	C. J. Miller	C. J. Miler, LLC.	10,115	0	11,883
	Recycled Green Industries	Recycled Green Industries, LLC.	23,844	1,869	21,975
Cecil	Grass Busters Landscaping	Grass Busters Landscaping Company, Inc.	540	540	0
Charles	Maxi Mulch	Maxi Mulch, LLC.	0	0	915
	James E. Hill	James E. Hill	800	750	50
Frederick	Butler Wood Recycling	William Lee Butler	2,767	0	3,930

Jurisdiction	Facility Name	Permittee	Waste Accepted *	Waste Handled	
				Waste Stored	Waste Marketed
Harford	Arthur D. Heston	Arthur D. Heston	520	0	946
	Crouse Construction Company	Crouse Construction Co., Inc.	495	0	495
	T and M Mulch Natural Wood Waste Recycling Facility	Pope Thomas/T&M Mulch, Inc.	4,505	0	4,505
	Comer Construction, Inc.	Comer Construction, Inc.	20,470	0	21,065
Montgomery	Twin Ponds Farm	Twin Ponds Farm, LLC.	1,908	798	1,110
	Acme Biomass Reduction	Acme Biomass Reduction, Inc.	14,342	926	13,416
Queen Anne's	Baker Rubble Landfill	R.B. Baker & Sons, Inc.	2,650	0	3,468
Talbot	Dependable Sand and Gravel Company	Dependable Sand And Gravel Company, Inc.	2,130	0	8,877
Wicomico	Dunn's Tractor Service	Dunn's Tractor Service Inc.	1,883	1,883	0
	Eastern Shore Forest Products	Eastern Shore Forest Products, Inc.	591	591	0
TOTAL			283,271	42,404	284,703

* Waste Accepted will not always equal the sum of the waste handled columns. For example, waste may be accepted in 2008, but not managed until 2009.

Additional information on Maryland's NWW program is available at www.mde.state.md.us/Programs/LandPrograms/Solid_Waste/index.asp on MDE's web page, or by contacting MDE's Solid Waste Program at 410-537-3375 or khosseinz@mde.state.md.us.

Imported Solid Waste

Table 13 compares the amount of solid waste in tons, by category, that was generated outside Maryland and imported into the State for management to the total amount of solid waste managed at permitted solid waste acceptance facilities in Maryland. Figure 2 illustrates the comparison of the amount of solid waste in tons imported into Maryland for management to the total amount of Maryland-generated solid waste accepted at permitted solid waste acceptance facilities. In CY 2008, Maryland's permitted solid waste acceptance facilities accepted waste from Delaware, Massachusetts, New Jersey, New York, Pennsylvania, Virginia, Washington D.C., and West Virginia. Highlights include:

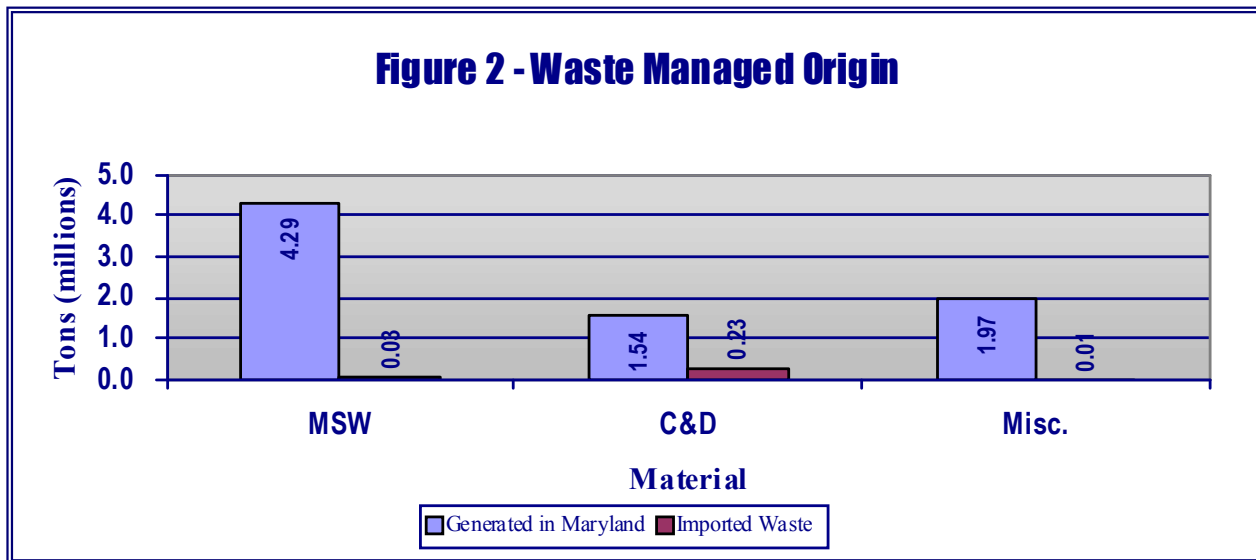
- ⊙ In 2008, there was a decrease of about 43 percent (2007 – 480,646 tons, 2008 – 272,036 tons) of solid waste imported into Maryland from out of State compared to calendar year 2007.

- ⊙ The solid waste imported into Maryland comprises approximately 3.4 percent of the 8 million tons of solid waste managed at permitted Maryland solid waste acceptance facilities.
- ⊙ The facilities that received the most imported MSW were the Mountainview Sanitary Landfill in Allegany County, BFI Baltimore Processing and Transfer Center in Baltimore City, and Wheelabrator Baltimore, LP. in Baltimore City.

Table 13 – Maryland Imported Waste

Solid Waste Category	Tons of Solid Waste Imported Into Maryland	Jurisdictions Where the Solid Waste Originated	Tons Managed
MSW	29,542	DE, PA, VA, District of Columbia	4,319,119
C&D	234,062	DE, NJ, NY, PA, VA, WV, District of Columbia	1,772,975
Miscellaneous *	8,432	DE, MA, PA, VA, WV, District of Columbia	1,976,161
TOTAL	272,036		8,068,255

* Includes special medical waste, incinerator ash, non-hazardous industrial waste, asbestos, wastewater treatment plant sludge, and other wastes imported into Maryland for disposal.



- ⊙ C&D waste that was imported into Maryland was disposed of at privately owned rubble landfills, or was processed into segregated recyclables that were then transferred to Mid-Atlantic recycling facilities. The landfill and processing facilities that received the majority of C&D were Honeygo Run Reclamation Center and Days Cove Rubble Landfill – Lateral Expansion in Baltimore County; Ritchie Reclamation – Marlboro Road and Brandywine

Enterprises in Prince George's County; and C&D Recovery Processing Facility in Montgomery County.

Exported Solid Waste

Due to economic considerations and the desire to conserve disposal capacity in county-owned landfills, many counties in Maryland transport some of their solid waste out of State for recycling or disposal. These jurisdictions include: Anne Arundel, Baltimore, Calvert, Carroll, Cecil, Dorchester, Frederick, Garrett, Harford, Howard, Montgomery, Prince George's, St. Mary's, Talbot, and Worcester Counties. The Baltimore County Resource Recovery Facility transported their solid waste to Waverly, Virginia. Ash from the Montgomery County Solid Waste Transfer Station in Dickerson was exported to Brunswick, Virginia for disposal. The Appeal Sanitary Landfill sent its waste to several out of State disposal sites. Several other jurisdictions are evaluating the option of transporting solid waste out of State for disposal. Figure 3 illustrates, by percentage, where solid waste captured by Maryland's permitted solid waste acceptance facilities was managed. Table 14 gives a destination breakdown of solid waste exported by Maryland permitted solid waste acceptance facilities. Highlights include:

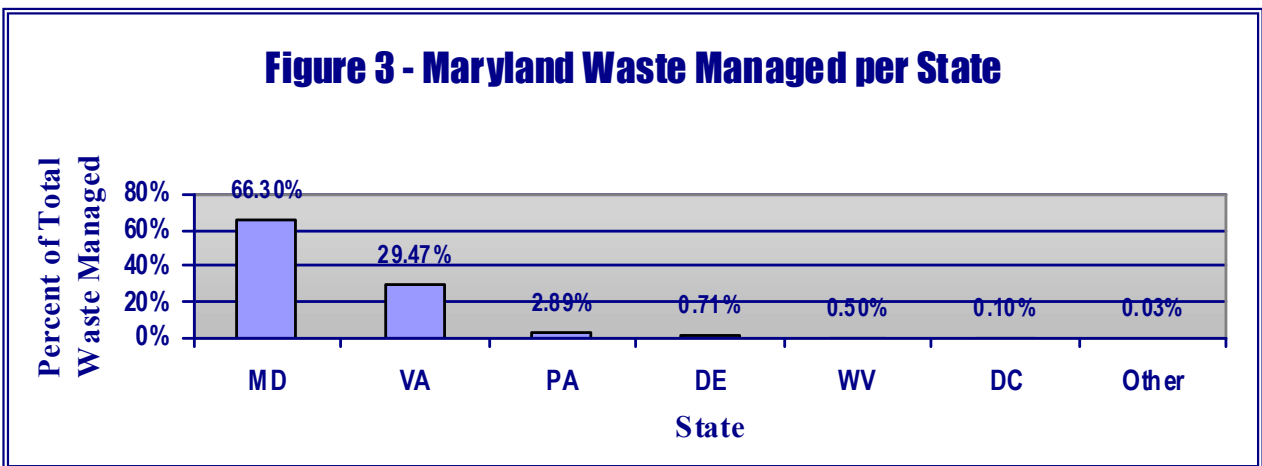


Table 14 – Maryland Exported Waste Tonnage by State Destination

Solid Waste Category	Virginia	Pennsylvania	Delaware	West Virginia	District of Columbia	Other	Total (Tons)
MSW	1,595,731	178,827	0	0	0	0	1,774,558
C&D	577,487	29,283	0	0	0	0	606,770
Recycling	2,213	20,255	2,749	40,185	7,039	2,123	74,563
Miscellaneous *	202,226	4,760	54,529	472	0	245	262,232
TOTAL (Tons)	2,377,657	233,125	57,278	40,657	7,039	2,368	2,718,123

* Includes special medical waste, incinerator ash, non-hazardous industrial waste, asbestos, wastewater treatment plant sludge, and other wastes.

- ❖ Over 2.7 million tons of solid waste, consisting of MSW, C&D and miscellaneous wastes (including incinerator ash and recyclables) were transported outside Maryland for management. This represents approximately

34 percent of the total solid waste managed at Maryland's permitted solid waste acceptance facilities.

- ❖ A total of thirty-eight (38) facilities exported solid waste for disposal or recycling at out of State facilities.
- ❖ The Annapolis Junction Recycling and Transfer Station, which transferred 613,623 tons of MSW to Virginia for disposal, was the largest State exporter of solid waste.

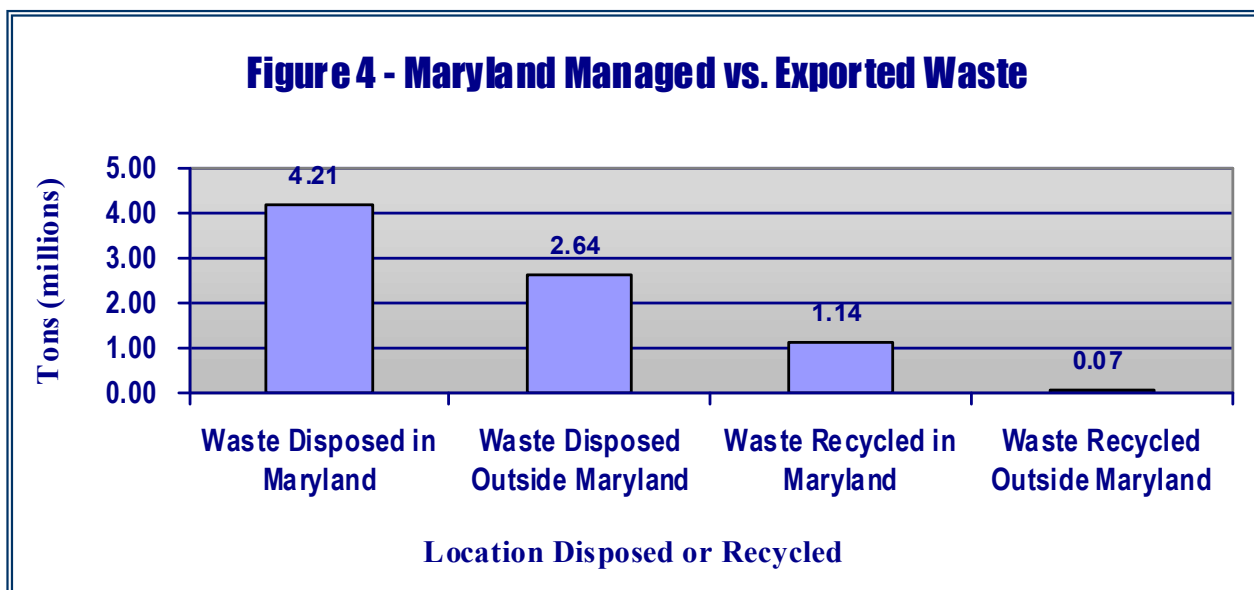
Solid Waste Management Practices

In 2008, the solid waste accepted at Maryland permitted solid waste acceptance facilities was managed by transporting the waste out of State, or landfilling, incinerating, or recycling/reusing in Maryland. Table 15 gives a breakdown of the management practices by the Maryland permitted solid waste acceptance facilities.

Table 15 – Maryland Solid Waste Management Practices

Solid Waste Management Method	Tons	Percentage of Total Solid Waste Managed
Exported	2,718,123	33.7%
Landfilled in Maryland	2,798,944	34.7%
Incinerated in Maryland	1,406,867	17.4%
Recycled/Reused in Maryland	1,144,321	14.2%
TOTAL	8,068,255	100%

Approximately 176,503 tons of the 2,718,123 tons of Maryland exported waste was incinerator ash. Figure 4 details how Maryland solid waste was managed.



Landfill Capacity

Landfills in Maryland are required to report on their available cubic yard (CY) capacity and the life expectancy of the facilities at the current disposal rates. Using the average compaction factor, based upon historical data, this remaining capacity is converted to tons.

MSW landfills (Table 16) reported a total available capacity of 51,883,008 tons (82,353,981 CY x 0.63 compaction factor) with 2,013,567 tons being disposed in 2008. This available capacity is based on the calculated compaction rates provided by the landfills. Thus, at the current disposal rate, there would be approximately 26 years of available MSW landfill capacity in Maryland. However, this calculation does not account for population changes, changes in waste generation or disposal rates, or the closing of older MSW disposal facilities. Nor does it include facilities for which permits may have been issued, but which have not yet been built and are not accepting waste. Lastly, the Department notes that due to the anticipated relocation of military personnel to Maryland under the Federal BRAC program, jurisdictions must pay close attention to capacity issues in the coming years.

Table 16 – MSW Landfill Capacity

Municipal Landfill Facility Name	Permit Number	Permitted Capacity (CY)	Landfilled To Date (CY)	Landfilled To Date (TONS)	Remaining Capacity (CY)	Reach Capacity Year	Landfilled in 2008 (TONS)	Used in 2008	Permitted Cells
Alpha Ridge Municipal Landfill	2005-WMF-0110	9,978,000	4,148,276	2,281,652	5,829,724	2124	3,599	0.2%	4
Appeal Municipal Landfill	2002-WMF-0531	2,799,290	604,582	362,749	2,194,708	2035	907	0.5%	5
Beulah Sanitary Landfill	2004-WMF-0554	1,483,205	1,180,277	743,575	302,928	2012	73,608	7%	4
Brown Station Road Landfill	2003-WMF-0589	16,000,000	11,563,035	6,431,043	4,436,965	2016	426,986	4%	11
Cecil County Central Landfill	2002-WMF-0532	4,505,000	4,307,351	2,584,411	197,649	2015	109,060	4.5%	3
Central Sanitary Landfill	2006-WMF-0152	4,800,000	1,668,231	1,167,762	3,131,769	2028	110,266	3%	9
Charles County Municipal Landfill	2005-WMF-0076	4,374,700	1,555,719	800,189	2,818,981	2040	71,684	3%	4
Eastern Sanitary Landfill	2005-WMF-0052	22,813,000	10,152,000	5,076,000	12,661,000	2044	133,808	1.1%	9
Fort Detrick – Area B & Main Post	2005-WMF-0327	1,000,900	98,481	78,479	902,419	2446	686	0.2%	17
Forty West Municipal Landfill	2005-WMF-0266	20,273,000	2,719,590	1,112,405	17,553,410	2061	131,372	1.6%	15
Garrett County Solid Waste Disposal & Recycling Facility	2006-WMF-0094	2,042,927	795,883	451,064	1,247,044	2026	60,348	4%	4
Harford Waste Disposal Center	2005-WMF-0098	2,980,000	2,800,503	1,520,139	179,497	2010	30,317	1.4%	10
Midshore Regional Solid Waste Facility	2004-WMF-0144	3,924,994	3,326,313	1,826,700	598,681	2010	117,838	6%	4
Millersville Landfill & Resource Recovery Facility	1999-WMF-0240	14,300,000	4,462,692	2,827,332	9,837,308	2030	88,578	1.1%	9
Mountainview Sanitary Landfill	2006-WMF-0010	4,260,000	2,476,711	2,232,533	1,783,289	2016	107,368	3.3%	9
Newland Park Municipal Landfill	2005-WMF-0283	7,200,000	2,110,403	1,139,618	5,089,597	2033	109,905	3%	10
Northern Municipal Landfill	2005-WMF-0066	3,504,187	1,039,061	654,608	2,465,126	2079	17,218	1%	4
Quarantine Road Landfill	2005-WMF-0325	18,320,622	11,498,622	10,295,597	6,822,000	2019	364,499	2%	6
Reichs Ford/Site B Municipal Sanitary Landfill	2005-WMF-0307	6,275,000	3,061,504	1,796,468	3,213,496	2045	31,190	1%	3

Municipal Landfill Facility Name	Permit Number	Permitted Capacity (CY)	Landfilled To Date (CY)	Landfilled To Date (TONS)	Remaining Capacity (CY)	Reach Capacity Year	Landfilled in 2008 (TONS)	Used in 2008	Permitted Cells
St. Andrews Municipal Landfill*	2005-WMF-0138	NA	NA	NA	NA	2001	0	0%	5
Somerset County Landfill – Fairmount Site	2004-WMF-0268	1,610,000	521,610	328,614	1,088,390	2024	24,330	3%	4
Totals		152,444,825	70,090,844	43,710,938	82,353,981		2,013,567		144

The Landfill did not report "Landfilled To Date (TONS)". Amount reported was calculated using the average landfill compaction factor (CY x 0.63 compaction factor = tons).

* St. Andrews Landfill closed in 2001 (Permit No. 2000-WMF-0138). The current permit was issued for a new landfill that was never constructed. St. Mary's County uses permit 2005-WMF-0138 to operate the closed St. Andrews Landfill as a transfer station.

Construction and Demolition Debris landfills (Table 17) reported a total available capacity of 12,197,273 tons (15,637,530 CY x 0.78 compaction factor) with 693,995 tons disposed in CY 2008. At the current disposal rate, there would be approximately 18 years of available C&D landfill capacity in Maryland.

Table 17 – C&D Landfill Capacity

Municipal Landfill Facility Name	Permit Number	Permitted Capacity (CY)	Landfilled To Date (CY)	Landfilled To Date (TONS)	Remaining Capacity (CY)	Reach Capacity Year	Landfilled in 2008 (TONS)	Used in 2008	Permitted Cells
Baker Rubble Landfill	2006-WRF-0622 2004-WRF-0132	1,290,000	899,914	531,196	390,086	2014	23,225	7%	2
Days Cove Rubble Landfill – Lateral Expansion	2003-WRF-0592	3,200,000	1,089,104	656,203	2,110,896	2015	129,718	8%	9
Honeygo Run Reclamation Center	2002-WRF-0579A	10,456,206	3,947,684	2,487,041	6,508,522	2017	296,098	5%	9
Oak Avenue Rubble Fill	2004-WRF-0104	2,750,000	2,750,000	2,145,000	0	2007	0	0%	5
Ritchie Reclamation – Marlboro Road	2005-WRF-0590 2004-WRF-0126	12,655,800	6,027,774	6,027,774	6,628,026	2035	244,954	4%	7
TOTALS		30,352,006	14,714,476	11,847,214	15,637,530		693,995		32

The landfill did not report "Landfilled To Date (TONS)". Amount reported was calculated using the average landfill compaction factor (CY x 0.78 compaction factor = tons).

Industrial landfills (Table 18) have 12,090,486 tons (6,792,408 CY x 1.78 compaction factor) of available capacity if 82,764 tons are disposed annually. At the current disposal rate, there would be approximately 146 years of available industrial landfill capacity in Maryland.

Table 18 – Industrial Landfill Capacity

Municipal Landfill Facility Name	Permit Number	Permitted Capacity (CY)	Landfilled To Date (CY)	Landfilled To Date (TONS)	Remaining Capacity (CY)	Reach Capacity Year	Landfilled in 2008 (TONS)	Used in 2008	Permitted Cells
W.R. Grace and Co. – Davison Chemical Division	2005-WIF-0613	495,000	46,206	61,331	448,794	2033	24,381	4%	1
Eastalco Aluminum Company	2003-WIF-0537	380,000	79,517	116,890	300,483	2050	0	0%	5
Millennium Inorganic Chemicals – HPP Landfill	2004-WIF-0527	7,293,378	1,250,247	2,161,911	6,043,131	2110	58,383	1.4%	5
TOTALS		8,168,378	1,375,970	2,340,132	6,792,408		82,764		11

Landclearing Debris landfills (Table 19) have 76,086 (245,438 CY x 0.31 compaction factor) tons of capacity. At the current disposal rate, there would be approximately 9 years of available landclearing debris landfill capacity in Maryland.

Table 19 – Landclearing Debris Landfill Capacity

Municipal Landfill Facility Name	Permit Number	Permitted Capacity (CY)	Landfilled To Date (CY)	Landfilled To Date (TONS)	Remaining Capacity (CY)	Reach Capacity Year	Landfilled in 2008 (TONS)	Used in 2008	Permitted Cells
Howlin Land Clearing Debris Landfill	2002-WLC-0577	64,120	15,540	19,425	48,580	2016	8,588	10%	1
Knott Land Clearing Debris Landfill	2006-WLC-0134	94,500	75,621	6,875	18,879	2015	0	0%	5
Hance Land Clearing Debris Landfill	2005-WLC-0252	140,080	0	0	140,080	2044	0	0%	1
Hill Land Clearing Debris Landfill	2004-WLC-0551	25,439	22,600	5,650	2,839	Not Provided	0	0%	1
M.T. Parran Landclearing Debris Landfill	2004-WLC-0550	55,180	20,120	5,000	35,060	Not Provided	30	0.3%	2
TOTALS		379,319	133,881	36,950	245,438		8,618		6

Part II – Waste Diversion

Introduction

In Maryland, waste diversion is defined as the amount of waste recycled and the amount of waste diverted from entering the waste stream through source reduction activities. Waste diversion, saves energy, reduces greenhouse gases and other pollutants generated in the manufacturing process and at landfills, saves natural resources, and reduces the amount of waste disposed at solid waste acceptance facilities (e.g., incinerators, landfills, etc.). MDE promotes and encourages waste diversion across Maryland. The promotion and encouragement of waste diversion is accomplished by partnering with Maryland's jurisdictions and the public and private sectors to develop markets for recyclable materials and by working with other State agencies to increase the volume of materials that are diverted from landfills. These programs contribute toward MDE's achievement of the outcomes stated in *Managing Maryland for Results (MFR)*, MDE's results-based planning and management approach for achieving its public health and environmental protection goals.

Solid waste disposed quantities used in Part II – Waste Diversion of this report were gathered from Maryland Recycling Act (MRA) Tonnage Reporting Surveys, filed with MDE, that capture solid waste exported directly out of State without passing through a Maryland permitted facility, and from Maryland permitted Solid Waste Tonnage Reports filed with MDE.

Maryland's Legislative Mandate

In 1988, the **Maryland Recycling Act (MRA)** mandated MDE to reduce the disposal of solid waste in Maryland through management, education and regulation. The MRA requires:

- ▲ Each jurisdiction to develop and implement recycling programs by January 1, 1994. Jurisdictions with populations greater than 150,000 are required to recycle 20 percent or more of their waste and jurisdictions with populations less than 150,000 are required to recycle 15 percent or more of their waste. In no case is the recycling rate to be less than 10 percent.
- ▲ Each jurisdiction to select the materials to be recycled and the manner in which they are separated and processed. If a jurisdiction fails to meet the specified reductions, State and local authorities can prohibit the issuance of building permits for all new construction.
- ▲ State Government to reduce by recycling the amount of the solid waste stream generated for disposal by at least 20 percent or to an amount that is determined practical and economically feasible, but in no case may the amount to be recycled be less than 10 percent.
- ▲ Telephone directories distributed in the State to have a recycled content, by weight, of 40 percent for 2005 and all subsequent years.
- ▲ Newsprint distributed in the State to have a 3-year rolling average recycled content, by weight, of 40 percent in 2005 and all subsequent years.

The MRA excludes from its scope scrap metal, landclearing debris, construction and demolition debris, sewage sludge, and hospital wastes.

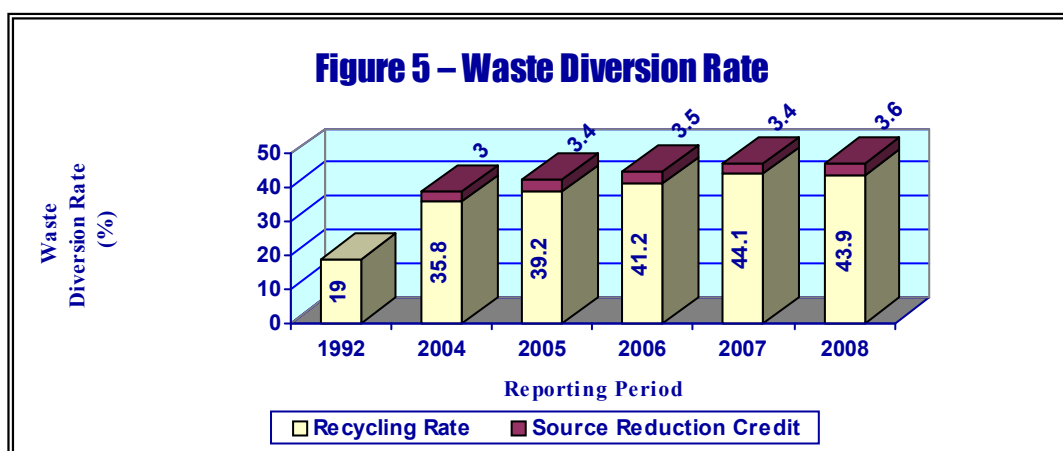
Additional legislation impacting recycling in Maryland includes:

- ▶ Banning scrap tires from disposal in a landfill after January 1, 1994 (1991).
- ▶ Requiring permits for private natural wood waste recycling facilities (1992).
- ▶ Addressing, by Counties, the feasibility of composting mixed solid waste when developing solid waste management plans (1992).
- ▶ Composting in the calculation of the recycling rate (1992).
- ▶ Banning separately collected yard waste from disposal at solid waste acceptance facilities (1994).
- ▶ Requiring mercuric oxide battery manufacturers to be responsible for the collection, transportation, and recycling or disposal of these batteries sold or offered for promotional purposes in the State (1994).
- ▶ Establishing a program or system for the collection, recycling, or disposal of each cell, rechargeable battery or rechargeable product sold in the State (1994).
- ▶ Establishing a voluntary, Statewide waste diversion goal of 40 percent by the year 2005, consisting of a 35 percent MRA recycling rate plus up to 5 percent credit for source reduction activities (2000).
- ▶ Reducing the impact of mercury in the environment by requiring that MDE provide outreach assistance to schools, businesses, and the general public relating to the proper management and recycling of mercury containing products. The law also prohibits the sale of mercury thermometers beginning in 2002 (2001).

- ▶ Prohibiting the sale of mercury containing thermostats by October 2007. Requiring MDE report to the Governor and Legislature detailing the statewide collection, reclamation, and recycling of all products containing mercury (2006).
- ▶ Requiring manufacturers of an average of more than 1,000 computers and video display devices in the previous three years who sell or offer for sale their product in Maryland to register and pay a fee to MDE. Fees may be used to provide grants to counties and municipalities for computer and video display device recycling activities. Replaces the 2005 computer recycling pilot program (2007).
- ▶ Requiring a county recycling plan to address the collection, processing, marketing, and disposition of recyclable materials from county public schools; requiring a county to submit a revised recycling plan to MDE by October 1, 2010 (2009).
- ▶ Requiring State agencies to develop a State agency recycling plan by July 1, 2010, that addresses the placement of collection bins and the recycling of aluminum, glass, paper, and plastic. Each agency and unit of State government must implement this plan by January 1, 2012 (2009).

Maryland's 47.5 Percent Waste Diversion Rate

The recycling rate plus the source reduction (SR) credit make up the waste diversion rate. Through the efforts of its citizens, businesses and government agencies, Maryland achieved a statewide waste diversion rate of 47.5 percent in calendar year (CY) 2008. This rate is relatively flat compared to CY 2007 and is in line with the national trend toward the stabilization of waste diversion rates. The 47.5 percent waste diversion rate was composed of a 43.9 percent MRA recycling rate and a 3.6 percent SR credit. This exceeds the requirements of the MRA and the 40 percent waste diversion goal targeted for 2005. Figure 5 provides a historical breakdown of Maryland's waste diversion rate.



Maryland's 43.9 Percent Recycling Rate

In CY 2008, Maryland residents and businesses recycled 43.9 percent (MRA recycling tonnage ÷ (MRA recycling tonnage + MRA waste disposed)) of

the municipal solid waste generated. To encourage more recycling, states across the country are seeking alternative ways (e.g., Single Stream Recycling, Pay-As-You-Throw Programs, etc.) to ensure that recycling continues to gain in popularity as a waste management option. Many states, including Maryland, are investigating new commodities to bring into the recycling stream, while continuing to promote the benefits of recycling.

Figure 6 summarizes the recycling tonnages since 1992 and Figure 7 categorizes the total MRA tons recycled by material in CY 2008. Compostables, and paper materials constituted the largest portion of materials recycled (miscellaneous materials are comprised of multiple materials, the largest being foundry sand at over 60 percent of the total miscellaneous materials). Table 20 details recycling and waste diversion totals for each of Maryland's jurisdictions.

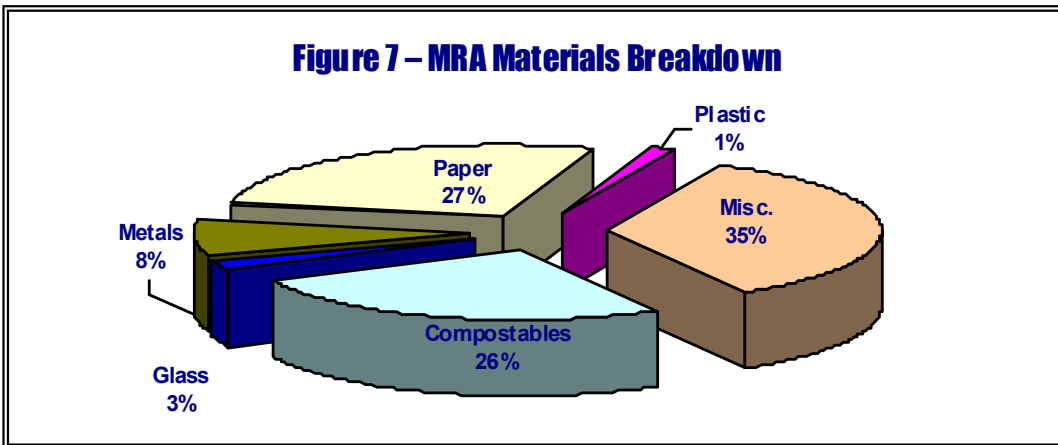
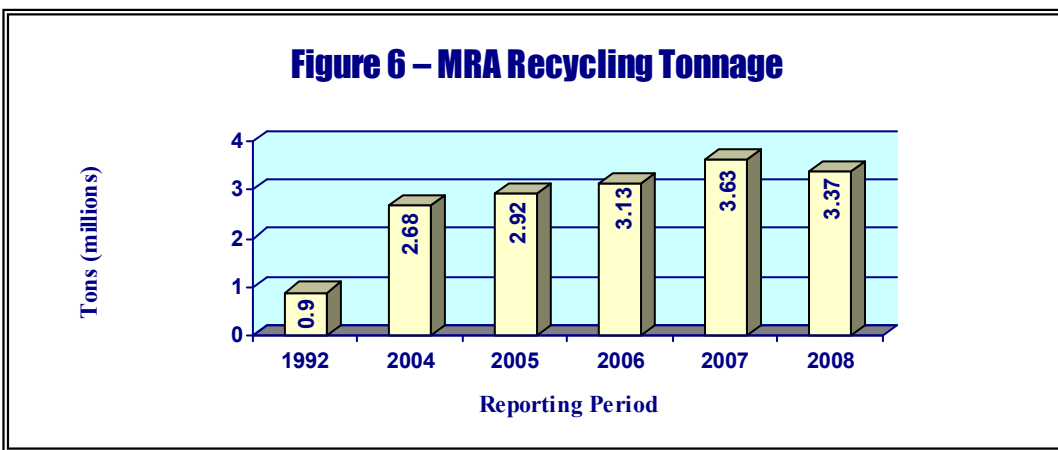


Table 20 – County Recyclables by Commodity in Tons for Calendar Year 2008

Compiled by the Maryland Department of the Environment from Reports Submitted for Calendar Year 2008

County	MRA Rate ² (%)	Waste Diversion Rate ³ (%)	Maryland Recycling Act (MRA) Materials							Non-MRA Recyclables ⁴	Total Recycling*
			Compostables	Glass	Metals	Paper	Plastic	Misc.	Subtotal		
Allegany	28.42	31.42	6,837	197	1,300	5,901	615	10,271	25,121	485,498	510,619
Anne Arundel	42.71	45.71	142,179	12,272	18,765	111,405	5,670	20,536	310,827	349,125	659,952
Baltimore City	31.14	31.14	22,013	5,333	11,295	49,104	2,549	158,301	248,595	239,473	488,068
Baltimore County	58.49	63.49	94,754	5,863	21,233	125,309	3,686	805,045	1,055,890	845,963	1,901,853
Calvert	25.44	25.44	2,999	1,389	2,876	11,970	584	1,285	21,103	14,133	35,236
Carroll	32.85	37.85	16,700	1,961	3,279	21,267	873	4,137	48,217	130,135	178,352
Cecil	49.67	52.67	62,560	538	8,917	8,063	1,360	861	82,299	43,659	125,958
Charles	42.80	47.80	32,194	3,913	3,052	15,135	1,569	2,587	58,450	512,189	570,639
Dorchester	22.84	22.84	3,062	16	1,296	3,490	36	4,259	12,159	19,806	31,965
Frederick	41.39	44.39	32,388	4,119	4,481	32,215	1,836	31,688	106,727	77,422	184,149
Garrett	47.95	48.95	15,262	234	741	2,063	411	2,111	20,822	8,844	29,666
Harford	58.64	62.64	71,143	1,655	10,654	66,441	535	43,058	193,486	17,914	211,400
Howard	42.51	47.51	85,167	13,096	8,148	71,360	7,750	5,407	190,928	3,000	193,928
Mid-Shore ¹	45.88	45.88	16,074	1,257	1,436	29,414	803	52,755	101,739	136,810	238,549
Montgomery	40.84	45.84	169,447	18,903	88,864	154,472	6,261	13,659	451,606	79,767	531,373
Prince George's	38.67	43.67	65,261	9,995	56,557	154,531	4,256	14,370	304,970	320,518	625,488
Somerset	31.46	31.46	1,782	55	6,383	127	30	51	8,428	6,174	14,602
St. Mary's	34.27	38.27	3,038	1,409	5,029	11,252	988	2,154	23,870	11,748	35,618
Washington	32.07	33.07	5,122	1,276	1,672	34,233	3,208	2,903	48,414	28,210	76,624
Wicomico	18.36	18.36	6,474	707	2,092	8,738	2,651	3,111	23,773	7,242	31,015
Worcester	31.55	31.55	15,726	1,030	6,579	6,839	248	1,211	31,633	56,737	88,370
State Highways of Additional Asphalt and Concrete Recycled										103,000	103,000
TOTAL*	43.88	47.52	870,182	85,218	264,649	923,329	45,919	1,179,760	3,369,057	3,497,367	6,866,424

* Due to rounding, tonnage totals in this table may differ slightly from the sum of actual values.

¹ Mid-Shore Regional Recycling Program includes Caroline, Kent, Queen Anne's and Talbot Counties.

² MRA Recycling Rate = MRA recycling tonnage ÷ (MRA recycling tonnage + MRA waste) x 100.

³ Waste Diversion Rate = Recycling Rate + Source Reduction (SR) Credit (based on voluntary reporting of SR activities). **Bolded** rates include both recycling and SR activities.

⁴ Column includes materials, such as construction and demolition debris, land clearing debris and recycled fluids that fall outside the scope of the standard MRA Recycling Rate, but are reported by the counties as recycled materials.

Maryland's 3.6 Percent Source Reduction Credit

In 2008, fourteen of Maryland's jurisdictions were able to add from 1 percent to 5 percent to their waste diversion rate by emphasizing SR activities as a waste reduction strategy. They accomplished this utilizing Internet resources, demonstration sites (*i.e.*, backyard food waste and yard waste composting), and publications on reuse practices and yard waste reduction. A complete list of SR activities and a breakdown of Maryland SR activities in calendar year 2008 is available in the "State, County, and City Recycling Rates" section of MDE's web page at www.mde.state.md.us/recycling.

Non-profit groups are partnering with government (*e.g.*, Baltimore Animal Rescue and Care Shelter, Inc. and Baltimore City) to increase awareness of source reduction and reuse opportunities for materials such as linens, pet supplies, medical equipment, clothing and computers. The partnering provides businesses information on how to improve their bottom line through recycling and SR. As counties learn from their successful colleagues, even more SR programs are expected.

Beyond the Maryland Recycling Act

MDE encourages the recycling of all materials because of the environmental and economic benefits provided. Local governments continue to seek recycling opportunities beyond those that apply toward the MRA rate while businesses are constantly looking for recycling opportunities to reduce the money spent on waste disposal. In fact, nearly 3.5 million tons of other Non-MRA materials were reported as being recycled in 2008. Table 21 offers a breakdown by category of the amount of Non-MRA materials reported as recycled in 2008.

Table 21 – Recycling of Non-MRA Materials in Tons

*Compiled by the Maryland Department of the Environment
from Reports Submitted for Calendar Year 2008*

MATERIAL	TONS RECYCLED
Antifreeze	2,052
Asphalt & Concrete	963,744
Coal Ash	520,652
Construction/Demolition Debris	150,143
Landclearing Debris	267,916
Scrap Automobiles	217,503
Scrap Metal	996,347
Sewage Sludge	66,096
Soils	207,189
Waste Oil	94,527
Other Materials	11,198
TOTAL	3,497,367

Maryland's 27.5 Percent All StAR Recycling Rate

Maryland State government recycling is directed by the 1988 MRA that mandates State government achieve an overall waste reduction goal of at least 20 percent, or an amount that is determined "practical and economically feasible", but in no case less than 10 percent. Also, Executive Order 01.01.2001.02 *Sustaining Maryland's Future with Clean Power, Green Buildings and Energy Efficiency* (EO) requires each State agency to annually divert or recycle at least 20 percent of the waste they generate. Finally, in 2009 the Maryland legislature passed House Bill 595 (§ 9-1706 of the Environment Article, Annotated Code of Maryland) that requires State agencies to develop a State agency recycling plan by July 1, 2010, that addresses the placement of collection bins and the recycling of aluminum, glass, paper, and plastic. Each agency and unit of State government must implement this plan by January 1, 2012.

The All StAR (**All State Agencies Recycle**) program is the name of the State government agency recycling program that is designed to help Maryland State government reach its recycling goals. All StAR agencies designate a Recycling Coordinator to manage recycling activities at their various sites throughout Maryland. They provide technical support to encourage recycling and to facilitate reporting on collection activities.

In 2008, State agencies recycled over 26,000 tons of MRA materials for an overall MRA recycling rate of 27.5 percent. This is a slight decrease from the 27.7 percent recycling rate reported in 2007. Table 22 summarizes the performance of each State agency participating in the All StAR program.

Table 22 – Maryland State Agencies' 2008 Recycling Rates

Compiled by the Maryland Department of the Environment from Reports Submitted for Calendar Year 2008

Agency Name	No. of Sites	No. of Sites Reporting	No. of People*	Total MRA 2008 (tons)	2008 MRA Recycling Rate (%)^
Department of General Services	18	18	11,674	720.48	24.59
Department of Labor, Licensing & Regulation	13	0	1,218	NR	NR
Department of Agriculture	3	3	266	44.13	37.94
Maryland Public Broadcasting Commission	1	1	212	18	11.00
Comptroller of the Treasury	1	1	850	198.59	71.80
Maryland School for the Deaf	2	2	834	92.60	36.89
Department of Natural Resources	5	1	721	17.60	22.00
Department of Juvenile Services	15	15	2,881	281.97	13.84
Maryland State Archives	1	1	84	2.80	8.24
Department of the Environment	1	1	858	23.35	19.81
Department of Transportation	74	74	25,252	10,381.57	44.30
Department of Health and Mental Hygiene	17	10	7,525	853.29	19.23
Maryland General Assembly	1	1	1,223	89.73	20.38
Dept. of Public Safety and Correctional Services	29	29	35,409	1,864.07	10.63
Department of Human Resources	11	11	4,433	220.77	25.55
Department of Assessments and Taxation	1	1	11	1.00	20.16
University of Maryland System	17	17	128,607	9,223.98	33.22

Agency Name	No. of Sites	No. of Sites Reporting	No. of People*	Total MRA 2008 (tons)	2008 MRA Recycling Rate (%)^
St. Mary's College of Maryland	1	1	2,567	791.54	42.39
Morgan State University	1	1	8,237	127.84	7.50
Department of Education	4	4	1,839	57.92	21.15
Maryland Automobile Insurance Fund	1	1	408	65.51	36.91
Maryland Stadium Authority	1	1	1,100	308.39	13.51
Baltimore City Community College	1	1	8,251	10.30	3.11
Maryland Environmental Service	1	1	210	16.26	34.26
Maryland Food Center Authority	1	1	1,327	3.00	0.05
Judiciary of Maryland	1	1	142	36.50	61.55
Subsequent Injury Fund Board	1	1	17	1.74	22.14
Department of Veterans Affairs	1	1	657	1.00	40.98
Department of Budget and Management	1	1	210	16.69	38.20
Maryland State Police	26	26	1,614	311.23	32.97
Dept of Business and Economic Development	1	1	580	31.16	23.74
Maryland Higher Education Commission	1	1	72	11.00	29.79
Dept. of Housing and Community Development	1	1	400	202.74	61.90
Maryland Insurance Administration	1	1	283	22.33	36.40
TOTALS	255	231	249,972	26,049.08	27.49

* State employees comprise approximately 84,541 of the total number of people at State Agency Locations.

^ The 1988 Maryland Recycling Act mandates a State Government recycling rate of at least 20 percent.

Bold Type – Satisfied the 20 percent recycling rate

NR – Did not report – unable to determine amount recycled

 Not all offices reported

 Recycling Rate greater than previous year

Additionally, State government recycled over 153,642 tons of non-MRA materials, including construction and demolition debris, antifreeze, motor oil, scrap metal, landclearing debris, concrete, and asphalt, that do not count towards the MRA Recycling Rate. A complete breakdown of the 2008 All StAR statistics is available under "State Agency Recycling" on MDE's web page at www.mde.state.md.us/recycling. MRA tonnages reported by State agencies are included in the 2008 recycling totals reported by the Counties (Table 3).

State agencies achieve cost savings by boosting the amount of waste diverted to recycling and by reducing the total amount of waste generated. Greater savings are realized by reducing the amount of waste generated. In 2008, State agencies diverted an additional 2.8 percent of their MRA waste for recycling over 2007. Consider the following money-saving scenarios based upon 2008 data with an average Maryland tipping fee of \$52:

- § Maryland State government realized \$1,354,548 of avoided disposal costs by recycling 26,049 tons of MRA material.
- § If each State agency (per the EO) achieves a 20 percent recycling rate by increasing its MRA tonnage, \$189,208 in additional avoided disposal costs would be realized for a potential total savings of \$1,543,756.

- s If each State agency (per the EO) achieves a 20 percent recycling rate by decreasing the amount of waste generated, additional savings of \$912,804 would be realized for a potential total savings of \$2,267,352.

MDE continues to encourage State agencies to expand their recycling programs through technical support and on-site expertise, the *All StAR News* (a newsletter devoted to recycling in State government – see Appendix D), and acting as an information clearinghouse by forwarding any relevant recycling information to the appropriate State offices.

The ability to get a recycling contractor to offer recycling pick-up service at a reasonable price is the largest obstacle to increasing the All StAR recycling rate. Companies who process and collect recyclables are in the business to make a profit. This is possible in large offices or offices in metropolitan areas where the quantity of recyclables generated makes it economically feasible to offer recycling pick-up service. In small offices or offices in rural areas, not enough recyclables may be generated to make it economically feasible for recycling pick-up service. In these situations, legislation requiring State offices to recycle will not change this fact. Requiring the State to lease office space where recycling is integrated into State leasing and janitorial contracts, similar to waste collection contracts, could overcome this obstacle and make improvements in the recycling programs for Maryland State government. Currently, leasing contracts allow State offices to set up recycling programs, but they do not require them as part of the lease. MDE and the Lease Management and Procurement Division of DGS have met on this issue and are working toward this goal.

In addition, designating a recycling coordinator in each State office with responsibility to reach the recycling goals and ensuring that State offices have the means to support a recycling program, such as establishing a material staging area, locations for recycling bins, etc., could improve State agency recycling rates.

Climate Change

Following a warming of Maryland's climate from the time of the last Ice Age, Maryland's climate has been relatively stable for the past 6,000 years. However, atmospheric concentrations of greenhouse gases (GHG) such as carbon dioxide, methane, and nitrous oxide, that trap the sun's energy from radiating back into space, have dramatically increased since the industrial revolution of the mid 19th century. Largely as a result of this increase in GHGs, average global temperature and sea level began to increase rapidly during the 20th century. As a result of this change in climate, Maryland can expect to see changes to its: water resources and aquatic environments; farms and forests; coast; Chesapeake bay and coastal ecosystems; and human health.

According to the U.S. Environmental Protection Agency (EPA), energy-related activities account for three-quarters of human-generated GHG emissions in the U.S. More than half the energy-related emissions come from large stationary sources such as power plants, while about a third come from transportation. Industrial processes (such as the production of cement, steel, and aluminum), agriculture, forestry, other land use, and waste management are also important sources of greenhouse gas emissions in the United States.

In April 2007, in response to the mounting evidence of the adverse impacts that climate change has on the environment, Governor Martin O'Malley established the Maryland Commission on Climate Change (Commission) that was charged with the task of developing a plan for Maryland that discusses the drivers and consequences of climate change, necessary preparations for its ensuing impacts on the State, and establishes firm benchmarks and timetables for policy implementation.

Using the EPA WARM (**W**aste **R**eduction **M**odel), Tables 23 and 24 detail the GHG and energy reductions obtained in Maryland via waste diversion activities in CY 2008 (In Table 23, for example, the lifecycle of glass (from production of a glass bottle → disposal of glass bottle → production of a new glass bottle) emitted 4,921 metric tons of carbon equivalent in 2008 without waste diversion activities. With waste diversion activities (thus using recycled glass in the production of a new glass bottles or reducing the amount of glass needed), the glass lifecycle saved 5,150 metric tons of carbon equivalent from entering the atmosphere, for a total savings of 10,071 metric tons (4,921 - 5,150 = 10,071)). Additional information on climate change and the Maryland Commission on Climate Change are available on MDE's web page at www.mde.state.md.us/Air/climatechange/index.asp and the EPA's web page at www.epa.gov/climatechange/index.html.

**Table 23 – Maryland Waste Diversion and GHG Emissions
for Calendar Year 2008**

MRA Material	MTCE NWD	MTCE WD	MTCE Savings	MTCO₂ NWD	MTCO₂ WD	MTCO₂ Savings
Compostables	32,039	29,552	(2,487)	117,478	108,357	(9,121)
Glass	4,921	(5,150)	(10,071)	18,042	(18,883)	(36,925)
Metals	(53,798)	(433,926)	(380,128)	(197,260)	(1,591,060)	(1,393,800)
Paper	(66,919)	(1,005,730)	(938,811)	(245,371)	(3,687,678)	(3,442,307)
Plastic	88,863	62,143	(26,720)	325,833	227,858	(97,975)
Miscellaneous	(44,809)	(917,227)	(872,418)	(164,299)	(3,363,164)	(3,198,865)
TOTAL	(39,703)	(2,270,337)	(2,230,634)	(145,577)	(8,324,571)	(8,178,994)

MTCE = Metric Tons of Carbon Equivalent

MTCO₂ = Metric Tons of Carbon Dioxide Equivalent

NWD = No Waste Diversion (baseline = 66.5% landfilled and 33.5% incinerated)

WD = From Maryland CY 2008 Waste Diversion Totals

Note: A negative value (*i.e.*, a value in parentheses) indicates an emission reduction; a positive value indicates an emission increase.

The metric tons of GHG savings in Table 23 is the equivalent of removing 1,498,037 passenger cars from the roadway each year. The BTU savings reported in Table 24 is the equivalent of the annual energy consumption of 536,856 households, or the amount of energy contained in 9,928,051 barrels of oil or 463,309,065 gallons of gasoline.

Table 24 – Maryland Waste Diversion and Energy Use for Calendar Year 2008*(in million BTUs)*

MRA Material	BTUs NWD	BTUs WD	BTU Savings
Compostables	(1,232,375)	(170,798)	1,061,577
Glass	227,107	(124,046)	(351,153)
Metals	(153,262)	(21,204,171)	(21,050,909)
Paper	(5,940,473)	(22,516,610)	(16,576,137)
Plastic	(4,631,057)	(7,159,065)	(2,528,008)
Miscellaneous	(3,005,318)	(21,143,387)	(18,138,069)
TOTAL	(14,735,378)	(72,318,077)	(57,582,699)

BTU = British Thermal Unit – the amount of energy needed to heat one pound of water one degree Fahrenheit

NWD = No Waste Diversion (baseline = 66.5% landfilled and 33.5% incinerated)

WD = From Maryland CY 2008 Waste Diversion Totals

Note: A negative value (*i.e.*, a value in parentheses) indicates an energy use reduction; a positive value indicates an energy use increase.

Promoting Recycled Products

The collection, sorting, and use of recycled materials in the manufacturing of new products are just part of the recycling process. Once manufacturers turn recyclables into products, it becomes every citizen's responsibility to "close the loop" and buy products made of recycled material. MDE works to create demand for these products by:

- ⊙ Promoting a Buy Recycled training manual and program developed by the Maryland Environmental Service (MES) for government purchasing agents. The training manual provides information on increasing purchases of products made with recycled materials.
- ⊙ Displaying recycled content items on MDE's exhibit panels that travel to school fairs, conferences, events, etc. The promotion of recycled content items and the recycling process is also being discussed in County presentations to schoolchildren in grades K-12.

MDE encourages State government to increase the use of products made with recycled materials by supporting procurement initiatives including:

- ❖ State government is required to purchase products with recycled content whenever practicable. A 5 percent pricing preference over similar items not made from recycled material is allowed.
- ❖ MDE works cooperatively with the Maryland Department of General Services (DGS) to promote government purchasing of materials with recycled content.
 - In FY 2009, buying paper products made with recycled content paper was the rule not the exception with 97 percent of paper products (*e.g.*, bond paper, computer paper, etc.) purchased made from recycled content paper. This is consistent with the preceding 4 fiscal years rates of FY 2005 – 93

- percent, FY 2006 – 99 percent, FY 2007 – 96 percent, and FY 2008 – 99 percent.
- Details on State procurement guidelines along with lists of products available with recycled content such as picnic tables, park benches, and re-refined motor oil are available on the DGS web page at <http://dgsweb.dgs.state.md.us/procure/Recycled-Laws.htm>. Local jurisdictions in Maryland are able to piggyback on State procurement contracts.
 - Boilerplate language stating, "All products used in packing to cushion and protect during the shipment of commodities are to be made of recycled, recyclable, and/or biodegradable materials" is included on all Maryland Invitation to Bid Solicitations and Purchase Orders.

Special Programs

From July 2008 through June 2009, MDE continued implementing special programs designed to expand recycling and protect public health and the environment.

Newsprint

Maryland law mandates that, on a statewide basis, newspapers distributed in Maryland shall contain at least 40 percent recycled content newsprint. To determine compliance with the law, publishers are required to file quarterly and annual reports with MDE. In the year following a reporting period (reporting period is comprised of the current calendar year and the immediately preceding two calendar years) where the recycled content percentage requirement is not met, each newspaper publisher who distributes a newspaper in Maryland shall satisfy the recycled content percentage requirement or pay a fee of \$10 per ton for each ton a publisher falls below the 40 percent requirement. In the reporting period ending CY 2008, the newsprint recycled content percentage was 48.5 percent, exceeding the requirements of the MRA.

Table 25 contains 59 known publishers that distribute 167 different newspapers in Maryland. MDE continues to seek increased compliance from publishers who did not fulfill reporting requirements.

Table 25 – Maryland Newspaper Publishers

Publisher	Content %	Publisher	Content %
A&C Business News	NR	Gay & Lesbian Community Ctr. of Baltimore	51
Afro-American Newspapers	54.3	Greenbelt Cooperative Publishing	NR
American Farm Publications	39.5	Herald-Mail	52.7
Baltimore Business Journal	68.5	Independent Newspapers, Inc.	50.5
Baltimore Jewish Times	49.6	Kimbel Publications	39.0
Baltimore Newspaper Publishing Co., LLC	26.8	Landmark Community Newspapers	38.6
Baltimore Sun Community	100	Latin American Times	NR

Publisher	Content %	Publisher	Content %
Newspapers			
Baltimore Sun	58.5	Legal Times	NR
Baltimore Times Publications	35.2	Maryland Coast Dispatch	NR
Bay Weekly	43.9	Morgan Messenger	29.8
Bayside Gazette	34.4	New York Times Company	29.5
Capital-Gazette Newspapers	30.4	News Journal, Wilmington	26.5
Carroll Publishing Company	42.3	Post Newsweek Media	66.7
Catholic Review	38.5	Prince George's Post	NR
Chatsworth Enterprises	39.0	R&B Publishing Company	NR
Chesapeake Publishing Corporation	75.5	Randall Family, LLC	68.6
Citizen Communications, Inc.	100	Sentinel Newspapers	35.6
City Paper	12.0	Sincell Publishing Company	NR
Connection Publishing	100	Southern Maryland Printing	30.5
Courier	40.5	Southern Maryland Publishing Co.	38.7
Cumberland Times News	29.8	St. Mary's Today Newspaper, LLC	NR
Daily Record	40.7	USA Today	31.1
Dow Jones & Company	29.7	Washington Business Journal	NR
El Tiempo Latino	49.5	Washington County Pickett	NR
Express Publications Company, LLC	49.6	Washington Newspaper Company	NR
Flag Publications	50	Washington Newspaper Publishing Co., LLC	27.3
Freestate Independent Inc.	35.3	Washington Post	48.9
FT Publications Inc.	0.0	Washington Times	34.7
Gannett Company, Inc.	31.1	Western Montgomery Bulletin	39.6
		Zip Publishing	NR
NR – Did not report		% based upon partial reporting period data	

Telephone Directory

The MRA requires telephone directory publishers, who in the previous calendar year used at least 50 tons of directory stock in telephone directories distributed in the State of Maryland, to use directory stock with a recycled content, by weight, of at least 40 percent. Publishers of telephone directories must file an annual report with MDE detailing the recycled directory stock content used in their directories.

There are five known publishers of telephone directories distributed in the State of Maryland. In 2008, recycled content for these directories was reported as follows:

- ✖ BSMG Directories – 96.2 percent recycled content;
- ✖ Hispanic Yellow Pages – Did Not Report;
- ✖ Idearc Media – 40.0 percent recycled content;
- ✖ Yellow Book USA – 40.5 percent recycled content; and
- ✖ Yellow Pages Group Directories – 79 percent recycled content.

Per the MRA, any publisher of telephone directories distributed in the State who fails to submit the required report shall be deemed to have failed to meet the percentages established.

Electronics Recycling (eCycling)

Computers, televisions, and other consumer electronics are a rapidly growing part of the waste stream. The potential environmental and health threats



posed by computers and other consumer electronics that may contain toxic materials such as lead, mercury, cadmium, and chromium, continue to raise concerns about their disposal.

In 2005, Maryland became the third state to enact electronics recycling legislation. The Statewide Computer Recycling Pilot Program (SCRPP) required computer manufacturers to register with, and pay an annual registration fee to, MDE in order to sell their products in Maryland. In 2007, the Statewide Electronics Recycling Program (SERP) was passed. Effective October 1, 2007, the SERP builds upon the success of the SCRPP. Key changes to the SCRPP include expanding the scope of electronics covered and clarification to the definition of “manufacturer”. Highlights of the SERP include:

- ★ Requiring manufacturers who manufacture an average of more than 1,000 covered electronic devices (*i.e.*, a computer or video display device (*e.g.*, televisions, monitors, etc.) with a screen that is greater than 4 inches measured diagonally) per year in the immediately preceding 3-year period to register with and pay a registration fee to MDE if they plan to sell or offer for sale to any person in the State a new covered electronic device.
- ★ Payment of an initial annual registration fee of \$10,000. The subsequent annual renewal registration fee is \$5,000 but the fee can be reduced to \$500 provided the manufacturer has a MDE approved takeback program.
- ★ Prohibiting a retailer from selling or offering for sale to any person in the State a new covered electronic device manufactured by a manufacturer who has not registered and paid the required registration fee to MDE.
- ★ Provision for civil and administrative penalties against manufacturers and retailers who fail to comply with the SERP.
- ★ Issuance of grants to counties and municipalities to assist with covered electronic device recycling activities.
- ★ Requiring counties to address methods for the separate collection and recycling of covered electronic devices in their recycling plans in order to be eligible for State grants.

Through June 30, 2009, 65 manufacturers registered with MDE and were authorized to sell their products in Maryland in 2009. In Fiscal Year (FY) 2009, \$616,552 in registration fees were utilized to provide grants to 8 municipalities and 17 counties for eCycling activities including establishing permanent collection facilities, curbside pickup for seniors, purchasing equipment, expanding electronics recycling, and holding special collection events.

Highlights of eCycling in Maryland from October 2001 to December 2008, include:

- ✓ 142 special collection events (*i.e.*, 1 or 2-day collection events) were held in 24 jurisdictions.
- ✓ Following 3 years of continuous drops in the number of special collection events, there was a 39 percent increase in the number of collection events in 2008.
- ✓ Permanent collection programs have been established in Anne Arundel, Baltimore, Calvert, Carroll, Cecil, Charles, Frederick, Garrett, Harford, Howard, Kent, Montgomery, Prince George's, St. Mary's, Washington, Wicomico, and Worcester Counties, and Baltimore City.
- ✓ Regularly scheduled eCycling collection events are held in the cities of Greenbelt and Salisbury.
- ✓ A one-day event in Baltimore County on April 30, 2005, collected over 89 tons of electronic equipment from 1,600 participants.
- ✓ Over 19,293 tons of electronic equipment has been collected for recycling throughout Maryland since the start of the eCycling program.

Information on Maryland's eCycling program is available on MDE's web page at www.mde.state.md.us/ecycling. Table 26 gives a breakdown of the electronics equipment collected. An additional 3,055 tons of electronics were collected in 2008, which Counties reported to MDE as being from commercial businesses that were not part of residential eCycling programs.

Mercury Recycling

MDE continues to implement the 2001 mercury legislation entitled "*Mercury and Products that Contain Mercury*" (*Environment Article, Subtitle 9 Sections 6-904 through 6-907*). MDE has developed informational materials on the hazards of mercury, designed programs to encourage voluntary efforts of Marylanders to reduce mercury, increased awareness of mercury, and provided an information source for Marylanders in the event of mercury spills. In conjunction with County Health Officers and Environmental Health Directors, MDE worked to develop and distribute information for adults and children on mercury and mercury-containing products. Fact sheets are available on MDE's web page at www.mde.state.md.us/Programs/LandPrograms/Hazardous_Waste/mercury/index.asp. The fact sheets cover such topics as mercury thermometer drop-off locations, general mercury information, alternative products to those containing mercury, mercury spill cleanup and spill kit vendor information, and fish consumption advisories. The MDE Emergency Response Division also continues to provide mercury specific response training to firefighters throughout the State.

MDE has collaborated with many organizations to fulfill the *Mercury and Products that Contain Mercury Act* mandates. Collaborations have been useful in

Table 26 – eCycling Collection Programs

County	Population	Type	Date(s)	No. of participants	Tons collected	Pounds collected	Pounds/participant
Subtotal Maryland	5,851,736	–	thru 12-31-07	–	12,823.82	25,647,637	–
eCycling Special Events in 2008							
Allegany (4)	74,020	1 & 2-day	Mar, Apr, Jun, Nov	470	39.02	78,031	166
Annapolis, City of (2)	36,603	1 & 2-day	Apr, Oct	–	10.7	21,411	–
College Park, City of (8)	26,607	1-day	Apr, Oct	237	12.15	24,300	103
Greenbelt, City of (4)	22,777	1-day	Jan, Apr, Jul, Oct	242 (2 events)	12.31	24,624	54 (2 events)
Hyattsville, City of (3)	15,591	1-day	Jan, Jun, Oct	88 (1 event)	8.23	16,463	51 (1 event)
Midshore Region (2)	137,508	1-day	Apr, Nov	951	43.19	86,380	91
Montgomery (6)	972,826	1-day	Jul, Sept, Oct, Nov, Dec	704	90.71	181,420	258
Prince George's (3)	863,829	1-day	Mar, May, Nov	1,738	34.36	68,720	125
Worcester (2)	51,253	1-day	Apr, Nov	555	11.8	23,600	43
Subtotal Events	2,201,014	–	2008	4,985	262.47	524,949	96
Permanent eCycling in 2008							
Anne Arundel	520,931	–	2008	–	688.10	1,376,193	–
Baltimore City	641,808	–	2008	–	502.34	1,004,680	–
Baltimore County	806,238	–	2008	–	667.69	1,335,380	–
Calvert	93,761	–	2008	–	121.46	242,920	–
Carroll	175,502	–	2008	–	272.17	544,340	–
Cecil	104,585	–	2008	–	193.11	386,210	–
Charles	146,990	–	2008	–	192.76	385,518	–
Frederick	234,908	–	2008	–	216.71	433,420	–
Garrett	30,693	–	2008	–	42.28	84,560	–
Harford	248,448	–	2008	–	186.50	373,000	–
Howard	284,733	–	2008	–	599.72	1,199,440	–
Kent	20,134	–	2008	–	5.92	11,840	–
Montgomery	972,826	–	2008	–	1,549.76	3,099,520	–
Prince George's **	863,829	–	2008	–	236.68	473,360	–
St. Mary's	103,679	–	2008	–	120.00	240,000	–
Washington	146,981	–	2008	–	107.26	214,520	–
Wicomico **	92,706	–	2008	–	270.63	541,260	–
Worcester	51,253	–	2008	–	69.79	139,580	–
Subtotal Permanent	5,540,005	–	2008	–	6,042.88	12,085,741	–
TOTALS (2001 – 2008)				4,985 (2008)	19,129.17	38,258,327	96 (2008)

* Midshore Region is composed of Kent, Queen Anne's, Talbot, and Caroline Counties.

** The City of College Park's permanent eCycling facility total (10.56 tons) is included in Prince George's County "Permanent" total. The City of Salisbury (21 tons) had its annual curbside eCycling collection event in 2008. The totals from the event are included in the Wicomico County "Permanent" total.

ensuring that more Marylanders are aware of the hazards of mercury and the requirements of legislation concerning mercury. Some collaborations include:

- ✧ Support of the National Vehicle Mercury Switch Recovery Program (NVMSRP). NVMSRP is the result of a two-year collaborative effort involving EPA, vehicle manufacturers, the American Iron and Steel Institute, the Steel Manufacturers Association, the Institute of Scrap Recycling Industries, the Automotive Recyclers Association, Environmental Defense, the Ecology Center (Ann Arbor), and representatives of the Environmental Council of the States. Stakeholders developed a voluntary program to recover mercury switches from scrap automobiles before they are shredded for recycling. In addition to being free to scrap recyclers, the program pays scrap recyclers \$4 per switch that is returned for recycling. In October 2008, MDE inspectors visited scrap recyclers in Maryland urging them to participate in the NVMSRP. As of June 30, 2009, 106 recyclers of a possible 152 had enrolled in the program.
- ✧ Continued support of Maryland Hospitals for a Healthy Environment (H2E). MDE provided a grant to this organization in 2008, which funded mercury audits at three hospitals, including one Maryland DHMH facility (Springfield Hospital Center). Information on the audits was presented at the Maryland H2E annual meeting in November 2008 and the case studies have been posted at http://www.mde.state.md.us/assets/document/H2E_Case_Studies.pdf

Mercury legislation in 2006, Environment Article Section 6-905.2, prohibits the sale of mercury containing thermostats by October 1, 2007. It also required that MDE report to the Governor and Legislature detailing the statewide collection, reclamation, and recycling of all products containing mercury.

In 2009, HB 1263 – Mercury Switch Removal from Vehicles (Environment Article Section 6-905.4 to 6-905.6) was passed. The law requires motor vehicle manufacturers to develop a mercury minimization plan that includes information on mercury switch removal from motor vehicles. Additionally, the law requires a vehicle recycler to remove mercury switches from their end-of-life vehicle inventory and vehicles processed into the vehicle recycler's inventory. MDE has contacted Maryland vehicle recyclers and scrap processing facilities to inform them of the new law and how it affects them.

Household Hazardous Waste (HHW)

The Annotated Code of Maryland, Environment Article § 9-1801, defines Household Hazardous Waste (HHW) is any waste material, including garbage or trash, derived from a household that would be listed as hazardous waste under the Resource Conservation and Recovery Act but for the fact that the waste is derived from a household. Household hazardous waste may include: gardening chemicals, cleaning agents and solvents, motor oils, paint, pesticides, and preservatives.

Maryland does not regulate HHW as hazardous waste and Federal law allows for the disposal of HHW in household trash. However, due to the potential

of HHW to cause physical injury, contaminate septic tanks or wastewater treatment systems, and present hazards to children and pets, MDE recommends the proper recycling/disposal of HHW materials at local HHW collection programs. Information on HHW programs in Maryland is available at www.mde.state.md.us/Programs/LandPrograms/Recycling/Education/hhw.asp.

Business Resources

MDE provides assistance to businesses that are interested in participating in Maryland's recycling program by guiding them through the State regulatory framework, consulting on recycling program implementation, and locating markets for recyclable materials. The following provides a more detailed description of these activities.

Market Locator

The success of Maryland's recycling programs is linked to finding markets for the materials collected. The State's material recovery facilities (MRFs) are strategically located to ensure materials reach their market economically.

Businesses can access the Recycling Market Directory at www.mde.state.md.us/recycling to find a market for recyclable materials. The web site is designed to promote commercial recycling in Maryland and is searchable by commodity. Businesses can also check the homepage of the Mid-Atlantic Consortium of Recycling and Economic Development Officials (MACREDO) at <http://macredo.org/> for facilities in the region. The MACREDO database is searchable by business name, commodity group, facility type, member state, and metropolitan area and/or zip code. Additional links to other companies are available on MDE's recycling web pages for the specific commodity in question. For companies without access to the Internet, MDE can mail or fax a list of markets by material.

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

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

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

A detailed report on the handling of scrap tires in Maryland is available in the *Maryland Scrap Tire Program's Annual Report* available on MDE's web page at http://www.mde.state.md.us/Land/land_publications/index.asp.

Batteries – The metals and plastics contained in batteries can be recycled and used to make other products (including new batteries). In addition, the recycling of batteries allows the collection of hazardous metals where they can be more easily managed. Most Counties accept all types of batteries from residents as part of County Household Hazardous Waste (HHW) programs. Specific HHW information is available through each County. County contact information is available on MDE's household hazardous waste web page at www.mde.state.md.us/Programs/LandPrograms/Recycling/Education/hhw.asp. Old automobile batteries can be returned to the retail establishment where a replacement battery is purchased and rechargeable battery collection locations can be obtained by calling 1-800-8BATTERY (822-8837). Additional battery recycling resources for residents and businesses are available by accessing the "Recycling Market Directory" on MDE's recycling web page at www.mde.state.md.us/recycling. Battery recycling companies listed in the "Recycling Market Directory" include:

Company Name	Telephone Number
AERC Recycling	321-952-1516
Air Cycle Corporation	800-909-9709
Arundel Recycling	410-761-6595
Battery Solutions, Inc.	810-494-5010
Cambridge Iron & Metal	410-327-7867
Eco-Battery, Inc.	888-768-2004
Envirolight and Disposal	727-526-8870
Everlights, Inc.	773-734-9873
Exide Corporation	610-378-0540
Inmetco	724-758-2800
Maryland Recycle Company	410-780-3060
Rechargeable Battery Recycling Corporation	877-723-1297
Schultz & Sons Salvage	410-479-2110
Southeast Recycling Technologies Inc.	800-592-3970
USA Lights	301-699-6244
Waldorf Metal Company	301-932-1220

Please contact these companies for details.

White Goods – White goods are defined as large household appliances such as refrigerators, stoves, air conditioners, and washing machines. Once collected, white goods have environmentally detrimental materials removed for proper disposal, and the remaining materials (usually metal) are sold for scrap and made into new products. Every County and Baltimore City accepts white goods from residents for recycling. Contact each jurisdiction for details and any questions concerning the proper collection procedures. Contact information is also

available in the “State, County, and City Contact Info” section on MDE’s web page at www.mde.state.md.us/recycling. Additionally, resources for residents and businesses are available under “Metals” in the “Recycling Market Directory” available on MDE’s recycling web page.

Permitting Guidance

Documents are available and regularly updated through MDE to assist recycling and composting businesses in understanding environmental permitting procedures and requirements.

Business Guide to Environmental Permits and Approval – This Business Guide to Permits and Approvals (www.mde.state.md.us/Permits/busGuide.asp) contains important information about the different types of permits, licenses and approvals issued by the Maryland Department of the Environment (MDE). These permits affect businesses and individuals ranging from well drillers, dry cleaners, and gas stations, to power plants and other large industrial facilities. MDE developed this guide as part of its continued commitment to provide excellent service to its permitting customers. The information in this guide can help you determine your permitting needs.

Local Permitting Issues for Recycling and Composting Facilities – This fact sheet lists various local permits and approvals that may be required of recycling and composting businesses. It also gives information on local economic development points of contact at the county level for any business considering locating or expanding in a specific jurisdiction. This factsheet is available by request or by going to the MDE's recycling web page at www.mde.state.md.us/recycling and clicking on “Education and Outreach”.

Solving the Permit Puzzle in Maryland – This document outlines common State permit procedures and permits that may be required of recycling and composting businesses. This booklet is available by going to MDE's recycling web page at www.mde.state.md.us/recycling and clicking on “Publications”. Information on permit requirements is available on MDE’s web page at www.mde.state.md.us/Permits/index.asp.

Waste Diversion Guide

Commercial Waste Diversion Implementation Guide – This document assists local recycling coordinators who are working with businesses to promote recycling and source reduction. Case studies detailing successful commercial waste diversion efforts are provided. The guide is available on the MDE web site at www.mde.state.md.us/assets/document/recycling/commercialwasteguide.pdf.

Public Resources

As State and County recycling programs continue to mature, it is important for MDE to keep the public informed on waste diversion programs in the State. From July 2007 thru June

2008, MDE provided assistance and public education through efforts such as America Recycles Day/Rethink Recycling Sculpture Contest, web resources, and county solid waste and recycling managers meetings.

America Recycles Day (ARD)

America Recycles Day (ARD) is a national event that promotes recycling, source reduction, and buying products made from recycled materials as objectives to a more sustainable society. MDE held the seventh Annual "Rethink Recycling" Sculpture Contest on November 7, 2008 at MDE headquarters.

The "Rethink Recycling" Sculpture Contest featured 50 entries from 18 different high schools across Maryland. The Sculpture Contest challenged students to innovatively and artistically use recycled or reused materials as a solution to waste reduction. With instruction to create a sculpture that promotes "America Recycles Day", students created artworks containing records, plastic bags, old shoes, playing cards, computer parts, and other materials. Participants were judged based on creativity, use of materials, and workmanship. In addition, a "People's Choice" award was given to the sculpture that received the most votes from attendees of the contest.

A great blue heron, a gorilla, a crab, and a rooster were among the winning pieces of artwork.

MDE Web Site

Information on Maryland's waste diversion activities can be found on MDE's waste diversion web page at www.mde.state.md.us/recycling. The web page includes information on: State and County recycling programs, source reduction, special projects (e.g., electronics and mercury recycling, composting, and household hazardous waste, etc.), setting up recycling programs at work and school, All StAR recycling, educational resources, and links to other sites. New information is added as it becomes available. MDE's website also offers Maryland's citizens and businesses the opportunity to e-mail MDE with questions or comments on recycling.

County Recycling & Solid Waste Managers Forums

MDE organizes regular joint County Solid Waste and Recycling Managers meetings in Maryland throughout the year. These meetings offer managers the opportunity to network and share ideas and gain insight to promote efficient solid waste management and recycling programs. MDE reports on the latest recycling activities, trends, and legislative and regulatory changes. Speakers from industry and government are invited to educate local governments on issues including news media and public education, new technologies, and initiatives such as pharmaceutical disposal and recycling of compact fluorescent lightbulbs. In an effort to keep these forums focused and relevant, County managers are periodically surveyed regarding the meeting format and their technical support needs.

Partnerships

MDE recognizes the value of being an active partner with local and regional groups that focus on waste management issues. The following is a description of MDE's partnerships.

Maryland Recycling Network (MRN) – The MRN (www.marylandrecyclers.org/) is a non-profit, volunteer organization committed to promoting waste reduction, recycling and the conservation of natural resources. MRN is dedicated to promoting partnerships and cooperation between private and public sectors. MDE supports the mission of the MRN through staff participation, funding, and projects. MDE attends MRN meetings and reports MDE's activities and accomplishments to MRN Board members and attendees.

Maryland Environmental Service (MES) – MES (www.menv.com/) recognizes that recycling is an element of effective waste management. MES assists the MDE-led All StAR program and local governments by offering program planning and implementation, facility management and operation, and marketing of materials. MES administers the Maryland Used Oil Recycling Program on behalf of MDE. Information on MES programs is available at www.mes@menv.com or 1-800-4RECYCLE (1-800-473-2925).

Northeast Maryland Waste Disposal Authority (NMWDA) – The NMWDA (www.nmwda.org/) provides solid waste and biosolids management to its members – Anne Arundel County, Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, and Montgomery Counties. The Authority manages three waste-to-energy facilities, and a facility that converts sewage sludge into compost.

Mid-Atlantic Consortium of Recycling and Economic Development Officials (MACREDO) – MDE is a member of MACREDO, a consortium that was established through a grant from the United States Environmental Protection Agency Region III to promote regional market development efforts for recycled materials. Other members include representatives from Delaware, Pennsylvania, Virginia, West Virginia and the District of Columbia. MACREDO offers a forum for information exchange between member jurisdictions, local authorities, the private sector, and nonprofit organizations.

Information about ongoing MACREDO projects is available on the MACREDO home page at <http://macredo.org/>. These projects involve organic material recovery, deconstruction/building material reuse, electronic product recovery, and green building.

County Waste Diversion Programs

County waste diversion programs are the key to the success of waste diversion in Maryland. MDE works cooperatively with each County to ensure that valuable market and

program information is shared, analyzed, and discussed. Table 27 illustrates the elements of Maryland's individual recycling programs. Unless otherwise noted in Table 10, all Counties collect “core” recyclables that include mixed paper (*i.e.*, all paper types, envelopes, books, cardboard, magazines, newspaper, and telephone books), containers (*i.e.*, glass, metal, and plastic), white goods (*i.e.*, appliances), and organics (*i.e.*, yard trimmings and Christmas tree recycling). Additionally, MDE's recycling web page contains detailed information on the County recycling programs and source reduction activities. As County programs are always evolving, it is a good idea to contact the County to confirm the information reported in Table 9 and for further details.

MDE commends County recycling and solid waste managers for their innovative thinking, hard work and dedication in providing education and implementing recycling and source reduction programs for Maryland's citizens and businesses. Highlights of County programs in 2008 include:

- Eleven (11) counties achieved waste diversion rates greater than the 40 percent waste diversion goal.
- Fourteen (14) counties earned SR credits. Six (6) of these counties, Baltimore, Carroll, Charles, Howard, Montgomery, and Prince George's earned the maximum 5 percent SR credit.
- Citizens had access to recycling by curbside collection or a regional network of drop-offs or both.
- Twelve (12) counties accept fluorescent lights for recycling.
- Seven (7) Counties accept expired medication for proper disposal.
- Eighteen (18) Counties had permanent electronic drop-off locations.
- The Cities of Greenbelt and Salisbury had regularly scheduled eCycling collection events.
- Eight (8) counties and 4 municipalities held eCycling collection events.
- Fifteen counties operated textile collection programs.
- Fourteen counties maintained 19 mercury thermometer drop-off locations.
- Eight (8) counties collected paint for recycling.
- Three (3) counties recycled boat shrink-wrap.
- Nineteen (19) counties operated Household Hazardous Waste Programs.

It is important to remember that waste diversion programs are constantly evolving. Appendix E includes contact information for Maryland's recycling coordinators who can provide the most current information about waste diversion in their jurisdictions. For additional information, log onto MDE's recycling web page at www.mde.state.md.us/was/recycling and click on "State, County, and City Contact Info."

Table 27 -- County Residential Recyclables by Commodity

County	Fluorescent Lights	Medicine	Lead-Acid Batteries	Oil/ Antifreeze	Established Electronic Drop-offs	Paints	Textiles	Hg°	HHW~	Comments/Additional Materials^
Allegany	✓			✓/✓			✓		✓	eCycle event (household batteries & fluorescent lights), tire events; No hard cover books
Anne Arundel*	✓		✓	✓/✓	✓	✓			✓	wood pallets, scrap metal, tires, shingles
Baltimore City*	✓		✓	✓/✓	✓				✓	leaves and x-mas tree only
Baltimore County	✓	✓	✓	✓/✓	✓	✓		✓	✓	gasoline, usable building material, thermostats, residential rechargeable batteries
Calvert*	✓		✓	✓/✓	✓		✓	✓	✓	cooking oil, printer cartridges, lead acid batteries, thermostats, scrap metal, auto tires, oil filters
Caroline			✓	✓/✓			✓		✓	eCycle event; No hard covers books w/ mixed paper; Mid-shore program
Carroll*		✓	✓	✓/✓	✓		✓	✓	✓	scrap metal, vinyl siding, plastic bags
Cecil*	✓	✓	✓	✓/✓	✓	✓	✓	✓	✓	wood pallets, rechargeable batteries, latex paint
Charles*		✓	✓	✓/✓	✓		✓		✓	household batteries, oil filters; No books, paperboard
Dorchester				✓/✓				✓		No books
Frederick*	✓	✓	✓	✓/✓	✓		✓		✓	pesticide bottles, wood pallets, propane; No books
Garrett				✓/✓	✓					#1 & 2 plastic only, inkjet & toner cartridges, No books
Harford	✓		✓	✓/✓	✓	✓	✓	✓		gasoline, pesticide containers, oil filters, propane tanks, inkjet cartridges, gasoline
Howard*	✓		✓	✓/✓	✓	✓	✓	✓	✓	propane tanks, asphalt roof shingles, scrap metal, reusable building materials, carpet, vegetable oil
Kent			✓	✓/✓	✓		✓	✓	✓	eCycle event; pesticide containers, boat shrink-wrap; Mid-shore program; No hardback books
Montgomery	✓		✓	✓/✓	✓	✓	✓		✓	eCycle event; bicycles, cooking oil, propane tanks, tires, reusable building materials
Prince George's*	✓	✓	✓	✓/✓	✓	✓		✓	✓	eCycle event; cooking oil, mattress foam
Queen Anne's				✓/✓			✓	✓	✓	eCycle event; boat shrink-wrap, bicycles, passenger tires; Mid-shore program
St. Mary's*	✓	✓	✓	✓/✓	✓	✓	✓		✓	pesticide containers, oil filters, ink jet cartridges, cooking oil, rechargeable batteries, propane cylinders, scrap tires, scrap metal
Somerset				✓/✓				✓		No books
Talbot			✓	✓/✓			✓		✓	eCycle event; pesticides, boat shrink-wrap; Mid-shore program
Washington			✓	✓/✓	✓			✓		Propane tanks, cooking oil
Wicomico				✓/✓	✓		✓	✓	✓	pesticides, wood pallets
Worcester			✓	✓/✓	✓			✓	✓	eCycle event; drywall

* Single-stream Recycling (in Calvert Co. only some individual towns offer single-stream)

° Have established Mercury Thermometer Drop-offs

~ Household Hazardous Waste Collection Day. Contact the County for details including materials accepted.

^ In this section, eCycle = electronics recycling

Appendix

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Appendix A

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Permitted Solid Waste Acceptance Facility Economic Benefits

This table provides information that was voluntarily reported by 20 permitted solid waste acceptance facilities in 14 political jurisdictions describing the economic benefits of the facilities to the host communities. While the economic benefits identified in the table are significant, the information does not fully represent the total economic benefit to Maryland's communities that are provided by all permitted solid waste acceptance facilities.

Table A1 – Economic Benefits

Jurisdiction	Site Name	Economic Benefits To Community	Value of Facilities Provided	Direct Employment Benefits (Salaries/No. of Employees)	Other Economic Benefits
Allegany	Mountainview Sanitary Landfill (Privately Owned)	Provides County residents and businesses an environmentally safe disposal site for County solid wastes at reasonable rates. The facility has eliminated the need for Allegany Co. to fund and operate its own solid waste disposal facility.	Allegany County uses Mountainview Landfill as a collection site for recycling materials including, glass, cardboard, plastic, aluminum cans, newspaper, and magazines. The facility also provides an ash disposal area for citizen use during the winter months.	No information provided.	The Mountainview Landfill had purchases for supplies and materials from Allegany County businesses. Also has on-site used oil, cardboard, and aluminum recycling programs to boost recycling in Allegany County.
Anne Arundel	Annapolis Junction Recycling and Transfer Station (Privately Owned)	Facility pays Host Community Fee to County for each ton of solid waste received. Tip fee charged County is below the area's rates for disposal.	Highway traffic from tractor trailer trucks is reduced due to rail transfer of solid waste. Allows Anne Arundel and Howard Counties to conserve disposal capacity in county landfills.	24 employees	No information provided.
Baltimore City	Baltimore Environmental Processing Facility (Privately Owned)	Annual real estate, personal property and sales taxes paid to City.	Convenient location for contractors.	\$200,000/4 employees including manager, clerk and 2 equipment operators.	Purchases of goods and services from the local community include fuel, temporary labor/parts and repairs.
Baltimore City	BFI Baltimore Processing and	Paid local taxes.	Convenient location for C&D haulers to	12 employees mostly operators	No information provided.

Jurisdiction	Site Name	Economic Benefits To Community	Value of Facilities Provided	Direct Employment Benefits (Salaries/No. of Employees)	Other Economic Benefits
	Transfer Center (Privately Owned)		offload.	and a few sorters	
Baltimore City	Wheelabrator Baltimore LP. (Privately Owned)	Extends life of landfills by reducing MSW volume through incineration.	Sponsors several community outreach and partnership programs	\$6 – 7 Million / 68 employees including professionals and skilled workers	No information provided.
Baltimore City	Cannon Hygiene (USA), Inc. (Privately Owned)	Local employment, rent and other direct local purchases to support business.	Not provided.	8 full time employees.	Local expenditure: \$200,000.
Baltimore	Recovermat Mid-Atlantic (Privately Owned)	\$39,677 paid in taxes to Baltimore County. Has a hiring priority for local residents.	Provides free disposal service for the Park Service.	\$760,956/12 employees. Jobs include laborers, equipment operators, mechanics, administrative and office staff.	90% of all purchases are made locally.
Calvert	Howlin Land Clearing Debris Landfill (Privately Owned)	Tax incentive.	Assisting county in disposing county solid waste.	3 employees.	No information provided.
Calvert	Southern Maryland Processing Facility (Privately Owned)	Assisting county in handling solid waste & promoting recycling.	Not provided	4 employees.	\$10,000 annual purchase of goods and services, recycled products with \$9,000.
Calvert	Appeal Sanitary Landfill (County Owned)	The transfer station provides value to Calvert County by allowing the Division of Solid Waste to extend the useful life of the Appeal Municipal Landfill by at least 20 years, providing a tangible economic benefit.	The transfer station is complementary to the Appeal Municipal Landfill, and is operated in conjunction with ongoing solid waste refuse collection, landfilling and recycling operations.	The employees associated with the transfer station are neither hired managed, evaluated or compensated by Calvert County Division of Solid Waste. The number of, types and compensation of the employees at the transfer station are at the discretion of Garnet of Maryland, Inc. (Waste Management, Inc. [WM]).	No information provided.
Carroll	Roll-Off Express, Inc. (Privately Owned)	\$54,000/year paid in real estate, personal property and sales taxes.	\$2.25 million investment for facilities.	\$275,000/17 employees including equipment	\$375,000 annual purchase of goods and services.

Jurisdiction	Site Name	Economic Benefits To Community	Value of Facilities Provided	Direct Employment Benefits (Salaries/No. of Employees)	Other Economic Benefits
				operators, drivers, laborers.	
Cecil	Cecil County Central Landfill (County Owned)	Amnesty program for recycling materials, household hazardous waste days, and e-cycling events. Mulch for minimum fees.	Provides waste disposal and recycling opportunities for approximately 30% of Cecil County's population. These facilities provide outstanding recycling services. In 2006, Single Stream Recycling and recycling for ink cartridges was introduced. Solid waste staff provides recycling information and disposal guidelines.	\$400,000/23 Employees.	Special no cost or reduced cost program for recycling. Approximately \$7,000,000 generated by solid waste customers to operate this facility.
Frederick	Reichs Ford/Site B Municipal Sanitary Landfill (County Owned)	Free curbside recycling, 12 recycling drop-off centers, HHW collection, mulch free, yard waste grinding.	Disposal of C&D and MSW.	\$1.7 Million/42 employees.	Spent \$1.9 million on various recycling contracts and programs.
Harford	Harford Waste Disposal Center (Publicly Owned)	Provides County residents with mulch and compost products free or at a reduced cost based on quantity.	Provides County residents with solid waste disposal services at a competitive cost. Provides recycling services at "no cost."	\$2.7 Million/54 full time employees. Jobs include management, clerical, equipment operators, mechanics, chauffeurs, laborers, and weigh-master/attendants involved in both landfill and recycling activities.	\$1.3 Million/Contractual Services.
Howard	Work Place Essentials Transfer Station (Privately Owned)	Paid taxes and provides waste collection services to locality.	Assists County in providing collection of sanitary waste products originating from commercial restrooms in Baltimore, Howard, Anne Arundel Counties and others.	\$800,000 / 18 employees.	No information provided.

Jurisdiction	Site Name	Economic Benefits To Community	Value of Facilities Provided	Direct Employment Benefits (Salaries/No. of Employees)	Other Economic Benefits
Howard	AmeriWaste Processing and Transfer Station (Privately Owned)	Payment of real estate, personal property and sales taxes to Howard County.	Facility supplements County facilities for solid waste disposal.	12 employees. Jobs include 53 equipment operators, 2 clerks, and 5 laborers.	\$200,000 in purchase from local vendors, \$19,000 in value of recycled items.
Montgomery	Montgomery County Solid Waste Transfer Station (Publicly Owned)	Strategically located for easy access to accommodate residential, industrial and commercial use.	No information provided.	22 full time County employees. 49 full time/2 temporary Covanta Montgomery, Inc.. 13 full time/12 MES employees..	No information provided.
St. Mary's	St. Andrew's Municipal Landfill (Publicly Owned)	Tipping fees waived during emergency/storm damage situations and other approved non-profit organization projects. Provides mulch made from yard and wood waste free to county residents.	Processes county's residential yard waste into mulch. Provides location for disposal of appliances and up to five (5) tires per trip, free of charge. Future expansion of area C (36.8 acres) permitted landfill, if required.	\$700,000/21 employees includes a manager, 4 equipment operators, 2 scale house operators, and 14 attendants (full & part time).	\$300,000 - County subsidy of Recycling. \$1.3 million - County subsidy for residential solid waste disposal.
Washington	Forty West Municipal Landfill (Publicly Owned)	Centrally located in County for easy access to accommodate residential, industrial, and commercial use.	Facility owned and operated by Washington County for the solid waste disposal need of County residents.	\$1.7 million /30 employees. Jobs include: director, 1- assistant directors, 2 – office staff, 2 - weighmaster / inspector, 4 full time and 2 part time weigh clerks, 8 - equipment operators, 2 - mechanics, 1 recycling coordinator, and 4 residential drop-off attendants.	\$9.5 million annual operating budget spent locally for the purchase of materials, goods and services.
Worcester	Ocean City Transfer Station (Publicly Owned)	Provides for the consolidation of solid waste collected in the Town of Ocean City for transport 26 miles to the County's MSWLF.	No information provided.	No information provided.	No information provided.

Appendix B

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Permitted Solid Waste Acceptance Facilities

Table B1 -- Permitted Solid Waste Acceptance Facilities

County	Pert No.	Facility Name	Type	Owner Type	MD Grid * E / N	Permit Number	Expiration Date	Fill/Site Acreage	Site Location /Comments
Allegany	2226	Mountainview Sanitary Landfill	WMF	PRI	262 / 652	2006-WMF-0010	3/29/2011	40 / 396	13300 New George's Creek Road, Frostburg MD 21532.
Anne Arundel	5442	Annapolis Junction Recycling and Transfer Station	WPT	PRI	860 / 470	2005-WPT-0158	2/12/2011	- / 17	8077 Brock Bridge Road, Jessup MD 20794.
	6167	Curtis Creek Processing Facility and Transfer Station	WPT	PRI	917 / 500	2003-WPT-0539	11/12/2008	- / 12.8	23 Stahl Road, Baltimore MD 21226. Accepts C&D Waste.
	2134	Millersville Landfill and Resource Recovery Facility	WMF	CTY	895 / 460	2008-WMF-0240	11/1/2012	330 / 567	389 Burns Crossing Road, Severn MD 21144-341.
Baltimore City	5701	Baltimore Environmental Processing Facility	WPF	PRI	903 / 526	2003-WPF-0588	3/4/2009	- / 1.7	1437 West Hamburg Street, Baltimore MD 21230. Facility Closed.
	2051	BFI Baltimore Processing and Transfer Center	WPT	PRI	921 / 499	2003-WPT-0600	9/13/2009	- / 15.6	5800 Chemical Road, Baltimore MD 21226.
	23906	Cannon Hygiene (USA), Inc.	WTS	PRI	894 / 522	2006-WTS-0621	2/27/2012	-/2.3	1505 Bloomfield Avenue, Baltimore MD 21227. Accepts soiled feminine hygiene and other related products from the rest rooms.
	2775	CS&D Processing Facility	WPF	PRI	904 / 527	2003-WPF-0546	10/5/2008	- / <1	1100 Wicomico Street, Baltimore MD 21230. Facility Closed.
	3322	Curtis Bay Energy	WMI	PRI	926 / 568	2005-WIN-0036	5/4/2011	- / 4.0	3200 Hawkins Point Rd, Baltimore MD 21226. Formerly Pheonix Services.
	5313	Millennium Inorganic Chemicals – HPP Landfill	WIF	PRI	925 / 501	2005-WIF-0527	3/8/2012	57 / 95	3901 Fort Armistead Road, Baltimore MD 21226.
	2776	Northwest Transfer Station	WTS	MUN	855 / 550	2005-WTS-0038	8/3/2010	- / 6.6	5030 Reisterstown Road, Baltimore MD 21215.
	5427	Patuxent Materials, Inc. – Edison Highway Recycle Plant	WPF	PRI	535 / 920	2006-WPF-0565	9/13/2011	- / 12.5	1030 Edison Highway, Baltimore MD 21213. Accepts Only C&D Waste.
	4202	Quarantine Road Landfill	WMF	MUN	922 / 502	2005-WMF-0325	3/31/2010	126 / 153	6100 Quarantine Road, Baltimore MD 21226.
	3323	Stericycle Medical Waste Processing Facility and Transfer Station	WPT	PRI	921 / 501	2003-WPT-0591	3/30/2009	- / 2.4	5901 Chemical Road, Baltimore MD 21226.
	5191	University of Maryland – Baltimore	WMI	UMD	907 / 532	2005-WMI-0512	3/7/2010	- / < 1	714 W. Lombard St., Baltimore MD 21201-1010.
	3013	Wheelabrator Baltimore, LP.	WTE	PRI	904 / 523	2005-WTE-0030	2/20/2010	- / 15	1801 Annapolis Road, Baltimore MD 21230. Formerly BRESKO.
	3551	W.R. Grace and Co. – Davison Chemical Division	WIF	PRI	921 / 500	2005-WIF-0613	1/24/2012	10.7/157	5500 Chemical Road, Baltimore MD 21226
Baltimore	2779	Baltimore County Resource Recovery Facility	WPT	CTY	900 / 507	2004-WPT-0048	4/7/2010	6.0 / 7.3	10320 York Road, Cockeysville MD 21030.
	5268	Days Cove Rubble Landfill – Lateral Expansion	WRF	PRI	975 / 570	2003-WRF-0592	8/19/2009	35.6 / 99	6425 Days Cove Road, White Marsh MD 21162.
	2781	Eastern Sanitary Landfill	WMF	CTY	974 / 570	2005-WMF-0052	8/25/2010	200 / 367	6259 Days Cove Road, White Marsh MD 21162.
	2781	Eastern Sanitary Landfill	WTS	CTY	974 / 570	2006-WTS-0508	12/21/2011	- / 3.2	6260 Days Cove Road, White Marsh MD 21162.

County	Pert No.	Facility Name	Type	Owner Type	MD Grid * E / N	Permit Number	Expiration Date	Fill/Site Acreage	Site Location /Comments
	5188	ER & WR Processing Facility	WPF	PRI	940 / 508	2003-WPF-0545	12/3/2008	7 / 10.0	Riverside Rd & Tin Mill Rd, Sparrows Point MD 21219. Facility Closed.
	14404	Honeygo Run Reclamation Center	WRF	PRI	958 / 564	2002-WRF-0579	4/19/2010	77/117	10710 Philadelphia Road, Perry Hall MD 21128. Expansion of Existing Landfill.
	3398	Recovermat Mid-Atlantic	WPF	PRI	888 / 506	2005-WPF-0341	9/12/2010	- / 8.5	2202 Halethorpe Farm Road, Baltimore MD 21227. Accepts Only C&D Waste.
	2782	Western Acceptance Facility Transfer Station	WTS	CTY	905 / 510	2003-WTS-0599	6/13/2009	6.0 / 6.0	3310 Transway Road, Halethorpe MD 21227.
Calvert	2783	Appeal Sanitary Landfill	WMF	CTY	961 / 200	2008-WMF-0531	12/26/2012	30 / 350	401Sweetwater Road, Lusby MD 20678.
	2783	Appeal Sanitary Landfill	WTS	PRI	961 / 200	2008-WTS-0519	5/30/2012	- / 1	401Sweetwater Road, Lusby MD 20678.
	2865	Hance Land Clearing Debris Landfill	WLC	PRI	923 / 246	2005-WLC-0252	11/22/2010	10.2 / 23.6	1/4 mile west of MD Rtes 2 & 506, Prince Frederick MD 20678.
	2784	Hill Land Clearing Debris Landfill	WLC	PRI	914 / 304	2004-WLC-0551	10/5/2009	2.9 / 17.6	MD Rte. 2 & Dalrymple Rd, Sunderland MD 20689.
	12596	Howlin Land Clearing Debris Landfill	WLC	PRI	961 / 200	2008-WLC-0577	5/22/2013	3.0 / 32.7	8580 Nursery Road, Lusby MD 20657.
	2785	M.T. Parran Landclearing Debris Landfill	WLC	PRI	945 / 227	2004-WLC-0550	1/17/2010	4.3 / 6.6	Eastside MD Rte 765 - North of MD Rtes 2 & 4, St. Leonard MD 20689.
	11591	Southern Maryland Processing Facility	WPF	PRI	910 / 310	2003-WPF-0597	2/5/2009	- / 0.2	7659 Binnacle Lane, Owings MD 20736
Carroll	4344	Northern Municipal Landfill	WMF	CTY	816 / 626	2005-WMF-0066	8/9/2010	80 / 220	1400 Baltimore Boulevard, Westminster MD 21157.
	4344	Northern Municipal Landfill	WPT	CTY	816 / 626	2003-WPT-0541	8/14/2008	3 / 220	1400 Baltimore Boulevard, Westminster MD 21157.
	5388	Roll-Off Express, Inc.	WPF	PRI	832 / 605	2008-WPF-0159	12/16/2012	- / 6.8	2900 Dede Road, Finksburg MD 21048.
Cecil	2789	Cecil County Central Landfill	WMF	CTY	1107 / 644	2008-WMF-0532	10/21/2012	40 / 418	758 East Old Philadelphia Rd., Elkton MD 21921.
	2790	Stemmer's Run Transfer Station	WTS	CTY	1095 / 581	2005-WTS-0072	3/19/2010	- / 9.7	45 Stemmer's Run Road, Earleville MD 21919.
	2791	Woodlawn Transfer Station	WTS	CTY	1058 / 658	2005-WTS-0074	3/13/2010	- / 37	Fire Tower & Waibel Rds, Port Deposit MD 21904.
Charles	2792	Charles County Municipal Landfill	WMF	CTY	832 / 269	2005-WMF-0076	10/12/2010	73 / 114	12305 Billingsley Road, Waldorf MD 20602.
	3364	Naval Support Facility Indian Head Incinerator	WIN	FED	750 / 275	2004-WIN-0529	3/16/2009	- / 1	101 Strauss Avenue, Indian Head MD 20640.
Dorchester	2794	Beulah Municipal Landfill	WMF	CTY	1115 / 307	2004-WMF-0554	5/25/2009	27 / 40	6812 East New Market-Ellwood Rd, Hurlock MD 21643.
Frederick	3157	Eastalco Aluminum Company	WIF	PRI	650 / 535	2003-WIF-0537	7/11/2009	10.2 / 20	5601 Manor Wood Rd, Frederick MD 21703.
	1348	Fort Detrick – Area B & Main Post	WMF	FED	672 / 583	2005-WMF-0327	7/10/2010	61 / 297	Area B - Rosemont Avenue & Shookstown Road. Fort Detrick Waste Only.
	3190	Fort Detrick – Area B & Main Post	WIN	FED	678 / 582	2005-WIN-0341	6/29/2010	- / 1	Area A - East off Beasley Drive. Limited To Waste Only From Fort Detrick.
	2861	Feichs Ford/Site B Municipal Sanitary Landfill	WMF	CTY	702 / 561	2003-WMF-0582	5/8/2013	58 / 184	9031 Reichs Ford Road, Frederick MD 21704.
	2861	Feichs Ford/Site B Municipal Sanitary Landfill	WPT	CTY	702 / 561	2004-WPT-0604	7/20/2011	58 / 184	9031 Reichs Ford Road, Frederick MD 21704.

County	Pert No.	Facility Name	Type	Owner Type	MD Grid * E / N	Permit Number	Expiration Date	Fill/Site Acreage	Site Location /Comments
Garrett	5026	Garrett County Solid Waste Disposal & Recycling Facility	WMF	CTY	116 / 604	2006-WMF-0094	3/29/2011	30 / 188	3118 Oakland-Sang Run Rd, Oakland MD 21550.
Harford	6953	Auston Process and Transfer Facility	WPT	PRI	983 / 583	2006-WPT-0616	9/12/2012	3.0 / 6.01	1202 Pauls Lane, Joppa MD 21085.
	5745	Gravel Hill Rubble Landfill	WRF	PRI	1037 / 631	2002-WRF-0517	12/7/2008	35 / 55.4	Gravel Hill Road, Havre De Grace MD 21078. Landfill Not Constructed.
	2799	Harford Waste Disposal Center	WMF	CTY	1000 / 650	2005-WMF-0098	10/27/2010	60 / 259	3241 Scarboro Road, Street MD 21154.
	10163	Harford Waste Disposal Center Expansion	WMF	CTY	1000 / 650	2000-WMF-0570	10/4/2012	77.4 / 286	3241 Scarboro Road, Street MD 21154.
	5742	Harford County Resource Recovery Facility	WTE	PRI	994 / 573	2008-WTE-0576	3/21/2013	- / 4	1 Magnolia Rd, Joppa MD 21085. Produces Steam for APG Complex.
	2802	Oak Avenue Rubble Fill	WRF	PRI	982 / 580	2004-WRF-0104	3/21/2010	39 / 42.8	1020 Oak Avenue, Joppa MD 21085.
Howard	2805	Alpha Ridge Municipal Landfill	WMF	CTY	823 / 539	2005-WMF-0110	10/27/2010	195 / 590	2350 Marriottsville Road, Marriottsville MD 21104.
	2805	Alpha Ridge Processing and Transfer Station	WPT	CTY	823 / 539	2008-WPT-0578	11/20/2012	195 / 590	2350 Marriottsville Road, Marriottsville MD 21104.
	8202	AmeriWaste Processing Facility and Transfer Station	WPT	PRI	865 / 489	2001-WPT-0572	11/5/2011	- / 12.89	7150 Kit Kat Road, Elkridge MD 21075. Accepts Only C&D Waste.
	16558	Workplace Essentials Transfer Station	WTS	PRI	885 / 550	2004-WTS-0594	9/28/2009	- / 1	7184 Troy Hill Drive, Suites J & K, Elkridge MD 21075. Accepts Diapers & Other Special Sanitary Wastes.
Kent		None							
Montgomery	15721	C & D Recovery Processing Facility	WPF	PRI	710 / 510	2003-WPF-0581	3/11/2009	- / 10.8	24120 Frederick Road, Clarksburg MD 20871.
	2808	Montgomery County Resource Recovery Facility	WTE	CTY	671 / 501	2008-WTE-0538	5/5/2013	- / 35	21204 Martinsburg Road, Dickerson MD 20842.
	5562	Montgomery Co. Site 2 Municipal Landfill	WMF	CTY	680 / 490	2002-WMF-0237	5/5/2009	125 / 650	3 miles southwest of Dickerson, MD 20842. Landfill Not Constructed.
	2809	Montgomery County Solid Waste Transfer Station	WPT	CTY	845 / 465	2006-WPT-0617	11/2/2011	- / 43	16101 Frederick Road, Derwood MD 20850.
Prince George's	2813	Brown Station Road Landfill	WMF	CTY	865 / 365	2003-WMF-0589	9/21/2010	134 / 164	3500 Brown Station Road, Upper Marlboro MD 20772.
	5419	Dower House Recycling and Processing Center	WPF	PRI	843 / 355	2005-WPF-0563	8/30/2010	- / 10	5900 Dower House Road, Upper Marlboro MD 20772.
	2815	Ritchie Reclamation – Marlboro Road	WRF	PRI	849 / 372	2004-WRF-0126	4/4/2010	78 / 258	2001 Ritchie Marlboro Rd, Upper Marlboro MD 20772.
	2815	Ritchie Reclamation – Marlboro Road	WRF	PRI	849 / 372	2003-WRF-0590	1/10/2011	78 / 258	2001 Ritchie Marlboro Rd, Upper Marlboro MD 20772.
	3011	Brandywine Enterprises	WPT	PRI	826 / 391	2008-WPT-0218	9/11/2012	- / 1.5	5800 Sheriff Road, Fairmont Heights MD 20743. Accepts Only C&D Waste.
Queen Anne's	2817	Baker Rubble Landfill	WRF	PRI	1046 / 429	2006-WRF-0622	4/20/2013	15.9 / 18.5	501 4-H Park Road, Queenstown MD 21658. Serves Mid-Shore Counties.
St. Mary's	2818	Knott Land Clearing Debris Landfill	WLC	PRI	946 / 140	2006-WLC-0134	4/23/2011	4.3 / 55	1/4 mile North - Flat Iron Rd 2 & Boothe Road, Great Mills MD 20634.
	2819	St. Andrews Municipal Landfill	WMF	CTY	934 / 167	2005-WMF-0138	10/27/2010	36.8 / 55	44825 St. Andrews Church Rd., California MD 20619. Landfill Not

County	Pert No.	Facility Name	Type	Owner Type	MD Grid * E / N	Permit Number	Expiration Date	Fill/Site Acreage	Site Location /Comments
									Operating.
Somerset	2821	Somerset County Landfill – Fairmount Site	WMF	CTY	1158 / 184	2004-WMF-0268	9/8/2009	33 / 62	8716 James Ring Road, Westover MD 21871.
	3467	Smith Island Incinerator	WIN	CTY	1076 / 057	2005-WIN-0140	9/12/2010	0.06	Smith Island Road, Ewell MD 21824.
Talbot	4323	Midshore Regional Solid Waste Facility	WMF	MES	1080 / 356	2004-WMF-0144	2/14/2010	67 / 140	7341 Barkers Landing Road, Easton MD 21601. Serves Talbot, QA, Caroline and Kent Counties.
	4323	Midshore Transfer Station	WTS	MES	1080 / 356	2004-WTS-0549	10/4/2009	0.5 / 140	7341 Barkers Landing Road, Easton MD 21601. Serves Talbot, QA, Caroline and Kent Counties
Washington	2862	Forty West Municipal Landfill	WMF	CTY	575 / 673	2005-WMF-0266	6/14/2010	189 / 425	12630 Earth Care Road, Hagerstown MD 21740.
	3535	Washington County Hospital	WMI	PRI	658 / 598	2005-WMI-0553	6/15/2010	0.25 / 77	251 East Antietam Street, Hagerstown MD 21740.
	2823	Washington County Rubble Landfill	WRF	CTY	568 / 652	2004-WRF-0270	8/4/2009	75 / 100	11112 Kemps Mill Road, Williamsport MD 21740. Landfill Not Operating.
Wicomico	15673	Bennett Processing Facility	WPF	PRI	0802 / 220	2005-WPF-0579	8/4/2010	5 / 14.3	513-515 South Camden Ave., Fruitland MD 21826.
	2824	Newland Park Municipal Landfill	WMF	CTY	1180 / 200	2005-WMF-0283	3/21/2010	60 / 125	7161 Brick Kiln Road, Salisbury MD 21801.
	2575	Peninsula Regional Medical Center	WPM	PRI	1201 / 186	2006-WPM-0505	12/19/2011	- / 23	100 East Carroll Street, Salisbury MD 21801.
Worcester	2826	Central Sanitary Landfill	WMF	CTY	1278 / 140	2006-WMF-0152	5/31/2011	230 / 725	7091 Central Site Lane, Newark MD 21841.
	2827	Ocean City Transfer Station	WTS	MUN	1353 / 207	2005-WTS-0156	8/8/2010	- / 2.2	306 - 65th Street, Ocean City MD 21842. Accepts Only MSW.

Table B2 – Summary of Permitted Solid Waste Acceptance Facilities

Type Of Facility	Number of Facilities
WMF: Municipal Solid Waste Landfill	23
WRF: Rubble/Construction & Demolition Landfill	8
WLC: Land Clearing Debris Landfill	5
WIF: Industrial Landfill	3
WIN: MSW or Special Medical Waste Incinerator	3
WMI: Medical Waste Incinerator	3
WPF: Processing Facility	12
WPM: Special Medical Waste Processing Facility	1
WTS: Transfer Station	10
WPT: Processing Facility & Transfer Station	12
WTE: Waste to Energy/MSW Incinerator	3
TOTAL	83
Type of Ownership	Number of Facilities
CTY: County Government	31
PRI: Private (Commercial)	43
MUN: Municipal Government	3

UMD: University of Maryland System	1
FED: Federal Government	3
MES: Maryland Environmental Service	2
TOTAL	83

Table B3 – Permitted Solid Waste Acceptance Facilities NOT in Operation

Jurisdiction	Site Name	Facility Type	Ownership Type	Status
Baltimore City	CS & D Processing Facility	Processing Facility	Private	Closed
Baltimore	ER & WR Processing Facility	Processing Facility	Private	Closed
Frederick	Reichs Ford, Site B Transfer Station	Processing and Transfer	County	Under Construction
Harford	Gravel Hill Rubble Landfill	C&D Landfill	Private	Not Built
Montgomery	Montgomery County Site 2 Municipal Landfill	MSW Landfill	County	Not Built
Prince George's	Dower House Recycling and Processing Facility	Processing Facility	MD Environmental Service	Under Construction
	Kenilworth Recycling Plant	Processing Facility (C&D Only)	Private	Under Construction
	Ritchie Reclamation – Marlboro Road	C & D Landfill	Private	Inactive
Washington	Washington County Rubble Landfill	C&D Landfill	County	Inactive
Wicomico	Bennett Processing Facility	Processing Facility	Private	Under Construction

Appendix C

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Permitted Natural Wood Waste Acceptance Facilities

Table C1 – Permitted Natural Wood Waste Acceptance Facilities

County	Permittee	Epsc No.	Permit Type	Permit Numbers	Site Acreage	Issued Date	Expiration Date	Phone Number	Fax Number
Allegany	NONE								
Anne Arundel	A-A Recycling, Inc. 8217 Baltimore-Annapolis Blvd. Pasadena MD 21122	2002	GP	2006-NWW-GP01	9.90	9/22/06	9/21/11	(410) 437-7718	(410) 437-7718
	William Alan Boehm 1230 Cronson Blvd. Crofton MD 21114	21759	GP	2004-NWW-GP01	10.00	11/24/04	11/23/09	(410) 721-1866	(410) 721-2031
	L and W Recycling, Inc. 8316 Lokus Road Odenton MD 21113	2667	GP	2006-NWW-GP01	12.00	10/20/06	10/19/11	(410) 551-9142	(410) 551-9155
Baltimore City	NONE								
Baltimore	Albert J. Bierman 1114 Hengemihle Avenue Essex MD 21221	14075	GP	2002-NWW-GP01	5.90	7/13/07	7/12/12	(410) 682-2992	(410) 574-0123
	Edrich Lumber, Inc. 9700 Old Court Road Baltimore MD 21244	2829	GP	2005-NWW-GP01	12.00	6/8/05	6/7/10	(410) 922-5959	(410) 521-2778
	Hollins Organic Products, Inc. 6247 Falls Road Baltimore MD 21209	2838	GP	2005-NWW-GP01	2.00	4/22/05	4/21/10	(410) 828-0210	(410) 823-7645
	Northwest Recycling, LLC 212 Cockeys Mill Road Baltimore MD 21136	24154	GP	2005-NWW-GP01	5.00	11/2/05	11/1/10	(410) 833-9369	(410) 833-3963
	Wirtz & Daughters, Inc. 6275 Days Cove Road White Marsh, MD 21162	-	IP	2005-NWW-0552	14.00	3/31/2005	3/30/2010	(410) 335-0400	(410) 592-6248
Calvert	Quality Built Homes, Inc. 7185 Sawmill Road Lusby MD 20657	4708	GP	2006-NWW-GP01	11.25	7/14/06	7/13/11	(410) 535-6008	(410) 535-6011
Caroline	NONE								
Carroll	C.J. Miller, LLC 390 Vision Way Westminster MD 21158	3548	GP	2006-NWW-GP01	40.00	8/15/06	8/14/11	(410) 239-8006	(410) 239-4204
	Recycled Green Industries, LLC 7901 Kabik Court Woodbine MD 21797	29278	GP	2008-NWW-GP01	30.00	3/5/08	3/4/13	(301) 674-6689	(301) 942-6734
Cecil	A.L.C. Mulch & Soil, LLC 1726 East Old Philadelphia Road Elkton MD 21421	25391	GP	2006-NWW-GP01	25.00	4/18/06	4/17/11	(410) 392-0770	(410) 392-2317
	Grass Busters Landscaping Company, Inc. Shop 383 Hotton Road Elkton MD 21921	21763	GP	2004-NWW-GP01	48.80	3/30/05	3/29/10	(301) 292-1166	(302) 292-1197
Charles	James E. Hill 6585 Ripley Road Ripley MD 20646	21448	GP	2005-NWW-GP01	8.50	9/2/05	9/1/10	(301) 934-7158	(301) 934-1536
	Maximulch, LLC 12340 Crain Highway Newburg MD 20664	19966	GP	2005-NWW-GP01	12.50	6/2/05	6/1/10	(301) 259-4906	(301) 259-4168
Dorchester	NONE								
Frederick	William Lee Butler 4039 Tuscarora Road Point of Rocks MD 21777	20607	GP	2003-NWW-GP01	N/A	7/20/04	7/19/09	(301) 607-4541	(301) 874-8348
Harford	Arthur D. Hesron 2304 Whiteford Road Whiteford MD 21169	14381	GP	2002-NWW-GP01	3.67	11/2/08	11/1/13	(410) 692-2673	(410) 692-2253
	T&M Mulch, Inc. 1808 N. Fountain Green Road Bel Air MD 21015	2837	GP	2008-NWW-GP01	7.30	4/13/07	4/12/12	(410) 838-2266	(410) 838-2266
	Cormer Construction, Inc 900 Circelli Court Aberdeen, MD 21001	23199	GP	2008-NWW-GP01	6.00	10/08/08	10/07/13	(410) 879-6094	(410) 638-0289
	Crouse Construction Co. 1001 Philadelphia Road Aberdeen MD 21001	2828	GP	2000-NWW-GP01	25.00	6/27/05	6/26/10	(410) 879-1822	(410) 893-0045

County	Permittee	Epsc No.	Permit Type	Permit Numbers	Site Acreage	Issued Date	Expiration Date	Phone Number	Fax Number
Howard	Jerom M. Carlin 2020 Daniels Road Ellicott City MD 21043	21874	GP	2004-NWW-GP01	15.00	12/2/04	12/1/09	(410) 465-4078	(410) 465-5483
Kent	NONE								
Montgomery	ACME Biomass Reduction, Inc. 21601 New Hampshire Ave. Brookville MD 20833	8509	GP	2004-NWW-GP01	107.50	9/8/04	9/7/10	(301) 540-2968	(301) 540-9630
	Twin Ponds Farm, LLC 15315 Mt. Nebo Road Poolesville MD 20837	15519	GP	2003-NWW-GP01	4.00	5/23/08	5/22/13	(301) 942-6700	(301) 942-6734
Prince George's	None								
Queen Anne's	R. B. Baker & Sons, Inc. 501 4-H Park Road Queenstown MD 21658	5605	IP	2006-NWW-0620	3.00	12/13/06	12/12/11	(410) 827-8831	(410) 827-8831
	Dependable Sand and Gravel Company, Inc. 13155 Ocean Gateway Queen Anne, MD 21657	19995	GP	2005-NWW-GP01	343	9/30/05	9/29/10	(410) 822-6363	(410) 820-7789
St. Mary's	NONE								
Washington	L & I Tree Clearing, LLC 14251 Willow Road Hancock MD 21750	18870	GP	2004-NWW-GP01	10.00	3/8/04	3/7/09	(301) 678-7100	(301) 678-7100
Wicomico	Dunn's Tractor Services, Inc. 9042 Taylor Road Delmar MD 21875	19804	GP	2004-NWW-GP01	10.00	5/7/04	5/6/09	(410) 742-7429	(410) 742-7429
	Eastern Shore Forest Product, Inc. 3667 St. Lukes Road Salisbury MD 21804	24398	IP	2005-NWW-0615	2.00	12/13/06	12/12/11	(410) 548-7136	(410) 742-5540
Worcester	NONE								
General Permits (GP):				25					
Individual Permits (IP):				3					
TOTAL				28					

Appendix D

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All StAR News



Maryland Legislature Passes State Agency Recycling Law

During Maryland's 2009 Legislative Session, State representatives strengthened Maryland government's recycling requirements by mandating the recycling of certain materials. House Bill (HB) 595 requires State agencies to develop a State agency recycling plan by July 1, 2010, that addresses the placement of collection bins and the recycling of aluminum, glass, paper, and plastic. Each agency and unit of State government must implement this plan by January 1, 2012.

To facilitate the implementation of the plan, the Maryland Department of the Environment (MDE) is working with the Department of General Services

(DGS) to include language in all State leasing contracts that mandates that landlords provide recycling collection at all State leased buildings. Also, MDE's Recycling Unit is available to assist State agencies in developing recycling programs. Contact Christy Bujnovszky for help with your All StAR program.

23 Maryland State Agencies Reach 20% Goal

The 1988 Maryland Recycling Act (MRA) requires the development of a recycling plan that reduces the amount of solid waste disposed by State government by at least 20 percent or to an amount that is practical and eco-nomically feasible. In no case may the amount to be recycled be less than 10 percent. In 2008, Maryland State Government exceeded the minimum rate and recycled 27.5 percent of the waste generated.

Congratulations to the following agencies for increasing their recycling rate over 2007: MD Public Broadcasting Commission, MD State Archives, MD General



Assembly, St. Mary's College, Morgan State University, MD Automotive Insurance Fund, MD Environmental Service, MD Food Center Authority, Judiciary of MD, MD State Police, MD Insurance Administration and Departments of Agriculture, Natural Resources, Health and Mental Hygiene, Public Safety and Correctional Services, Human Resources, Assessments and Taxation, Education, Veterans Affairs, and Transportation.

A detailed breakdown of the 2008 All StAR recycling activities and additional information on Maryland's 27.5% All StAR Recycling Rate (including a breakdown of each State agency's recycling rate) will soon be posted on MDE's recycling web page at www.mde.state.md.us/Programs/LandPrograms/Recycling/StateAgencies/index.asp.

RECYCLING CONTACTS

MD Department of the Environment
Land Management
Administration

www.mde.state.md.us/recycling

Hilary Miller, Program Manager
Technical Services and
Operations Program
hmliller@mde.state.md.us

David Mrgich, Chief
Recycling Unit
dmrgich@mde.state.md.us

Christy Bujnovszky
Recycling Unit
cbujnovszky@mde.state.md.us

The next All StAR News is scheduled for the Spring of 2010!

Have a story idea or specific questions on a topic? Send comments and ideas for future stories to Christy Bujnovszky at cbujnovszky@mde.state.md.us.

Maryland State Agencies' 2008 Recycling Rates

Compiled by the Maryland Department of the Environment from Reports Submitted for Calendar Year 2008

Agency Name	No. of Sites	No. of Sites Reporting	No. of People*	Total MRA 2008 (tons)	2008 MRA Recycling Rate (%)^
Department of General Services	18	18	11,674	720.48	24.59
Department of Labor, Licensing & Regulation	13	0	1,218	NR	NR
Department of Agriculture	3	3	266	44.13	37.94
Maryland Public Broadcasting Commission	1	1	212	18	11.00
Comptroller of the Treasury	1	1	850	198.59	71.80
Maryland School for the Deaf	2	2	834	92.60	36.89
Department of Natural Resources	5	1	721	17.60	22.00
Department of Juvenile Services	15	15	2,881	281.97	13.84
Maryland State Archives	1	1	84	2.80	8.24
Department of the Environment	1	1	858	23.35	19.81
Department of Transportation	74	74	25,252	10,381.57	44.30
Department of Health and Mental Hygiene	17	10	7,525	853.29	19.23
Maryland General Assembly	1	1	1,223	89.73	20.38
Dept. of Public Safety and Correctional Services	29	29	35,409	1,864.07	10.63
Department of Human Resources	11	11	4,433	220.77	25.55
Department of Assessments and Taxation	1	1	11	1.00	20.16
University of Maryland System	17	17	128,607	9,223.98	33.22
St. Mary's College of Maryland	1	1	2,567	791.54	42.39
Morgan State University	1	1	8,237	127.84	7.50
Department of Education	4	4	1,839	57.92	21.15
Maryland Automobile Insurance Fund	1	1	408	65.51	36.91
Maryland Stadium Authority	1	1	1,100	308.39	13.51
Baltimore City Community College	1	1	8,251	10.30	3.11
Maryland Environmental Service	1	1	210	16.26	34.26
Maryland Food Center Authority	1	1	1,327	3.00	0.05
Judiciary of Maryland	1	1	142	36.50	61.55
Subsequent Injury Fund Board	1	1	17	1.74	22.14
Department of Veterans Affairs	1	1	657	1.00	40.98
Department of Budget and Management	1	1	210	16.69	38.20
Maryland State Police	26	26	1,614	311.23	32.97
Dept of Business and Economic Development	1	1	580	31.16	23.74
Maryland Higher Education Commission	1	1	72	11.00	29.79
Dept. of Housing and Community Development	1	1	400	202.74	61.90
Maryland Insurance Administration	1	1	283	22.33	36.40
TOTALS	255	231	249,972	26,049.06	27.49

* State employees comprise approximately 84,541 of the total number of people working at State Agency Locations.

^ The 1988 Maryland Recycling Act mandates a State Government recycling rate of at least 20%.

Bold Type – Satisfied the 20% recycling rate

NR – Did not report



Not all offices reported

Recycling Rate greater than previous year

MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd. • Suite 610 • Baltimore, Maryland 21230-1719

410-537-3314 • 800-633-6101 x3314 (within Maryland) • <http://www.mde.state.md.us/recycling>

Appendix E

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County Recycling Coordinators

Allegany

Ms. Terry Bennett
Recycling Coordinator
Allegany County Department of Public Works
701 Kelly Road
Cumberland, MD 21502-
Phone: (301) 777-5933 **Ex:**
Fax: (301) 777-2001
Email: terry.bennett@alconet.org

Anne Arundel

Mr. Richard (Rich) Bowen
Solid Waste Recycling Manager
Waste Management Services
2662 Riva Road
MS-7406
Annapolis, MD 21401-
Phone: (410) 222-7954 **Ex:**
Fax: (410) 222-4484
Email: richard.bowen@aacounty.org
Ms. Kelly Mackall, Program Specialist
Mr. Robb Fish, Program Specialist

Baltimore City

Ms. Tonya Simmons
Recycling Coordinator
Bureau of Solid Waste
200 Holiday Street
Baltimore, MD 21202-
Phone: (410) 396-4511 **Ex:**
Fax: (410) 545-6117
Email: tonya.simmons@baltimorecity.gov

Baltimore County

Mr. Charles Reighart
Recycling Coordinator
County Office Building
111 West Chesapeake Avenue
Towson, MD 21204-
Phone: (410) 887-2000 **Ex:**
Fax: (410) 887-2931
Email: creighart@baltimorecountymd.gov
Mr. Clyde Trombetti, Public Info. Specialist

Mr. Tim Dunn, Public Info. Specialist
Ms. Julie Roby, Public Info. Specialist

Calvert

Mr. Bill Teter
Office of Recycling
P.O. Box 1330
401 Sweetwater Road
Lusby, MD 20657-
Phone: (410) 326-0210 **Ex:**
Fax: (410) 586-9461
Email: teterwj@co.cal.md.us

Caroline

Mr. Marshall Monteith
Recycling Coordinator
Department of Public Works
520 Wilmuth Street
Denton, MD 21629-
Phone: (410) 479-4040 **Ex:**
Fax: (410) 479-0409
Email: mmonteith@pubworks.caroline.md.us

Carroll

Ms. Maria Myers
Chief, Bureau of Solid Waste
Dept. of Public Works
225 North Center Street
Room 200
Westminster, MD 21157-5194
Phone: (410) 386-2633
Fax: (410) 840-8279
Email: mtmyers@ccg.carr.org

Cecil

Ms. Tanya Adams
Recycling Coordinator
758 East Old Philadelphia Road
Elkton, MD 21921-
Phone: (410) 996-6275 **Ex:**
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Charles

Ms. Lowry Phelps
Department of Public Facilities
1001 Radio Station Road
La Plata, MD 20646-
Phone: (301) 932-3599 **Ex:**
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Dorchester

Mr. Charles Blades
Dorchester Co. Dept. of Solid Waste
5435 Handley Road
Cambridge, MD 21613-
Phone: (410) 463-0171 **Ex:**
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Email: cblades@docogonet.com

Frederick

Ms. Dawn Adams
Recycling Coordinator
Department of Solid Waste
9031 Reichs Ford Road
Frederick, MD 21704-
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Email: dadams@fredco-md.net

Garrett

Ms. Kim Madigan
Garrett County Office of Solid Waste
3118 Oakland-Sang Run Road
Oakland, MD 21550-
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Email: kmadigan@garrettcounty.org

Harford

Mr. C. Robert Ernst
Recycling Coordinator
Division of Environmental Affairs
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Howard

Mr. Alan Wilcom
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6751 Columbia Gateway Drive
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Ms. Kim Reichart, Recycling Coordinator

Kent

Mr. Martin Holden
Waste Management Coordinator
Kent County Public Works
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Midshore

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Midshore Recycling Program
Queen Anne's Co. Dept. of Public Works
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Centreville, MD 21617-
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Mr. Bill Davidson

Prince George's

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Ms. Marilyn Rybak, Planner

Queen Anne's

Ms. Connie Mayberry
Recycling Coordinator
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Somerset

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Somerset County Government
11916 North Somerset Avenue
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St. Mary's

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Talbot

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Washington

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Wicomico

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Salisbury, MD 21801-
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Ms. Mary Phillips (MRA Report)

Worcester

Mr. Ronald Taylor
Recycling Coordinator
Central Facility Landfill
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Phone: (410) 632-3177 **Ex:**
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