Maryland Waste Diversion Activities Report

- 2006 -

Department of the Environment

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Overview

Introduction

The Maryland Department of the Environment (MDE) promotes and encourages waste diversion across Maryland. The 2006 Maryland Waste Diversion Activities Report meets the reporting requirements of Environment Article Section 9-1702 that mandates a report to the Governor and Maryland General Assembly on the status of recycling in the State. 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.

This report provides statistical local jurisdiction recycling and waste diversion data for calendar year 2005, and an overview of the State's waste diversion activities from July 2005 thru June 2006. Data contained in this report comes from annual reports submitted to MDE by Maryland's 23 Counties, Baltimore City, and the State government agencies participating in the All StAR (**All St**ate **A**gencies **R**ecycle) Program. Counties also provide MDE information on their collection programs, institutional recycling programs, public education efforts, source reduction activities, and disposal facilities.

Maryland's Legislative Mandate

In 1988, the **Maryland Recycling Act (MRA)** authorized 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% or more of their waste and jurisdictions with populations less than 150,000 are required to recycle 15% or more of their waste. In no case is the recycling rate to be less than 10%.
- Each jurisdiction to select the materials to be recycled and the manner in which the materials are to be 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% 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%.
- Newsprint and telephone directories distributed in the State to have a recycled content, by weight, of 35% in 2004, increasing to 40% by 2005.

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).
▸ Consideration by Counties, when developing solid waste management plans, regarding the feasibility of composting solid waste (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% by the year 2005, consisting of a 35% MRA recycling rate plus up to 5% 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).
▸ Requiring manufacturers of an average of more than 1,000 computers in the previous three years who sell or offer for sale computers in Maryland to register and pay a fee to MDE. Fees may be used to provide grants to counties and municipalities for computer recycling activities. (2005).
▸ 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).

Waste Diversion in Maryland for 2005 – A Snapshot

Maryland's 42.6% Waste Diversion Rate

The source reduction (SR) credit plus the recycling rate make up the waste diversion rate. Through the efforts of its citizens, businesses and government agencies, Maryland achieved a statewide waste diversion rate of 42.6% in calendar year (CY) 2005. The 42.6% was composed

of a 39.2% MRA recycling rate and a 3.4% SR credit. This exceeds the requirements of the MRA and the 40% waste diversion goal targeted for 2005. Figure 1 provides a historical breakdown of Maryland's waste diversion rate.

Figure 1 – Waste Diversion Rate
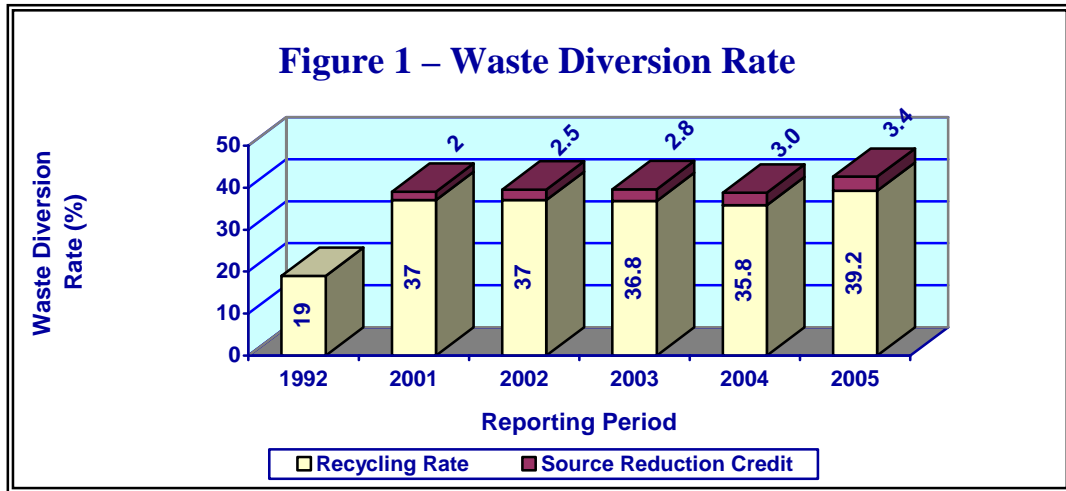
Maryland's 39.2% Recycling Rate

In CY 2005, Maryland residents and businesses recycled over 39% (MRA recycling tonnage ÷ (MRA recycling tonnage + MRA waste disposed)) of the municipal solid waste generated. While this rate is a marked improvement over CY 2004, the waste diversion rate is in line with the national trend toward the stabilization of waste diversion rates. When viewed over the previous five-year period (2001 to 2005) the waste diversion rate averaged an increase of only 0.9 percentage points per year. To encourage more recycling and source reduction, states across the country are seeking new ways to ensure that waste diversion continues to gain in popularity as a waste management option. Like Maryland, many states are investigating new commodities to bring into the recycling stream, while continuing to increase their outreach efforts for both recycling and source reduction.

Figure 2 summarizes the recycling tonnages since 1992 and Figure 3 categorizes the total MRA tons recycled by material in CY 2005. Compostables and paper materials constituted the largest portion of materials recycled.

Maryland's 3.4% Source Reduction Credit

In 2005, fifteen of Maryland's jurisdictions were able to add from 1% to 5% to their waste diversion rate by emphasizing SR activities as a waste reduction strategy. They accomplished this utilizing Internet resources, demonstration sites (*e.g.*, backyard 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 2005 is available in the "State, County, and City Recycling Rates" section of MDE's web page at www.mde.state.md.us/recycling.

Figure 2 – MRA Recycling Tonnage

Figure 3 – MRA Materials Breakdown
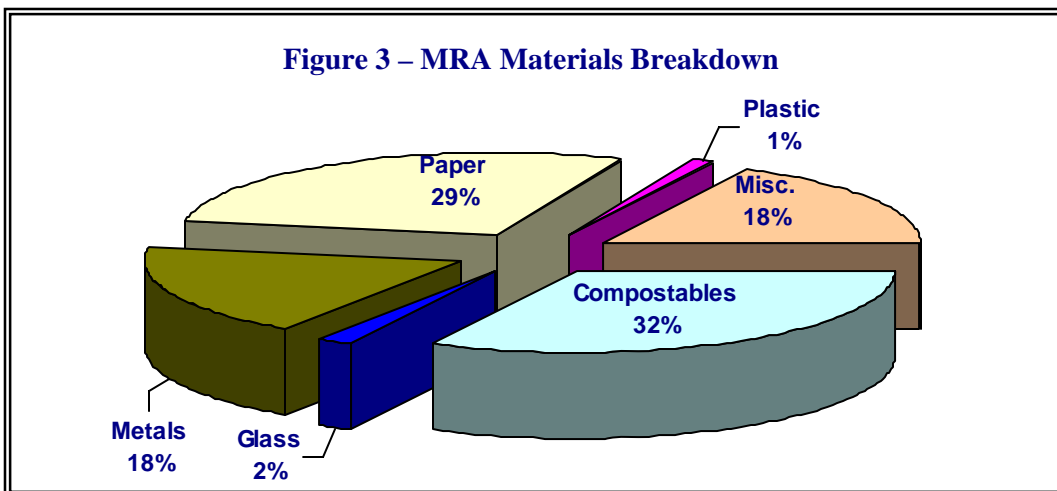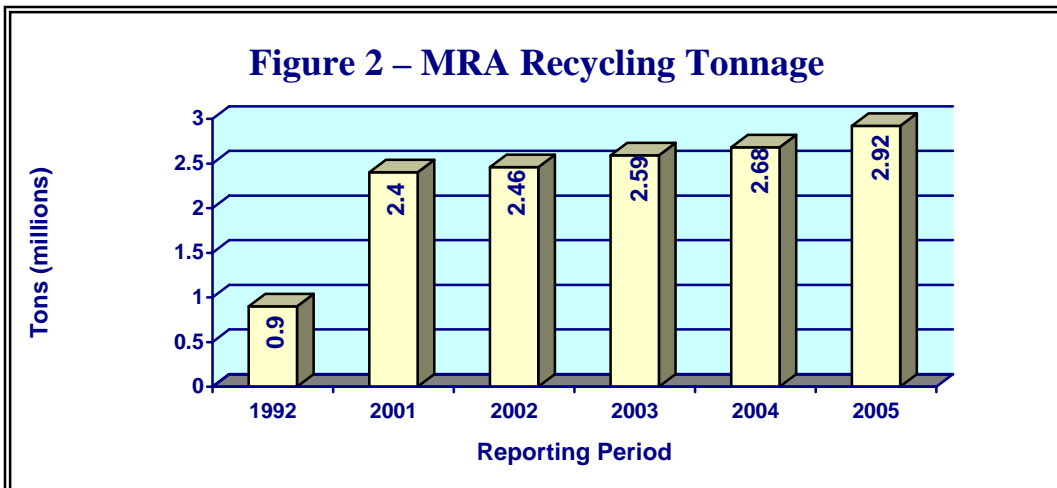
Non-profit groups are partnering with government to increase awareness of source reduction and reuse opportunities for materials such as linens, pet supplies, medical equipment, clothing and computers. The partnering provides businesses information on how to improve their bottom line through recycling 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 that recycling provides. Table 1 details recycling and waste diversion totals for each of Maryland's jurisdictions. Business and local governments continue to seek recycling opportunities above and beyond those that apply toward the MRA rate. In fact, over 2.9 million tons of other Non-MRA materials were reported as being recycled in 2005. Table 2 offers a breakdown by category of the amount of Non-MRA materials reported as recycled in 2005. For a complete overview of how solid waste is managed in Maryland, refer to the annual "Solid Waste Managed In Maryland" report available each Fall on MDE's web site at www.mde.state.md.us/ResearchCenter/Publications/Land/index.asp.

Table 1 – County Recyclables by Commodity in Tons for Calendar Year 2005

Compiled by the Maryland Department of the Environment from Reports Submitted for Calendar Year 2005

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	27.49%	**29.49%**	7,691	126	1,220	6,214	571	6,647	**22,469**	15,556	38,025
Anne Arundel	43.16%	**46.16%**	198,901	7,698	22,944	85,047	5,286	28,190	**348,066**	474,172	822,238
Baltimore City	34.76%	34.76%	33,768	1,443	10,342	24,621	409	144,409	**214,992**	69,820	284,812
Baltimore County	46.39%	**51.39%**	97,950	5,174	282,388	166,330	1,807	127,390	**681,039**	562,183	1,243,222
Calvert	46.57%	**49.57%**	41,552	996	7,811	6,525	280	1,021	**58,185**	59,803	117,988
Carroll	34.33%	**38.33%**	25,230	1,755	5,234	23,190	559	4,599	**60,567**	92,373	152,940
Cecil	17.14%	**18.14%**	10,586	610	5,144	5,100	1,384	98	**22,922**	38,561	61,483
Charles	43.43%	**48.43%**	39,098	1,615	5,542	24,984	526	2,076	**73,841**	492,142	565,983
Dorchester	27.46%	27.46%	18,944	38	437	632	25	5	**20,081**	7,321	27,402
Frederick	34.30%	**36.30%**	31,443	2,707	4,328	34,333	1,145	38,367	**112,323**	29,759	142,082
Garrett	45.96%	**46.96%**	17,727	217	460	1,141	56	2,090	**21,691**	63,802	85,493
Harford	52.06%	**56.06%**	68,161	1,405	9,019	52,845	454	48,595	**180,479**	28,482	208,961
Howard	40.35%	**45.35%**	63,803	3,923	12,213	71,430	1,782	3,290	**156,441**	22,600	179,041
Mid-Shore[1]	47.01%	47.01%	10,524	879	3,945	22,185	360	75,733	**113,626**	81,030	194,656
Montgomery	33.43%	**38.43%**	123,992	13,994	90,201	145,062	3,959	12,283	**389,491**	38,111	427,602
Prince George's	39.95%	**43.95%**	88,827	12,096	50,121	127,108	5,848	17,001	**301,001**	449,937	750,938
Somerset	45.81%	45.81%	6,613	29	8,533	124	31	1,028	**16,358**	5.4	16,363
St. Mary's	29.83%	**33.83%**	5,366	609	5,849	13,228	267	1,611	**26,930**	29,381	56,311
Washington	17.75%	**18.75%**	7,045	749	2,426	13,488	415	1,899	**26,022**	28,782	54,804
Wicomico	26.01%	26.01%	22,511	820	3,020	10,821	1,544	1,980	**40,696**	49,175	89,871
Worcester	32.85%	32.85%	24,626	1,006	4,018	6,236	150	623	**36,659**	213,079	249,738
State Highways of Additional Asphalt and Concrete Recycled										99,500	99,500
TOTAL*	39.2%	42.6%	944,358	57,889	535,195	840,644	26,858	518,935	2,923,879	2,945,574	5,869,453

* 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.

Table 2 – Recycling of Non-MRA Materials in Tons

Compiled by the Maryland Department of the Environment
from Reports Submitted for Calendar Year 2005

MATERIAL	TONS RECYCLED
Antifreeze	1,714
Asphalt & Concrete	1,014,827
Coal Ash	145,039
Construction/Demolition Debris	275,593
Landclearing Debris	187,741
Scrap Automobiles	343,105
Scrap Metal	615,795
Sewage Sludge	87,840
Soils	121,615
Waste Oil	43,774
Other Materials	108,531
TOTAL	**2,945,574**

Maryland's 20.2% All StAR (All State Agencies Recycle) 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%, or an amount that is determined "practical and economically feasible", but in no case less than 10%. 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% of the waste they generate.

All StAR

The All StAR (**All St**ate **A**gencies **R**ecycle) 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 2005, State agencies recycled 14,327 tons of MRA materials for an overall MRA recycling rate of 20.2%. This is a 5% (or one percentage point) increase in the recycling rate over 2004. Table 3 summarizes the performance of each State agency participating in the All StAR program.

Additionally, State government recycled 92,951 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 2005 All StAR statistics is available under "State Agency Recycling" on

Table 3 – Maryland State Agencies' 2005 Recycling Rates

Compiled by the Maryland Department of the Environment from Reports Submitted for Calendar Year 2005

Agency Name	No. of Sites	No. of Sites Reporting	No. of People*	Total MRA 2005 (tons)	2005 MRA Recycling Rate (%)^
Department of General Services	21	20	10,201	577.13	**24.0**
Department of Labor, Licensing & Regulation	13	0	1,225	NR	NR
Department of Agriculture	3	0	289	NR	NR
Maryland Public Broadcasting Commission	1	1	187	14.93	**22.2**
Comptroller of the Treasury	1	1	850	182.38	**53.9**
Maryland School for the Deaf	2	2	827	61.40	19.3
Department of Natural Resources	5	5	723	49.99	**34.9**
Department of Juvenile Services	14	14	2,591	188.61	8.5
Maryland State Archives	1	1	100	6.71	17.7
Department of the Environment	1	1	898	64.84	**39.5**
Department of Transportation	62	52	26,446	3029.51	**35.8**
Department of Health and Mental Hygiene	17	13	9,111	716.79	10.5
Maryland General Assembly	1	0	1,223	NR	NR
Dept. of Public Safety and Correctional Services	29	27	36,828	2241.73	12.6
Department of Human Resources	12	12	4,580	257.45	**26.2**
Department of Assessments and Taxation	1	1	16	1.26	17.9
University of Maryland System	15	13	117,489	6039.82	**23.5**
St. Mary's College of Maryland	1	1	2,485	125.45	17.4
Morgan State University	1	1	8,613	33.82	8.2
Department of Education	3	2	1,822	68.19	16.6
Maryland Automobile Insurance Fund	1	1	493	69.80	**40.2**
Maryland Stadium Authority	1	1	1,077	183.08	11.0
Baltimore City Community College	1	1	10,575	6.72	1.6
Maryland Environmental Service	1	1	170	13.36	**30.0**
Maryland Food Center Authority	1	1	24	0.00	0.0.
Judiciary of Maryland	1	1	100	17.41	**32.6**
Subsequent Injury Fund Board	1	1	16	2.50	**43.4**
Department of Veterans Affairs	1	0	4	NR	NR
Department of Budget and Management	1	1	200	10.44	16.7
Maryland State Police	27	27	1,728	233.13	**29.3**
Dept of Business and Economic Development	1	1	650	22.24	**20.6**
Maryland Higher Education Commission	1	1	76	10.70	**39.2**
Dept. of Housing and Community Development	1	1	490	29.70	12.5
Maryland Insurance Administration	1	1	290	16.00	**29.1**
TOTALS	**243**	**206**	**242,397**	**14,327.39**	**20.2**

*   State employees comprise approximately 84,929 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%.

Bold Type – Satisfied the 20% recycling rate   ☐ Increase in MRA tonnage over 2004
NR – Did not report   ☐ Recycling Rate greater than previous year

MDE's web page at www.mde.state.md.us/recycling. MRA tonnages reported by State agencies are included in the 2005 recycling totals reported by the Counties (Table 1, page 5).

State agencies achieve cost savings by boosting the amount of waste diverted to recycling; greater savings are realized by reducing the total amount of waste generated. In 2005, State agencies diverted an additional 12.1% of their waste to recycling over 2004. The potential cost savings of this increase in the MRA recycling tonnage was diminished, however, by an increase of 4.8% in the total amount of MRA waste disposed. The resultant increase in the waste generated cost an estimated additional $243,000 in waste disposal fees over 2004. Consider the following money-saving scenarios based upon 2005 data with an average Maryland tipping fee of $52:

$ Maryland State government realized $745,024 of avoided disposal cost savings by recycling 14,327 tons of MRA material.

$ If each State agency (per the EO) achieves a 20% recycling rate by increasing its MRA tonnage, nearly $132,786 in additional avoided disposal costs would be realized for a total savings of over $877,810.

$ If each State agency (per the EO) achieves a 20% recycling rate by decreasing the amount of waste generated, additional savings of over $663,931 would be realized for a total savings of over $1,408,956.

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), and acting as an information clearinghouse by forwarding any relevant recycling information to the appropriate State offices. Integrating recycling into State leasing and janitorial contracts similar to waste collection contracts could make improvements in the recycling programs for Maryland State government. Currently, contracts allow State offices to set up recycling programs, but they do not require them as part of the lease. 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.

How MDE Supports Recycling in Maryland

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 everybody'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, outreach events, etc. The promotion of recycled content items and the recycling process are also discussed in presentations given to schoolchildren in grades K-12.

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

- ❖ State government is required to purchase products with recycled content whenever practicable. A 5% 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 2005, DGS spent $10,934,949 on 61,096 tons (99.99% by weight) of recycled content paper products (*e.g.*, paper, books, paper towels, etc.).
    - – 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 is 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.
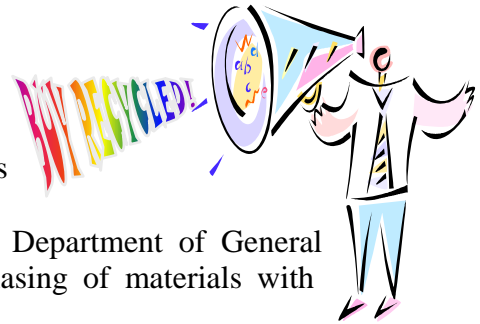
Special Programs

From July 2005, thru June 2006, MDE worked to implement programs designed to expand recycling and protect public health and the environment.

Newsprint

Maryland law mandates that, on a statewide basis beginning in CY 2005, newspapers distributed in Maryland shall contain at least 40% recycled content newsprint. To determine compliance with the law, publishers are required to file quarterly and annual reports with MDE each year. In the year following a year 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% requirement. During the 2006 legislative session,

the newsprint recycled content requirement was modified. It was changed to be calculated on the average over a 3-year reporting period beginning in calendar year 2006, rather that on an annual basis. The "reporting period" is comprised of the current calendar year and the immediately preceding two calendar years (*e.g.* in 2006, the reporting period is comprised of 2006, 2005, and 2004). In CY 2005, the newsprint recycled content percentage was 44.03%, exceeding the requirements of the MRA.

Table 4 contains the 55 publishers listed by MDE that distribute 325 different newspapers in Maryland. Publishers who did not report may receive an Administrative Subpoena to solicit information required under the MRA.

Table 4 – Maryland Newspaper Publishers

Publisher	Content %	Publisher	Content %
A&C Business News	NR	Gannettt Company, Inc.	33.8
Afro-American Newspapers	NR	Greenbelt Cooperative Publishing	NR
American Farm Publications	31	Herald-Mail	45.9
Baltimore Business Journal	94.3	Independent Newspapers, Inc.	45.2
Baltimore Jewish Times	53.7	Kimbel Publications	35.2
Baltimore Sun Community Newspapers	100	Landmark Community Newspapers	35.3
Baltimore Sun	41.7	Latin American Times	NR
Baltimore Times Publications	20.8	Legal Times	NR
Bay Weekly	32.2	Maryland Coast Dispatch	NR
Bayside Gazette	14.7	Morgan Messenger	29.7
Capital-Gazette Newspapers	30	New York Times Co.	30.5
Carroll Publishing Co.	32.9	News Journal, Wilmington	27.3
Catholic Review	33.5	Post Newsweek Media	88.8
Chatsworth Enterprises	35.3	Prince George's Post	30.6
Chesapeake Publishing Corp.	32.2	R&B Publishing Co.	100
City Paper	NR	Randall Family, LLC	55.1
CMN Communications	32	Sentinel Newspapers	20
Connection Publishing	NR	Sincell Publishing Co.	NR
Courier	35	Southern Maryland Printing	31.9
Cumberland Times News	31.2	USA Today	31.8
Daily Record	31.9	Washington Business Journal	NR
Dow Jones & Company	20	Washington County Pickett	35.2
East County Times	35.3	Washington Newspaper Co.	NR
El Tiempo Latino	93.7	Washington Post	43.2
Express Publications Co., LLC	43.5	Washington Times	20.8
Flag Publications	NR	Western Montgomery Bulletin	30
Freestate Independent Inc.	20.9	Zip Publishing	31
FT Publications Inc.	15		
NR – Did not report		% based upon partial year data	

Telephone Directory

The MRA requires that all telephone directories distributed in the State of Maryland by directory publishers, who in the previous calendar year used at least

50 tons of directory stock in telephone directories that are distributed in Maryland, have a recycled content, by weight, of at least 40%. Publishers of telephone directories must file an annual report with MDE detailing the recycled directory stock content used in their directories.
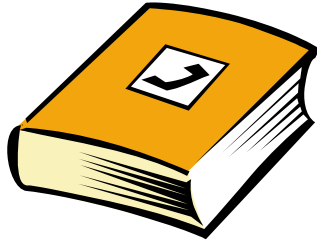
There are five known publishers of telephone directories distributed in the State of Maryland. In 2005, reported recycled content for these directories was as follows:

- Data National – 55.2% recycled content;
- Hispanic Yellow Pages – Did not report;
- Patuxent Publishing Company – 79.3% recycled content
- Verizon Information Services – 40.0% recycled content
- Yellow Book USA – 51.8 % 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 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, Governor Robert L. Ehrlich, Jr. signed into law the Statewide Computer Recycling Pilot Program that requires computer manufacturers to register with, and pay an annual registration fee to MDE in order to sell their products in Maryland. The law defines manufacturer as the corporation or other legal entity that is the brand owner or importer of a computer sold in the State and computer as a desktop personal computer or laptop computer including the computer monitor. Highlights of the bill include:

- ★ Annual registration fee is $5,000. The fee can be reduced to $500, after the first year, provided the manufacturer has a MDE approved computer takeback program.
- ★ Registration fees are to be used to provide grants to counties and municipalities to assist with computer recycling activities.
- ★ Local governments must address methods for the separate collection and recycling of computers in their recycling plan in order to be eligible for State grants.

Through June 30, 2006, 37 manufacturers registered with MDE. Registration fees were used to: develop radio and television commercials that aired across Maryland; perform a survey of Maryland residents concerning computers in

households and how they are managed; purchase materials for counties to use to promote recycling; and purchase equipment for MDE's Recycling and Operations Program (ROP) necessary to develop outreach and educational materials that benefit county programs and aid in performing administrative duties associated with managing the Statewide Computer Recycling Pilot Program.

Highlights of the eCycling program in Maryland from October 2001 to June 2005, include:

- ✓ 70 special collection events (*i.e.*, temporary 1 or 2-day collection events) were held in 24 jurisdictions.
- ✓ Permanent collection programs have been established in Baltimore City, Calvert, Carroll, Cecil, Frederick, Harford, Howard, Montgomery, Prince George's, St. Mary's, Wicomico, and Worcester Counties.
- ✓ Regularly scheduled eCycling collection events are held in the cities of Greenbelt and Salisbury.
- ✓ A partnership was developed between MDE and MarketPro Inc., the largest consumer computer show promoter in the United States. The partnership allows MDE to distribute information on eCycling in Maryland MarketPro electronic shows.
- ✓ A one-day event in Baltimore County on April 30, 2005, collected over 89 tons of electronic equipment from 1,600 participants.
- ✓ Over 5,136 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 5 gives a breakdown of the electronics equipment collected through MDE sponsored eCycling special events or through residential permanent eCycling programs. An additional 2,545 tons of electronics were collected in 2005. This was reported, by Counties, to MDE as being from commercial businesses that were not part of MDE sponsored eCycling special events or through residential permanent 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)* by establishing collaborative relationships with institutions working on mercury reduction and planning to meet possible future requirements of the law. 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. These fact sheets are available on MDE's web page

Table 5 – eCycling Collection Programs

County	Population	Type	Date(s)	No. of participants	Tons collected	Pounds collected	Pounds/participant
Maryland (State)	5,609,200	–	thru 12-31-04	–	3,402.96	6,805,914	–
eCycling Special Events in 2005							
Allegany	73,900	1-day	10-8-05	300	29.41	58,814	196
Anne Arundel	512,000	1-day	11-19-05	802	55.24	110,481	138
Baltimore Co.	785,600	1-day	4-30-05	1,600	89.60	179,200	112
		1-day	10-22-05	1,750	82.00	164,000	94
Calvert	88,750	1-day	7-8-05	75	6.29	12,580	168
Carroll	169,000	1-day	11-12-05	390	19.34	38,677	99
Garrett	30,150	1-day	5-14-05	88	12.44	24,875	283
Midshore *	132,150	1-day	4-30-05	221	18.30	36,600	166
		1-day	11-19-05	213	14.19	28,380	133
Somerset	26,000	1-day	6-18-05	–	2.74	5,480	–
Worcester	49,400	1-day	4-30-05	253	1.43	2,860	11
			11-12-05	264	2.78	5,560	21
Permanent eCycling in 2005							
Baltimore City	636,000	–	2005	–	19.70	39,408	–
Calvert	88,750	–	2005	–	11.73	23,451	–
Carroll	169,000	–	2005	–	7.45	14,900	–
Cecil	97,300	–	2005	–	24.00	48,000	–
Harford	238,750	–	2005	–	80.00	160,000	–
Howard	270,200	–	2005	–	361.96	723,920	–
Montgomery	930,500	–	2005	–	614.46	1,228,920	–
Prince George's **	850,500	–	2005	–	184.53	369,061	–
St. Mary's	96,550	–	2005	–	7.70	15,400	–
Wicomico **	89,550	–	2005	–	21.86	43,728	–
Worcester	49,400	–	2005	–	66.10	132,200	–
Total (2001 – 2005)				5,777	5,136.20	10,272,409	111

* Midshore Region is composed of Kent, Queen Anne's, Talbot, and Caroline Counties.
** The Cities of Greenbelt (13.12 tons) and Salisbury (9.88 tons) also had eCycling events in 2005. The totals from the cities are included in their respective counties.

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.

New mercury legislation in 2006, Environment Article § 6-905.2, prohibits the sale of mercury containing thermostats by October 1, 2007. It

requires that MDE report to the Governor and Legislature detailing the statewide collection, reclamation, and recycling of all products containing mercury.

MDE has collaborated with many organizations to fulfill the *Mercury and Products that Contain Mercury Act* mandates. Collaborations have been useful in ensuring that more Marylanders are aware of the hazards of mercury and the requirements of legislation concerning mercury. Some collaborations include:

- ¤ Continued support of the Hospitals for a Healthy Environment (H2E) program. When hospitals sign on as H2E Partners, they pledge to eliminate mercury at their facility and reduce the quantity and toxicity of health care waste.   The Maryland H2E program, now supported by staff funded by a private foundation grant, conducts regular workshops on these topics. To date, thirty-nine Maryland hospitals have signed on as Partners.
- ¤ MDE continues to work with the Board of Public Works and DGS to ensure the procurement of mercury-free products.

MDE also partnered with county health departments and other local government agencies to establish permanent mercury fever thermometer collection locations. Elemental mercury and other mercury thermometers are collected at these locations. Table 6 contains a list of established mercury thermometer recycling drop-off locations.

Natural Wood Waste Recycling

A Natural Wood Waste Recycling Facility (NWWRF) is a facility that accepts natural wood waste (NWW) for processing. NWW is usually generated from landclearing operations and includes such materials as trees, stumps, tree trunks, limbs, roots, or other materials derived from natural vegetation. NWW does not include pallets, crates, lumber, wood chips, firewood, or other products that may be made from NWW, but have subsequently been processed.

MDE views 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. Any person or company engaged in natural wood waste recycling activities is regulated under Code of Maryland Regulations 26.04.09.   A NWWRF does not include a collection or processing facility operated by a nonprofit or governmental organization located in the State. A NWWRF is also not a single individual or business that processes only NWW generated on its premises or that provides recycling services solely for its employees.   Additionally, facilities that only accept processed wood are not

Table 6 – Established Mercury Thermometer Drop-off Locations

Facility	Location	County	Contacts
Maryland Department of Environment	1800 Washington Blvd., Suite 610 Baltimore, MD 21230	Baltimore City	410-537-3314
Calvert County Solid Waste Facility	Appeal Landfill 401 Sweet Water Road Lusby, MD 20657	Calvert	Shirley Steffey 410-326-0210
Carroll County Health Department	290 South Center Street, PO Box 845 Westminster, MD 21158	Carroll	Charles Zeleski 410-876-1884
Cecil County Health Department	401 Bow Street Elkton, MD 21921	Cecil	Chuck Smyser 410-996-5160
Dorchester County Health Department Family Preventative Health Services	503 B Muir Street Cambridge, MD 21613	Dorchester	Theresa Cornish 410-228-3294
Garrett County Health Department	1025 Memorial Drive Oakland, MD 21550	Garrett	301-334-7760
Harford County Department of Public Works	Office of Recycling 3241 Scarboro Road Street, MD 21154	Harford	Bob Ernst 410-638-3417
Howard County Health Department	Howard County Health Dept. 7178 Columbia Gateway Dr. 3rd Floor Columbia, MD 21046-2147 410-313-6300 Southeastern Health Center 9525 Durness Lane Laural, MD 20723 410-880-5888 Ellicott City Health Center 8492 Baltimore National Pike Ellicott City, MD 21043 410-313-2333 Columbia Health Center 7180 Columbia Gateway Drive Columbia, MD 21046 410-313-7500	Howard	Bureau of Environmental Health 410-313-2640
Kent County Health Department	125 Lynchburg Street Chestertown, MD 21620	Kent	410-778-1631
Prince George's County Department of Environmental Resources	Brown Station Road Sanitary Landfill 3500 Brown Station Road Upper Marlboro, MD 20774	Prince George's	Bob Reading 301-883-7164
Queen Anne's County Health Dept., Clinical Programs	206 N. Commerce Street Centreville, MD 21617	Queen Anne's	Connie Ralph 410-758-0720
Somerset County Solid Waste Department	11916 Somerset Avenue Princess Anne, MD 21853	Somerset	Charles Cavanaugh 410-651-9641
Wicomico County Solid Waste Division	6948 Brick Kiln Road Salisbury, MD 21801	Wicomico	Kenneth Townsend 410-548-4935
Worcester County Health Department	6040 Public Landing Road Snow Hill, MD 21863	Worcester	Tony Fambro 410-632-1100

required to obtain a NWWRF Permit from MDE. Table 7 lists current permitted NWWRFs in Maryland.

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.

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 – In FY 2006, the State processed 6.7 million scrap tires, a 21% increase from the previous year. Emanuel Tire Company processed about 30% more tires than in FY 2005. St. Lawrence Cement Company processed over 583,097 scrap tires in FY 2006, representing a 36% increase over the amount processed during FY 2005. Emanuel Tire Company and Maryland Environmental Service (MES) processed approximately 5.5 million or 82% of the State's 6.7 total tires processed, while ESSROC Cement Corporation, St. Lawrence Cement Company, and Harford Waste-to-Energy Facility used approximately 1.2 million or 18% of the State's total tires processed.
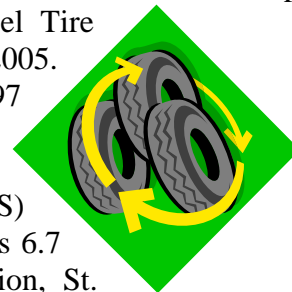
Table 7 – Permitted Natural Wood Waste Recycling Facilities

COUNTY/CITY	FACILITY NAME	PHONE NUMBER
ANNE ARUNDEL		
Pasadena	A-A Recycling, Inc.	410-437-7718
Annapolis	Broadneck Hauling	410-757-6152
Crofton	Wm. Alan Boehm	410-721-1866
Odenton	L&W Recycling, Inc.	410-551-9142
BALTIMORE		
Essex	Albert J. Bierman	410-682-2992
Baltimore	Baltimore County DPW	410-887-2009
Baltimore	Edrich Lumber, Inc.	410-922-5959
Baltimore	Hollins Organic Product	410-828-0210
Baltimore	Northwest Recycling, LLC	410-833-9369
White Marsh	Wirtz & Daughters	410-335-0400
CALVERT		
Prince Frederick	Thomas L. Hance, Inc.	410-586-0383
Lusby	Quality Built Homes, Inc.	410-535-6008
CARROLL		
Woodbine	Green-Cycle Industries, LLC	301-674-6689
Westminster	Carroll Co. Dept. of Enterprise & Recreation	410-386-2097
CECIL		
Elkton	A.L.C. Mulch & Soil, LLC	410-392-0770
Elkton	Grass Busters Landscaping	301-292-1166
CHARLES		
Ripley	James E. Hill	301-934-7158
Newburg	Maximulch, LLC	301-259-4906
Port Tobacco	Mona Enterprises	301-932-6332
FREDERICK		
Frederick	Frederick Co. Board of County Commissioners	301-694-1848
Point of Rocks	William Lee Butler	301-607-4541
HARFORD		
Aberdeen	Comer Construction Co.	410-879-6094
Whiteford	Arthur D. Hesron	410-692-2673
Bel Air	T&M Mulch, Inc.	410-838-2266
Aberdeen	Crouse Construction Co.	410-879-1822
HOWARD		
Ellicott City	Jerom M. Carlin	410-465-4078
MONTGOMERY		
Brookville	ACME Biomass Reduction, Inc.	301-540-2968
Poolesville	Twin Ponds Farm, LLC	301-942-6700
PRINCE GEORGE'S		
Capital Heights	Aggregate & Dirt Solutions, LLC	301-572-9450
Laurel	Aggregate & Dirt Solutions, LLC	301-572-9450
Upper Marlboro	Dower House Road, LLC	301-809-6113
Clarksburg	Ritchie Land Reclamation LP	301-428-0800
TALBOT		
Queen Anne	Dependable Sand & Gravel, Inc.	410-822-6363
WASHINGTON		
Hagerstown	Washington Co. Board of County Commissioners	240-313-2790
Hancock	L&I Tree Clearing, LLC	301-678-7100
WICOMICO		
Delmar	Dunn's Tractor Services, Inc.	410-742-7429
WORCESTER		
Bishopsville	David J. Reeves, Inc.	410-352-5063

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 batteries). In addition, the recycling of batteries allows the collection of hazardous metals in a location 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 web page at www.mde.state.md.us/Programs/LandPrograms/Recycling/Local/index.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:
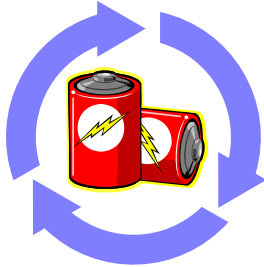
Company Name	Telephone Number
AERC Recycling	321-952-1516
Air Cycle Corporation	800-909-9709
Arundel Recycling	410-761-6595
Battery Solutions, Inc.	810-494-5010
Cambridge Iron & Metal	410-327-7867
Eco-Battery, Inc.	888-768-2004
Envirolight and Disposal	727-526-8870
Everlights, Inc.	773-734-9873
Exide Corporation	610-378-0540
H.D. Metal Company	410-546-1111
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 the company for details.

White Goods – White goods are defined as large household appliances such as refrigerators, stoves, air conditioners, and washing machines. Every County and Baltimore City accepts white goods from residents for recycling. Contact each jurisdiction for details and any questions you may have concerning the proper
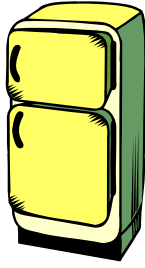
collection procedures. Contact information is also available in the "State, County, and City Contact Info" section on MDE's web page at www.mde.state.md.us/recycling. Additionally, resources for residents and businesses are available under "Metals" in the "Recycling Market Directory" available on MDE's recycling web page. 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.

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 (www.mde.state.md.us/Permits/busGuide.asp) to Permits and Approvals 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. MDE's Customer Service Center (CSC) is the point of contact for information and assistance. The CSC can be reached at 410-537-3772 or 800-633-6101, x3772. This booklet is available by request or by going to MDE's recycling web page at www.mde.state.md.us/recycling and clicking on "Publications".

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 www.mde.state.md.us/assets/document/recycling/commercialwasteguide.pdf.

Education and Outreach

As State and County recycling programs mature, it is important for MDE to maintain a high profile and regularly promote the benefits of recycling and waste reduction to a variety of audiences. From July 2005, thru June 2006, MDE continued to emphasize public education through outreach efforts such as television commercials, classroom instruction, and special events.

MDE in the Classroom

In the 2005-2006 school year, MDE reached 1,802 students and teachers at 24 Maryland schools. MDE promotes "MDE in the Classroom" offering various displays, presentations and demonstrations that travel to schools and events throughout Maryland. Activity lesson plans were also distributed to teachers of all grades as requested.

Grades K-4 receive a Power Point presentation that discusses:

- What is your environment;
- How we use our environment;
- What MDE does;
- Waste facts;
- Recycling; and
- Source reduction and reuse.

A hands-on waste sorting activity helps students understand how to recycle and a group discussion on a story that incorporates all of the discussion points in the Power Point presentation helps the students remember what they learned.

Grades 5-8 receive a Power Point presentation that discusses:

- What is your environment;
- How we use our environment;
- What MDE does;
- Environmental pollution & litter prevention;
- Waste facts;
- Recycling process;
- Source reduction & reuse;
- Buy recycled; and
- Household hazardous waste.

Hands-on demonstrations include a landfill model, a water quality model, and recycled content products.

Grades 9-12 receive a Power Point presentation that discusses:

- ⊙ The organizational structure of MDE;
- ⊙ The responsibilities and laws associated with waste diversion;
- ⊙ MDE's recycling initiatives and programs;
- ⊙ Waste generation;
- ⊙ Recycling process;
- ⊙ Source reduction and reuse;
- ⊙ Buying recycled; and
- ⊙ Household hazardous waste.

Hands-on demonstrations include a landfill model, a water quality model, and recycled content products.

Maryland Coast Day

On September 17, 2005, MDE hosted an exhibit at the 9th Maryland Coast Day at Assateague State Park. The exhibit highlighted various waste management programs and handouts were available. Approximately 4,000 visitors strolled through the event. Through events like this, MDE helps residents and visitors understand and appreciate our natural resources and how closely our cultural and artistic traditions are linked to our environment.

Archdiocese of Baltimore Conference for Catholic Educators

On November 10, 2005, MDE staffed an exhibit at the Archdiocese of Baltimore Conference for Catholic Educators at the Baltimore Convention Center in Baltimore City. The exhibit promoted "MDE in the Classroom" which showed various displays, presentations and demonstrations on recycling, air pollution and groundwater that MDE staff can present to schools and at events throughout Maryland. Over 2,200 administrators, teachers, staff and volunteers from Catholic elementary, middle and high schools attended from Allegany, Anne Arundel, Baltimore, Carroll, Frederick, Harford, Howard, Washington Counties and Baltimore City.

Whole Foods Market "Be Green" Day

On March 16, 2006, Whole Foods Market in Baltimore City celebrated St. Patrick's Day. With a theme of "Be Green", MDE staffed an exhibit at the event. "Be Green" Day encouraged people to recycle and celebrate the environment. Baltimore Green Week and One Less Car, Inc. were also represented. MDE's booth displayed information on recycling, household hazardous waste, mercury, lead and eCycling. Fact sheets and brochures on illegal dumping, reducing household hazards by green home cleaning, lead poisoning prevention, buy recycling, and more were distributed. Children's education activity books and digital thermometers were offered. Whole Foods Market collected batteries, cell phones, ink cartridges, and plastic six-pack rings for recycling. Whole Foods Market distributed reusable grocery shopping bags and "Sun & Earth" natural, non-toxic all purpose cleaner samples.

North East Middle School Earth Day Celebration

On April 21, 2006 MDE participated in North East Middle School's Earth Day Celebration in Cecil County. A total of 90 7th grade students participated in a hands-on activity where used plastic bottles were painted and decorated for use as planters. Students were provided with a seed packet to take home for planting. The students also participated in a classroom discussion and learned ways to reuse items they would ordinarily discard.

Talkin' Trash Workshop

On April 22, 2006, MDE hosted, with cosponsors the Washington Village/Pigtown Neighborhood Planning Council, University of Maryland School of Nursing, and Parks and People, a celebratory Earth Day workshop entitled "Talkin'Trash" at the Montgomery Park Office Park. The Talkin' Trash workshop was designed to inform, inspire and create networking opportunities for individuals and organizations that want to take pride in their neighborhoods. A total of 87 attendants learned how the city curbside recycling and trash program works, who to call if there is a problem with illegal dumping, and what they can use as alternatives to toxic pesticides. The event also featured a display area where community organizations could provide additional resources and offer promotional items.

Fort Meade Earth Day Festival

On April 22, 2006, MDE participated in Fort Meade's 3rd Annual Earth Day Festival held at the Youth Services Building at Fort Meade. Military and civilian parents and students were invited to celebrate by listening to and observing presentations from participants and visiting exhibitors. MDE's exhibit highlighted things children can do to save the environment, such as making a zero waste lunch and making an art project from recycled materials. Fact Sheets concerning recycling in Maryland, source reduction, and building a zero waste lunch were distributed. A hands-on "Fishing for Trash" activity allowed children to "fish" for items of trash from a "watershed" and decide on whether to recycle, reuse or discard their catch. Recycling promotional items including pencils, sunflower seeds, stickers, bookmarks, and activity books were also distributed to attendants.

Kennard Elementary School Water Celebration

On May 4, 2006, MDE participated in Kennard Elementary School's Water Celebration in Centreville, MD. A total of 90 students participated in a hands-on demonstration of the EnviroScape Point and Nonpoint Source Model. Students learned how everyday activities like washing your car and changing your car's oil could have detrimental effects on the health of the Chesapeake Bay. A classroom discussion on point and nonpoint source pollution, watershed concepts, best management practices and litter prevention followed the model demonstration. Recycling promotional items such as activity books and recycled tire pens were distributed to the students.

Springhill Lake Elementary School Spotlight on Careers Week

On May 8, 2006, MDE participated in the annual Spotlight on Careers Week at Springhill Lake Elementary School in Greenbelt, MD. A presentation was given to 125 5th graders that explained MDE's mission and services, and spotlighted careers in each of MDE's administrations.

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 fourth Annual "Rethink Recycling" sculpture contest on November 18, 2005.

The "Rethink Recycling" sculpture contest was held at the Maryland Department of the Environment and featured 41 entries from 14 different high schools across Maryland. With instruction to create a sculpture that promotes "America Recycles Day", students made sculptures of an ornate guitar constructed from soda cans, wood flooring scraps, cardboard and wire hangers; a beach chair and end table composed of soda can aluminum; a swan crafted of cut up milk jugs for feathers, tin cans, a light bulb and paper maché; and an abstract sculpture entitled "Stream of Consciousness" made from a drawer of a sewing desk, lace, eyeglasses, paint, fake fruit and old magazines. The Sculpture Contest challenged students to innovatively and artistically use recycled or reused materials as a solution to waste reduction.

MDE Web Site

Information on Maryland's recycling activities can be found on MDE's recycling web page at www.mde.state.md.us/recycling. The web page includes information on: State and County recycling and source reduction programs

("waste diversion"), special projects (*e.g.*, electronics and mercury recycling, composting, and household hazardous waste), tire recycling, establishing recycling programs at work and school, State agency recycling (All StAR), educational resources, outreach activities, 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 insight to promote efficient solid waste management. MDE reports on the latest recycling activities, trends, legislative and regulatory changes. Speakers from industry and government are invited to educate local governments on issues including media and public education, new technologies, and new initiatives such as electronics recycling and reducing mercury in the environment. 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 who focus on waste management issues. The following is a description of MDE's partnerships.

Maryland Recyclers Coalition (MRC) – The MRC (www.marylandrecyclers.org/) is a non-profit, volunteer organization committed to promoting waste reduction, recycling and the conservation of natural resources. MRC is dedicated to promoting partnerships and cooperation between private and public sectors. MDE advocates the mission of the MRC through staff and financial support in the form of membership dues and project support. A MDE representative attends monthly MRC meetings and reports MDE's activities and accomplishments to MRC Board members and attendees.

Maryland Environmental Service (MES) – MES (www.menv.com/) recognizes that recycling is an element of effective waste management. MES offers a full range of recycling services to State and local governments including 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 construction materials recycling and reuse, electronic product recovery, a recycling markets directory, and mixed paper recovery.

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 8 illustrates the elements of Maryland's individual recycling programs. Additionally, MDE's recycling web page contains detailed information on the County recycling programs and source reduction activities.

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 2005 include:

- ❖ Ten counties achieved waste diversion rates greater than the 40% waste diversion goal.
- ❖ Fifteen counties earned SR credits. Four of these counties, Baltimore, Charles, Howard, and Montgomery, earned the maximum 5% SR credit.
- ❖ Citizens had access to recycling by curbside collection or a regional network of drop-offs or both.

❖ Twelve Counties had permanent electronic drop-off locations.
❖ The Cities of Greenbelt and Salisbury had regularly scheduled eCycling collection events.
❖ Twelve counties and Baltimore City participated in eCycling collection events.
❖ Fourteen counties operated textile collection programs.
❖ Fourteen counties and Baltimore City maintained 19 permanent mercury drop-off locations and 7 counties and Baltimore City participated in mercury collection events from July 2004 thru June 2005.
❖ Seven counties collected paint for recycling.
❖ Three counties recycled boat shrink-wrap.
❖ Seventeen counties operated Household Hazardous Waste Programs.

It is important to remember that waste diversion programs are constantly evolving. Appendix A includes contact information for Maryland's recycling coordinators who can provide the most current information about waste diversion in their jurisdiction. 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 8 -- County Residential Recyclables by Commodity

County	Mixed Paper – Containers – Organics*	White Goods	Lead-Acid Batteries	Oil/ Antifreeze	Established Electronic Drop-offs	Paints	Textiles	Hg°	HHW~	Comments^
Allegany	✓	✓		✓/✓			✓	✓	✓	eCycle, #1 & 2 plastic only, tires; **No** books
Anne Arundel	✓	✓	✓	✓/✓		✓			✓	eCycle, mercury, wood pallets, C & D, scrap metal
Baltimore City	✓	✓	✓	✓/✓	✓			✓	✓	household batteries, C & D
Baltimore County	✓	✓	✓	✓/✓		✓			✓	eCycle, mercury, gas, usable building material
Calvert	✓	✓	✓	✓/✓	✓		✓	✓	✓	eCycle, oil filters, ink-jet cartridges, scrap metal, propane tanks
Caroline	✓	✓	✓	✓/✓			✓		✓	eCycle; **No** colored paper, books, magazines, x-mas tree; Mid-shore program
Carroll	✓	✓	✓	✓/✓	✓			✓		eCycle, mercury, asphalt roof shingles, scrap metal, propane tanks
Cecil	✓	✓	✓	✓/✓	✓			✓		mercury, wood pallets
Charles	✓	✓	✓	✓/✓			✓		✓	household batteries, oil filters; **No** books, paperboard
Dorchester	✓	✓		✓/✓				✓		crab chum composting; **No** books
Frederick	✓	✓	✓	✓/✓	✓		✓		✓	pesticide bottles, mercury, wood pallets, propane; **No** books
Garrett	✓	✓		✓/✓				✓		eCycle; **No** cardboard, magazines, books
Harford	✓	✓	✓	✓/✓	✓	✓	✓	✓		gas, pesticide containers; **No** books
Howard	✓	✓	✓	✓/✓	✓	✓	✓	✓	✓	propane tanks, asphalt roof shingles, scrap metal, reusable bldg. materials
Kent	✓	✓	✓	✓/✓			✓	✓	✓	eCycle, pesticides, boat shrink-wrap; Mid-shore program; **No** hardback books
Montgomery	✓	✓	✓	✓/✓	✓	✓	✓		✓	computers, bicycles, reusable building materials
Prince George's	✓	✓	✓	✓/✓	✓	✓		✓	✓	cooking oil, pesticides
Queen Anne's	✓	✓		✓/✓			✓	✓	✓	eCycle, boat shrink-wrap; Mid-shore program
St. Mary's	✓	✓	✓	✓/✓	✓	✓	✓		✓	#1 & 2 plastic only, mercury, pesticide containers, oil filters, ink jet cartridges
Somerset	✓	✓		✓/✓						eCycle; **No** books
Talbot	✓	✓	✓	✓/✓			✓		✓	eCycle, pesticides, boat shrink-wrap; Mid-shore program
Washington	✓	✓	✓	✓/✓			✓			pesticides, **No** books
Wicomico	✓	✓		✓/✓	✓		✓	✓	✓	eCycle, pesticides, wood pallets; **No** books
Worcester	✓	✓	✓	✓/	✓			✓	✓	eCycle, mercury, drywall

* Unless otherwise noted in the **Comments Column**, *Mixed Paper* includes: all paper types, books, cardboard, magazines, newspaper, and telephone books; *Containers* include: glass, metal, and plastic; *Organics* include: yard trimmings and Christmas tree recycling.   **°** Have established Mercury Drop-offs   **~** Household Hazardous Waste Collection Day   **^**eCycle = electronics recycling

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Appendix

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County Recycling Coordinators

Allegany
Ms. Terry Bennett
Recycling Coordinator
Allegany County Dept. of Public Works
701 Kelly Road
Cumberland, Maryland 21502
Phone: 301-777-5933
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Anne Arundel
Ms. Tracie Reynolds
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Waste Management Services
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Phone: 410-222-7951
Fax: 410-222-4484
E-mail: treynolds@aacounty.org
Ms. Kelly Mackall, Program Specialist
Mr. Robb Fish, Program Specialist

Baltimore
Mr. Charles Reighart
Recycling Coordinator
County Office Bldg.
111 W. Chesapeake Avenue
Towson, Maryland 21204
Phone: 410-887-2000
Fax: 410-887-2931
E-mail: creighart@co.ba.md.us
Mr. Clyde Trombetti, Public Info. Specialist
Ms. Laura Greaver, Public Info. Specialist
Mr. Joe Pistorio, Public Info. Specialist

Baltimore City
Ms. Dale Thompson
Bureau of Solid Waste
200 Holliday Street
Baltimore, Maryland 21202
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Calvert
Ms. Shirley Steffey
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Lusby, Maryland 20657
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Caroline
Mr. Marshall Monteith
Recycling Coordinator
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520 Wilmuth Street
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Carroll
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Chief, Bureau of Solid Waste
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Ms. Kim Reichart, Recycling Coordinator

Kent
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Midshore Regional Recycling Program
Mr. James Wood
Midshore Recycling Program
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(Kent, Queen Anne's, Talbot, Caroline)

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Mr. Bill Davidson
bill.davidson@montgomerycountymd.gov

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Ms. Connie Vanover

Somerset
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