T&E COMMITTEE #2
March 25, 2010

Briefing

MEMORANDUM

March 23, 2010

TO: Transportation, Infrastructure, Energy & Environment Committee

FROM: KL Keith Levchenko, Senior Legislative Analyst

SUBJECT: **Solid Waste Management Plan Follow-Up Issues**

During the Council's discussion of the most recent Solid Waste Management Plan update, the Committee identified some issues it wanted to bring back for further discussion. These issues were identified in Resolution 16-894 approved in March 2009 and include:

- Update on the status of the County's television recycling program
- Update on the County's efforts to increase Land Clearing and Construction and Demolition Debris (C&D) recycling rates both by the County and in the private sector
- Update on the findings of the 2009 Waste Composition Study and DEP's short and long-term strategies to maximize the County's recycling rate.
- Recommendations regarding the potential imposition of a plastic shopping bag ban or tax
- Update on DEP's efforts to seek additional composting capacity and the potential expansion of the composting program to include food waste. (February 1, 2011 deadline)

With the exception of the composting capacity issue (the final bulleted item above) reports on each of the items were due and received by the Council by February 1. These reports are attached beginning on ©1.

The following DEP staff are expected to participate in this discussion

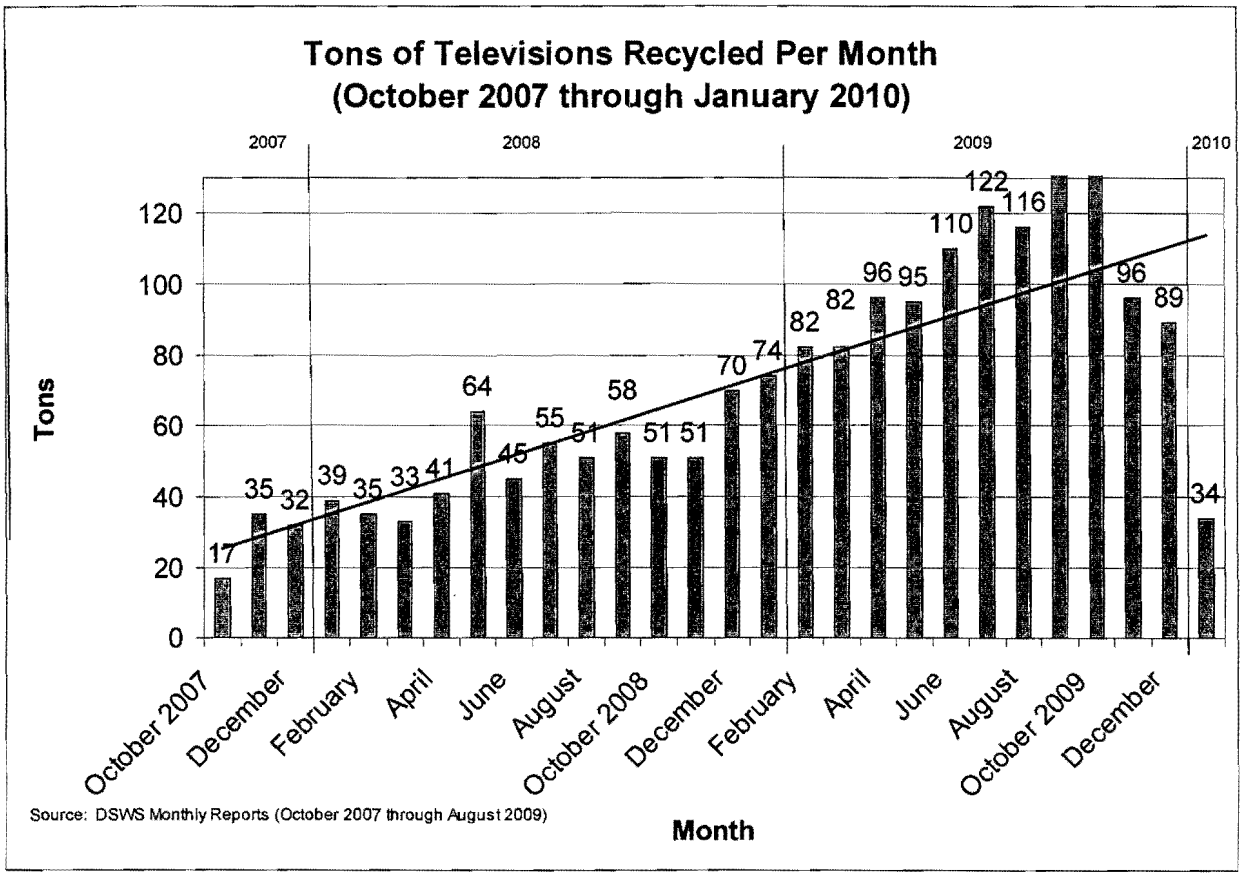
- Robert Hoyt – Director, DEP
- Dan Locke – Chief, Division of Solid Waste Services (DSWS)
- Bill Davidson – Chief, Northern Operations and Strategic Planning Section, DSWS
- Eileen Kao – Chief, Waste Reduction and Recycling Section, DSWS

Television Recycling Trends (DEP memo attached on ©1-2)

The long-planned switchover from analog to all digital television signals in the United States occurred on June 12, 2009.

In anticipation of the potential increase in the number of analog TV sets being disposed of, DEP expanded its computer recycling program (begun in 2000) to include other consumer electronics (such as television sets) in October 2007. The program was expanded again in April 2008 to include many other electronics. DEP has been conducting satellite drop-off events since June 2008.

As shown in the following chart, television recycling has increased steadily since the program's inception in October 2007 through 2009. There was a sharp decline in January 2010. This may be the result of economic conditions or perhaps the fact that certain retailers offer TV recycling as well.



Overall, more than 1,950 tons of televisions have been recycled (through January 2010). That is equivalent to over 39,000 27" standard tube televisions (assuming a weight of 100 pounds each).

It is unclear what the trend will be in the coming months as a result of the digital switchover. Analog television set owners who have cable or satellite subscriptions with existing TV decoder boxes can continue to use their analog televisions without any transition issues. For those analog TV owners who use antennas, digital to analog converter boxes are widely available at electronics stores for purchase (approximately $50 each). The federal government's converter box coupon program (up to two $40 coupons per household) took applications through July 31, 2009.

The Council has received some correspondence from residents suggesting that DEP consider a curbside pickup program for analog televisions. However, it is not clear that there is a large enough demand or need for this effort. DSWS staff believe the current drop-off facility at the Transfer Station and the periodic satellite events are sufficient at this time.

Update on Land Clearing and Construction and Demolition Debris Recycling (DEP memo attached on ©3)

As noted in the DEP memo. In February 2009, DEP began sending the C&D it receives to a new C&D debris recycling facility which has better equipment for separating out rubble mixed with soil. As a result, the C&D recycling percentage jumped from 16 percent in 2008 to 67 percent in 2009. C&D material than cannot be recycled continues to be sent to a landfill in Virginia.

Reusable construction materials are donated to an organization in Baltimore, Maryland (The Loading Dock). Tonnages in this category have been steady (62 tons annually in both 2008 and 2009).

All land clearing debris received at the Transfer Station is ground into mulch.

Waste Composition Study and Strategies to Maximize the Recycling Rate (DEP memo attached on ©4-10)

A waste composition study identifies the quantities of different materials in the County's waste stream. A major goal of such a study is to better understand what potentially recyclable materials are present in the waste stream and where opportunities may exist to improve the County's recycling rate of these different materials.

During FY09, DEP sampled the County's waste stream and identified 58 types of materials in 10 categories and looked at these materials in terms of the total amount generated, the amount captured (recycled), the amount disposed of and what level of increase in capture rate it would take (across each category) to achieve the County's 50 percent recycling rate goal. A detailed table with this information is on ©7-8.

The chart to the right summarizes the additional waste the County must capture to meet its 50 percent recycling goal.

Waste Capture Goal (in tons)

Total FY09 Waste Tonnages	1,121,361
Total FY09 Waste Recycled	495,364
Recycling Rate	44.2%
Recycling Rate Goal	50%
Waste Capture Goal at 50%	560,681
Additional Waste Capture Required	**65,317**

Increasing recycling rates for non-residential paper represents the biggest opportunity with regard to materials already banned from the disposal stream. Food waste represents the biggest opportunity of materials not currently banned from the disposal stream.

The chart on ©7 shows that paper represents about 27 percent of the waste stream and (according to the chart on ©10) about 58.3 percent of it is recycled across the single-family (66 percent recycled), multi-family, and non-residential categories (53.8 percent recycled). If the non-single family rate could be brought up to the single-family rate, then the FY09 recycling rate of 44.2 percent would rise about 1.8 percent as another 20,175 tons would be recycled.

In fact, the chart on ©10 has a scenario (the far right columns) that assume as part of a solution to get to 50 percent recycling, that paper recycling is increased to an overall capture rate of 73.6 percent (or about 40,000 more tons). Other banned materials would also have to increase as well; the biggest being yard waste which represents the largest portion of banned materials, but which already has a very high recycling rate (90.7 percent).

Ramping up recycling of food waste is more complicated as the County's yard trim compost facility is not intended to handle food waste and there is no food waste composting infrastructure in the region. However, food waste is the largest non-banned material type and virtually none is recycled from the single-family sector and very little is currently recycled in the other sectors.

In July 2008, DEP began accepting more plastic containers for recycling. While not representing a large percentage of waste stream tonnage, increases in the recycling rate for these materials would help the County reach its 50 percent goal.

In its memorandum (see ©5-6). DEP notes a number of general strategies to increase the recycling rate.

Update on Disposable Bag Tax/Fee Legislation (DEP memo attached on ©11-12)

The concept of taxing disposable shopping bags has gained momentum in the United States in recent years. Initially, efforts focused on banning or taxing plastic bags. However, more recently, with environmental studies of paper versus plastic presenting sometimes conflicting results, attention has turned to taxing all disposable shopping bags in order to incentivize the use of reusable bags and to provide resources for environmental programs.

In 2007, the City of San Francisco became the first American city to ban plastic bags. Last year, the District of Columbia approved a bag tax (covering both paper and plastic bags).

In September 2007, the Division of Solid Waste Services (then within the Department of Public Works and Transportation) in response to an inquiry from Councilmember Floreen, transmitted a report to the Council (attached beginning on ©13) which suggested the County

should continue efforts to encourage the use of reusable bags but did not recommend a ban (or tax) at that time. More recently, DEP Director Bob Hoyt has noted that the County is continuing to look at this issue, and in the February 1 memorandum to the Council noted that DEP intends to study the issue over the next six months to analyze the merits of a ban or tax in the context of the County's new NPDES-MS4 permit and with regard to the impacts of regional bag ban/tax initiatives.

Attachments
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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett
County Executive

Robert G. Hoyt
Director

054069

MEMORANDUM

February 1, 2010

2010 FEB -4 AM 11:16
MONTGOMERY COUNTY COUNCIL

TO: Nancy Floreen, President
Montgomery County Council

FROM: Robert G. Hoyt, Director
Department of Environmental Protection

SUBJECT: Quarterly Update on County's Television Recycling Program

This memorandum serves to meet the requirement in the Ten-Year Solid Waste Management Plan to provide quarterly updates to the County Council on the status of the County's television recycling program. The FY09 summary was presented to the Council in a public briefing last July, and July – September 2009 data was provided to the Council in our October 28, 2009, memorandum. We are pleased that the citizens of Montgomery County continue to enthusiastically participate in our electronics drop-off program and satellite collection events. A summary of the second quarter electronics recycling totals at the drop-off site at the Shady Grove Processing Facility and Transfer Station in FY10 is presented below.

Month/Year	Computers (tons recycled)	Televisions (tons recycled)
October 2009	12.43	141.28
November 2009	38.23	95.56
December 2009	45.66	89.06
TOTAL	96.32	325.90

NOTE: The figures above do not include private electronics recycling efforts by businesses such as Best Buy, which are also substantial.

In addition to the electronics drop off at the Transfer Station, the Division of Solid Waste Services held a satellite electronics recycling event at Walt Whitman High School in Bethesda, MD on December 13, 2009, which yielded 16.3 tons (3.18 tons of computers and 13.12 tons of televisions). Due to the expiration of our contract, we shifted contractors at the end of September from E-Structors in Elkridge, MD to Computer Donation Management in Baltimore, MD. Both firms provide excellent, environmentally responsible electronics recycling services and have been visited by our staff.

Television weights continue to stay high as the aftermath of the analog to digital switchover last summer, and the attraction of new technologies entices people to replace their old sets. Computer weights are dropping relative to recent months, likely as a result of computers

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and monitors becoming progressively smaller and lighter. Overall, in calendar year 2009 we recycled about 1,885 tons of electronics, about 250 tons more than in calendar year 2008.

If you have questions or concerns regarding this information, please feel free to contact Dan Locke, Chief, Division of Solid Waste Services at 240-777-6402. Thank you.

RGH:pk

cc: Kathleen Boucher, Assistant Chief Administrative Officer

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett
County Executive

Robert G. Hoyt
Director

MEMORANDUM

February 1, 2010

TO: Nancy Floreen, President
Montgomery County Council

FROM: Robert G. Hoyt, Director
Department of Environmental Protection

SUBJECT: Update on Land Clearing and Construction and Demolition Debris Recycling

This memorandum serves to fulfill the requirement in County Council Resolution 16-894, adopted March 24, 2009, that the Department of Environmental Protection (DEP) provide an "[u]pdate on Land Clearing and Construction and Demolition (C&D) debris recycling" by February 1, 2010.

DEP has used several outlets for recycling Construction and Demolition (C&D) debris over the years, including The Recycling Center in Laurel and D.C. Materials in Washington, and has always looked for new options for these services. A common problem has been that most C&D recyclers only wanted very clean, separated, concrete, asphalt, block, and stone, with very little tolerance for soil mixed in with these materials. On February 17, 2009, the Division of Solid Waste Services, through its out of county waste transportation and disposal contract, began using a new C&D debris recycling facility, Honeygo Run in Perry Hall, Maryland. Honeygo Run uses soil sifting equipment, and therefore has a much higher tolerance for rubble mixed with soil. Consequently, much more of the C&D material that we receive now qualifies for recycling. C&D material that cannot be recycled is sent to the Brunswick Waste Management Facility Landfill in Lawrenceville, Virginia.

In 2009, 57,271 tons of non-processible (nonburnable) construction and demolition debris were trucked from the Transfer Station for recycling or disposal. A total of 38,395 tons of asphalt, dirt, and other recycling materials was sent to Honeygo Run for recycling. This equates to a C&D recycling percentage of 67 percent; in 2008, the C&D recycling rate was 16 percent.

In addition to recycling rubble materials, the Transfer Station has a drop-off for reusable construction materials, such as lumber, bundles of shingles, whole bricks and cinder blocks, flooring planks, boxes of whole tiles, sinks, toilets, cabinets, etc. These materials are donated to the Loading Dock in Baltimore. In 2009, 62 tons of usable construction materials were dropped off, approximately the same quantity as in 2008.

With respect to Land Clearing debris, all clean, separated natural wood waste, including stumps, received at the Transfer Station are ground into mulch. Therefore, we have virtually a 100 percent recycling rate for natural wood waste.

Please contact Dan Locke, Chief, Division of Solid Waste Services, at 240-777-6402, if you have further questions concerning this information.

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett
County Executive

Robert G. Hoyt
Director

054070

MEMORANDUM

February 1, 2010

[redacted]

2010 FEB -4 AM 11:16
MONTGOMERY COUNTY COUNCIL

TO: Nancy Floreen, President
Montgomery County Council

FROM: Robert G. Hoyt, Director
Department of Environmental Protection

SUBJECT: Update on Findings of the 2009 Waste Composition and DEP's Short and Long Term Strategy to Maximize the County's Recycling Rate

This memorandum serves to fulfill the requirement in County Council Resolution 16-894, adopted March 24, 2009, that the Department of Environmental Protection (DEP) provide an "[u]pdate on findings of the 2009 waste composition and DEP's short and long term strategy to maximize the County's recycling rate."

Update on Findings of the 2009 Waste Composition Study

During FY09, DEP sampled the composition of the County's "as-disposed" waste stream, according to 58 types of materials. Key findings include:

- Since 2005, mixed paper dropped from 29.6 percent to 17.0 percent of as-disposed waste.
- Non-residential mixed paper, comprising 66,300 tons in FY09, offers the largest categorical opportunity for increased recycling of currently targeted materials. For comparison, recycling an additional 65,317 tons in FY09 would have achieved our 50 percent goal.
- Food waste—almost 120,000 tons disposed of in FY09—represents the largest categorical opportunity to increase recycling by adding a new material type. DEP is researching recycling possibilities for this category. Currently, there is no food waste composting infrastructure in our region.
- Plastic shopping bags, not previously segregated, were found to comprise 0.6 percent of the as-disposed waste (compared to 6.0 percent for other types of film plastic).

Using the data from the study, DEP completed a system-wide tonnage accounting for FY09, the year in which the sampling took place. Detailed tables from the composition report, updated

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for FY09, are posted at http://www.montgomerycountymd.gov/content/dep/solidwaste/documents/waste-composition-study-2009-update.pdf.

Details of the Study, including composition, five-year trends, and recycled material data, are contained in attachments 1, 2, and 3.

DEP's Short and Long Term Strategy to Maximize the County's Recycling Rate

Outreach, education, technical assistance, and enforcement must be continued in order to maintain a high level of recycling. Supplementary initiatives must be pursued in order to increase recycling. Recycling more, as well as reducing waste, will increase revenue to the County, utilize available capacity at the Materials Recovery Facility (MRF), and extend the capacity of the Resource Recovery Facility (RRF) and the Compost Facility in Dickerson. These achievements have the potential to relieve the physical constraints experienced at the Transfer Station tipping floor and queue. With the current fiscal situation in the County in mind, the Department is implementing and/or pursuing the following strategies and initiatives to increase recycling:

- Education and outreach on recycling
- Education on waste reduction
- Education on buying recycled products
- Investigation and enforcement
- Increased enforcement of the ban on the disposal of recyclable materials in the waste stream
- Addition of other materials to those currently recommended or required to be recycled
- Research potential of requiring additional materials to be recycled or banned from disposal
- Education and technical assistance on grasscycling and on-site or backyard composting
- Distribution of requested replacement recycling bins and carts for single-family households
- Evaluation of alternatives in collection methods to increase non-residential recycling
- Provision of limited number of recycling containers to businesses/organizations
- Continued monitoring and analysis of alternative collection case studies; conduct additional case studies to further evaluate alternative collection methods of recyclable and/or refuse materials for commercial and/or multi-family properties
- Analysis of potential economic incentives to encourage increased recycling
- Monitoring of markets to assess feasibility of recycling additional materials
- Development of test projects to research recycling viability of additional materials, including food waste
- Refocus on market development, in partnership with the private sector to expand recycling.

These efforts have been proven in Montgomery County, or other jurisdictions, to increase recycling. Waste reduction continues to be a fundamental part of the education and outreach provided to all sectors. In April, the Department will again publish and distribute its annual Recycling Plan Update for Montgomery County. We look forward to presenting the full document at that time.

If you have any questions, please feel free to contact me or Dan Locke, Chief, Division of Solid Waste Services, at 240-777-6402. Thank you for your attention to this matter.

RGH: wd

Attachments

cc: Dan Locke, Chief, DEP/DSWS
Keith Levchenko, County Council

Selected Excerpt From: "Waste Composition Update, December 2009"

Table 16. Aggregate Waste Composition - Total

MONTGOMERY COUNTY WASTE CHARACTERIZATION STUDY - FALL 2008/SPRING 2009

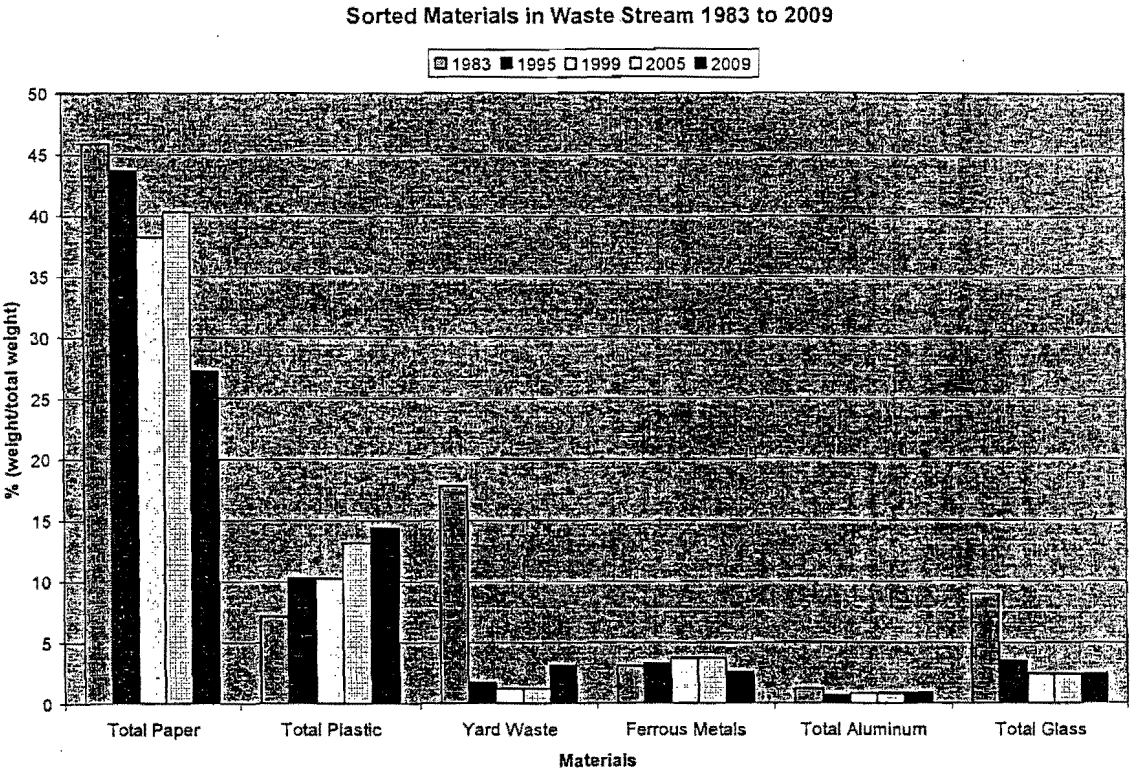
Material Components	Mean Composition	Standard Deviation	95% Confidence Limits Lower	95% Confidence Limits Upper
PAPER				
1 Newspaper/Newsprint Catalogs	2.8%	8.0%	1.8%	3.8%
2 Corrugated Cardboard	2.9%	7.8%	1.9%	3.9%
3 Magazines	1.9%	8.7%	0.8%	3.0%
4 Paperboard	2.0%	6.8%	1.1%	2.8%
5 Aseptic/Poly-coated	0.4%	5.1%	<0.1%	1.0%
6 Office Paper	2.9%	7.2%	2.0%	3.8%
7 Books	0.6%	11.6%	<0.1%	2.1%
8 Other Recyclable Paper	3.9%	8.5%	2.8%	5.0%
9 Non-Recyclable Paper	9.9%	12.2%	8.3%	11.4%
Total Paper	*27.3%*			
PLASTIC				
10 PET #1 Bottles	1.3%	5.3%	0.6%	2.0%
11 HDPE #2 Natural Bottles	0.3%	3.9%	<0.1%	0.8%
12 HDPE #2 Pigmented Bottles	0.3%	5.1%	<0.1%	0.9%
13 #3-#7 Plastic Bottles	<0.1%	2.2%	<0.1%	0.4%
14 Polystyrene	1.3%	5.8%	0.6%	2.1%
15 Plastic Flower Pots	<0.1%	3.8%	<0.1%	0.5%
16 Other Recyclable Containers/Tubs	0.6%	5.3%	<0.1%	1.3%
17 Film Plastic - Shopping Bags	0.6%	5.6%	<0.1%	1.3%
18 Film Plastic - Other	6.1%	9.9%	4.9%	7.4%
19 Other Ridge Plastic	3.7%	13.5%	2.0%	5.4%
Total Plastic	*14.4%*			
ORGANIC				
20 Food Waste	19.2%	19.1%	16.8%	21.6%
21 Clothing/Linens/Textiles/Leather	3.8%	14.9%	1.9%	5.7%
22 Carpets/Rugs	2.8%	13.3%	1.1%	4.5%
23 Rubber	0.3%	4.1%	<0.1%	0.8%
24 Tires	0.4%	0.1%	0.4%	0.4%
25 Diapers & Sanitary Products	2.6%	14.3%	0.8%	4.4%
26 Fines	1.3%	5.1%	0.6%	1.9%
27 Miscellaneous Organics	7.0%	11.3%	5.6%	8.5%
Total Organic	*37.4%*			
YARD WASTE				
28 Grass/Leaves/Brush/Pruning	3.1%	11.7%	1.6%	4.6%
WOOD WASTE				
29 Lumber/Pallets	3.0%	13.8%	1.2%	4.7%
30 Other Wood	2.3%	11.2%	0.9%	3.7%
Total Wood Waste	*5.3%*			
FERROUS METAL				
31 Ferrous/Bi-metal Cans	0.7%	4.0%	0.2%	1.2%

32 Other Ferrous		2.0%	12.2%	0.4%	3.5%
	Total Ferrous Metal	***2.6%***			
NON-FERROUS METAL					
33 Aluminum Cans		0.5%	4.6%	<0.1%	1.1%
34 Aluminum Tins/Foil		0.3%	4.8%	<0.1%	1.0%
35 Other Aluminum		0.1%	3.6%	<0.1%	0.6%
36 Brass		<0.1%	1.7%	<0.1%	0.2%
37 Copper		<0.1%	<0.1%	<0.1%	0.0%
38 Other Non-Ferrous		0.3%	5.1%	<0.1%	0.9%
	Total Non-Ferrous Metal	***1.2%***			
GLASS					
39 Clear		1.1%	6.5%	0.3%	1.9%
40 Brown		0.7%	2.9%	0.3%	1.1%
41 Green		0.6%	6.0%	<0.1%	1.3%
42 Non-Container Glass		0.2%	3.8%	<0.1%	0.6%
	Total Glass	***2.5%***			
INORGANIC					
43 Concrete/Brick/Rock		0.4%	4.0%	<0.1%	0.9%
44 Sheet Rock		0.3%	3.2%	<0.1%	0.7%
45 Latex Paint		<0.1%	6.7%	<0.1%	0.9%
46 Florescent Lamps		<0.1%	1.0%	<0.1%	0.1%
47 Electronics		1.7%	11.5%	0.3%	3.2%
48 Miscellaneous Inorganic		1.8%	12.5%	0.2%	3.4%
	Total Inorganic	***4.3%***			
HAZARDOUS					
49 Lead-Acid Batteries		<0.1%	<0.1%	<0.1%	0.0%
50 Other Rechargeable Batteries		<0.1%	0.6%	<0.1%	0.1%
51 Other Batteries		<0.1%	2.0%	<0.1%	0.3%
52 Oil-based Paints/Thinners		<0.1%	3.1%	<0.1%	0.4%
53 Poisons		<0.1%	2.8%	<0.1%	0.4%
54 Corrosives/Solvents		<0.1%	<0.1%	<0.1%	0.0%
55 Medical		1.7%	3.4%	1.2%	2.1%
56 Fuel/Lubricants/Auto		<0.1%	2.0%	<0.1%	0.3%
57 HW Containers		<0.1%	2.8%	<0.1%	0.4%
58 Other Hazardous		<0.1%	3.0%	<0.1%	0.4%
	Total Hazardous	***1.9%***			
TOTALS		***100.0%***			

Note: Composition based on 239 samples.

http://www.montgomerycountymd.gov/swstmpl.asp?url=/content/dep/solidwaste/reference/index.asp

Attachment 2



Note: Paper graphed here includes both recyclable and non-recyclable paper. The non-recyclable portions were:
1995: 7.3%
1999: 9.6%
2005: 10.2%
2009: 9.9%
Non-recyclable paper was not distinguished in the 1983 study.

Waste Recycling by Material Type: Achievement, Opportunity and Challenge

Basis for composition of disposed waste is the FY09 waste sorts recocilled to system-wide FY09 tonnage*.		FY09 Actuals									Opportunity	Success Scenario To Reach 60% Overall Recycling Rate				
		Single-Family			Multi-Family & Non-Residential			Aggregate Actual FY09			Currently Disposed (Tons)	Disposed Tons Targeted	Additional Capture (tons)			
		Generated (tons)	Captured (tons)	Capture Rate %	Generated (tons)	Captured (tons)	Capture Rate %	Generated (tons)	Captured (tons)	Capture Rate %				Generated (tons)	Captured (tons)	Capture Rate %
Banned ER15-04	Subtotal, Banned Components	295,000	238,980	81.0%	322,491	201,054	62.3%	617,491	440,034	71.3%		177,457	65,317	617,491	505,351	81.8%
	Paper	84,939	62,687	66.0%	165,295	88,967	63.8%	260,234	151,655	58.3%	108,579	108,579	39,965	260,234	191,620	73.6%
	Glass	18,859	15,140	78.2%	16,365	4,491	29.2%	35,223	19,631	55.7%	15,592	15,592	5,739	35,223	25,370	72.0%
	Other Ferrous	15,533	10,608	68.3%	67,011	58,458	87.2%	82,644	69,067	83.7%	13,477	13,477	4,960	82,544	74,028	89.7%
	Yardwaste	151,625	144,270	95.1%	56,124	44,229	78.8%	207,749	188,499	90.7%	19,250	19,250	7,085	207,749	195,584	94.1%
	Narrow-Neck Plastics	6,869	3,701	53.9%	6,382	232	3.6%	13,250	3,933	29.7%	9,318	9,318	3,430	13,250	7,362	55.6%
	Ferrous/Bimetal Containers	2,940	1,690	57.5%	3,813	697	18.3%	6,752	2,387	35.4%	4,365	4,365	1,607	6,752	3,994	59.1%
	Aluminum Beverage Cans	1,271	706	55.5%	2,624	246	9.4%	3,895	952	24.4%	2,942	2,943	1,083	3,895	2,035	62.3%
	Other Aluminum (Foil)	648	21	3.2%	1,585	1	0.1%	2,233	22	1.0%	2,211	2,211	814	2,233	836	37.4%
	Other Non-Ferrous Metal	1,317	157	11.9%	4,293	3,731	86.9%	5,610	3,888	69.3%	1,722	1,722	634	5,610	4,522	80.6%
Potential and Encouraged	Food Waste	43,391	17	0.0%	81,876	5,686	6.9%	125,267	5,703	4.6%	119,564			125,267	5,703	4.6%
	Shopping Bags	2,327	-	0.0%	1,724	197	11.4%	4,051	197	4.9%	3,854			4,051	197	4.9%
	Other Film Plastic	13,506	-	0.0%	25,886	-	0.0%	39,392	-	0.0%	39,392			39,392	-	0.0%
	Plastic Flower Pots	260	21	8.1%	114	2	1.8%	374	23	6.2%	351			374	23	6.2%
	Plastic Tubs and Lids	1,491	121	8.1%	2,715	7	0.3%	4,205	128	3.0%	4,077			4,205	128	3.0%
	Other Rigid Plastic	9,409	369	3.9%	17,706	1,739	9.8%	27,118	2,108	7.8%	25,008			27,118	2,108	7.8%
	Textiles & Leather (no Rugs)	9,958	113	1.1%	19,958	5,862	29.4%	29,917	5,975	20.0%	23,942			29,817	5,976	20.0%
	Carpets / Rugs	2,646	-	0.0%	14,701	-	0.0%	17,346	-	0.0%	17,346			17,346	-	0.0%
	Wood Waste (including Pallets)	4,778	4,501	94.2%	38,507	21,225	55.1%	43,285	25,726	59.4%	17,559			43,285	25,726	59.4%
	Whole Tires (as Rubber)	1,909	1,747	91.5%	4,930	2,618	53.1%	6,839	4,365	63.8%	2,473			6,839	4,365	63.8%
	Lubricants (e.g. Motor Oil)	3,445	3,377	98.1%	3,406	3,048	89.5%	6,850	6,425	93.8%	425			6,860	6,425	93.8%
	Electronics	6,382	1,587	24.9%	8,057	816	10.1%	14,439	2,403	16.6%	12,036			14,439	2,403	16.6%
	Batteries	211	201	95.3%	1,620	1,407	86.9%	1,831	1,608	87.8%	223			1,831	1,608	87.8%
	Latex Paint	241	47	19.6%	207	3	1.4%	448	50	11.2%	398			448	50	11.2%
	Tire Steel	486	247	50.9%	987	370	37.5%	1,472	617	41.9%	855			1,472	617	41.9%
No Markets	Other Wood	3,966	-	0.0%	10,508	-	0.0%	14,474	-	0.0%	14,474			14,474	-	0.0%
	Other Glass	231	-	0.0%	861	-	0.0%	1,092	-	0.0%	1,092			1,092	-	0.0%
	Disposable Diapers	11,640	-	0.0%	5,386	-	0.0%	17,025	-	0.0%	17,026			17,025	-	0.0%
	Other Waste	52,032	-	0.0%	96,414	-	0.0%	148,447	-	0.0%	148,447			148,447	-	0.0%
TOTAL		463,206	251,330	54.3%	658,156	244,034	37.1%	1,121,361	495,364	44.2%	625,997	177,457	65,317	1,121,361	560,681	50.0%

Increased Capture Needed as % of Banned Tons Disposed	36.8%
Overall Capture Rate Necessary for Banned Materials	81.8%
Current Capture Rate of Banned Materials	71.3%

Notes:

Banned ER15-04

These materials are required to be recycled under Executive Regulation 15-04, and are banned from disposal in waste from all sectors.

Potential and Encouraged

Markets vary for these materials. Although not subject to the disposal ban, recycling is encouraged for all materials for which there are available markets.

No Markets

No existing or anticipated markets for these materials.

* [illegible]

Attachment 3

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett
County Executive

Robert G. Hoyt
Director

MEMORANDUM

February 1, 2010

RECEIVED
MONTGOMERY COUNTY
COUNCIL
2010 FEB -4 AM 11:16

TO: Nancy Floreen, President
Montgomery County Council

FROM: Robert G. Hoyt, Director
Department of Environmental Protection

SUBJECT: Update on Disposable Bag Tax/Fee Legislation

This memorandum serves to fulfill the requirement in County Council Resolution 16-894, adopted March 24, 2009, that the Department of Environmental Protection (DEP) provide "[r]ecommendations regarding the potential imposition of a plastic shopping bag ban or tax" by February 1, 2010.

Over the past year, DEP has continued to research and evaluate the status of plastic bag ordinances across the United States. We have found that a number of jurisdictions have proposed legislation to limit the distribution and/or use of plastic bags through bans, restrictions, or taxation, and some, including the District of Columbia, have enacted such measures.

The experience of a range of jurisdictions demonstrates mixed results. Research indicates that the issue was quite contentious in some jurisdictions, but certainly not in all. In addition, the jury is still out on the effectiveness of a tax at reducing plastic bag litter. Notwithstanding this, however, we believe a tax has the potential to be beneficial for litter-reduction and other environmental goals, by reducing the number of disposable bags in circulation. The disposable bag practices currently used by grocery, drug, and other retailers in the County, including point-of-sale cash incentives for reusable bags, recycling bins, and in-store advertising, as well as broader cultural messaging about sustainability, have created a more favorable climate for a bag tax.

From a legal perspective, and from our assessment of the experiences of other jurisdictions, we believe that a tax on disposable bags would be more effective, and be received more favorably, than a ban. The County does have the authority to impose a disposable bag tax under Section 52-17 of the County Code. In contrast, a restriction such as a ban on disposable bags might violate the U.S. Constitution's "Dormant" Commerce Clause.

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www.montgomerycountymd.gov/dep

Based on our research, DEP recommends that we continue to monitor the experience of other jurisdictions, assess the extent of the problem caused by plastic bags in the County, and evaluate the role a tax could play in reducing plastic bag litter. Accordingly, DEP will, over the next six months or so, analyze the merits of a ban or tax and, if deemed appropriate, draft potential Montgomery County legislation within the context of the following ongoing initiatives and requirements:

(1) Trash reduction requirement of the MS4 Stormwater permit. Currently, DEP is developing strategies to implement this requirement and is participating in a region-wide trash reduction effort led by the Alice Ferguson Foundation.

(2) State law. Maryland House Bill 1210, called the "Chesapeake Bay Restoration Consumer Retail Choice Act of 2009," is proposing disposable bag tax legislation for the state, with the revenue going to the Chesapeake and Atlantic Bay 2010 Trust Fund. A hearing is scheduled for March 2010. If HB 1210 is enacted, it would then be necessary to determine the county's role in the state program.

(3) Administrative mechanisms, challenges, and results of implementing a bag tax in neighboring jurisdictions, including the District of Columbia's Anacostia River Clean Up and Protection Act of 2009 and the Virginia legislature's proposal to tax disposable bags.

Please contact Dan Locke, Chief, Division of Solid Waste Services, at 240-777-6402, if you have further questions regarding this memo.

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION

Isiah Leggett
County Executive

Arthur Holmes, Jr.
Director

MEMORANDUM

September 6, 2007

TO: The Honorable Nancy Floreen, Chair
County Council Transportation and Environment Committee

FROM: Arthur Holmes, Jr., Director
Department of Public Works and Transportation

SUBJECT: Transmittal of Report on Plastic Shopping Bags in the Solid Waste Stream

Please find attached a report on the status and use of plastic shopping bags in Montgomery County as requested by the Transportation and Environment (T&E) Committee at the July 12, 2007 quarterly review.

This report addresses the issues raised by the Committee regarding the use of plastic and paper shopping bags in the County.

If you have any questions regarding the report, please contact Eileen Kao at 240-777-6406. Thank you.

AH:ap

Attachment

cc: Keith Levchenko, Senior Legislative Analyst, County Council
Daniel E. Locke, Chief, Division of Solid Waste Services
Eileen Kao, Section Chief, Division of Solid Waste Services

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Plastic Bags

Plastic Bags as a Part of the Waste Stream

Plastic bags serve a number of purposes, and at times are really necessary. According to the American Chemistry Council, plastic grocery bags are lighter and create up to 80 percent less waste by volume than paper grocery bags. Plastic grocery bags have also gone through the process of light-weighting over time. Plastic bags were 2.3 mils (thousands of an inch) thick in 1976, and were reduced down to 1.75 mils by 1984. In 1989, new technology gave us the same strength and durability in a plastic bag that is only 0.7 mil thick. Plastics are typically lighter than many alternative packaging materials, and have consistently reduced the weight of truck payloads and allowed companies to ship more product in fewer trucks. For example, more than 2.8 million plastic grocery bags can be delivered in one truck. The same truck can hold a substantially lesser number of paper grocery bags.

Overall, plastic film including plastic shopping bags, are only a small percentage, approximately 4%, of the waste stream in Montgomery County. In FY06, 49,471 tons of film plastic was generated. Of this amount, 440 tons of film plastic and plastic shopping bags were recycled.

Reusable Bags as an Alternative to Either Plastic or Paper

The Division's top priority in the waste management hierarchy is Waste Reduction. In our education efforts, we encourage people when they're shopping to request bags only when needed. We encourage people to have their purchases placed in bags only if they need to. We educate people on the waste reduction benefits of bringing their own reusable bags made from cloth, bringing paper or plastic bags to reuse again, and to add individual small purchase items to the same bag that they've already gotten with an earlier purchase during a shopping trip. We also spread awareness that some stores here in the County offer people discounts if they bring their own paper or plastic bags from home to reuse, or if they purchase and use reusable canvas bags.

We educate people that if they use either paper or plastic bags, that after they reuse the bags they have over and over until they are torn or shredded, then we ask people to recycle them. Paper bags can be recycled in the County's mixed paper recycling program. Plastic bags can be recycled by taking them back to the grocery stores. Virtually all of the major grocery stores operating in the County and that use plastic bags as an option have programs to take back plastic bags from customers for recycling.

During July and August 2007, Division staff conducted a survey of all of the major grocery retailers in the County. Findings are detailed below in Table A, including whether the store provides plastic bag recycling services for their customers, and if so the name of the vendor/processor that recycles the plastic; whether the store sells reusable bags; and if they provide customers with incentives to use reusable bags.

The good news is that there is a market now for the recycling of plastic bags. Plastic bags are recycled into a number of different end uses. Many of the film bags are recycled

(14)

into composite plastic lumber or siding. Other plastic films and bags are reprocessed into small pellets, which are then sold to make new films and various injection molded products.

Interestingly, IKEA just started (on March 15, 2007) charging customers for each plastic bag they take away purchased items in. This will almost certainly make an impact on consumers. In some other countries, stores have practiced this for some time. It encourages people to think about whether they really need a bag for their purchase or not. For those customers that are more aware of the environment, it sets the default option to waste reduction. For customers that aren't as aware of the environment, the cost factor also makes them think twice about taking a bag even if they don't need it. Either way, it makes people think about what they use. Of course, this concept relies on the willingness of a retailer to charge for plastic bags, and it would economically impact consumers.

Table A. July-August 2007 Survey of Grocery Retailers in Montgomery County

Store Name	Sells reusable bags	Incentives provided to customers for using reusable bags	Provides plastic bag recycling opportunities for customers	Plastic bag recycling processor/vendor used
Bloom	Yes	One time give away of reusable bags when they opened the store.	Yes	Trex
Bottom Dollar	Yes	**No**	Yes	Trex
Giant Food	Yes	**Yes;** Discount $.03 cents off per bag; also sends its members coupons to obtain free reusable bags.	Yes	Trex
Harris Teeter	Yes	**No**	Yes	Trex
Magruder's	Yes	**Yes;** Bag credit of $.03 cents.	Yes	Trex
My Organic Market	Yes	**Yes;** $.05 cents off if customers bring any plastic or paper bag; $0.10 cents off if they bring a canvas or cloth bag.	Yes	FPC Distribution in Elkridge; This company sells the bags to Trex
Safeway	No	**No**	Yes	Trex
Shoppers Food Warehouse	No	**No**	Yes	Back-hauls to warehouse in Lanham; unable to determine processor at this time
Trader Joes'	Yes	**Yes;** Customers entered into a raffle for a $25 gift card.	No, they use more paper bags than plastic bags	N/A
Weis Markets	Yes	**Yes;** $.03 cents off per bag used.	Yes	Trex
Whole Foods	Yes	**Yes;** $.05 cents off for each reusable bag used.	Yes	World Recycling

Emissions/Environmental Effects of Plastic Bags at the Resource Recovery Facility

With respect to regulated emissions, there is no creditable basis for concluding that the presence of film plastics within the composition of waste combusted at the Resource Recovery Facility (RRF) causes increased emission of regulated air pollutants.

Conclusion and Recommendations

Film plastics, including plastic shopping bags, comprise of approximately 4 percent (by weight) of the total solid waste stream generated in the County. Furthermore, viable recycling markets currently exist for the recycling of plastic film bags. As listed in the table above, the majority of grocery food stores in the County have implemented recycling programs for plastic film bags for their customers to participate in. In addition, to encourage the use of reusable bags, there are monetary incentives provided by the private sector to encourage the public to use reusable bags, as opposed to requesting "paper or plastic".

If handled properly, plastic bags can be beneficial and useful. Plastic bags can be used multiple times for other uses and contribute to the County's overall waste reduction effort, by reducing the amount of weight of packaging that is generated and must ultimately be recycled or disposed. However, the major problems arise when plastic bags are not properly recycled or disposed of due to littering. Banning the use of plastic bags in Montgomery County may not have the overall desired effect of reducing littering.

At this time, based upon the research, the Division of Solid Waste Services does not recommend a ban on the distribution or use of plastic bags in Montgomery County. Rather, the Division supports following the County's solid waste management hierarchy as stated in the 10-Year Solid Waste Plan and focus targeted educational and outreach efforts on waste reduction.

The Division already promotes and will continue to encourage the use of reusable cloth bags as an alternative to paper or plastic bags to residents. The private sector should also continue to encourage and provide monetary incentives to their customers to foster the use of reusable bags. In addition, the private sector may begin using monetary disincentives by charging extra for the choice to use plastic bags, as has already been the case with Ikea.

However, ultimately, the choice between using paper, plastic or reusable cloth bags should be left to the general public. It is a personal preference and as long as the bag, whichever type is selected, is properly recycled and/or disposed, should continue to be left to the residents to decide which bag to use. Staff from the Division of Solid Waste Services are available to discuss the contents and recommendations of this report.