



MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Baltimore, MD 21230

410-537-3000 • 800-633-6101

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Robert M. Summers, Ph.D.
Secretary

Kathy M. Kinsey
Deputy Secretary

August 23, 2011

The Honorable Thomas V. Mike Miller, Jr., President
Senate of Maryland
State House, H-107
Annapolis MD 21401-1991

The Honorable Michael E. Busch, Speaker
House of Delegates
State House, H-101
Annapolis MD 21401-1991

The Honorable Joan Carter Conway, Chairwoman
Senate Education, Health and Environmental Affairs
Committee
Miller Senate Office Building
2 West Wing
11 Bladen Street
Annapolis MD 21401-1991

The Honorable Maggie McIntosh, Chairwoman
Environmental Matters Committee
House of Delegates
6 Bladen Street
Annapolis MD 21401-1991

Dear President Miller, Speaker Busch, Chairwomen Conway and McIntosh:

In accordance with the requirements of Chapter 719 of the Acts of 2010 and § 2-1246 of the State Government Article, this interim report of the Maryland Department of the Environment's ("the Department" or "MDE") Solid Waste Management Study Group ("Study Group") is submitted for your review.

Chapter 719 (House Bill 982 entitled *Solid Waste Management - Recycling and Source Reduction - Study*), which became effective October 1, 2010, requires MDE to conduct a study, in consultation with local government officials, waste haulers, and other affected parties, including material resource facilities to evaluate solid waste management processes that reduce the solid waste stream through recycling and source reduction. The law specifically requires MDE to study the expansion of recycling efforts in nonresidential markets, the feasibility of commodity-specific targets, and long-term funding for solid waste and recycling management in the State.

On October 28, 2010, MDE held the first meeting of the Study Group, consisting of 26 stakeholders representing local and State government, the solid waste hauling and recycling industry, non-profit organizations, academia, and private citizens. A list of the current members of the Study Group is enclosed. At this meeting, introductions and expectations of the members were shared. Topics of particular concern to the members included: development of long-term/sustainable funding for solid waste and recycling; no new mandates or unfunded mandates; commodity-specific targets will not be effective with single stream recycling collection; expansion of glass recycling; implementable and universally "fair" for all programs; expansion of product stewardship programs; solutions for hard to dispose materials; expanded regional opportunities for recycling;

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improving the efficiency of recycling programs; economics of various waste management methods; encouraging more business recycling; options for business recycling, including business to business recycling; and recyclables going out with exported trash. Dr. Hedy Alavi, of John Hopkins University, explained that he was involving the students in his Solid Waste Engineering and Management class in MDE's study. The class had 23 students and they were conducting research on some of the priority discussion topics through four teams, with one month to do the research. The enclosed list of prioritized issues and additional topics for discussion was distributed and explained to the membership. Future meetings of the group are to be posted on the MDE Calendar on the Department's website at: <http://www.mde.state.md.us/aboutmde/mdecalendar/Pages/Calendar.aspx> .

During the November 18, 2010 meeting, the Study Group discussed President Obama's Proclamation of November 15, 2010, America Recycles Day, regarding recycling, particularly encouraging electronics recycling. The Proclamation stated that an interagency task force has been established in the federal government to prepare a national strategy for responsible electronics stewardship, including ensuring that electronics containing hazardous materials are not exported to developing nations. In addition, Richard Abraham, Solid Waste and Recycling Specialist for Johns Hopkins University (JHU), gave an overview of the JHU recycling program. Mr. Abraham explained that JHU is looking toward sustainability with a goal to reduce greenhouse gas (GHG) emissions by 50 percent by 2025. Mr. Abraham stated that 2 percent growth will equal a 25 percent increase in GHG emissions at the school. Next, the first priority issue "Expansion of Recycling Efforts in Nonresidential Markets" was discussed, with emphasis on the feasibility of a Statewide law to require businesses to report on their solid waste and recycling activities. This discussion was combined with the feasibility of requiring multifamily recycling Statewide. A brief overview of the Prince George's and Montgomery Counties' laws regarding multifamily dwelling recycling was provided by MDE. There was general discussion regarding recycling in multifamily dwellings by industry and government Study Group members that indicated that some multifamily property owners were only providing a cursory recycling effort and that there is a high rate of contamination in collection containers at these locations and a low volume of recyclables collected. It was also mentioned that there needs to be more waste reduction and recycling education in multifamily dwellings and that there are no social pressures to recycle in these locations, as there is in single family residential areas. Some county members stated that without a mandatory reporting requirement, the Counties will be unable to compel businesses to report their recycling activities. Some industry members stated that requiring recycling reporting would be a burden and would take time away from their core businesses. They also mentioned that they do not necessarily get information about recyclables that leave the State and are concerned that information may not be accurate.

At the Study Group meeting held on December 9th JHU student, Molly Finn, presented the University's Solid Waste Engineering and Management class report on their research of some of the Study Group's priority issues (see enclosed copy). The class' research resulted in extensive discussions regarding the various findings, including review of solid waste and recycling programs across the US, in Japan, and the Netherlands, urban versus rural recycling difficulties related to costs and available markets, the essential nature of outreach and

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education to various stakeholders regarding waste reduction and recycling, particularly as relates to single stream recycling, and the various mechanisms utilized by other governments to fund waste reduction and recycling programs. At the end of the meeting, MDE provided an overview of the status of the State's electronics recycling program, including a summary of collections since 2001, enforcement activity, and grants to the counties and municipalities. Summaries of all the meetings of the Study Group are enclosed.

This interim report covers the first three meetings of the Study Group. There have been insightful, cooperative, and informative exchanges amongst the members. The group has an enormous amount of experience with the priority issues and is interested in working through them with the Department to come to mutually beneficial solutions. The Study Group has continued to meet during 2011, and it is expected that the December 15, 2011 final report will include recommendations that can be used to ensure that Maryland's solid waste management and recycling programs are sustainable.

If you have questions regarding this report or any of the attachments, please feel free to contact me at 410-537-3384 or Mr. Horacio Tablada, Director of Land Management Administration at 410-537-3304.

Sincerely,



Robert M. Summers, Ph.D.
Secretary

Enclosures:

1. Members List of Study Group
2. Priority Issues
3. Meeting Summaries: 10/28/10, 11/18/10, and 12/9/10

cc: The Honorable Doyle Niemann
Horacio Tablada, Director, Land Management Administration
Heather Barthel, Director, Legislation and Policy

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
SOLID WASTE MANAGEMENT –
RECYCLING AND SOURCE REDUCTION STUDY GROUP**

PRIORITIZATION OF DISCUSSION TOPICS

October 28, 2010

- 1. Expansion of recycling efforts in nonresidential markets.**
 - a. Evaluate the feasibility of a Statewide law to require businesses to report on their solid waste and recycling activities – look at Montgomery County, other states**
 - b. Determine how to educate and reach out to the nonresidential sector to encourage them to begin to recycle; how to capture their data**
 - c. Conduct outreach to haulers to ensure that they can capture the data**
 - d. Examine the county role in encouraging recycling by nonresidential markets**
 - e. Consider reducing reporting requirements for scrap tire licensees and newsprint publishers (see 3f below)**
 - f. Discuss difficult and volatile recycling markets and how Maryland may or may not be able to effect some change in the markets (see 3i)**
 - g. Look at multifamily recycling – look at Montgomery and Prince George’s requirements and how they are working to see if these efforts are feasible Statewide**

- 2. Long-term funding for solid waste and recycling management in Maryland.**
 - a. Review other states’ fees/laws**
 - b. Review Maryland’s current funding – what needs to be funded and costs**
 - c. Summarize potential County funding concerns**
 - d. Evaluate the feasibility of product stewardship legislation to increase removal of end of life products; product stewardship legislation may involve increased revenue**
 - e. Examine regional opportunities that could benefit local governments**
 - f. Look at increasing markets for recyclables in Maryland – indirect relationships**
 - g. Discuss the effects on solid waste and recycling haulers of local governments switching to single stream recycling – is this a best management practice?**

- 3. Feasibility of commodity-specific waste reduction/recycling targets**
 - a. Evaluate the feasibility of increasing mandated recycling rates for the counties and State agencies**
 - b. Evaluate MRA materials for continued inclusion in the calculation of the annual recycling and waste diversion rates and new materials for potential legislation through the MRA**
 - c. Develop GHG projections for recycling and waste diversion rates**

- d. Analysis to determine the best outreach and education methods for teaching the public, industry, and government the importance and financial aspects of solid waste reduction and recycling**
- e. Determine the most feasible and productive solid waste management and recycling methods for decreasing greenhouse gas emissions**
- f. Consider reducing reporting burdens for scrap tire licensees and newsprint publishers (see 2e above)**
- g. Establish a hierarchy of solid waste and recycling methods**
- h. Consider innovative mechanisms for eliminating household hazardous wastes and recycling batteries (all types), fluorescent lights, mercury thermostats, mercury thermometers, pharmaceuticals, etc.**
- i. Discuss difficult and volatile recycling markets and how Maryland may or may not be able to effect some change in the markets (see 2f)**
- j. Discuss emerging issues related to plastics codes, beverage containers, food waste composting, etc.**

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
SOLID WASTE MANAGEMENT STUDY GROUP**

**MEETING SUMMARY
OCTOBER 28, 2010 1:00 – 3:00 P.M.**

Members in Attendance: Hedy Alavi/JHU, Valerie Androutsopoulos/Vangel Paper, Inc. , Terry Bennett/Allegany County DPW, Carol Bracaglia/Prince George's County DPWT, Jacqueline Carrera/Parks and People Foundation, Robin Davidov/NMWDA, Adrienne Ellis/The Artemis Group, Robert Ernst/Harford County Division of Environmental Affairs, Monte Kamp/Republic Services, Pam Kasemeyer/MDSWA, Barbara Krupiarz for David O'Leary/Sierra Club MD Chapter, Ken Lathroum/MES, Jim Marcinko for Mike Taylor/WMI, Chaz Miller/NSWMA, Don Pleasants/Ritchie Land Reclamation, LP, Charles Reighart/Baltimore County DPW, Bob Stumpff/City of College Park PWD, Horacio Tablada/MDE, Bill Teter/Calvert County Office of Recycling, Evelyn Tomlin/Howard County DPW, Ellen Valentino/MD/DE/DC Beverage Association, James Wood/MidShore Recycling Program.

Members not in Attendance: Harvey Alter, Brad Heavner/Environment Maryland, Patricia Millner/USDA, David O'Leary, Sierra Club MD Chapter.

Others in Attendance: Delegate Doyle Niemann, Jane Springer/Maryland State Licensed Beverage Association, Brenda Platt/Institute for Local Self Reliance, Jeffrey Fretwell/MDE, Edward Dexter/MDE, Hilary Miller/MDE.

Horacio Tablada welcomed the members and others in attendance and Hilary Miller explained the meeting and MDE building logistics. Attendees were advised that if they were interested in being included in the distribution list for the MDE newsletter to let Hilary know. In addition, they were notified that the meetings would be posted on the MDE Calendar on the Department's website at: <http://www.mde.state.md.us/aboutmde/mdecalendar/Pages/Calendar.aspx> . Attendees were also requested to advise Hilary if they have problems with the new MDE website and she will request fixes. The ground rules for the meetings were distributed and summarized.

Members introduced themselves and spoke briefly regarding their desires for the study and their participation in the group. Topics of particular concern to the members included: development of long-term/sustainable funding for solid waste and recycling; no new mandates or unfunded mandates; commodity-specific targets will not be effective with single stream recycling collection; expansion of glass recycling; implementable and universally "fair" for all programs; expansion of product stewardship programs; solutions for hard to dispose materials; expanded regional opportunities for recycling; improving the efficiency of recycling programs; economics of various waste management methods; encouraging more business recycling; options for business recycling, including business to business recycling; and recyclables going out with exported trash.

Horacio provided an overview of 2010 House Bill 982 entitled *Solid Waste Management – Recycling and Source Reduction Study*. He advised that as a result of this bill, MDE will be studying emerging issues related to waste and recycling management in consultation with stakeholders and to determine how we can go beyond paper, plastic, and glass recycling and develop a sustainable plan for solid waste management into the future. Horacio stated that the long-term funding of solid waste and recycling programs is important and that MDE's solid waste and recycling programs are funded with State

General Funds and some Scrap Tire Funds. It is recognized that MDE provides technical assistance to the counties but it is the counties that actually do the collection, disposal, and recycling of solid waste in Maryland. It is hoped that the study will determine the best way to raise money for these programs while driving behavior to reduce waste generation and increase recycling. Horacio advised that there are two reports required by the bill: an interim report due December 15, 2010 and the final report due December 15, 2011. He said that he desires a balanced final report with pros and cons for all ideas so that Maryland can continue to move forward as a leader in solid waste and recycling. Subsequent discussions included concerns regarding the capture of commercial sector recycling data and targeting the portions of the commercial sector that are not reporting their recycling activities, concern regarding double counting of recycling activities and whether the commercial sector is ahead of the residential sector in recycling, whether all businesses should recycle and report or just larger ones, determining what works well regarding recycling to avoid landfilling, and strengths and weaknesses of single-stream recycling.

Hedy Alavi explained that he is involving the students in his Solid Waste Engineering and Management class in this study. The class has 23 students and they are conducting research on some of the priority discussion topics through four teams. He explained that the students will only have one month to do the research but that they are energetic and willing to work hard.

After a break around 1:45 p.m., Hilary led a discussion regarding the prioritization of discussion topics for the study. As the topics were briefly discussed, members volunteered to provide background information as follows as the topics are put on the agenda for discussion:

1. Expansion of recycling efforts in nonresidential markets.

- a. Evaluate the feasibility of a Statewide law to require businesses to report on their solid waste and recycling activities – look at Montgomery County, other states – **Robin Davidov; Carol Bracaglia – consider speaking to Joan Plisko about H2E**
- b. Determine how to educate and reach out to the nonresidential sector to encourage them to begin to recycle; how to capture their data – **No volunteers; all please contribute success stories if you have them**
- c. Conduct outreach to haulers to ensure that they can capture the data – **Don Pleasants; Jim Marcinko; Monte Kamp**
- d. Examine the county role in encouraging recycling by nonresidential markets – **Terry Bennett; Carol Bracaglia; James Wood; Bob Ernst; Charles Reighart; Bill Teter**
- e. Consider reducing reporting requirements for scrap tire licensees and newsprint publishers (see 3f below) – **no volunteers**
- f. Discuss difficult and volatile recycling markets and how Maryland may or may not be able to effect some change in the markets (see 3i) – **Adrienne Ellis; Chaz Miller**
- g. Look at multifamily recycling – look at Montgomery and Prince George’s requirements and how they are working to see if these efforts are feasible Statewide – **Carol Bracaglia; Bill Teter; Adrienne Ellis; Jim Marcinko; Charles Reighart**

2. Long-term funding for solid waste and recycling management in Maryland.

- a. Review other states’ fees/laws – **Hedy Alavi; Terry Bennett; James Wood; Bill Teter; Ken Lathroum; Chaz Miller**
- b. Review Maryland’s current funding – what needs to be funded and costs – **Hilary Miller**
- c. Summarize potential County funding concerns – **no volunteers; all please provide input**

- d. Evaluate the feasibility of product stewardship legislation to increase removal of end of life products; product stewardship legislation may involve increased revenue – **Hilary Miller will provide overview**
- e. Examine regional opportunities that could benefit local governments – **James Wood**
- f. Look at increasing markets for recyclables in Maryland – indirect relationships – **no volunteers**
- g. Discuss the effects on solid waste and recycling haulers of local governments switching to single stream recycling – is this a best management practice? **Jim Marcinko, Valerie Androutopoulis; Evelyn Tomlin; Bob Ernst; Monte Kamp**
- h. **Discuss PAYT as an option –Bob Ernst**

3. Feasibility of commodity-specific waste reduction/recycling targets

- a. Evaluate the feasibility of increasing mandated recycling rates for the counties and State agencies – **no volunteers**
- b. Evaluate MRA materials for continued inclusion in the calculation of the annual recycling and waste diversion rates and new materials for potential legislation through the MRA – **no volunteers**
- c. Develop GHG projections for recycling and waste diversion rates – **Hilary Miller to send information**
- d. Analysis to determine the best outreach and education methods for teaching the public, industry, and government the importance and financial aspects of solid waste reduction and recycling – **Bob Ernst; Robin Davidov; Charles Reighart; Evelyn Tomlin**
- e. Determine the most feasible and productive solid waste management and recycling methods for decreasing greenhouse gas emissions – **Hilary Miller to send information**
- f. Consider reducing reporting burdens for scrap tire licensees and newsprint publishers (see 2e above) – **no volunteers**
- g. Establish a hierarchy of solid waste and recycling methods – **no volunteers**
- h. Consider innovative mechanisms for eliminating household hazardous wastes and recycling batteries (all types), fluorescent lights, mercury thermostats, mercury thermometers, pharmaceuticals, etc. – **Ken Lathroum; Evelyn Tomlin; Bob Ernst; Chaz Miller; Bill Teter; Hilary Miller to send federal pharmaceuticals proposal**
- i. Discuss difficult and volatile recycling markets and how Maryland may or may not be able to effect some change in the markets (see 2f) – **no volunteers**
- j. Discuss emerging issues related to plastics codes, beverage containers, food waste composting, etc. **and other recyclables including nonresidential electronics, plastic bags – Evelyn Tomlin; Bill Teter**

Hilary advised that she will revise the members list and send it to those in attendance and will be maintaining an interested parties list. She provided her phone number, as well. The meeting was adjourned at 3:00 p.m.

The next meeting will be held on Thursday, November 18, 2010 at 1:30 p.m. at MDE Headquarters, 1800 Washington Boulevard, Aqua and Terra Conference Rooms, Baltimore, MD 21230.

MARYLAND DEPARTMENT OF THE ENVIRONMENT
SOLID WASTE MANAGEMENT STUDY GROUP
MEETING SUMMARY
NOVEMBER 18, 1:30 – 3:15 P.M.

Members in Attendance: Richard Abraham/JHU, Valerie Androustopoulos/Vangel Paper, Inc., Terry Bennett/Allegany County DPW, Adrienne Ellis/The Artemis Group, Robert Ernst/Harford County Division of Environmental Affairs, Malcolm Granville/Republic Services, Pam Kasemeyer/MDSWA, Richard Keller/MES, Barbara Krupiarz for David O’Leary/Sierra Club MD Chapter, Jim Marcinko/WMI, Brian McCormick/Allegany County DPW Chaz Miller/NSWMA, Don Pleasants/Ritchie Land Reclamation, LP, Charles Reighart/Baltimore County DPW, Ashlea Smith/Alice Ferguson Foundation, Bob Stumpff/City of College Park PWD, Bill Teter/Calvert County Office of Recycling, Evelyn Tomlin/Howard County Bureau of Environmental Services; Ellen Valentino/MD/DE/DC Beverage Association.

Members not in Attendance: Harvey Alter, Carol Bracaglia/Prince George’s County DPWT, Brad Heavner/Environment Maryland, Patricia Millner/USDA, David O’Leary, Sierra Club MD Chapter, Horacio Tablada/MDE James Wood/MidShore Recycling Program.

Others in Attendance: Heather Barthel/MDE, Edward Dexter/ MDE, Jeffrey Fretwell/MDE, Ken Lathroum/MES, Delegate Doyle Niemann, Abigail Pascual/MDE, Brenda Platt/Institute for Local Self Reliance, Hilary Miller/MDE.

Hilary Miller welcomed the members and others in attendance and introductions were made around the room. She briefly described President Obama’s Proclamation on November 15, 2010 regarding recycling, particularly encouraging electronics recycling. The Proclamation states that an interagency task force has been established in the federal government to prepare a national strategy for responsible electronics stewardship, including ensuring that electronics containing hazardous materials are not exported to developing nations. <http://www.whitehouse.gov/the-press-office/2010/11/15/presidential-proclamation-america-recycles-day>

Richard Abraham, Solid Waste and Recycling Specialist for Johns Hopkins University gave an overview of the JHU recycling program. He explained that JHU is looking toward sustainability with a goal to reduce greenhouse gas (GHG) emissions by 50 percent by 2025. Mr. Abraham stated that 2 percent growth will equal a 25 percent increase in GHG emissions at the school. Some of the GHG savings activities occurring at JHU and associated campuses and buildings include: converting T12 to T8 fluorescent lights and reducing the number of incandescent lights; using solar panels in buildings; using reflective film on sunny buildings; increasing the use of recycled paper to 90 percent (the university used 55 percent recycled paper in 2009); increasing recycling of mixed paper, cardboard, and fluorescents and composting food more. Mr. Abraham advised that cardboard is the most profitable recyclable and that the campus has a drop off point for recyclables that is open to all citizens. The campus is encouraging food waste composting and that the cafes are doing well with this project. The food waste is collected for Waste Neutral in Woodbine to compost. CDM does the eCycling for JHU and picks up the material for free. JHU has a “Green Book” that includes suggested green products. It was also stated that household medical waste is a problem at JHU because these materials are not specifically collected. However, he stated that the dorms have containers that are serviced separately and shipped offsite. This led to a brief discussion of the recent DEA National Pharmaceuticals Takeback Program and household hazardous waste collection days supporting some pharmaceuticals collections, as well as the need to have law enforcement officers oversee these activities. Mr. Abraham stated that parts of JHU are decentralized and are under other management and that he has no authority over those parts related to solid waste management and recycling activities.

Delegate Doyle Niemann requested that MDE provide an eCycling summary for the group with particular emphasis on takeback programs and what information is available on the MDE website. Hilary stated that she would provide an update for the group in the near future. Members advised that the counties have strong eCycling programs, many with permanent electronics collection facilities, and that eCycling programs are expensive to run. Some members wanted to increase promotion of manufacturers' and retailers' electronics takeback programs. It was also mentioned that some states, including California and Massachusetts imposed electronics disposal bans without alternatives in place.

The first priority issue for discussion under "Expansion of Recycling Efforts in Nonresidential Markets" relates to the feasibility of a Statewide law to require businesses to report on their solid waste and recycling activities. This issue was combined with the last issue in this category related to the feasibility of requiring multifamily recycling Statewide. Hilary provided a brief overview of the Prince George's and Montgomery Counties' laws regarding multifamily dwelling recycling. The Prince George's County law requires owners and licensees of all multifamily rental facilities to provide an opportunity for their tenants to voluntarily recycle designated recyclable materials. Each licensee and owner of multifamily rental facilities with 100 units or more must submit a plan for approval for the separation and collection of designated recyclable materials and must submit semiannual reports regarding the amount of designated recyclables collected. The Montgomery County law requires all single family residences, including dwellings with 6 or fewer dwelling units that have County recycling service provided to recycle. It also requires multifamily residential buildings with 7 or more dwelling units to recycle mixed paper, commingled materials, yard trim, Christmas trees, and scrap metal. Multifamily entities with 101 or more units must submit a waste reduction and recycling plan demonstrating how the entity will recycle or reduce its solid waste going to disposal, with a goal of at least 50 percent annually, by volume or weight, for each facility. An annual report of these activities must be submitted. Businesses must recycle the same materials. Businesses with 250 or more employees and those with 100-249 employees must prepare a waste reduction and recycling plan with a goal of reducing solid waste for disposal by at least 50 percent annually. Small businesses (fewer than 100 employees) must prepare a similar plan and provide it to the Department of Public Works and Transportation within 60 days of a written request. Businesses that contract for recycling collection service must use a County-licensed collection company.

There was general discussion regarding recycling in multifamily dwellings that suggested that in Prince George's County, there may only be a cursory recycling effort by the owners of these facilities. Collection industry representatives mentioned a high rate of contamination in collection containers at these locations and a low volume of recyclables collected. Others mentioned that there needs to be more waste reduction and recycling education in multifamily dwellings and that there are no social pressures to recycle in these locations, as there is in single family residential areas. It was stated that condominiums seem to do better with recycling because there are monthly meetings of the owners and condominium fees to support recycling and that wealthier neighborhoods usually have higher participation rates. The issue of mandatory versus voluntary reporting of business recycling activities was discussed. Some county members stated that without a mandatory reporting requirement, the Counties will be unable to compel businesses to report their recycling activities. Some industry members stated that requiring recycling reporting would be a burden and would take time away from their core businesses. They also mentioned that they do not necessarily get information about recyclables that leave the State. Other members expressed concerns about the inability to get accurate information from businesses or to prevent double counting of materials. It was clarified that there are two categories of businesses that information would be needed from: recycling processors and businesses that generate waste and recyclables. It was stated that Allegany County is looking into proposing publicizing company's recycling rates to help inform citizens and incentivize reporting and increased recycling.

The meeting was adjourned at 3:15 p.m. The next meeting will be held on Thursday, December 9, 2010 at 1:30 p.m. at MDE Headquarters, 1800 Washington Boulevard, Aeris and Aqua Conference Rooms, Baltimore, MD 21230.

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
SOLID WASTE MANAGEMENT STUDY GROUP
MEETING SUMMARY
DECEMBER 9, 2010 1:30 – 3:30 P.M.**

Members in Attendance: Harvey Alter, Valerie Androustopoulos/Vangel Paper, Inc., Terry Bennett/Allegany County DPW, Robin Davidov/NMWDA, Adrienne Ellis/The Artemis Group, Mike Ensor/Ritchie Land Reclamation, Robert Ernst/Harford County Division of Environmental Affairs, Malcolm Granville/Republic Services, Pam Kasemeyer/MDSWA, Richard Keller/MES, Chaz Miller/NSWMA, Charles Reighart/Baltimore County DPW, Bill Teter/Calvert County Office of Recycling, Evelyn Tomlin/Howard County Bureau of Environmental Services; James Wood/MidShore Recycling Program.

Members not in Attendance: Hedy, Alavi/JHU, Carol Bracaglia/Prince George's County DPWT, Jacqueline Carrera/Parks and People Foundation, Laura Chamberlin/Ashlea Smith/Alice Ferguson Foundation, Brad Heavner/Environment Maryland, Jim Marcinko/WM Recycle America, Patricia Millner/USDA, David O'Leary, Sierra Club MD Chapter, Bob Stumpff/College Park DPW, Horacio Tablada/MDE, Ellen Valentino/MD/DE/DC Beverage Association.

Others in Attendance: Edward Dexter/ MDE, Molly Finn/JHU Student, Jeffrey Fretwell/MDE, Steve Hamlett/DGS, Delegate Doyle Niemann, Abigail Pascual/MDE, Paul Tharp/ISRI, Kathryn Wilson/DGS, Hilary Miller/MDE.

Hilary Miller welcomed the members and others in attendance and introductions were made around the room. She advised that the next meeting will be January 10th before the legislative session begins and that the next meeting after that would be in late April or early May after the session. Members advised that Thursday afternoons are a good time for these meetings. Delegate Doyle Niemann requested that the Department send bills of interest to the Study Group members.

Molly Finn, Representative for the JHU Solid Waste Engineering and Management Class, provided an overview of the class' *Research Report for the Maryland Department of Environment: Recycling in Non-Residential Markets, Commodity-Specific Targets, and Long-Term Funding*. She explained that the class researched the best ways to educate and reach out to the non-residential sector, strategies for capturing recycling data, evaluation of the feasibility of commodity-specific targets for glass and plastic and for paper and cardboard, and funding sources for recycling. Their researched showed that although there are states that require recycling, there are no states with mandatory commodity specific targets. The class made several recommendations, based on their research, including:

- MDE should develop a marketing/communications/outreach plan identifying the right mix of tools, including social media, to reach a wide range of audiences. MDE should consider updating/revising its recycling website to be more user friendly. MDE should consider what motivates the various audiences to change and provide concise, clear messages targeted to those specific audiences.
- Recycling education programs should be “participatory ventures” involving active input of various stakeholders, including businesses, environmental groups, and contractors. Depending on the current status of county recycling programs, MDE should consider providing information directly to stakeholders or through local governments. Businesses should be encouraged to recycle more and be given tools to implement new recycling programs.
- MDE should establish the purpose of gathering non-residential solid waste and recycling data and the data necessary for this purpose, the businesses that would need to report, an online

data reporting system, standardized forms for tracking data, and tools for assisting the counties in collecting data. Reporting should be required for businesses or there should be incentives for business reporting.

- Single stream recycling cuts collection costs and increases recycling. However, it was acknowledged that not all areas of the State will be able to implement single stream recycling due to locations of recycling markets and the costs of getting the recyclables to the markets. Commodity specific markets will be difficult to effect in Maryland when many counties are, or are considering, utilizing single stream recycling collection.
- Imposition of a tipping fee, or other tax on solid waste disposal, would encourage decreased disposal and increased recycling. Implementation of Pay As You Throw programs would also encourage waste reduction because recycling is typically free with these programs. The class also recommended a bottle deposit program to increase the State's recycling budget.

The JHU class report generated discussions regarding the following: developing consistent definitions for reporting on recycling; ensuring that solutions look at differences between rural and urban recycling programs; investigating product stewardship opportunities so that the cost of recycling and disposal of products is part of the production of the product; engage the Department of Business and Economic Development (DBED) to see if DBED could encourage recycling businesses to locate in the State so that the recyclables will not be shipped overseas; ensure that there is sufficient waste reduction and recycling education as that will increase recycling more than targeting certain commodities; and increasing education regarding single stream recycling to reduce contamination.

Hilary Miller presented a brief overview of the State's electronics recycling program, including revenues to date, enforcement activities, grants, and the fact that more than 97% of the State's population is now served by permanent government electronics collection facilities.

The meeting was adjourned at 3:30 p.m. The next meeting will be held on Thursday, January 10, 2011 at 1:30 p.m. at MDE Headquarters, 1800 Washington Boulevard, Aeris and Aqua Conference Rooms, Baltimore, MD 21230.

MARYLAND DEPARTMENT OF THE ENVIRONMENT
SOLID WASTE MANAGEMENT – RECYCLING AND SOURCE REDUCTION STUDY GROUP
MEMBERS LIST
DECEMBER 21, 2010

Hedy V. Alavi, Ph.D., Assistant Dean for International Programs
Whiting School of Engineering
The Johns Hopkins University
313 Ames Hall
3400 North Charles Street
Baltimore, MD 21218-2608
410-516-7091
fax
alavi@jhu.edu

Frederick Harvey Alter, Ph.D.
3030 Mill Island Parkway, #401
Frederick MD 21701-9379
301.695.7744
fax
haalter@comcast.net

Ms. Valerie S. Androutsopoulos, Principal
Vangel Paper, Inc.
3020 Nieman Avenue
Baltimore, MD 21230-2709
410-644-2600
410-644-1186 fax
valerie@vangelpaper.com

Ms. Terry Bennett, Recycling Coordinator
Allegany County Department of Public Works
701 Kelly Road
Cumberland, MD 21502
301-777-5933 x210
301-777-2001 fax
Terry.bennett@allconet.org

Ms. Carol A. Bracaglia, Recycling Manager
Prince George's County Department of Public Works and Transportation
Waste Management Group
1220 Caraway Court, Suite 1050
Largo, MD 20774
301-883-6067
301-883-7645 fax
cabracaglia@co.pg.md.us

MARYLAND DEPARTMENT OF THE ENVIRONMENT
SOLID WASTE MANAGEMENT – RECYCLING AND SOURCE REDUCTION STUDY GROUP
MEMBERS LIST
DECEMBER 21, 2010

Ms. Jacqueline M. Carerra, President & CEO
Parks and People Foundation
Stieff Silver Building
800 Wyman Park Drive
Suite 010
Baltimore, MD 21211
410-448-5663
410-448-5895 fax
Jackie.carerra@parksandpeople.org

Ms. Laura Chamberlin (Ashlea Smith, Alternate)
Trash Free Potomac Watershed Initiative Manager
Alice Ferguson Foundation
1367 Connecticut Avenue, Suite 420
Washington, DC 20036
202-973-8203
fax
email

Ms. Robin Davidov, Executive Director
Northeast Maryland Waste Disposal Authority
100 S. Charles Street, Tower II, Suite 402
Baltimore, MD 21201
410-333-2730
fax
rdavidov@nmwda.org

Mr. C. Robert Ernst, Recycling Coordinator
Division of Environmental Affairs
3135 Scarboro Road
Street, MD 21154
410-638-3417
410-638-4019 fax
cernst@harfordcountymd.gov

Mr. Brad Heavner, State Director
Environment Maryland
3121 St. Paul Street
Suite 26
Baltimore, MD 21218-3857
410-467-0439
410-366-2051 fax
email

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SOLID WASTE MANAGEMENT – RECYCLING AND SOURCE REDUCTION STUDY GROUP
MEMBERS LIST
DECEMBER 21, 2010

Mr. Monte Kamp, General Manager (Malcolm Granville, Alternate)
Republic Services
Baltimore Business Unit #117
10710 Philadelphia Road, Perry Hall, Maryland 21128
410-335-9500
410-335-1743 fax
443-463-4852 cell
MKamp@RepublicServices.com

Ms. Pam Kasemeyer, Esquire
Maryland Delaware Solid Waste Association
c/o Schwartz, Metz, and Wise, P.A.
10 W. Madison Street
Baltimore, Maryland 21201
410-244-7000
410-332-4505 fax
pmetz@schwartzmetz.com

Mr. Richard Keller, Manager of Recycling (Ken Lathroum, Alternate)
Maryland Environmental Service
259 Najoles Road
Millersville, MD 21108
410-729-8531
410-729-8383 fax
rkell@menv.com

Mr. Chaz Miller, Director, State Programs
National Solid Wastes Management Association
4301 Connecticut Avenue, NW, Suite 300
Washington, DC 20008-2304
202-364-3742
fax
cmiller@envasns.org

Patricia D. Millner, Ph.D., Research Microbiologist
USDA, ARS, BA, ANRI, EMFSL
10300 Baltimore Avenue
Building 001 BARC-West, Room 140
Beltsville, MD 20705
301-504-5631
301-504-8370 fax
pat.millner@ars.usda.gov

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
SOLID WASTE MANAGEMENT – RECYCLING AND SOURCE REDUCTION STUDY GROUP
MEMBERS LIST
DECEMBER 21, 2010**

Mr. David O’Leary, Vice Chair, Conservation Chair (Barbara Krupiarz, Alternate)
Sierra Club Maryland Chapter
7338 Baltimore Avenue #111
College Park, MD 20740
301-277-7111
301-277-6699 fax
dave.oleary@mdsierra.org

Mr. Don Pleasants (Mike Ensor, Alternate)
Ritchie Land Reclamation, L.P.
24024 Frederick Road
Clarksburg MD 20871
301-428-0800
301-428-4824 fax
dpleasants@pleasants.org

Mr. Charles Reighart, Recycling and Waste Prevention Manager
Baltimore County Department of Public Works
County Office Building
111 West Chesapeake Avenue, Room 225
Towson, MD 21204
410-887-2182
410-887-2931 fax
creighart@baltimorecountymd.gov

Mr. Mike Smaha, Manager, US Government Affairs
Owens-Illinois, Inc.
2107 Wilson Boulevard, Suite 420
Arlington, VA 22201
703-717-9727
703-717-9746 fax
Mike.Smaha@o-i.com

Mr. Bob Stumpff, Director
Public Works Department
City of College Park
9217 51st Avenue
College Park, MD 20740-1947
240-487-3590 x3594
301-474-0825 fax
rstumpff@collegeparkmd.gov

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
SOLID WASTE MANAGEMENT – RECYCLING AND SOURCE REDUCTION STUDY GROUP
MEMBERS LIST
DECEMBER 21, 2010**

Mr. Horacio Tablada, Director
Land Management Administration
Maryland Department of the Environment
1800 Washington Boulevard, Suite 610
Baltimore, MD 21230-1719
410-537-3304
410-537-3002 fax
htablada@mde.state.md.us

Mr. Jim Marcinko,
Waste Management Recycle America
7175 Kit Kat Rd
Elkridge, MD 21075-6419
301-440-0327
866-477-6115 fax
jmarcinko@recycleamerica.com

Mr. Bill Teter, Recycling Coordinator
Calvert County Office of Recycling
P.O. Box 1330
401 Sweetwater Road
Lusby, MD 20657
410-326-0210
410-586-9461 fax
teterwj@co.cal.md.us

Ms. Evelyn E. Tomlin, Chief
Bureau of Environmental Services
Howard County Department of Public Works
6751 Columbia Gateway Drive, Suite 514
Columbia, MD 21046
410-313-6451
410-313-6490 fax
etomlin@howardcountymd.gov

Ms. Ellen Valentino
MD/DE/DC Beverage Association
3 Church Circle #201
Annapolis, MD 21401
410-990-9502
410-990-9503 fax
evalentino@ellenvalentino.com

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
SOLID WASTE MANAGEMENT – RECYCLING AND SOURCE REDUCTION STUDY GROUP
MEMBERS LIST
DECEMBER 21, 2010**

Mr. James Wood, Mid-Shore Recycling Program Coordinator
Queen Anne's County Department of Public Works
312 Safety Drive
Centreville, MD 21617
410-758-6605
410-758-6606 fax
jwood@qac.org