Maryland Waste Diversion Activities Report
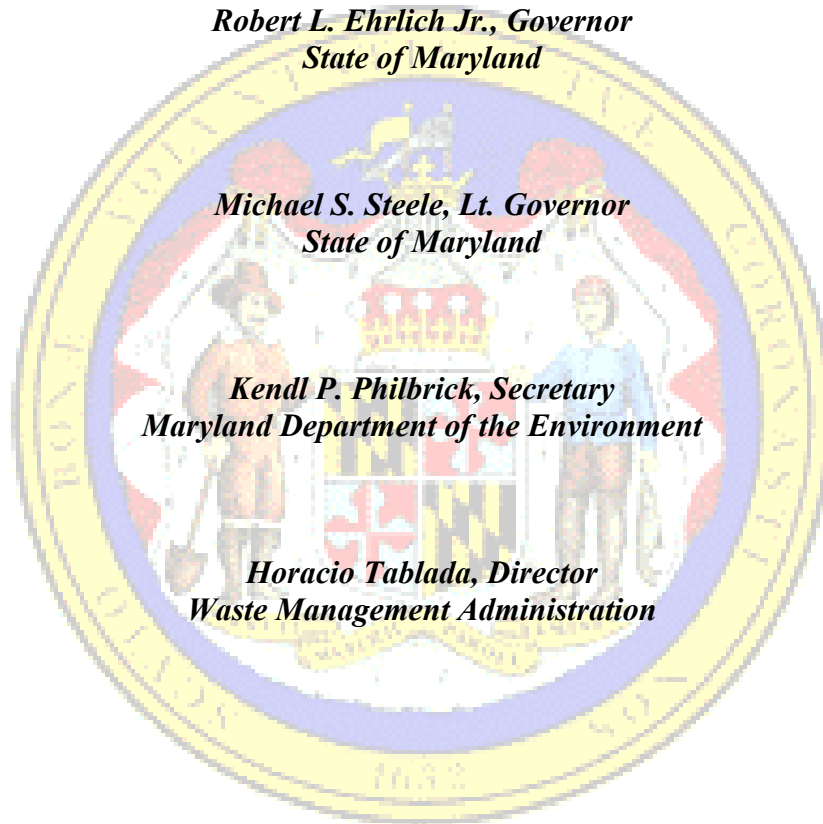
— 2004 —

Robert L. Ehrlich Jr., Governor
State of Maryland

Michael S. Steele, Lt. Governor
State of Maryland

Kendl P. Philbrick, Secretary
Maryland Department of the Environment

Horacio Tablada, Director
Waste Management Administration

TABLE OF CONTENTS

TABLE OF FIGURES & TABLES

Overview

Introduction

The Maryland Department of the Environment (MDE) promotes and encourages waste diversion across the State. The 2004 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 outlined 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 2003, and an overview of the State's waste diversion activities from July 2003, thru June 2004. 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 materials to be recycled and the manner in which 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 2003, increasing to 40% by 2005.

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

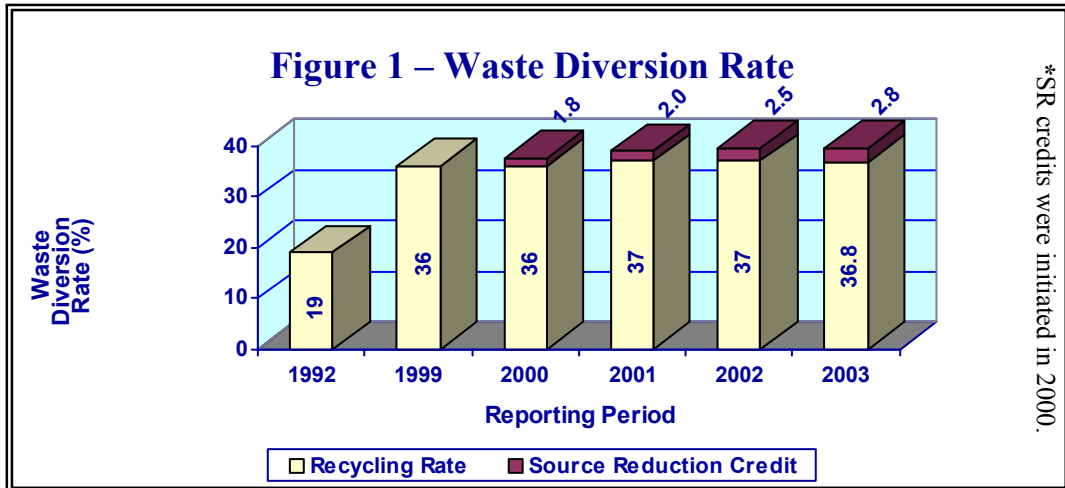Additional legislation impacting recycling in Maryland includes:

▸ Banning separately collected yard waste from disposal at solid waste acceptance facilities (1994).
▸ Requiring permits for private natural wood waste recycling facilities (1992).
▸ Consideration by Counties regarding the feasibility of composting solid waste when developing solid waste management plans (1992).
▸ Composting in the calculation of the recycling rate (1992).
▸ 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 MDE to study the establishment and implementation, by January 2006, of an electronic waste collection system in the State (2004).

Waste Diversion in Maryland for 2003 – A Snapshot

Maryland's 39.6% 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 39.6% in 2003. The 39.6% was composed of a 36.8% MRA recycling rate and a 2.8% source reduction credit. This exceeds the requirements of the MRA and is just shy of 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

Waste Diversion Rate (%)

Reporting Period	Recycling Rate	Source Reduction Credit
1992	19	
1999	36	
2000	36	1.8
2001	37	2.0
2002	37	2.5
2003	36.8	2.8

*SR credits were initiated in 2000.

Maryland's 36.8% Recycling Rate

In 2003, Maryland residents and businesses recycled nearly 37% (MRA recycling tonnage ÷ MRA recycling tonnage + MRA waste disposed) of the municipal solid waste they generated. While this rate is good news, it continues the national trend toward the stabilization of recycling rates. To combat this, states across the country are seeking new ways to ensure that recycling continues to increase its slice of the waste management pie. Like Maryland, many states are investigating new commodities to bring into the recycling stream, while continuing to increase their outreach efforts.

Figure 2 tracks the recycling tonnages since 1992 and Figure 3 categorizes the total MRA tons recycled by material in calendar year 2003. Compostable materials composed the largest portion of materials recycled followed closely by paper materials.

Figure 2 – MRA Recycling Tonnage

Tons (millions)

Reporting Period	Tons (millions)
1992	0.9
1999	2.2
2000	2.3
2001	2.4
2002	2.46
2003	2.6
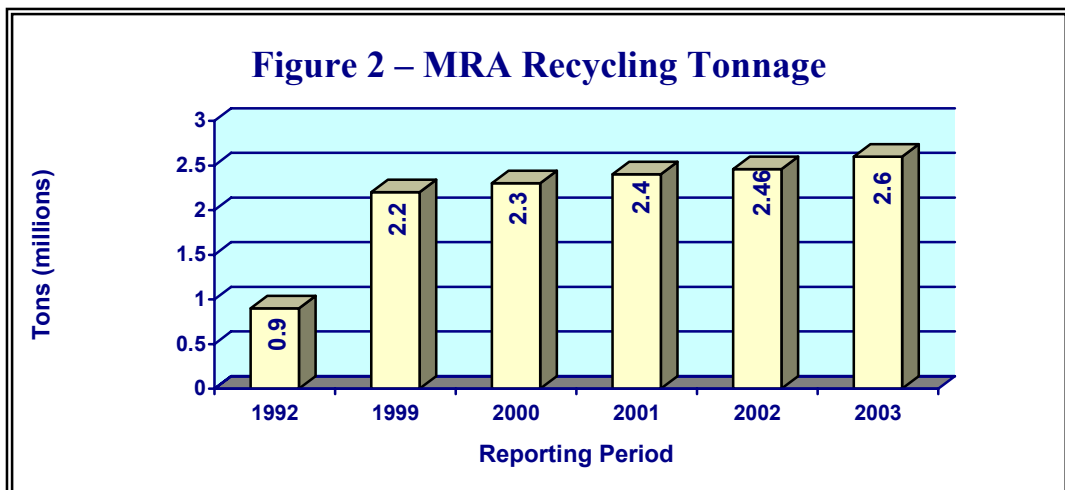
Maryland's 2.8% Source Reduction Credit

In 2003, thirteen 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

Figure 3 – MRA Materials Breakdown
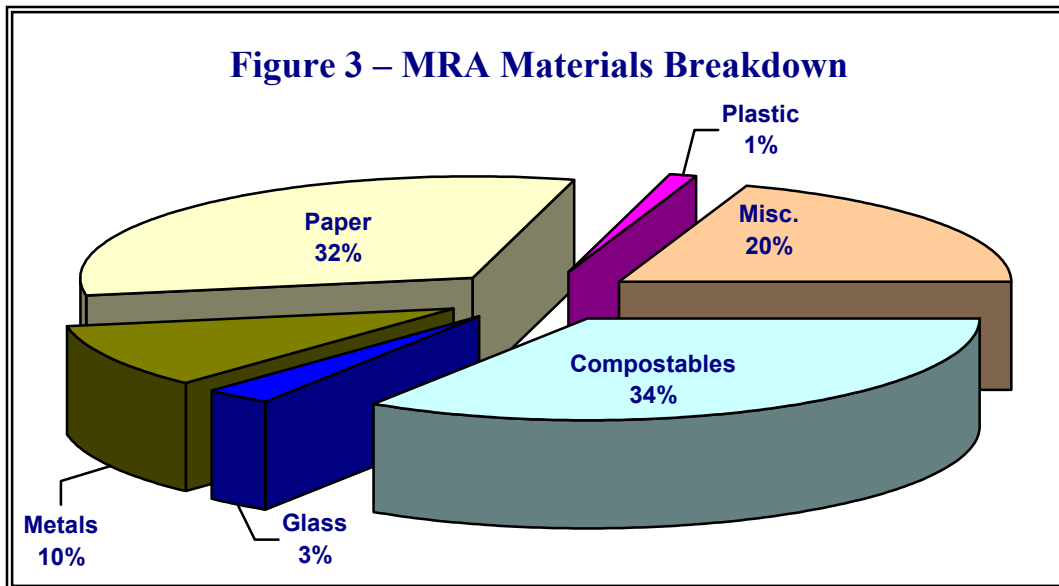
strategy. They accomplished this utilizing Internet resources, demonstration sites (*e.g.*, backyard composting), and publications on reuse practices and yard waste reduction. A complete list of available SR activities and the breakdown of Maryland SR activities in calendar year 2003 is available at www.mde.state.md.us/assets/document/recycling/SRChecklist_results_01.pdf.

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. As an example of how SR can save money, Maryland State Government spent nearly $2.5 million on 2,600 tons of recycled paper in fiscal year 2004. This represents 400 tons less paper than was purchased in fiscal year 2003. At a minimum, the reduction of paper purchased translates to a savings of $382,271 for the State.

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, 3.8 million tons of other Non-MRA materials were reported as being recycled in 2003. Table 2 offers a breakdown by category of the amount of Non-MRA materials reported as recycled in 2003. 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 2003

Compiled by the Maryland Department of the Environment from Reports Submitted for Calendar Year 2003

| County | MRA Rate[3] | Waste Diversion Rate[4] | Maryland Recycling Act (MRA) Materials | | | | | | | Non-MRA Recyclables[5] | Total Recycling* |
			Compostables	Glass	Metals	Paper	Plastic	Misc.	Subtotal		
Allegany	26.1%	**29.1%**	6,299	172	1,056	6,200	422	6,429	**20,578**	11,446	**32,024**
Anne Arundel	41.0%	**44.0%**	178,098	8,570	24,374	100,733	4,576	32,789	**349,140**	411,287	**760,427**
Baltimore Region[1]	37.4%	**39.6%**	177,711	6,098	51,532	189,857	2,331	271,995	**699,524**	817,059	**1,516,583**
Calvert	39.6%	**40.6%**	23,817	648	3,712	7,364	182	535	**36,258**	19,585	**55,843**
Carroll	41.4%	**44.4%**	33,821	1,630	4,243	36,039	504	8,846	**85,083**	199,796	**284,879**
Cecil	24.3%	24.3%	19,955	676	1,561	3,353	755	647	**26,947**	15,004	**41,951**
Charles	32.6%	**37.6%**	18,249	1,260	7,917	21,794	752	3,409	**53,381**	390,383	**443,764**
Dorchester	35.9%	35.9%	21,617	0	579	596	21	67	**22,880**	2,633	**25,513**
Frederick	37.9%	**39.9%**	33,017	2,329	9,800	37,385	792	11,434	**94,757**	30,258	**125,015**
Garrett	18.9%	**19.9%**	974	161	1,134	1,327	22	1,771	**5,389**	4,093	**9,482**
Harford	54.5%	**57.5%**	75,943	1,379	5,707	48,690	457	34,007	**166,183**	82,946	**249,129**
Howard	39.0%	**43.0%**	35,011	3,843	7,417	63,113	1,260	5,541	**116,185**	37,836	**154,021**
Mid-Shore[2]	46.9%	46.9%	13,593	934	2,900	23,545	445	73,119	**114,536**	24,512	**139,048**
Montgomery	31.9%	**36.9%**	119,498	16,555	80,908	134,168	4,917	8,116	**364,162**	25,228	**389,390**
Prince George's	35.2%	**38.2%**	81,063	15,317	54,628	114,519	5,353	14,809	**285,689**	509,930	**795,619**
Somerset	29.6%	29.6%	6,280	42	1,028	343	17	283	**7,993**	0	**7,993**
St. Mary's	23.7%	**24.7%**	2,199	1,192	3,623	10,258	382	887	**18,541**	41,649	**60,190**
Washington	21.0%	21.0%	7,562	3,044	2,778	10,819	931	885	**26,019**	40,089	**66,108**
Wicomico	23.6%	23.6%	20,359	59	1,975	8,243	216	497	**31,349**	14,140	**45,489**
Worcester	42.1%	42.1%	17,184	985	4,774	3,306	148	42,533	**68,930**	71,662	**140,592**
State Highways and County Roads Estimates of Additional Asphalt and Concrete Recycled										1,068,557	**1,068,557**
TOTAL*	**36.8%**	**39.6%**	892,250	64,894	271,646	821,652	24,483	518,599	**2,593,524**	3,818,093	**6,411,617**

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

[1] Baltimore Region includes Baltimore City and Baltimore County. The region's 2.25% SR credit is Baltimore County's 4% SR credit prorated over the region.

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

[3] MRA Rate = MRA recycling tonnage ÷ (MRA recycling tonnage + MRA waste) x 100.

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

[5] Column includes materials such as construction and demolition debris, land clearing debris and recycled fluids that fall outside the scope of the Maryland Recycling Act 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 2003

MATERIAL	TONS RECYCLED
Antifreeze	1,857
Asphalt & Concrete	1,962,611
Coal Ash	94,997
Construction/Demolition Debris	307,489
Land Clearing Debris	41,474
Scrap Automobiles	260,117
Scrap Metal	907,872
Sewage Sludge	52,547
Soils	143,161
Waste Oil	39,263
Other Materials	6,705
TOTAL	**3,818,093**

All StAR (All State Agencies Recycle)

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 is recycling goals. All StAR agencies designate a Recycling Coordinator to manage their various sites throughout Maryland. They provide technical support to encourage recycling at their agencies' sites and to facilitate reporting on collection activities.

State agencies recycled 12,378 tons of MRA materials for a MRA recycling rate of 16.7% in 2003. This tonnage is included, by County, in Maryland's recycling totals (Table 1) for 2003. Additionally, State government recycled non-MRA materials such as 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 All StAR statistics is available under "State Agency Recycling" on MDE's web page at www.mde.state.md.us/recycling. Table 3 illustrates the performance of each State agency participating in the All StAR program.

Table 3 – Maryland State Agencies' 2003 Recycling Rates

Compiled by the Maryland Department of the Environment from Reports Submitted for Calendar Year 2003

Agency Name	No. of Sites	No. of Sites Reporting	No. of People*	Total MRA 2003 (tons)	2003 MRA Recycling Rate (%)^
Department of General Services	18	15	11,570	305.36	17.6
Department of Labor, Licensing & Regulation	13	9	1,224	76.35	10.2
Department of Agriculture	3	3	299	70.49	**37.6**
Maryland Public Broadcasting Commission	1	1	175	15.54	**24.7**
Comptroller of the Treasury	1	1	850	168.67	**44.8**
Maryland School for the Deaf	2	2	866	62.40	**21.4**
Department of Natural Resources	6	6	735	44.19	**35.5**
Department of Juvenile Services	15	11	1,821	145.28	7.52
Maryland State Archives	1	1	80	2.95	15.9
Department of the Environment	1	1	900	44.03	**30.8**
Department of Transportation	60	57	26,195	2,856.22	17.6
Department of Health and Mental Hygiene	17	16	10,430	1,305.63	14.9
Maryland General Assembly	1	1	1,223	105.63	**27.5**
Department of Public Safety and Correctional Services	28	27	37,494	1,606.01	9.9
Department of Human Resources	14	13	5,229	185.45	**27.1**
Department of Assessments and Taxation	2	2	220	1.59	6.5
University of Maryland System	15	14	114,185	4,126.32	**20.4**
St. Mary's College of Maryland	1	1	1,800	247	**24.9**
Morgan State University	1	1	7,100	139.19	**26.0**
Department of Education	2	1	600	51.61	**36.2**
Maryland Automobile Insurance Fund	1	1	510	46.57	**30.9**
Maryland Stadium Authority	1	1	2,100	385	18.8
Baltimore City Community College	1	1	2,300	17.53	2.5
Maryland Environmental Service	1	1	140	12.28	**44.1**
Maryland Food Center Authority	1	1	20	0.00	0.0
Judiciary of Maryland	1	1	115	16.55	**39.9**
Subsequent Injury Fund Board	1	1	17	1.5	**24.5**
Department of Veterans Affairs	1	1	4	1	**69.4**
Department of Budget and Management	1	1	220	1.45	6.5
Maryland State Police	30	28	2,146	230.21	**28.7**
Department of Business and Economic Development	1	1	650	27.63	**25.6**
Maryland Higher Education Commission	1	1	83	3.47	**25.0**
Dept. of Housing and Community Development	1	1	490	58.34	**58.4**
Maryland Insurance Administration	1	1	300	16.57	17.5
TOTALS	245	224	232,091	12,378	16.7

* State employees comprise approximately 81,911 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%.

☐ Less than 100% reporting   ☐ Increase in MRA tonnage over 2002

☐ Recycling Rate less than previous year   NR – Did Not Report

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 office. 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.

Increasing Maryland State government's recycling rate to the level required by the MRA and EO could save Maryland State government money. Consider the following money-saving scenarios based upon 2003 data:

$ If State government as a whole (MRA) achieves a 20% recycling rate by increasing its MRA tonnage, nearly $119,000 in avoided disposal costs (based on an average Maryland tipping fee of $49) would be realized.

$ If each State agency (EO) achieves a 20% recycling rate by increasing its MRA tonnage, nearly $147,000 in avoided disposal costs (based on an average Maryland tipping fee of $49) would be realized.

$ If State government as a whole (MRA) achieves a 20% recycling rate by decreasing the amount of waste generated, nearly $595,000 (based on an average Maryland tipping fee of $49) would be saved.

$ If each State agency (EO) achieves a 20% recycling rate by decreasing the amount of waste generated, nearly $735,000 (based on an average Maryland tipping fee of $49) would be saved.

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 local and state 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 2004, DGS purchased $2,487,768 worth or 2,603 tons (99.9% by weight) of recycled content paper products.

– The Maryland Department of General Services maintains a web page at http://dgsweb.dgs.state.md.us/procure/Recycled-Laws.htm that details the State procurement guidelines and lists products available with recycled content such as picnic tables, park benches, and re-refined motor oil. 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 2003, thru June 2004, MDE worked to implement programs designed to expand recycling and protect public health and the environment.

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.

On April 27, 2004, Governor Robert L. Ehrlich, Jr. signed into law House Bill 109 – Electronic Waste Collection Systems requiring MDE to convene a

workgroup to study the establishment and implementation, by January 2006, of an electronic waste collection system in the State. MDE must report its recommendations for funding such a system to the Governor and the General Assembly by December 31, 2004. MDE must also report its findings and recommendations for the establishment and implementation of a system by July 1, 2005. The Electronics Recycling Workgroup chaired by Delegates Elizabeth Bobo and Karen Montgomery and comprised of representatives from local government, environmental groups, electronics manufacturers, retailers, and recyclers, the solid waste industry, and members of the General Assembly began meeting in August 2004, and was developing recommendations at the time of publication of this report.

Maryland is also conducting special electronics collection events throughout the State. From July 2003 thru June 2004, 22 collection events were held in 17 jurisdictions in Maryland. The last of these partnership events is scheduled for the Fall of 2004. Highlights of the program in Maryland include:

- ✓ The collection of nearly 375 tons of electronic equipment from 21 1-day collection events and 1 2-day collection event.
- ✓ Permanent collection programs in Howard, Montgomery, Prince George's, and Wicomico Counties, and the City of Greenbelt that have collected nearly 2,102 tons of electronic equipment.
- ✓ The collection of approximately 19 tons of electronic equipment from a City of Salisbury curbside collection program.
- ✓ The collection of over 59 tons of electronic equipment from 1,170 participants at a one-day event in Baltimore County on April 5, 2004.
- ✓ The placement of eCycling information in all telephone books distributed in Maryland, Pennsylvania, Delaware, Virginia, West Virginia and the District of Columbia in 2003. The information lists eCycling web sites and encourages people to donate, reuse, or recycle their electronics.
- ✓ The development of a partnership 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.
- ✓ Over 2,897 tons of electronic equipment has been collected since the program began.

Information on eCycling is available under *"Special Projects"* on MDE's recycling web page at www.mde.state.md.us/recycling. Table 4 gives a breakdown of the electronics equipment collected.

Table 4 – eCycling Collection Programs

County	Population (July, 2003)	Type	Date(s)	No. of participants	Tons collected	Pounds collected	Pounds/ participant
Maryland (State)	5,508,909	–	thru 6-30-03	8,223	372.25	744,391	91
Allegany	73,668	1-day	6-26-04	215	14.67	29,338	*136*
Baltimore Co.	777,184	1-day	11-22-03	930	37.05	74,105	79
		1-day	4-3-04	1,170	59.05	118,093	101
Baltimore City	628,670	2-day	4-24-04 4-25-04	*371*	16.76	33,525	227
Calvert	84,110	1-day	11-8-03	45	6.18	12,355	274
		1-day	6-12-04	50	8.06	16,128	322
Carroll	163,207	1-day	7-12-03	305	15.8	31,610	103
		1-day	6-5-04	325	14.53	29,053	89
Cecil	92,746	1-day	10-4-03	60	8.04	16,080	268
Charles	133,049	1-day	6-19-04	120	13.8	27,598	229
Garrett	30,049	1-day	8-2-03	67	6.16	12,328	184
		1-day	4-24-04	150	11.46	22,922	152
Harford	232,175	1-day	8-9-03	414	33.13	66,260	160
		1-day	4-17-04	1,000	40.16	80,325	80
Midshore Region*	129,319	1-day	11-1-03	135	6.74	13,475	99
		1-day	4-25-04	321	13.73	27,468	86
Prince George's	838,716	1-day	10-26-03	960	27.57	55,314	57
		1-day	5-15-04	290	18.14	36,282	125
St. Mary's	92,754	1-day	8-16-03	115	6.27	12,540	109
Wicomico	87,375	1-day	8-23-03	90	3.54	7,080	79
Worcester	49,604	1-day	10-25-03	138	6.86	13,715	99
		1-day	5-1-04	102	7.11	14,222	139
Permanent **	5 Locations	--	thru 6-30-04	--	2,131.24	4,262,472	--
Salisbury***	Curbside	4 days	thru 6-30-04	--	18.84	37,682	--
Total				**15,596**	**2,897.18**	**5,794,361**	**96**

*   Midshore Region is composed of Kent, Queen Anne's, Talbot, and Caroline Counties.
** An additional 2,095.87 tons were collected at the 5 permanent locations (*i.e.*, Greenbelt – 35.37, Wicomico – 29.70, Prince George's – 242.62, Montgomery – 1,443.37, and Howard – 380.18).
*** The City of Salisbury collected 18.84 tons during curbside pickup events on January 4, 2003, January 11, 2003, January 17, 2004, and January 24, 2004.

Mercury Recycling

MDE continues to work to comply with 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. The law has been effective in compelling MDE to

develop informational materials on the hazards of mercury, design programs to encourage voluntary efforts of Marylanders to reduce mercury, increase awareness of mercury, and provide 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 disseminate information for adults and children on mercury and mercury-containing products. The resulting fact sheets are available on MDE's web page at www.mde.state.md.us. The fact sheets cover such topics as mercury drop-off locations, general mercury information, alternative products to those consisting mercury, mercury spill cleanup and spill kit vendors information, and fish consumption advisories. In addition, MDE participated in public outreach events: Free Friday Flicks, Baltimore Green Week, Belair Edison Spring Fest, and the Maryland Recyclers Coalition Conference. For more information on these events see the *Education and Outreach* section of this report. The MDE Emergency Response Division also continues to provide mercury specific response training to firefighters throughout the State.
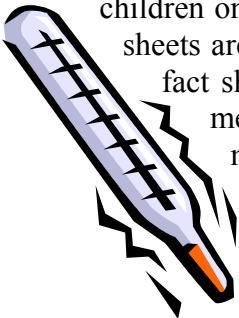
MDE has collaborated with many organizations to fulfill the Mercury and Products that Contain Mercury Act mandates. Collaborations have been useful in ensuring that more Marylanders are aware of the hazards of mercury and the requirements of legislation concerning mercury. Some collaborations include:

- ¤ Working with Maryland Environmental Service (MES), Maryland State Department of Education (MSDE), the Children's Environmental Health and Protection Advisory Council (CEHPAC) to inventory Maryland schools for mercury. The survey determined that 785 schools reported having mercury, mercury-containing devices, or mercury compounds on their premises. MES used the survey results to design and conduct a collection effort to remove mercury from Maryland schools. Thirty percent of schools (239 schools) that reported having mercury elected to participate in the MES program.
- ¤ MDE is continuing its work with the Maryland Hospitals Association and the non-profit group Health Care Without Harm to encourage voluntary participation in the "Hospitals for a Healthy Environment" campaign. This campaign is the result of a Memorandum of Understanding between the U.S. Environmental Protection Agency (EPA) and the American Hospital Association (AHA) to eliminate mercury waste by 2005 and reduce total waste by 33 percent by 2002, and by 50 percent by 2010.
- ¤ MDE continues to work with the Board of Public Works and DGS to ensure 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. CVS Pharmacy and EPIC Pharmacy donated a limited supply of digital

thermometers to be exchanged for used mercury fever thermometers. Elemental mercury and other mercury containing products are collected at these locations. Table 5 contains a list of established mercury recycling drop-off locations. For further details on any of the mercury information contained in this report, read the *"Report on Mercury and Products that Contain Mercury"* report available on MDE's web page.

Table 5 – Established Mercury Drop-off Locations

Facility	Location	County	Contacts
Allegany County Health Department	P.O. Box 1745 Willowbrook Road Cumberland, MD 21501	Allegany	Walter Finster 301-777-5654
Maryland Department of Environment	1800 Washington Blvd. Suite 610 Baltimore, MD 21230	Baltimore City	David Mrgich 410-537-3314
Calvert County Solid Waste Facility	Appeal Landfill 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 410-857-5009
Cecil County Health Department	401 Bow Street Elkton, MD 21921	Cecil	Chuck Smyser 410-996-5160
Charles County Department of Public Facilities	1001 Radio Station Road LaPlata, MD 20646	Charles	Lowry Phelps 301-932-3440
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	Steve Sherrard 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. 6751 Columbia Gateway Dr. 3rd Floor Columbia, MD 21046-2147 410-313-6300 Howard County Bureau of Environmental Health 3525-H Ellicott Mills Drive Ellicott City, MD 21043 410-313-2640 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	Howard	Bureau of Environmental Health 410-313-2640

Table 5 – Established Mercury Drop-off Locations

Facility	Location	County	Contacts
Howard County Health Department (cont'd)	Columbia Health Center 10630 Little Patuxent Parkway Suite 400 Columbia, MD 20144-3059 410-313-7500	Howard	Bureau of Environmental Health 410-313-2640
Kent County Health Department	125 Lynchburg Street Chestertown, MD 21620	Kent	Ed Birkmire 410-778-1350
Prince George's County Department of Environmental Resources	Brown Station Road Sanitary Landfill 3500 Brown Station Road Upper Marlboro, MD 20774	Prince George's	Waste Reduction Section 301-883-5045
Queen Anne's County Health Dept., Clinical Programs	206 N. Commerce Street Centreville, MD 21617	Queen Anne's	Connie Ralph 410-758-0720
Salisbury Fire Department	Station 16 Headquarters 143 South Division Street Salisbury, MD 21801	Wicomico	Ed Werkheiser 410-548-3125
Worcester County Health Department	6040 Public Landing Road Snow Hill, MD 21863	Worcester	Bruce Stevens 410-632-1100

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. Figure 4 illustrates the locations of the State's material recovery facilities (MRFs). These facilities are strategically located to ensure that materials reach their market economically.

Businesses can access the Maryland 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 www.libertynet.org/macredo for facilities in the region. The database is searchable by business name, commodity group, facility type, member state, and metropolitan area and/or zip code. Additional links to other companies is available on MDE's recycling web page under

Figure 4 – Material Recovery Facilities (MRFs) in Maryland
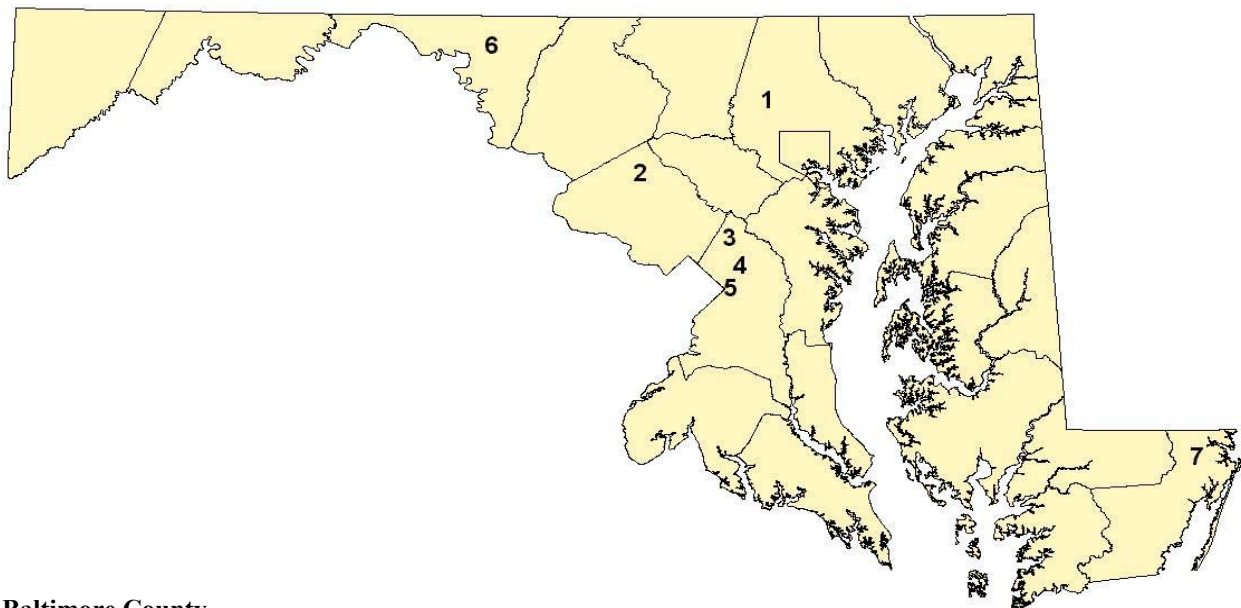
Baltimore County

1. Baltimore Resource Recovery Facility
   10320 York Road
   Cockeysville, MD 21030
   Ph: 410-628-1130   Fx: 410-628-6516

Montgomery County

2. Montgomery County MRF
   16105 Frederick Road
   Derwood, MD 20855
   Ph: 301-417-1433   Fx: 301-417-9415

Prince George's County

3. Paper Stock Dealers, Inc.
   4501 46th Street
   P.O. Box 406
   Bladensburg, MD 20710
   Ph: 301-762-6990

4. Universal Recycling
   1000 Ritchie Road
   Capitol Heights, MD 20743
   Ph: 301-336-5932   Fx: 301-499-7138

5. Prince George's County MRF
   1000 Ritchie Road
   Capitol Heights, MD 20743
   Ph: 301-499-1707   Fx: 301-499-7138

Washington County

6. Browning Ferris Industries, Inc.
   11710 Green Castle Pike
   Hagerstown, MD 21740
   Ph: 301-223-7272

Worcester County

7. Ocean City Recycling Center
   210 65th Street
   Ocean City, MD 21842
   Ph: 410-524-0318

"Education and Outreach". For companies without access to the Internet, MDE can mail out or fax a list of markets by material.

Automobile Tires – In FY 2004, the State processed just over 5.5 million scrap tires. This represents a 72% increase from the previous year. Emanuel Tire Company and Maryland Environmental Service (MES) processed approximately 4.6 million or 84.1% of these tires while ESSROC Cement Corporation, St.

Lawrence Cement Company, and Harford Waste-to-Energy Facility used approximately 0.9 million or 15.9% of the tires as fuel.

MDE estimates that the FY 2005 processing capacity for scrap tires will be similar to FY 2004. The MES crumb rubber facility, Emanuel Tire, and Harford County's Waste-to-Energy Facility are expected to maintain FY 2004 processing numbers. St. Lawrence Cement Company and ESSROC Cement Company are expected to increase slightly the processing of 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 collected when recycling batteries are 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 the County where you live. County contact information is available 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 was 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
Ocean City Recycling Center	410-524-5356
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 the jurisdiction where you live for details and any questions you may have concerning the proper collection procedures. Contact information is available in the "State, County, and City Recycling Information" 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, the remaining materials (usually metal) are sold for scrap and made into new products.

Permitting Guidance

Two fact sheets are available through MDE to assist recycling and composting businesses in understanding environmental permitting procedures and requirements.

Local Permitting Issues for Recycling and Composting Facilities – 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 – 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 "Education and Outreach".

Waste Diversion Guide

Commercial Waste Diversion Implementation Guide – Assists local government 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 2003, thru June 2004, MDE continued to emphasize public education through outreach efforts such as television commercials, classroom instruction, and special events.

MDE in the Classroom

MDE promotes "MDE in the Classroom" offering various displays, presentations and demonstrations that travel to schools and events throughout Maryland. Activity lesson plans are also distributed to teachers of all grades as requested. In the 2003-2004 school year, MDE reached 1,464 students and teachers at 29 Maryland schools.

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.

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 was a supporter of the fifth annual America Recycles Day in Maryland and organized the second annual "Rethink Recycling" sculpture contest held on November 13, 2003.

The "Rethink Recycling" sculpture contest was held at the Maryland Department of the Environment in Baltimore and featured sculptures from 39 high school students across Maryland. With instruction to create a sculpture that promotes "America Recycles Day", students made sculptures of a wedding dress, fish, dog, briefcase and more. The Sculpture Contest challenged students to innovatively and artistically use recycled or reused materials as a solution to waste reduction. The event was given recognition and airtime by TV-Fox45/WB54 during three news times.

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 programs, special projects (*e.g.*, electronics and mercury recycling, composting, and household hazardous waste), tire recycling, setting up 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.

Free Friday Flicks

On July 11, 2003, MDE participated in Fox45's and WB54's "Free Friday Flicks" television event at Kinder Farm Park in Anne Arundel County. Approximately 6,000 people attended the event that included booths from local police, the Baltimore Aquarium, MDE, and others.   MDE's interactive exercise allowed children to make a planter from paint, glitter, and recycled soda bottles.   They were also provided a seed packet to take home for planting.   MDE staff was able to talk with adults about environmental issues and provide handouts on recycling, mercury reduction, household hazardous waste, electronics recycling, buying recycled content items, and scrap tire management, while children were entertained and learned about recycling and reuse. Mercury-free thermometer cards were also distributed at the event.

Queen Anne's County Earth Day Celebration

On April 25, 2004, a school cleanup beautification program, eCycling and HHW collection program was held at Kenwood Elementary School for Science. MDE staffed an exhibit highlighting eCycling, recycled content products, mercury, and HHW.   Recycling promotional items such as activity books, recycling tattoos, aluminum rulers and mercury free thermometers were given out to the students.

Earth Day Grocery Bag Project

The Baltimore Public Works Museum, Canton Safeway, and MDE organized an Earth Day Grocery Bag Project. Students and children who visited the Baltimore Public Works Museum in April, 2004, had the opportunity to decorate paper grocery bags with the environmental message to "Reduce, Reuse, and Recycle." Activity papers and fact sheets on recycling, water conservation, and waste reduction were distributed to children and parents during this time.   On Earth Day,

April 22, 2004, these decorated bags were given to shoppers at the Canton Safeway store to promote recycling in the community.

Maryland Recycling Conference

MDE participated on the planning committee for the 16th Annual Maryland Recyclers Coalition Conference, Training and Exposition held at the

Catonsville Campus of the Community College of Baltimore County (CCBC) on May 27-28, 2004. Over 100 representatives from federal, state, and local government, business and the general public attended the conference that included a wide-range of recycling topics. MDE representatives presented at the sessions: *"Future of Recycling: Where Do We Go From Here?"* and *"What Do I Do With This?"* and staffed an exhibit with information on recycling, electronics legislation, and mercury reduction.

Belair Edison Annual Spring Fest

On May 1, 2004, MDE participated in the Belair Edison Annual Spring Fest at Herring Run Park in Baltimore City. Approximately 1,000 people attended the event that included booths from local police, non-profit organizations, MDE, and others. Resurrected from its very successful debut at Free Friday Flicks, MDE's booth allowed children to learn about recycling and reuse by making a planter from paint, glitter, and recycled soda bottles while MDE staff talked

with adults about environmental issues. MDE provided handouts on recycling, mercury reduction, household hazardous waste, electronics recycling, buying recycled content items, scrap tire management, and lead poisoning. Mercury-free thermometer cards were also distributed at the event.

Baltimore Green Week

On March 22, 2004, MDE participated in a town hall meeting and

exhibition on "green" building design highlighting clean environmental building practices. Approximately 250-300 people attended this community-oriented event held at the National Bohemian (Natty Boh) Brewery Building in Baltimore, Maryland. The Natty Boh Brewery Building is being transformed from an abandoned industrial site into a complex for retail, storage, office, and

residential space utilizing green building principles. The MDE booth highlighted the Brownfields/Voluntary Cleanup Program and sites, recycling, recycled content building products, mercury, electronics, lead, and green buildings. Fact sheets, brochures and mercury-free thermometers were distributed to the audience.

Partnerships

MDE recognizes the value of being an active partner with local and regional groups who focus on waste management and recycling 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 Act on behalf of MDE. Information on MES programs is available at 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 – Baltimore City, Anne Arundel, Carroll, Baltimore, Harford, Howard, and Montgomery Counties (Frederick County pending). 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 www.libertynet.org/macredo. 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 6 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 include:

- ❖ Seven counties achieved waste diversion rates greater than the 40% waste diversion goal;
- ❖ Thirteen counties earned SR credits. Two of these counties, Charles and Montgomery, earned the maximum 5% SR credit.
- ❖ Citizens have access to recycling by curbside collection or a regional network of drop-offs or both;
- ❖ Four Counties and the city of Greenbelt have permanent electronic drop-off locations and 16 counties and Baltimore City participated in eCycling collection events from July 2003 thru June 2004;
- ❖ Fourteen counties operate textile collection programs;
- ❖ Fourteen counties and Baltimore City maintain 19 permanent mercury drop-off locations and 10 counties and Baltimore City participated in mercury collection events from July 2003 thru June 2004;
- ❖ Seven counties collect paint for recycling;
- ❖ Three counties recycle boat shrink-wrap; and
- ❖ Seventeen counties operate Household Hazardous Waste Programs.

It is important to remember that waste diversion programs are always evolving. Appendix A includes names, addresses, and phone numbers of 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 Recycling Information."

Table 6 -- 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	✓	✓	✓	✓/✓		✓			✓	wood pallets, C & D, scrap metal
Baltimore City	✓	✓	✓	✓/✓				✓	✓	eCycle, mercury, household batteries, C & D
Baltimore County	✓	✓	✓	✓/✓		✓			✓	eCycle, mercury, gas, usable building material
Calvert	✓	✓	✓	✓/✓			✓	✓	✓	eCycle, mercury, oil filters, ink-jet cartridges, scrap metal, propane tanks
Caroline	✓	✓	✓	✓/✓			✓		✓	eCycle, mercury; **No** colored paper, books, magazines, x-mas tree; Mid-shore program
Carroll	✓	✓	✓	✓/✓				✓		eCycle, asphalt roof shingles, scrap metal, propane tanks
Cecil	✓	✓	✓	✓/✓				✓		eCycle, mercury, wood pallets
Charles	✓	✓	✓	✓/✓			✓	✓	✓	eCycle, household batteries, oil filters; **No** books, paperboard
Dorcester	✓	✓		✓/✓				✓		crab chum composting; **No** books
Frederick	✓	✓	✓	✓/✓			✓		✓	pesticide bottles, wood pallets, propane; **No** books
Garrett	✓	✓		✓/✓				✓		eCycle; **No** cardboard, magazines, books
Harford	✓	✓	✓	✓/✓		✓	✓	✓		eCycle, gas, pesticide containers; **No** books
Howard	✓	✓	✓	✓/✓	✓	✓	✓	✓	✓	propane tanks, asphalt roof shingles, scrap metal, reusable bldg. materials
Kent	✓	✓	✓	✓/✓			✓	✓	✓	eCycle, mercury, boat shrink-wrap; Mid-shore program; **No** hardback books
Montgomery	✓	✓	✓	✓/✓	✓	✓	✓		✓	computers, bicycles, reusable building materials
Prince George's	✓	✓	✓	✓/✓	✓	✓		✓	✓	eCycle, mercury, cooking oil
Queen Anne's	✓	✓		✓/✓			✓	✓	✓	eCycle, mercury, boat shrink-wrap; Mid-shore program
St. Mary's	✓	✓	✓	✓/✓		✓	✓		✓	eCycle, mercury, #1 & 2 plastic only, mercury, pesticide containers, oil filters, ink jet cartridges
Somerset	✓	✓		✓/✓						**No** books
Talbot	✓	✓	✓	✓/✓			✓		✓	eCycle, mercury, boat shrink-wrap; Mid-shore program
Washington	✓	✓	✓	✓/✓			✓			**No** books
Wicomico	✓	✓		✓/✓	✓		✓	✓	✓	eCycle, wood pallets; **No** books
Worcester	✓	✓	✓	✓/				✓	✓	eCycle, mercury

* 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 x-mas tree recycling.   ° Established Mercury Drop-offs   ~ Household Hazardous Waste Collection Day   ^eCycle = electronics recycling

Appendix

THIS PAGE INTENTIONALLY LEFT BLANK

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
Fax: 301-777-2001
E-mail: tbennett@allconet.org
Web: http://gov.allconet.org/recycle/

Anne Arundel

Ms. Tracie Reynolds
Recycling Manager
Waste Management Services
2662 Riva Road, MS-7406
Annapolis, Maryland 21401
Phone: 410-222-7951
Fax: 410-222-4484
E-mail: pwreyn26@mail.aacounty.org
Web: www.aacounty.org/DPW/WasteManagement/index.cfm
Ms. Carol Taylor, Design Implementation
  Specialist
Ms. Jennifer M. Peterson-Helmecki,
  Education/Outreach 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
Web: www.co.ba.md.us/Agencies/publicworks/recycling/index.html
Mr. Clyde Trombetti, Public Info. Specialist
Ms. Laura Greaver, Public Info. Specialist
Mr. Joe Pistorio, Public Info. Specialist

Baltimore City

Mr. Robert Smith
Chief of Collections
Bureau of Solid Waste
200 Holliday Street
Baltimore, Maryland 21202
Phone: 410-396-5620
Fax: 410-545-6117
E-mail: robert.smith@baltimorecity.gov
Web: www.ci.baltimore.md.us/government/dpw/recycle.html

Calvert

Ms. Shirley Steffey
Office of Recycling
P.O. Box 1330, 401 Sweetwater Road
Lusby, Maryland 20657
Phone: 410-326-0210
Fax: 410-586-9461
E-mail: steffesj@co.cal.md.us
Web: www.co.cal.md.us/services/solidwst.htm

Caroline

Mr. Marshall Monteith
Recycling Coordinator
Dept. of Public Works
520 Wilmuth Street
Denton, Maryland 21629
Phone: 410-479-4040
Fax: 410-479-0409
E-mail: mmonteith@carolinemd.org
Web: www.carolinemd.org/governmt/pubworks/

Carroll

Ms. Venzena Legge
Manager, Recycling Operations
Dept. of Public Works
225 North Center Street, Room 200
Westminster, Maryland 21157-5194
Phone: 410-386-2633
Fax: 410-840-8279
E-mail: vlegge@ccg.carr.org
Web: http://ccgov.carr.org/recycle/index.html

Cecil
Mr. Phil Hoderfield
Recycling Crew Leader
758 E. Old Philadelphia Road
Elkton, Maryland 21921
Phone: 410-996-6275
Fax: 410-287-4608
E-mail: phoderfield@ccgov.org
Web: www.ccgov.org/dpw/landfill/index.htm

Charles
Ms. Lowry Phelps
Dept. of Public Facilities
1001 Radio Station Road
La Plata, Maryland 20646
Phone: 301-932-3599
Fax: 301-932-3449
E-mail: phelpsl@govt.co.charles.md.us
Web: www.govt.co.charles.md.us/pf/sw/recycling/

Dorchester
Mr. Bob Tenanty
Dorchester Co. Dept. of Solid Waste
5435 Handley Road
Cambridge, Maryland 21613
Phone: 410-228-2920
Fax: 410-228-9516
E-mail: btenanty@docogonet.com

Frederick
Vacant
Recycling Coordinator
Dept. of Solid Waste
9031 Reichs Ford Road
Frederick, Maryland 21704
Phone: 301-696-2960
Fax: 301-631-3044
E-mail:
Web: www.co.frederick.md.us/Recycling/

Garrett
Ms. Kim Madigan
Garrett County Office of Solid Waste
3118 Oakland-Sang Run Road
Oakland, Maryland 21550
Phone: 301-387-0322

Fax: 301-387-2224
E-mail: kmadigan@garrettcounty.org
Web: www.co.garrett.md.us/swandr/index.html

Harford
Mr. C. Robert Ernst
Recycling Coordinator
Division of Environmental Affairs
3135 Scarboro Road
Street, Maryland 21154
Phone: 410-638-3417
Fax: 410-638-4019
E-mail: crernst@co.ha.md.us
Web: www.co.ha.md.us/dpw/envaffairs/

Howard
Mr. Alan Wilcom
Chief, Recycling Division
Bureau of Environmental Services
6751 Columbia Gateway Drive
Columbia, Maryland 21046
Phone: 410-313-6444
Fax: 410-313-6490
E-mail: awilcom@co.ho.md.us
Web: www.co.ho.md.us/DPW/Environmental_Homepage.htm
Ms. Kim Reichart, Recycling Coordinator

Kent
Mr. Martin T. Holden
Waste Management Coordinator
Kent County Public Works
709 Morgnec Road, Suite 104
Chestertown, Maryland 21620
Phone: 410-778-7448
Fax: 410-778-7424
E-mail: mholden@kentgov.org
Web: www.kentcounty.com/gov/pubworks/waste.htm

Midshore Regional Recycling Program
Mr. James Wood
Midshore Recycling Program
Queen Anne's Co. Dept. of Public Works
P.O. Box 56
Centreville, Maryland 21617
Phone: 410-758-6605

Fax: 410-758-6606
E-mail: jwood@friend.ly.net
(Kent, Queen Anne's, Talbot, Caroline)

Montgomery
Ms. Eileen Kao
Division of Solid Waste Services
101 Monroe Street, 6th Floor
Rockville, Maryland 20850
Phone: 240-777-6400
Fax: 240-777-6465
E-mail: eileen.kao@montgomerycountymd.gov
Web: www.mcrecycles.org

Prince George's
Mr. Marcelino Cole
Recycling Manager
Office of Recycling
9400 Peppercorn Place, 2nd Floor
Largo, Maryland 20774
Phone: 301-883-5045
Fax: 301-883-7645
E-mail: macole@co.pg.md.us
Web:
www.co.pg.md.us/Government/AgencyIndex/DER/waste.asp?h=&s=&n=75
Ms. Carol Bracaglia, Asst. Section Head
Ms. Marilyn Rybak, Planner

Queen Anne's
Mr. Charles Brown
Recycling Coordinator
P.O. Box 56
Centreville, Maryland 21617
Phone: 410-758-2697
Fax: 410-758-6606
E-mail: cvanover@qac.org
Web: www.qac.org/depts/dpw/dpwhome.htm

Somerset
Mr. Charles Cavanaugh
Director of Solid Waste Management
Somerset County Government
11916 N. Somerset Avenue
Princess Anne, Maryland 21853
Phone: 410-651-9641
Fax: 410-651-1156
E-mail: ccavanaugh@co.somerset.md.us

St. Mary's
Mr. Richard Tarr
Manager Solid Waste
Engineering Services
P.O. Box 508
California, Maryland 20619
Phone: 301-863-8400
Fax: 301-863-8810
E-mail: richard_tarr@co.saint-marys.md.us
Web: www.co.saint-marys.md.us/dpw/swprog/index.asp

Talbot
Mr. Derick Brummell
Recycling Coordinator
Dept. of Public Works
605 Port Street
Easton, Maryland 21601
Phone: 410-770-8168
Fax: 410-770-8176
E-mail: derickb@talbgov.org
Web: www.talbgov.org/pw/publicworks.html

Washington
Mr. Harvey Hoch
Recycling Coordinator
12630 Earth Care Road
Hagerstown, Maryland 21740
Phone: 240-313-2796
Fax: 240-313-3412
E-mail: hhoch@washco-md.net
Web: www.washco-md.net/public_works/solid_waste/solidw.htm#B

Wicomico

Mr. Rai Sharma
Director, Public Works
P.O. Box 968
Salisbury, Maryland 21803-0968
Phone: 410-548-4810
Fax: 410-548-4941
E-mail: psharma@wicomicocounty.org
Web: www.wicomicocounty.org/pubwrk/solid.htm

Worcester

Mr. Ronald Taylor
Asst. Landfill Supervisor/Recycling Coordinator
Central Facility Landfill
7091 Central Site Lane
Newark, Maryland 21841
Phone: 410-632-3177
Fax: 410-632-3000
E-mail: rtaylor@co.worcester.md.us
Web: www.co.worcester.md.us/lndfill.htm