

T&E COMMITTEE #4  
April 27, 2016

**Worksession**

**MEMORANDUM**

April 25, 2016

TO: Transportation, Infrastructure, Energy and Environment Committee

FROM: *KL* Keith Levchenko, Senior Legislative Analyst

SUBJECT: **Worksession: FY17 Operating Budget** – Department of Environmental Protection (DEP) - Division of Solid Waste Services Operating Budget and FY17 Solid Waste Charges

**Budget Summary**

- The Solid Waste Collection Fund Budget is recommended to increase by 3.5 percent due to technical adjustments, including: charges from the Department of Finance for collecting solid waste fees through property tax billing (\$146,078), a motor pool adjustment (\$48,899), and FY17 compensation adjustments (\$20,416).
- The Solid Waste Disposal Fund Budget is recommended to decrease by 18.9 percent. This reduction is entirely the result of the end of debt service payments for the RRF (-\$21.4 million). Apart from that large reduction, expenditures are increasing by 1.4 percent (\$1.5 million). The biggest increases for FY17 are: capital equipment replacement (\$3.1 million), increases in RRF costs (\$1.9 million) to cover contract increases and Out of County haul (\$1.3 million).
- Gude Landfill Remediation: See Update on ©25-49. An amended Assessment of Corrective Measures (ACM) Report is to be transmitted shortly to the Maryland Department of the Environment (MDE) based on feedback from MDE. DEP continues to assume a significant liability (\$27.8 million for FY17) in the Solid Waste Disposal Fund related to remediation efforts.

**Solid Waste Charges Summary**

- The CE recommends no and/or slight increases in overall Solid Waste charges for single-family, multi-family, and non-residential property owners (as shown on page 11).
- The CE recommends keeping Transfer Station Tipping Fees at FY16 levels.

**Council Staff Recommendations**

- Approve the Division of Solid Waste Services FY17 Budget as recommended by the County Executive.
- Approve the FY17 Solid Waste Charges as recommended by the County Executive. NOTE: Council Staff suggests further review of leaf vacuuming expenditures in the context of the Department of Transportation budget).
- Schedule Committee time after budget for updates on food waste composting, mixed paper recycling, and the Gude Landfill remediation.

*NOTE: Action on FY17 Solid Waste charges is tentatively scheduled for May 18.*

**Attachments to this memorandum include:**

- Solid Waste Services Excerpt from the County Executive's FY16 Recommended Budget (©1-17)
- Vacuum Leaf Collection Fund Six-Year Fiscal Plan (©18)
- Material Flow Diagram Calendar Year 2014 (©19)
- CY12 Waste Composition Study Summary Table: Waste Recycling by Material Type (©20)
- Solid Waste System Disposal Fund, Rate Setting Methodology (FY17) (©21)
- Resolution to Approve FY17 Solid Waste Service Charges (©22-24)
- Gude Drive Landfill Remediation GLCC Presentation dated April 18, 2016 (©25-49)

**Meeting Participants Include:**

- Lisa Feldt, Director, Department of Environmental Protection (DEP)
- Patty Bubar, Deputy Director, DEP
- Dan Locke, Chief, Division of Solid Waste Services (DSWS), DEP
- Anthony Skinner, Chief, Business Section, DSWS, DEP
- Eileen Kao, Chief, Waste Reduction and Recycling Section, DSWS, DEP
- Bill Davidson, Chief, Northern Operations and Strategic Planning Section, DSWS, DEP
- Peter Karasik, Chief, Central Operations Section, DSWS, DEP
- Robin Ennis, Chief, Collections Section, DSWS, DEP
- Alex Espinosa, Manager, Office of Management and Budget (OMB)
- Matt Schaeffer, Management and Budget Specialist, OMB

**OVERVIEW****Expenditure Summary**

For FY17, the Executive recommends total expenditures of \$92.2 million for the Division of Solid Waste Services, a \$19.7 million decrease (-17.6 percent) from the FY16 approved budget. The major decrease is a result of the debt service payments on the Resource Recovery Facility ending in April 2016. Budget changes from FY16 are discussed in more detail later in this memorandum.

**Table #1  
DPW&T-Solid Waste Services (All Funds)**

	Actual FY15	Approved FY16	Estimated FY16	Rec FY17	Change from FY16 \$\$\$	%
Personnel Costs	10,860,949	11,244,457	11,159,144	11,802,996	558,539	5.0%
Operating Expenses	96,364,190	96,698,939	99,610,396	77,331,155	(19,367,784)	-20.0%
Capital Outlay	-	3,946,457	-	3,085,826	(860,631)	-21.8%
<b>Total</b>	<b>107,225,139</b>	<b>111,889,853</b>	<b>110,769,540</b>	<b>92,219,977</b>	<b>(19,669,876)</b>	<b>-17.6%</b>
Full-Time Positions	79	79	79	79	-	0.0%
Part-Time Positions	1	1	1	1	-	n/a
Workyears/FTEs	103.0	103.0	103.0	105.6	2.5	2.5%

The Division budget is funded entirely by the Solid Waste Collection and Solid Waste Disposal Funds. Both funds are supported through various Solid Waste charges discussed later. As Enterprise Funds, these funds are self-supporting, and revenues and expenditures within these funds are kept distinct from the General Fund. Any cost savings or cost increases that may be identified in these funds have no impact on the General Fund.



## Positions

For FY17, DSWS' recommended position complement is 79 full-time positions (the same as the FY16 Approved budget), two part-time positions (an increase of one from FY16) and a total of 105.55 Full Time Equivalents (FTEs) (an increase of 2.54 FTEs from FY16).

Much of the direct service provided by DSWS is done via contracts (such as for refuse and recycling collection and contract staff at the Transfer Station, Materials Recovery Facility, RRF, and Compost Facility). DSWS provides contract oversight and manages the overall operations at the various facilities.

## **TONNAGE AND RECYCLING ASSUMPTIONS**

Below are some important assumptions that drive much of the Solid Waste budget. In general, tonnages had been down in recent years as a result of economic conditions but have been gradually increasing again, consistent with the County's and the region's economic recovery.

The most recent Material Flow Diagram (CY14) is attached on ©19. This diagram shows how various materials enter the County's Solid Waste system, how they are processed, and the volumes involved in the various processes. The building blocks for the recycling rate and waste diversion rate are also shown and the totals calculated.

## Resource Recovery Facility

**Resource Recovery Facility (RRF) Throughput for FY17: 601,800 tons** (an increase of about 11,800 tons over what is projected for FY16). The permit level is 657,000 tons per year. The policy goal is 85 percent to 92 percent of the RRF permit capacity (i.e., 558,450 to 604,000 tons per year). Economic conditions resulted in a significant downward trend in tonnages beginning in FY07 (prior tonnages had been over 600,000), and tonnages are only now returning to prior levels. Table 2 (below) shows the RRF tonnage throughput calculation from the FY14 actual through the FY17 projection.

Table #2  
Resource Recovery Facility (RRF) Throughput Assumptions

	FY14 Actual		FY15 Actual		FY16 Projected		FY17 Projected	
	% of MSW	Tons	% of MSW	Tons	% of MSW	Tons	% of MSW	Tons
Total Municipal Solid Waste (MSW) (in tons)*		1,106,956		1,099,871		1,111,641		1,123,411
Recycling Rate/Tons (including ash)	55.6%	615,989	54.7%	602,148	55.8%	620,379	57.1%	640,986
Recycling Rate/Tons (excluding ash)	42.6%	472,092	41.2%	453,223	42.4%	471,838	43.5%	488,994
Exportation Rate/Tons	12.6%	140,008	13.3%	146,581	12.9%	143,059	11.2%	126,094
Processable Waste to RRF	44.7%	494,856	45.5%	500,067	44.7%	496,744	45.2%	508,323
addback metals from ash (counted in recycling)	0.8%	8,972	0.9%	9,397	1.0%	11,033	1.0%	11,254
Total RRF MSW Burned	45.5%	503,827	46.3%	509,464	45.7%	507,777	46.2%	519,577
Construction/Demolition Debris (C/D) Burned		73,959		82,223		82,223		82,223
Total RRF Throughput (MSW+C/D)		577,786		591,687		590,000		601,800
% of permit level (permit level = 657,000)		87.9%		90.1%		89.8%		91.6%

\*MSW tonnages exclude both non-processible and C&D tonnages.

The outyear projections through FY22 assume 2.0 percent growth in RRF throughput, which is the same as past assumptions. These projections do not assume any major programmatic changes (such as a major food waste composting initiative) or policy changes (tipping fee increases or decreases).

## Recycling Rate

In October 2012, the Council approved Executive Regulation 7-12, which created a new recycling rate methodology (consistent with how the State of Maryland calculates recycling and waste diversion rates) and a new recycling/diversion goal for the County of 70 percent by 2020.

Table #3, below, shows fiscal year recycling rates by sector from FY14 actuals through FY22 projections, based on the latest projections. The economic downturn resulted in reduced trash volumes and recycled materials volumes and also in a reduction in the demand and price for recycled materials. However, the numbers are expected to tick back up as the economic recovery continues.

**Table 3:**  
**County Recycling Rate**

Category* (FY16 Projected % of waste generated)	Actual		Projected						
	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
Single Family (38.8%)	63.4%	62.7%	63.4%	64.4%	65.4%	66.8%	67.9%	69.5%	70.7%
Multi-Family (9.3%)	25.8%	26.1%	26.7%	27.1%	27.4%	27.9%	28.2%	28.5%	28.8%
Non-Residential (51.9%)	54.5%	53.6%	55.3%	57.0%	58.3%	59.7%	61.2%	62.6%	64.2%
Total Municipal Solid Waste (MSW) Recycled	55.6%	54.7%	55.8%	57.1%	58.1%	59.4%	60.5%	61.8%	63.0%
State Waste Diversion Rate*	60.6%	59.7%	60.8%	62.1%	63.1%	64.4%	65.5%	66.8%	68.0%

\* Includes a source reduction credit (up to 5%)

DSWS estimates that, under current strategies, the diversion rate (including ash and the source reduction credit) will rise to 68.0 percent by FY22. For FY15, DSWS estimates its recycling rate at 54.7 percent and its diversion rate at 59.7 percent. *NOTE: Recycling data is submitted to the State on a calendar year (CY) basis. CY15 information is expected to be affirmed by the Maryland Department of the Environment (MDE) in January 2017.*

## Waste Composition Study

Every four years, DSWS does a waste composition study to better understand the mix of different materials in the County's waste stream. Based on this study, DSWS can extrapolate recycling percentages for different materials and identify opportunities where improvement is possible. The most recent study was done in FY13, utilizing calendar year 2012 actual data. A summary chart from this study is attached on ©20. Non-residential paper and food waste continue to be two major areas of opportunity for increasing the recycling rate. An FY17 study is planned, and expenditures for this study are included in the recommended budget.

## Food Waste

Food waste is the largest non-banned material type. The County has an ongoing food waste composting pilot (focusing on County Government facilities) that has been in place for several years as the County waited for the State regulatory process for processing facilities to be completed. A State composting regulation was issued effective July 1, 2015. According to DEP, a strategy to secure processing facility capacity for County food residuals is being vetted, and a comprehensive update can be provided to the Council later this summer. Assuming processing facility capacity is obtained, the County would likely expand its efforts to non-residential generators and then later develop a curbside collection program to capture residential food waste.

## Mixed Paper

With regard to mixed paper, the single-family sector recycles approximately 64.4 percent of its mixed paper waste generated. The non-residential sector recycling rate is lower (at 60 percent) and generates about 45 percent more mixed paper waste than the single-family sector. Multi-family recycling rates for paper are quite low (18.4 percent), although the total amount generated is also quite low (18,180 tons).

The non-residential mixed paper capture rate is up slightly (from 58.3 percent to 60.0 percent) from the prior waste composition study. Interestingly, the estimate of overall non-residential mixed paper generated is down about 19 percent (from over 165,000 tons to just over 134,000 tons). This may be an indication that, while we are still far from realizing the “paperless office” concept, technology improvements, changes in office practices, and improvements in product packaging are reducing the use of paper in the non-residential sector.

The County’s longtime mixed paper contract ended in April 2016. Under that contract, the County paid about \$1.8 million per year for the contractor to truck and process bulk mixed paper. The County is currently selling bulk mixed paper itself now for about \$34 per ton. As noted during the budget review last year, DEP plans to construct a new facility next to the Recycling Center and install paper sorting and baling equipment so that the County can sort and bale mixed paper and cardboard as separate commodities. These separate commodities can command substantially higher per ton prices (estimated at approximately \$90 per ton). Below is an update from DEP on these efforts:

*“DEP has two contracts in place for the development of our fiber line. MES, our Recycling Center operations contractor, has an agreement with CP Manufacturing for the equipment to sort and bale mixed paper and cardboard. The other contract is through the Northeast Maryland Waste Disposal Authority who has an agreement with Baltimore Contractors to construct a building which will house the fiber sorting equipment as well as store baled mixed paper and cardboard. The building documents are under permit review, and the fiber sorting equipment is being manufactured. DEP anticipates start-up in late summer 2016. In the interim, bulk mixed paper is being sold at a profit to WestRock who received the commodity contract after a competitive bid process. The impact on the FY17 budget is that while we are no longer paying to have someone take our paper, we will have some higher operating costs for the fiber line, the net drop in the operating budget is about \$1.4 million. However, the Materials Recycling Facility budget is not a net of revenue budget, so fiber revenues go directly into the Solid Waste Fund. There should be revenues for selling bales of cardboard and mixed paper estimated to be approximately \$4.5 million per year. This revenue estimate is contingent on volatile commodity prices that may increase or decrease.”*

As noted above, the FY17 Recommended Budget assumes savings of about \$1.4 million in the Recycling Center program, related mostly to mixed paper cost savings (see ©10). The projected \$4.5 million in revenues from the sale of cardboard and mixed paper is expected to begin in FY17 and is reflected in the “Miscellaneous Revenues” increase for the Disposal Fund shown on ©9. Council Staff suggests that the Council receive a briefing on the status of this effort after budget.

## Compost Facility

**Compost Facility Tonnage for FY17: 70,366 tons** (an increase of 566 tons or 0.8 percent from the latest FY16 projection of 69,800 tons). At this time last year, FY16 tonnage was expected to be 73,500 tons (or 3,700 tons higher than currently projected). In prior years, the opposite was the case as actual tonnages exceeded initial projections. Fluctuations in compost facility tonnages can happen as a result of weather, storms, and the economy as well as at-home grasscycling and composting. DEP attributes the prior upward trends to increases in materials delivered by landscapers as a result of an improving economy. DEP's projections going forward assume a 0.8 percent increase in tonnages, which is half the rate of new households coming on-line and reflective of assumed continued increases in backyard composting and grasscycling.

The operating limit (based on an agreement with the Sugarloaf Citizens Association) is 77,000 tons per year. Five years ago, commercial yard trim tipping fees were increased (from \$40 to \$46) to slow the curve of any tonnage increases by encouraging more "grasscycling". That fee was modified two years ago to apply to all yard trim (residential or commercial) in excess of 500 pounds per load, with no charge for any loads weighing less.

Program costs are also down somewhat for the Compost Facility because equipment replacement costs in FY17 are about \$277,000 less than in FY16.

## **SOLID WASTE COLLECTION FUND EXPENDITURES**

The Solid Waste Services budget is divided into two Enterprise funds: Collection and Disposal. These are non-tax-supported funds for which revenues and expenditures are directly connected. Additions to or subtractions from the DSWS budget may change solid waste charges, but will not affect General Fund resources.

Summary tables for each of the funds follow, along with some major highlights.

**Table #4**  
**DPW&T-Solid Waste Services (Collection)**

	Actual FY15	Approved FY16	Estimated FY16	Rec FY17	Change from FY16 \$\$\$	%
Personnel Costs	1,253,836	1,331,993	1,320,111	1,460,102	128,109	9.6%
Operating Expenses	4,881,772	5,145,946	5,010,946	5,244,377	98,431	1.9%
Capital Outlay	-	-	-	-	-	-
<b>Total</b>	<b>6,135,608</b>	<b>6,477,939</b>	<b>6,331,057</b>	<b>6,704,479</b>	<b>226,540</b>	<b>3.5%</b>
Full-Time Positions	4	4	4	4	-	0.0%
Part-Time Positions	-	-	-	-	-	n/a
Workyears/FTEs	10.59	11.09	11.09	11.36	0.3	2.4%

The bulk of costs in this fund are for residential refuse collection within Subdistrict A.<sup>1</sup> DSWS currently has 3 contractors serving the five service areas in Subdistrict A under 13 contracts at an estimated cost of \$4.92 million in FY17 (a slight increase from the FY16 total of \$4.79 million).

<sup>1</sup> The collection district is divided into two collection subdistricts for residential trash collection. In Subdistrict A, trash collection for single-family residences and multi-family residences with six or fewer units is managed by the County, which contracts with haulers. In Subdistrict B, haulers contract directly with residents.

Solid Waste Collection Fund expenditures are recommended to increase by 3.5 percent (\$226,540). All of the changes noted in the FY17 Recommended Budget are technical in nature (with no service impacts). The biggest changes are: charges from the Department of Finance for collecting solid waste fees through property tax billing (\$146,078), a motor pool adjustment (\$48,899), and FY17 compensation adjustments (\$20,416). Other miscellaneous changes (both up and down) involve benefits, risk management, personnel cost annualizations, and refuse collection contract adjustments. All of these changes are presented on ©10-11.

**Council Staff recommends approval of the Executive's Recommended Budget for the Solid Waste Collection Fund.**

### SOLID WASTE DISPOSAL FUND EXPENDITURES

**Table #5**  
**DPW&T-Solid Waste Services (Disposal)**

	Actual FY15	Approved FY16	Estimated FY16	Rec FY17	Change from FY16 \$\$\$	%
Personnel Costs	9,607,113	9,912,464	9,839,033	10,342,894	430,430	4.3%
Operating Expenses	91,482,418	91,552,993	94,599,450	72,086,778	(19,466,215)	-21.3%
Capital Outlay	-	3,946,457	-	3,085,826	(860,631)	-21.8%
<b>Total</b>	<b>101,089,531</b>	<b>105,411,914</b>	<b>104,438,483</b>	<b>85,515,498</b>	<b>(19,896,416)</b>	<b>-18.9%</b>
Full-Time Positions	75	75	75	75	-	0.0%
Part-Time Positions	1	1	1	1	-	n/a
Workyears/FTEs	92.42	91.92	91.92	94.19	2.3	2.5%

Solid Waste Disposal Fund expenditures are recommended to decrease by 18.9 percent (\$19.9 million). As noted earlier, the end of debt service payments for the RRF results in a large annual savings (\$21.4 million).

Apart from that large reduction, Solid Waste Disposal Fund expenditures are recommended to increase by 1.4 percent (\$1.5 million). Within this change, there are a number of cost changes (both increases and decreases) recommended in the Solid Waste Disposal Fund. None are assumed to have service impacts. These items are individually listed on ©10 (see the "FY17 Recommended Changes" section from the Executive's Recommended Operating Budget).

There are a number of technical adjustments common to other County Government budgets (such as compensation changes, benefits, and annualizations; and printing and mail adjustments). In addition, the Disposal Fund has a number of other items that often appear, including: contractual cost changes in various areas and equipment replacement costs. One-time items from FY16 (mainly for equipment replacement and some one-time outreach and education efforts) are also removed. The biggest increase from FY16 has to do with the equipment replacement purchase schedule (across a variety of programs) which is \$3.1 million higher in FY17. Also, RRF costs are increasing (\$1.9 million) to cover contract increases and decreased electricity revenue (see detailed review of this program later in this memorandum). Out of County haul is also increasing (\$1.3 million) based on increases in tonnage. These and other items are discussed in more detail by program below.

## Resource Recovery Facility & Related Waste Transfer

Historically, this has been the biggest program in the Solid Waste budget (38 percent of the FY16 budget). However, with debt service for the RRF zeroed out for FY17, this program makes up 24.9 percent of the FY17 budget and less overall than the Residential Collection program. The following chart breaks out the major cost changes in this program. Overall, program expenditures are down \$19.5 million (about -45.9 percent).

**Table #6**  
**Resource Recovery Facility (RRF) Program Costs**

	FY16	FY17	Change	
	Approved	Rec	\$	%
NEA Direct Costs and Fees	237,825	238,634	809	0.3%
Net Debt Service	21,407,450	-	(21,407,450)	-100.0%
Operating Contract	27,108,301	28,192,633	1,084,332	4.0%
Non-Processible Waste	168,214	179,239	11,025	6.6%
Waste Processed >558,450 tons	934,034	1,267,653	333,619	35.7%
Rail Engine Service Fee and Refunds	3,776,000	3,986,323	210,323	5.6%
Air: Emission Reagents, Testing, Fees	3,012,956	3,182,634	169,678	5.6%
Ash Handling and Testing	(826,000)	(878,628)	(52,628)	6.4%
Insurance, Utilities, Sales & Prop Tax	1,046,423	493,531	(552,892)	-52.8%
Miscellaneous O&M	1,234,845	1,224,845	(10,000)	-0.8%
Electric Sales Revenue	(15,980,935)	(16,718,430)	(737,495)	4.6%
Recycled Ferrous Revenue	(708,885)	(524,890)	183,995	-26.0%
<b>Operating Contract Total</b>	<b>41,410,228</b>	<b>20,643,544</b>	<b>(20,766,684)</b>	<b>-50.1%</b>
			-	
Charges from Risk Management	744,963	833,910	88,947	11.9%
Other Miscellaneous	271,533	1,477,433	1,205,900	444.1%
<b>Totals</b>	<b>42,426,724</b>	<b>22,954,887</b>	<b>(19,471,837)</b>	<b>-45.9%</b>

Some highlights of these changes include:

- As noted earlier, the end of debt service payments after March 2016 resulted in \$21.4 million in savings in FY17.
- The RRF throughput is projected to increase from 589,999 in FY16 to 601,800 in FY17 (a 2.0 percent increase). Because the County pays some additional costs per ton processed above 558,450 tons (consistent with the County's service contract for the RRF), the waste processing costs are projected to increase (by \$333,619) up to \$1,267,653.
- Electric sales revenue is projected to be up 4.6 percent in FY17 after some declines in past years. DEP is using pricing assumptions provided by its consultant. *NOTE: Electric sales revenue is reflected as a negative (an offset to expenditures) in this program.*
- The Insurance, Utilities, Sales & Property Tax category is down substantially from FY16 (-\$552,892). This is due to FY16 costs being higher than for a typical year. In FY16 planned turbine outages for maintenance were done which required the County to purchase electricity for plant operations that normally comes from on-site generation. This maintenance is done on a 7-year cycle, so these outside electricity costs will not be incurred in FY17.
- Recycled ferrous revenue is down (-\$183,995) based on market conditions.

- Most other expense categories are seeing only slight increases or decreases from FY16.

### Residential Collection

This program is the second largest program in the Solid Waste budget (behind the RRF) in FY16, but will be the largest program in FY17 with the RRF program cost decline noted earlier. This program has a recommended total of \$27.3 million (an increase of \$465,076 or 1.7% from FY16), mostly due to mandatory contractual cost increases for residential recycling collection as well as increased households serviced.

A portion of this program is for residential refuse collection (discussed earlier) within the Solid Waste Collection Fund. However, most of these costs fall within the Solid Waste Disposal Fund and cover DSWS contracts with haulers to provide curbside recycling collection for all unincorporated areas of the County (both in Subdistricts A and B). For FY17, \$18.5 million is budgeted to serve 13 areas under 13 contracts with three haulers. Costs are up about \$654,825 (or 3.5 percent) from FY16.

### Gude Landfill Remediation

For background on this issue, DSWS staff prepared a slide presentation (attached on ©25-49) for a recent community meeting with the Gude Landfill Concerned Citizens on April 18. Council Staff suggests that DSWS staff provide a summary update for the Committee. Council Staff suggests a follow-up briefing later this summer (perhaps during the food waste briefing).

The County has spent approximately \$1.5 million to date on this effort since 2009 for work on Gude's Waste Delineation, the Nature and Extent study, and the Assessment of Corrective Measures (ACM) report and continued sampling and other tests.

Remediation planning in coordination with the Maryland Department of the Environment (MDE) is ongoing. DEP submitted an assessment of corrective measures report to MDE in January of 2014 and recommended bioremediation as DEP's preferred approach. The remediation work would address widespread low level Volatile Organic Compound (VOC) contamination in groundwater, gas migration, and leachate seeps into surface water runoff.

In April 2015, MDE provided comments to DEP on the ACM report. MDE noted some deficiencies in the report, including a need for proposed corrective measures to address limited metals exceedances (in addition to VOC exceedances) and the need to modify groundwater sampling procedures to provide more accurate metals readings. This work pushed any remediation work back to at least FY17.

The additional testing work was done and DEP met with MDE earlier this year. DEP has provided the following update to this effort:

*DEP and its engineering consultant met with MDE again in January 2016 to discuss the results of field work and obtain preliminary feedback from MDE on several issues before drafting the final sections of the revised ACM report. At that meeting, MDE stated a continued concern that despite a reduced number of metals exceedances as a result of improved low flow sampling methods, they still felt metals needed to be addressed and that bioremediation would only address VOCs. MDE felt that capping the top of the landfill with a synthetic liner and a couple*

*of feet of soil would substantially reduce rainwater infiltration and the generation of leachate (water that has been in contact with trash), subsequently reducing all types of contamination. MDE also indicated that if DEP submitted a capping solution, it would likely be approved, and it would be unlikely that any further remediation would be required at the site. Given MDE's strong feelings about the benefits of capping and the desire to limit the potential for additional remediation measures to be required at the Landfill in the future, DEP is considering revising its remediation recommendation to make capping the top of the landfill and some side open slope areas (leaving forested areas on slopes as is) its primary corrective measure. DEP is required to submit a revised ACM report to MDE by April 30, 2016."*

Of particular note is that DEP, per guidance from MDE, is now planning to submit a revised ACM report by April 30 that assumes capping the top of the landfill instead of bioremediation. The FY17 budget still assumes projected costs associated with bioremediation and about \$750,000 in expenditures (similar to FY16 expenditures). However, once the revised ACM report is approved by MDE, DEP expects to develop a capital project for the landfill capping. The long-term liability happens to be similar to the liability currently assumed in the Disposal Fund Fiscal Plan (\$28.5 million), but the costs will be more front-loaded (i.e., more construction work but much lower continuing costs) than for the originally proposed bioremediation work.

**The Gude Landfill liability is the key reason why the Executive is not recommending a corresponding reduction in Solid Waste charges, even as the Solid Waste Budget for FY17 is recommended to decrease substantially (thanks to the RRF debt payments ending in April 2016). The Disposal Fund fiscal plan (see ©15) shows a \$14.2 million deficit in FY16 in cash and investments compared to liability requirements. The FY17 budget savings will result in a much smaller deficit at the end of FY17 and a positive situation at the end of FY18.**

#### Other Issues

The Disposal Fund crosswalk also notes an increase of \$50,000 to the non-profit organization A Wider Circle. In FY09, the Solid Waste Fund began to provide funds to the organization through a non-competitive contract managed by the Department of Housing and Community Affairs (DHCA). These funds, which started at \$26,000 annually, were intended to offset a portion of the organization's costs for the pick-up of household goods (such as furniture) which is then (as noted on the organization's website) provided "to families transitioning out of shelters, escaping domestic violence, or otherwise living without their basic need items." The organization makes an estimated 5,000 pick-ups annually.

For FY16, Solid Waste funding support to A Wider Circle increased to \$89,920. In addition to those dollars, the Approved FY16 budget includes another \$127,000 in community grants to the organization, managed by DHCA and \$58,908 in funding in the base budget of the Department of Health and Human Services.

For FY17, the Executive is recommending an increase of \$50,000 in the Solid Waste Fund to bring the total supported by Solid Waste up to \$139,920.

A Wider Circle is the only non-competitive contract included directly in the base DEP budget. In addition, A Wider Circle's mission would seem more in line with the Departments of Housing and Community Affairs (which manages the County's community grants with A Wider Circle) or Health and Human Services (which also has funding for A Wider Circle in its base budget).



The nexus for A Wider Circle's funding within the Solid Waste Fund is that it provides an alternative for households and businesses from disposing of these items in the solid waste system. However, this is not a primary purpose of A Wider Circle and it is unclear what this overall benefit to the solid waste system is or how to value that benefit. Also, there are many other organizations serving Montgomery County that also accept and pick up used household goods upon request (some of whom may also receive community grant dollars). None of these other efforts are supported by the Solid Waste Fund.

With regard to the recommended \$50,000 increase in FY17 funding for A Wider Circle, Council Staff finds it difficult to assess this request within the context of the Solid Waste Budget (when funding for the same organization is included in several community grants and the Health and Human Services base budget. For future budgets, Council Staff suggests the Council consider consolidating the funding for A Wider Circle under one department (perhaps within the HHS or DHCA budgets which may be more appropriate locations where the relative value of these services (compared to other services benefiting the community) and the need for governmental support can best be decided.

**Council Staff recommends approval of the Executive's Recommended Budget for the Solid Waste Disposal Fund.**

### **SOLID WASTE CHARGES**

The County's solid waste programs are primarily supported by various solid waste charges that support the dedicated Enterprise funds (see ©16 for descriptions of the different charges). Solid waste charges are established through an annual Council resolution (introduced on April 5 and attached on ©22-24). The Council is tentatively scheduled to take action on the solid waste charges in mid-May.

Refuse collection charges (for Subdistrict A where the County contracts directly with haulers to provide once per week refuse collection) support the Solid Waste Collection Fund and are set with a policy goal of keeping retained earnings at a level of 10 to 15 percent of resources across the six-year fiscal period. See ©14.

The Solid Waste Disposal Charges are developed through a complex rate model (see summary document on ©21). DSWS calculates the necessary rates for each sector to cover both base and incremental costs. Rate smoothing with available fund balance is also done across a six-year projection period, both at the macro level and within each sector. The policy goal is to have positive cash balances over reserve and liability requirements in the Disposal Fund.

The FY16 approved and FY17 County Executive recommended charges are presented below. The circled items present the charges that appear on residential property tax bills, depending on the services provided to that property.

**Table #7  
Solid Waste Charges (FY16 and FY17)**

Charge	Approved FY16	CE FY17	% Change From FY16
<b>SINGLE FAMILY</b>			
Base Systems Benefit Charge	\$30.68	\$29.71	-3.2%
Incremental Systems Benefit Charge	\$125.68	\$125.88	0.2%
Disposal Fee	\$48.75	\$49.52	1.6%
Leaf Vacuuming Charge	\$93.00	\$97.99	5.4%
Refuse Collection Charge	\$70.00	\$70.00	0.0%
<b>Total Charges, Households Receiving:</b>			
Recycling Collection Only	\$205.11	\$205.11	0.0%
Recycling and Leaf Collection	\$298.11	\$303.10	1.7%
Recycling and Refuse Collection	\$275.11	\$275.11	0.0%
Recycling, Leaf and Refuse Collection	\$368.11	\$373.10	1.4%
<b>MULTI-FAMILY</b>			
Base Systems Benefit Charge	\$6.47	\$4.46	-31.1%
Incremental Systems Benefit Charge	\$9.59	\$11.60	21.0%
Leaf Vacuuming Charge	\$3.70	\$3.86	4.3%
<b>Total Charges</b>			
Units inside Leaf Vacuuming District	\$19.76	\$19.92	0.8%
Units outside Leaf Vacuuming District	\$16.06	\$16.06	0.0%
<b>NONRESIDENTIAL</b>			
<b>(by waste generation category per 2,000 sq. feet of gross floor area)</b>			
Low	\$119.23	\$119.23	0.0%
Medium Low	\$357.67	\$357.67	0.0%
Medium	\$596.13	\$596.13	0.0%
Medium High	\$834.57	\$834.57	0.0%
High	\$1,073.02	\$1,073.02	0.0%
<b>TIPPING FEES</b>			
Refuse (weighing >500 lbs per load)	\$56.00	\$56.00	0.0%
Refuse (weighing 500 lbs per load or less)	\$0.00	\$0.00	0.0%
Refuse in Open Top Containers	\$66.00	\$66.00	0.0%
All Yard Trim (weighing >500 lbs per load)	\$46.00	\$46.00	0.0%
All Yard Trim (weighing 500 lbs per load or	\$0.00	\$0.00	0.0%
Other Recyclables	\$0.00	\$0.00	0.0%

## **1. System Benefit Charges**

Base System Benefit Charges cover the cost of general solid waste system infrastructure and administration and are allocated among the single-family residential, multi-family residential, and non-residential sectors in proportion to each sector's estimated waste generation. For FY17, base system costs are estimated at \$52 million (an increase of \$600,000 from the FY16 amount of \$51.4 million) and are allocated to single-family, multi-family, and non-residential properties based on waste generation assumptions for each sector. These charges appear on all property tax bills (residential and non-residential properties, both within and outside municipalities).

The Incremental System Benefit Charge (ISBC) is assessed on the different sectors based on actual services received (mostly related to curbside recycling and composting services). For FY17, incremental systems benefit costs are estimated at \$34.8 million (a decrease of about \$200,000 from the FY16 approved amount of \$35 million). These charges are adjusted from year to year, partly as a result of increased costs in recycling and composting, but also because DSWS works to smooth overall impacts within the different rate categories (single-family, multi-family, and non-residential) across the six-year fiscal plan period. This stabilization effort is accomplished by the different categories either borrowing or paying back the fund balance reserve in different years over the six-year period. The net change over the six-year period is zero, but changes can be substantial in a given year and can result in the charge going up or down in the different sectors.

For purposes of considering the total impact on ratepayers, one needs to look at the "Total Charges" lines in the chart. DSWS' goal is to try to smooth increases and decreases in these overall charges over time.

For FY17, single-family properties and multi-family properties are recommended to be charged rates with no increase or, in some cases, rate increases up to 1.7 percent (depending on the services received).

## **2. Non-Residential (Commercial) Charges**

The charges for the non-residential sector are comprised of the Base System Benefit Charges (BSBC) and the Incremental System Benefit Charges (ISBC). These charges are computed based on Gross Floor Area Unit (GFAU) data from the State Department of Assessments and Taxation (SDAT) records. These charges are recommended to remain unchanged from FY16.

## **3. Refuse Disposal Tip Fees**

The tip fee is the per ton fee charged businesses, institutions, and residents at the County's Transfer Station. No change is assumed in the standard refuse tipping fee (\$56 per ton for weights exceeding 500 pounds). Loads weighing less than 500 pounds are still free.

Tipping fees for both the refuse "in open top containers"<sup>2</sup> and commercial yard trim were increased five years ago (from \$60 to \$66 per ton and \$40 to \$46 per ton respectively). No increases were approved in FY13, FY14, FY15, or FY16 and no increases are being sought this year.

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<sup>2</sup> Open top containers tend to contain construction and demolition (C/D) debris, some of which can be processed at the RRF and some of which must be sent to other facilities for processing.

However, in FY15, the Executive recommended (and the Council approved) modifying how yard trim is charged. This change was made to simplify the enforcement of the yard trim drop-off process at the transfer station. Previously, there was no charge at the Transfer Station for residential yard trim drop-offs (no matter the total weight). Commercial yard trim (with no minimum weight) was charged at \$46 per ton. Now (similar to the current practice for refuse) there is no charge for yard trim loads below 500 pounds and a \$46 per ton charge for both residential and commercial loads greater than 500 pounds.

#### **4. Recycling Tip Fees**

The Executive continues to recommend no fee for source separated recyclable materials dropped off at the recycling drop-off area of the Transfer Station.

#### **5. Refuse Collection Charge**

The Executive recommends no change in this charge (currently \$70.00). The charge was increased by \$4.00 in FY16 (from \$66 to \$70). Previous to that, the charge was last adjusted in FY13 (when it was reduced from \$70 to \$66). This fee is paid by homeowners in Subdistrict A for once weekly refuse collection service by County contractors.

#### **6. Leaf Vacuuming Charge (see Recommended Fiscal Plan on ©18)**

This program is managed by the Department of Transportation (DOT). The leaf vacuuming fund covers the costs for the program (two scheduled leaf vacuuming pickups) through fees paid by residents in the leaf vacuuming district (via property tax bills). The Leaf Vacuuming Fund is charged for a portion of its costs associated with the composting of leaves collected by leaf vacuuming services.

The charge was increased in FY16 from \$88.91 to \$93.00 for single-family homes and from \$3.54 to \$3.70 for multi-family properties. This increase was initiated by the Council last year, to smooth a projected large fee increase assumed by the Executive from FY16 to FY17 (\$88.91 to \$101.10). The increase in FY16 was estimated to bring down the FY17 requirement to \$97.02.

For FY17, the Executive recommends an increase from \$93.00 to \$97.99 for single-family homes and from \$3.70 to \$3.86 for multi-family properties. This amount is \$.97 higher than previously assumed for FY17 last year. However, of more concern is that FY18 is now projected to require a single-family charge of \$109.18 (\$6.03 more than previously assumed for FY18). Another significant increase (\$4.93) is now assumed in FY19. FY19's single-family charge is now projected to be \$114.11 (which is \$7.56 higher than the previous FY19 projection).

Council Staff suggests that the T&E Committee review leaf vacuuming expenses and the fiscal plan in the context of its review of the Department of Transportation budget.

#### **Summary**

Overall, the Executive is recommending no change or very slight increases in what Solid Waste customers are currently paying (with the exception of the leaf vacuuming charge, as noted above). While costs will be down substantially in FY17 because of the RRF's debt service payments ending in April 2016, the ongoing liability associated with the Gude Landfill remediation requires DEP to "bank" these savings rather than reduce solid waste charges.

**With the exception of the recommended leaf vacuuming charge (which requires further Committee review in the context of the Department of Transportation budget review), Council Staff supports the FY17 Solid Waste charges as recommended by the Executive. *NOTE: A resolution approving FY17 Solid Waste charges is tentatively scheduled for Council action on May 18.***

***NOTE:** In tandem with the Solid Waste charges resolution, the Executive transmits an Executive Regulation (ER) each year, setting residential waste estimates. The current regulation (ER 1-15) for FY17 has been advertised in the April register and will be acted upon by the Council in mid-May.*

#### **SUMMARY OF COUNCIL STAFF RECOMMENDATIONS**

- **Approve the Division of Solid Waste Services FY17 Budget as recommended by the County Executive.**
- **Approve the FY17 Solid Waste Charges as recommended by the County Executive with the exception of the leaf vacuuming charges (where Council Staff suggests further review of leaf vacuuming expenditures in the context of the Department of Transportation budget).**
- **Schedule Committee time after budget for updates on food waste composting, mixed paper recycling, and the Gude Landfill remediation.**

#### **Attachments**

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# Solid Waste Services

## Mission Statement

The mission of the Department of Environmental Protection (DEP) is to enhance the quality of life in our community by protecting and improving Montgomery County's air, water, and land in a sustainable way while fostering smart growth, a thriving economy, and healthy communities.

## Budget Overview

The total recommended FY17 Operating Budget for the Division of Solid Waste Services is \$92,219,977, a decrease of \$19,669,876 or 17.58 percent from the FY16 Approved Budget of \$111,889,853. Personnel Costs comprise 12.80 percent of the budget for 79 full-time position(s) and two part-time position(s), and a total of 105.55 FTEs. Total FTEs may include seasonal or temporary positions and may also reflect workforce charged to or from other departments or funds. Operating Expenses account for the remaining 87.20 percent of the FY17 budget.

## Linkage to County Result Areas

While this program area supports all eight of the County Result Areas, the following are emphasized:

- ❖ Healthy and Sustainable Neighborhoods
- ❖ A Responsive, Accountable County Government

## Department Performance Measures

Performance measures for this department are included below (where applicable), with multi-program measures displayed at the front of this section and program-specific measures shown with the relevant program. The FY16 estimates reflect funding based on the FY16 approved budget. The FY17 and FY18 figures are performance targets based on the FY17 recommended budget and funding for comparable service levels in FY18.

## Initiatives

- ★ Increased the current level of funding by \$50,000 for a furniture reuse program administered by A Wider Circle. This additional funding in FY17 will benefit the County by reducing waste and providing usable furniture to program participants.

## Accomplishments

- ✓ Won the "2015 GOLD Excellence Award" in the Integrated Solid Waste Management category from the Solid Waste Association of North America (SWANA). The County's Yard Trim Composting Facility maintained independent certification as International Organization for Standardization (ISO) 14001 (Environmental Management System) compliant. The Resource Recovery Facility (RRF) maintained status as a Voluntary Protection Program (VPP) Star facility (highest OHSA honor).
- ✓ Increased recycling to over 60%, and continued efforts to further increase waste reduction and recycling to reach the 70% recycling goal by 2020 through: coordinating/participating in 334 outreach/educational events to interact with 41,270 residents directly; conducting seven community recycling events to collect 111 tons of confidential paper for shredding/recycling; continuing the education campaign to instill awareness of the recycling goal; and participating in radio interviews on several stations and networks in English and Spanish to motivate everyone to recycle more.
- ✓ Despite a 30% increase in requests for recycling containers, maintained a high level of quality of service and customer satisfaction during the 11 day labor strike that occurred in FY15, and in the aftermath of three strikes during FY14.
- ✓ Reduced fossil (diesel) fuel consumption on equipment used at the Dickerson Yard Trim Composting Facility by approximately 6% (2,910 gallons) during FY15. Achieved a cost savings of about \$7,828 in spite of producing 87,050 more bags of Leafgro and selling

13,713 more yards of bulk Leafgro. Developed new markets for double-screened Leafgro as a premium topping soil.

## Productivity Improvements

- ✱ Contracting for the design and installation of a fiber processing line for the Recycling Center in FY16 to divide mixed paper into cardboard and other mixed paper and bale these two commodities to optimize their market value. The new processing operation is estimated to generate approximately \$4.6 million in net revenue during FY17 depending upon the commodity markets.
- ✱ Increased rubble recycling at the Transfer Station through the addition of a soil screener, increased local recycling options for soil, created more options for managing clean asphalt and concrete and reduced trucking and disposal costs by an estimated \$400,000 per year.
- ✱ Messaging capabilities were improved by directly targeting Montgomery County residential customers who accessed social media for important information. Improved our collection day look up feature by correcting 5,000 street types in the customer data-set in MC311. Built an interface to the Tax Assessment System (TAS) in order to send Solid Waste Customer Billing data to MUNIS; improved the reporting and accuracy of Solid Waste Charges to properties in Montgomery County.
- ✱ More educational materials will be developed internally using InDesign software thereby increasing cost efficiencies and effectiveness to ensure that the maximum amount of recycling is achieved. The estimated savings for FY16 is approximately \$100,000.

## Program Contacts

Contact Scott McClure of the Division of Solid Waste Services at 240.777.6436 or Matt Schaeffer of the Office of Management and Budget at 240.777.2766 for more information regarding this department's operating budget.

## Program Descriptions

### Commercial Recycling

This program provides for mandatory commercial sector recycling and waste reduction for all businesses, as well as the review of recycling and waste reduction plans and annual reports from all large and medium-sized businesses, as well as targeted small businesses. Through this program, technical support, assistance, education, outreach, and training is provided to the commercial sector in the areas of recycling, reuse, buying recycled products, and waste reduction. This program also provides for enforcement of the County's recycling regulations and other requirements of the County Code as they apply to non-residential waste generators. All program initiatives and services apply to not-for-profit organizations, as well as federal, state and local government facilities.

Program Performance Measures	Actual FY14	Actual FY15	Estimated FY16	Target FY17	Target FY18
Non-residential recycling (tonnages)	290,913	294,416	304,289	316,357	326,928
Number of site visits to provide recycling assistance to businesses	10,014	10,362	12,000	12,000	12,000
FY17 Recommended Changes			Expenditures	FTEs	
FY16 Approved			1,981,313	11.00	
Increase Cost: Commercial Recycling - contractual increases			31,626	0.00	
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.			(82,922)	0.00	
FY17 Recommended			1,930,017	11.00	

### Enforcement

Enforcement provided by the Department of Housing and Community Affairs under this program consists of six related components. Staff respond to resident complaints dealing with: storage and removal of solid waste; illegal solid waste dumping activities in the County; storage of unregistered vehicles on private property throughout the County; storage of inoperable vehicles on private property; improper screening of dumpsters, particularly those in shopping areas; and control and regulation of weeds throughout the County. The program includes a "Clean or Lien" component, which provides for the removal of dangerous or unsightly trash, perimeter grass, and weeds on properties which

the owners have failed to maintain as required. Also under this program, the Department of Environmental Protection provides surface and subsurface environmental compliance monitoring at all County solid waste facilities, and reviews reports of air monitoring of the Resource Recovery Facility (RRF).

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>1,229,333</b>	<b>9.93</b>
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	(11)	0.00
<b>FY17 Recommended</b>	<b>1,229,322</b>	<b>9.93</b>

## Household & Small Quantity Hazardous Waste Management

This program funds a contractor to receive, sort, pack, ship, and properly dispose of household hazardous waste such as flammable products, insecticides, mercury, and reactive and corrosive chemicals. These products are brought in by residents and processed at State and Federally-approved hazardous waste treatment, storage, and disposal facilities. This program also includes outreach to educate residents regarding the potential dangers of certain household products and to reduce generation of hazardous waste; it also provides assistance to businesses that qualify as small-quantity generators of hazardous waste by providing them with an economical and environmentally safe disposal option. The materials are handled through the County's hazardous waste contractor and permitted hazardous waste management facilities.

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>1,049,162</b>	<b>0.00</b>
Decrease Cost: Hazardous Waste Program	(100,846)	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	80,925	0.00
<b>FY17 Recommended</b>	<b>1,029,241</b>	<b>0.00</b>

## Multi-Family Recycling

This program provides for mandatory recycling and waste reduction for multi-family properties. Program efforts include technical support, assistance, education, outreach and training about recycling, reuse, buying recycled products, and waste reduction, in addition to the review and monitoring of waste reduction and recycling plans and annual reports. This program also provides for enforcement of the County's recycling regulations and other requirements of the County Code, as they apply to multi-family waste generators.

Program Performance Measures	Actual FY14	Actual FY15	Estimated FY16	Target FY17	Target FY18
Multi-family recycling (tonnages)	26,887	27,426	28,376	29,796	30,842

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>864,512</b>	<b>4.00</b>
Increase Cost: Increase to A Wider Circle for furniture pickup program	50,000	0.00
Increase Cost: Multifamily Dwellings	7,465	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	(56,802)	0.00
<b>FY17 Recommended</b>	<b>865,175</b>	<b>4.00</b>

## Out Of County Refuse Disposal

This program provides for the rail shipment of ash residue that is designated for recycling or disposal from the Resource Recovery Facility (RRF) to Fulton Rail Yard near Richmond, Virginia, where it is unloaded and transported by truck to a contracted landfill facility where the ash is processed for further metals removal and recycling. Ash may be beneficially reused as alternate daily cover and road base within the lined areas of modern landfill facilities owned by Republic Services. The dedicated landfill in Brunswick County, Virginia is still available for ash or other materials that cannot be recycled. This program also provides for the shipment of nonprocessible waste, such as construction material and, if necessary, bypass waste, from the Transfer Station to either recycling facilities, rubble landfills, or the contracted landfill in



FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>10,414,210</b>	<b>1.0</b>
Increase Cost: Out-of-County Haul - increase in amount of hauled material	1,303,260	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	1,140	0.00
<b>FY17 Recommended</b>	<b>11,718,610</b>	<b>1.00</b>

## Recycling Outreach And Education

This program provides for broadly educating everyone living and working in the County about recycling, reuse, buying recycled products, composting, grasscycling, and waste reduction, and the need to comply with applicable County laws. Public education is an important effort which supports solid waste program goals and ensures the success of recycling initiatives and working to achieve the County's recycling goal.

Program Performance Measures	Actual FY14	Actual FY15	Estimated FY16	Target FY17	Target FY18
Percent of total municipal solid waste recycled <sup>1</sup>	61	61	62	63	64
Total recycling (tonnage)	612,217	626,633	644,184	660,804	679,288
Single-family recycling (tonnages)	294,417	304,791	311,519	314,651	321,517

<sup>1</sup> CY15 is an estimate to be validated by the State of Maryland.

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>653,663</b>	<b>2.00</b>
Increase Cost: Recycling Outreach & Education - contract increases and costs to implement Bill 41-14 Polystyrene Prohibition	42,269	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	(144,814)	0.00
<b>FY17 Recommended</b>	<b>551,118</b>	<b>2.00</b>

## Satellite Sites

This program provides for the operation of a satellite drop-off site at the Poolesville Highway Services Depot. Residents can bring bulky materials to this site. The site, which operates only on weekends, provides drop-off for trash items as a convenience to County residents and reduces the incidence of roadside dumping. The material that is collected is then transported to the Transfer Station in Derwood.

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>232,046</b>	<b>1.70</b>
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	1,953	0.00
<b>FY17 Recommended</b>	<b>233,999</b>	<b>1.70</b>

## Transfer Station

The purpose of this program is to provide a receiving, processing, and shipping facility for municipal solid waste generated within the County. In addition to regular trash, waste that is handled or recycled includes scrap metal, oil and anti-freeze, textiles, car batteries, and construction material. County staff operates the scale-house and oversees general operations, while contractors provide for the receipt and transfer of waste and operate the public unloading facility and recycling drop-off areas. This program includes enforcement of the County's ban on delivery of recyclables mixed with trash delivered for disposal and the inspection and licensing of waste collection vehicles; and it provides for the regulation and enforcement of certain provisions of Chapter 48 of the County Code, including licensing requirements for refuse and recycling commercial collectors, and haulers of solid waste and recyclables.

Program Performance Measures	Actual FY14	Actual FY15	Estimated FY16	Target FY17	Target FY18
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Program Performance Measures	Actual FY14	Actual FY15	Estimated FY16	Target FY17	Target FY18
Number of customers dropping off household hazardous waste at the Transfer Station	78,292	78,500	78,800	79,000	79,100

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>4,661,406</b>	<b>15.00</b>
Decrease Cost: Transfer Station	(31,617)	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	313,163	1.00
<b>FY17 Recommended</b>	<b>4,942,952</b>	<b>16.00</b>

## Yard Trim Reduction

The purpose of this program is to provide education and training to residents, multi-family properties, and businesses to reduce the amount of yard trim materials (grass, leaves, and brush) generated and also to manage what is generated on-site through both grasscycling and composting, thus reducing the amount of yard trim materials that must be collected, transported, and managed at the County's Compost Facility in Dickerson or at private compost facilities.

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>80,353</b>	<b>0.00</b>
Increase Cost: Yard Trim Reduction Program	1,768	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	(322)	0.00
<b>FY17 Recommended</b>	<b>81,799</b>	<b>0.00</b>

## Administration and Support

This program supports the Department's operations, programs, and mission through professional services such as: budget and financial management, program and management analysis, contract management, and administrative support. This also includes managing the enterprise fund in a financially sound manner; supporting solid waste policy issues through system evaluation and analyses; performing financial analysis, revenue forecasting, and establishing solid waste rates; processing of hauler invoices, tracking and reporting on tonnage and statistical waste generation data; compiling data that is used for program measures and County Stat reporting; and maintaining computer/automation equipment, and related technologies in a cost effective and efficient manner.

Program Performance Measures	Actual FY14	Actual FY15	Estimated FY16	Target FY17	Target FY18
Single-family solid waste charge: System benefit charge, covers the portion of the County costs of providing basic solid waste services for single-family waste not covered by disposal and tipping fees (Dollars per household)	214	214	205	205	205

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>3,197,843</b>	<b>17.78</b>
Decrease Cost: Information Technology and Automation - revised cost estimates for computing costs	(1,765)	0.00
Decrease Cost: Automation program	(3,139)	0.00
Decrease Cost: Administration	(6,865)	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	443,604	2.24
<b>FY17 Recommended</b>	<b>3,629,678</b>	<b>20.02</b>

## Dickerson Compost Facility

This program includes all processing, transporting, composting, and marketing of yard trim received by the County, including leaves received from the County's Leaf Vacuuming Program. Processing includes grinding brush to produce mulch at the Transfer Station. Transportation is

included for hauling leaves and grass from the Transfer Station, located in Derwood, MD to the Composting Facility, located in Dickerson, MD. Composting of all leaves and grass produces a high-quality soil amendment, sold wholesale as LeafGro in bulk and bagged forms. The budget is net of wholesale receipts.

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>5,700,495</b>	<b>1.15</b>
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	(228,416)	0.00
<b>FY17 Recommended</b>	<b>5,472,079</b>	<b>1.15</b>

## Dickerson Master Plan Implementation

This program provides for the implementation of the Dickerson Solid Waste Facilities Master Plan. This plan identifies the environmental, community, and operational effects of solid waste facilities in the Dickerson area (the RRF, the Site 2 Landfill, and the Compost Facility) and outlines policies and actions to mitigate those effects.

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>94,683</b>	<b>0.57</b>
Increase Cost: Dickerson Master Plan	3,240	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	1,445	0.00
<b>FY17 Recommended</b>	<b>99,368</b>	<b>0.57</b>

## Gude Landfill

The purpose of this program is to monitor air and water quality around the landfill, maintain stormwater management and erosion control structures, maintain site roads, and manage the landfill gas through collection, flaring, and gas-to-energy systems. In addition, it encompasses all operational functions necessary to maintain the Gude Landfill, which closed in 1982, in an environmentally sound and cost-effective manner. In addition, planning for further remediation mandated by the Maryland Department of the Environment to minimize potentially adverse environmental impacts and the design of post-closure uses for the site that serve the community are part of this program.

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>1,443,006</b>	<b>1.31</b>
Decrease Cost: Gude Landfill	(81,103)	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	6,027	0.00
<b>FY17 Recommended</b>	<b>1,367,930</b>	<b>1.31</b>

## Oaks Landfill

This program maintains the closed Oaks Landfill in an environmentally sound and cost-effective manner in accordance with applicable State and Federal regulations. Mandated duties under this program include maintaining monitoring wells for landfill gas and water quality around the landfill; managing landfill gas through collection, flaring, and gas-to-energy systems; maintaining leachate storage and pre-treatment facilities; and performing other required site maintenance. This program also provides for the acceptance and treatment of waste generated by the cleanout of storm water oil/grit separators.

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>1,704,495</b>	<b>1.52</b>
Decrease Cost: Oaks Landfill	(1,318)	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	44,389	0.00

FY17 Recommended Changes	Expenditures	FTEs
FY17 Recommended	1,747,566	1.52

## Recycling Center

This program provides for the separation, processing, and marketing of recyclable materials (glass, metal, and plastic). The Recycling Center also serves as a transfer point for shipping residential mixed paper for processing. The Recycling Center receives recyclable material collected under the County curbside collection program, as well as some materials from municipalities and multi-family properties and non-residential properties which have established recycling programs. The materials are then sorted and shipped to markets for recycling. This program also provides for the management of the County's residential and some non-residential mixed paper. A new fiber sorting line is being added in FY16, to improve separation and marketing of commodities. Mixed paper includes newspaper, corrugated containers, kraft paper bags, magazines, telephone directories, and unwanted mail.

FY17 Recommended Changes	Expenditures	FTEs
FY16 Approved	8,592,521	3.00
Increase Cost: Project Search Position	31,696	0.50
Decrease Cost: Recycling Center	(1,470,063)	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	(936,114)	(1.00)
FY17 Recommended	6,218,040	2.50

## Residential Collection

This program provides for securing, administering, monitoring, and enforcing countywide contracts with private collectors for collection of residential refuse and recyclables, and responding to the service needs of residents. Staff processes service requests from MC311 to ensure timely fulfillment by collection contractors. This program also provides for enforcement of the County's recycling regulations as they apply to single-family waste generators, and enforcement of relevant parts of Chapter 48 of the County Code. Staff maintains the database of households served and administers the billing of that service.

Program Performance Measures	Actual FY14	Actual FY15	Estimated FY16	Target FY17	Target FY18
Single-family solid waste charge: Refuse collection fee, charged for once per week curbside collection including on-call bulk pickups (Dollars per household)	66	66	70	70	75
Average number of recycling collections missed per week, not picked up within 24 hours	7.0	6.8	6.5	6.2	5.9
Average number of refuse collections missed per week, not picked up within 24 hours	6.0	4.5	4.3	4.1	3.9

FY17 Recommended Changes	Expenditures	FTEs
FY16 Approved	26,850,393	28.80
Increase Cost: Residential Recycling - contract increases and increase households serviced	453,136	0.00
Increase Cost: Refuse Collection - contractual increases and increased households serviced	6,984	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	4,956	(0.20)
FY17 Recommended	27,315,469	28.60

## Resource Recovery Facility & Related Waste Transfer

This program provides for the operation of the Montgomery County Resource Recovery Facility (RRF). The RRF serves as the primary disposal facility for non-recycled waste generated in the County. Renewable energy in the form of electricity is generated by the combustion of municipal solid waste and is sold into the competitive energy market. Ferrous metals are recovered and recycled. Extensive environmental and operational monitoring is conducted, to meet contractual obligations and all applicable regulatory standards. This program also includes costs for related operations at the Transfer Station and for transportation of waste from the Transfer Station to the RRF.

Program Performance Measures	Actual FY14	Actual FY15	Estimated FY16	Target FY17	Target FY18
Percent of total municipal solid waste sent to landfill <sup>1</sup>	12.6	13.2	12.8	12.4	12.1

<sup>1</sup> FY15 is a projection.

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>42,476,618</b>	<b>1.25</b>
Increase Cost: Resource Recovery Facility - net increase of total program costs including contract increases and decreased electricity revenue	1,921,964	0.00
Decrease Cost: Elimination of Resource Recovery Facility (RRF) Debt Service	(21,407,450)	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	(28,922)	0.00
<b>FY17 Recommended</b>	<b>22,962,210</b>	<b>1.25</b>

## Site 2

This program provides for the management of properties acquired for a potential future landfill. All properties are leased and/or used by private residents. Management activities include the inspection, evaluation, and maintenance of leased agricultural land, single-family dwellings, and agricultural buildings. Activities are coordinated with the Department of General Services as needed.

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>156,514</b>	<b>0.40</b>
Decrease Cost: Site 2 Landfill site maintenance and operation	(45,057)	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	481	0.00
<b>FY17 Recommended</b>	<b>111,938</b>	<b>0.40</b>

## Support for Recycling Volunteers

The mission of this program is to recruit and retain resident volunteers to augment available staff resources to educate the general public and thereby improve participation in waste reduction, recycling, and buying recycled programs. This resident-to-resident and peer-to-peer contact is very effective in motivating people living and working in the County to actively participate more in recycling.

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>136,649</b>	<b>0.00</b>
Increase Cost: Support for Recycling Volunteers	2,643	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	(480)	0.00
<b>FY17 Recommended</b>	<b>138,812</b>	<b>0.00</b>

## Waste System Planning

This program supports the planning and development of solid waste programs in accordance with the mandates of the County's Ten Year Comprehensive Solid Waste Management Plan. This may include evaluating existing source reduction, recycling, composting, collection, and disposal programs and policies with the intent of achieving solid waste program goals.

FY17 Recommended Changes	Expenditures	FTEs
<b>FY16 Approved</b>	<b>370,638</b>	<b>2.6</b>
Increase Cost: Waste System Planning - plan development including food waste program and mandatory State studies	215,307	0.0
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	(11,291)	0.00

FY17 Recommended Changes	Expenditures	FTEs
FY17 Recommended	574,654	2.60

## Budget Summary

	Actual FY15	Budget FY16	Estimate FY16	REC FY17	%Chg Bud/Rec
<b>SOLID WASTE DISPOSAL</b>					
<b>EXPENDITURES</b>					
Salaries and Wages	7,115,489	7,255,672	7,207,930	7,641,106	5.3 %
Employee Benefits	2,491,624	2,656,792	2,631,103	2,701,788	1.7 %
<b>Solid Waste Disposal Personnel Costs</b>	<b>9,607,113</b>	<b>9,912,464</b>	<b>9,839,033</b>	<b>10,342,894</b>	<b>4.3 %</b>
Operating Expenses	91,482,418	91,552,993	94,599,450	72,086,778	-21.3 %
Capital Outlay	0	3,946,457	0	3,085,826	-21.8 %
<b>Solid Waste Disposal Expenditures</b>	<b>101,089,531</b>	<b>105,411,914</b>	<b>104,438,483</b>	<b>85,515,498</b>	<b>-18.9 %</b>

### PERSONNEL

Full-Time	75	75	75	75	—
Part-Time	1	1	1	2	100.0 %
FTEs	92.42	91.92	91.92	94.19	2.5 %

### REVENUES

Investment Income	55,878	289,990	126,350	180,500	-37.8 %
Miscellaneous Revenues	227,770	5,736,474	5,293,857	9,119,411	59.0 %
Other Charges/Fees	238,226	238,628	238,628	238,628	—
Other Fines/Forfeitures	69,534	56,934	56,934	56,934	—
Other Licenses/Permits	13,940	13,145	13,145	13,145	—
Property Rentals	38,174	39,719	39,719	39,719	—
Sale of Recycled Materials	3,919,931	5,232,584	5,232,584	5,232,584	—
Solid Waste Disposal Fees/Operating Revenues	22,688,646	28,480,257	28,218,925	28,658,109	0.6 %
Systems Benefit Charge	69,330,071	56,240,992	55,669,942	56,176,598	-0.1 %
<b>Solid Waste Disposal Revenues</b>	<b>96,582,170</b>	<b>96,328,723</b>	<b>94,890,084</b>	<b>99,715,628</b>	<b>3.5 %</b>

## SOLID WASTE COLLECTION

### EXPENDITURES

Salaries and Wages	962,047	993,833	985,439	1,094,875	10.2 %
Employee Benefits	291,789	338,160	334,672	365,227	8.0 %
<b>Solid Waste Collection Personnel Costs</b>	<b>1,253,836</b>	<b>1,331,993</b>	<b>1,320,111</b>	<b>1,460,102</b>	<b>9.6 %</b>
Operating Expenses	4,881,772	5,145,946	5,010,946	5,244,377	1.9 %
<b>Solid Waste Collection Expenditures</b>	<b>6,135,608</b>	<b>6,477,939</b>	<b>6,331,057</b>	<b>6,704,479</b>	<b>3.5 %</b>

### PERSONNEL

Full-Time	4	4	4	4	—
Part-Time	0	0	0	0	—
FTEs	10.59	11.09	11.09	11.36	2.4 %

### REVENUES

Investment Income	4,623	16,410	10,450	14,930	-9.0 %
Other Charges/Fees	10,988	0	0	0	—
Systems Benefit Charge	6,033,494	6,428,730	6,393,430	6,427,259	—
<b>Solid Waste Collection Revenues</b>	<b>6,049,105</b>	<b>6,445,140</b>	<b>6,403,880</b>	<b>6,442,189</b>	<b>—</b>

## DEPARTMENT TOTALS

<b>Total Expenditures</b>	<b>107,225,139</b>	<b>111,889,853</b>	<b>110,769,540</b>	<b>92,219,977</b>	<b>-17.6 %</b>
<b>Total Full-Time Positions</b>	<b>79</b>	<b>79</b>	<b>79</b>	<b>79</b>	<b>—</b>
<b>Total Part-Time Positions</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>100.0 %</b>
<b>Total FTEs</b>	<b>103.01</b>	<b>103.01</b>	<b>103.01</b>	<b>105.55</b>	<b>2.5 %</b>
<b>Total Revenues</b>	<b>102,631,275</b>	<b>102,773,863</b>	<b>101,293,964</b>	<b>106,157,817</b>	<b>3.3 %</b>

## FY17 Recommended Changes

**SOLID WASTE DISPOSAL****FY16 ORIGINAL APPROPRIATION****105,411,914 91.9****Other Adjustments (with no service impacts)**

Increase Cost: Equipment Replacement Purchase Schedule	3,085,826	0.00
Increase Cost: Resource Recovery Facility - net increase of total program costs including contract increases and decreased electricity revenue [Resource Recovery Facility & Related Waste Transfer]	1,921,964	0.00
Increase Cost: Out-of-County Haul - increase in amount of hauled material [Out Of County Refuse Disposal]	1,303,260	0.00
Increase Cost: Residential Recycling - contract increases and increase households serviced [Residential Collection]	453,136	0.00
Increase Cost: Charges from Department of Finance for collecting solid waste fees	292,109	2.00
Increase Cost: Waste System Planning - plan development including food waste program and mandatory State studies [Waste System Planning]	215,307	0.00
Increase Cost: FY17 Compensation Adjustment	151,963	0.00
Increase Cost: Group Insurance Adjustment	54,256	0.00
Increase Cost: Increase to A Wider Circle for furniture pickup program [Multi-Family Recycling]	50,000	0.00
Increase Cost: Compost Facility - increase in facility contract costs	48,611	0.00
Increase Cost: Recycling Outreach & Education - contract increases and costs to implement Bill 41-14 Polystyrene Prohibition [Recycling Outreach And Education]	42,269	0.00
Increase Cost: Project Search Position [Recycling Center]	31,696	0.50
Increase Cost: Commercial Recycling - contractual increases [Commercial Recycling]	31,626	0.00
Increase Cost: Annualization of FY16 personnel costs	28,273	0.00
Increase Cost: Residential Recycling Collection Program Personnel	15,781	0.00
Increase Cost: Multifamily Dwellings [Multi-Family Recycling]	7,465	0.00
Increase Cost: Dickerson Master Plan [Dickerson Master Plan Implementation]	3,240	0.00
Increase Cost: Support for Recycling Volunteers [Support for Recycling Volunteers]	2,643	0.00
Increase Cost: Yard Trim Reduction Program [Yard Trim Reduction]	1,768	0.00
Increase Cost: Printing and Mail	64	0.00
Decrease Cost: Retiree Health Insurance Pre-funding	(60)	0.00
Decrease Cost: Oaks Landfill [Oaks Landfill]	(1,318)	0.0
Decrease Cost: Automation program [Administration and Support]	(3,139)	0.00
Decrease Cost: Administration [Administration and Support]	(6,865)	0.00
Decrease Cost: Charges from other departments	(23,290)	(0.23)
Decrease Cost: Transfer Station [Transfer Station]	(31,617)	0.00
Decrease Cost: Risk Management Adjustment	(42,478)	0.00
Decrease Cost: Site 2 Landfill site maintenance and operation [Site 2]	(45,057)	0.00
Shift: Telecommunications to the Telecommunications Non-Departmental Account	(69,932)	0.00
Decrease Cost: Gude Landfill [Gude Landfill]	(81,103)	0.00
Decrease Cost: Retirement Adjustment	(90,141)	0.00
Decrease Cost: Hazardous Waste Program [Household & Small Quantity Hazardous Waste Management]	(100,846)	0.00
Decrease Cost: Elimination of One-Time Items Approved in FY16	(317,857)	0.00
Decrease Cost: Recycling Center [Recycling Center]	(1,470,063)	0.00
Decrease Cost: Elimination of One-Time Capital Equipment Purchases Approved in FY16	(3,946,457)	0.00
Decrease Cost: Elimination of Resource Recovery Facility (RRF) Debt Service [Resource Recovery Facility & Related Waste Transfer]	(21,407,450)	0.00

**FY17 RECOMMENDED****85,515,498 94.19****SOLID WASTE COLLECTION****FY16 ORIGINAL APPROPRIATION****6,477,939 11.09****Other Adjustments (with no service impacts)**

Increase Cost: Charges from Department of Finance for collecting solid waste fees	146,078	0.30
Increase Cost: Motor Pool Adjustment	48,899	0.00
Increase Cost: FY17 Compensation Adjustment	20,416	0.00
Increase Cost: Annualization of FY16 personnel costs	10,979	0.00
Increase Cost: Risk Management Adjustment	7,230	0.00
Increase Cost: Refuse Collection - contractual increases and increased households serviced [Residential Collection]	6,984	0.00
Increase Cost: Group Insurance Adjustment	6,700	0.00

	Expenditures	FTEs
Increase Cost: Printing and Mail	1,206	0.00
Decrease Cost: Charges from other departments	(1,611)	(0.03)
Decrease Cost: Information Technology and Automation - revised cost estimates for computing costs [Administration and Support]	(1,765)	0.00
Decrease Cost: Administration	(7,474)	0.00
Decrease Cost: Retirement Adjustment	(11,102)	0.00
<b>FY17 RECOMMENDED</b>	<b>6,704,479</b>	<b>11.36</b>

## Program Summary

Program Name	FY16 APPR		FY17 REC	
	Expenditures	FTEs	Expenditures	FTEs
Commercial Recycling	1,981,313	11.00	1,930,017	11.00
Enforcement	1,229,333	9.93	1,229,322	9.93
Household & Small Quantity Hazardous Waste Management	1,049,162	0.00	1,029,241	0.00
Multi-Family Recycling	864,512	4.00	865,175	4.00
Out Of County Refuse Disposal	10,414,210	1.00	11,718,610	1.00
Recycling Outreach And Education	653,663	2.00	551,118	2.00
Satellite Sites	232,046	1.70	233,999	1.70
Transfer Station	4,661,406	15.00	4,942,952	16.00
Yard Trim Reduction	80,353	0.00	81,799	0.00
Administration and Support	3,197,843	17.78	3,629,678	20.02
Dickerson Compost Facility	5,700,495	1.15	5,472,079	1.15
Dickerson Master Plan Implementation	94,683	0.57	99,368	0.57
Gude Landfill	1,443,006	1.31	1,367,930	1.31
Oaks Landfill	1,704,495	1.52	1,747,566	1.52
Recycling Center	8,592,521	3.00	6,218,040	2.50
Residential Collection	26,850,393	28.80	27,315,469	28.60
Resource Recovery Facility & Related Waste Transfer	42,476,618	1.25	22,962,210	1.25
Site 2	156,514	0.40	111,938	0.40
Support for Recycling Volunteers	136,649	0.00	138,812	0.00
Waste System Planning	370,638	2.60	574,654	2.60
<b>Total</b>	<b>111,889,853</b>	<b>103.01</b>	<b>92,219,977</b>	<b>105.55</b>

## Charges to Other Departments

Charged Department	Charged Fund	FY16		FY17	
		Total\$	FTEs	Total\$	FTEs
SOLID WASTE DISPOSAL					
General Services	General Fund	266,476	0.00	258,500	0.00
Parking District Services	Bethesda Parking	71,777	0.00	69,600	0.00
Parking District Services	Silver Spring Parking	136,825	0.00	132,700	0.00
Parking District Services	Montgomery Hills Parking	2,243	0.00	2,200	0.00
Parking District Services	Wheaton Parking	13,458	0.00	13,100	0.00
Liquor Control	Liquor	20,276	0.00	19,700	0.00
Total		511,055	0.00	495,800	0.00

## Future Fiscal Impacts

Title	CE RECOMMENDED (\$000s)					
	FY17	FY18	FY19	FY20	FY21	FY22
<b>SOLID WASTE DISPOSAL</b>						



Title	CE RECOMMENDED (\$000s)					
	FY17	FY18	FY19	FY20	FY21	FY22
<b>EXPENDITURES</b>						
<b>FY17 Recommended</b>	85,515	85,515	85,515	85,515	85,515	85,515
No inflation or compensation change is included in outyear projections.						
<b>Retiree Health Insurance Pre-funding</b>	0	(13)	(29)	(37)	(45)	(45)
These figures represent the estimated cost of pre-funding retiree health insurance costs for the County's workforce.						
<b>Labor Contracts</b>	0	79	79	79	79	79
These figures represent the estimated annualized cost of general wage adjustments, service increments, and other negotiated items.						
<b>Subtotal Expenditures</b>	85,515	85,581	85,565	85,557	85,549	85,549

## **SOLID WASTE COLLECTION**

### **EXPENDITURES**

<b>FY17 Recommended</b>	6,704	6,704	6,704	6,704	6,704	6,704
No inflation or compensation change is included in outyear projections.						
<b>Retiree Health Insurance Pre-funding</b>	0	(1)	(2)	(2)	(2)	(2)
These figures represent the estimated cost of pre-funding retiree health insurance costs for the County's workforce.						
<b>Labor Contracts</b>	0	10	10	10	10	10
These figures represent the estimated annualized cost of general wage adjustments, service increments, and other negotiated items.						
<b>Subtotal Expenditures</b>	6,704	6,713	6,712	6,712	6,712	6,712

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## **SOLID WASTE ENTERPRISE FUND**

### **RATES AND FISCAL PROJECTIONS FOR FY17-22**

#### **Assumptions:**

- Refuse collection services are maintained at their current level, with the annual household collection charge remaining at \$70.00.
- The disposal fee for municipal solid waste received at the Transfer Station (known as the "Tipping Fee") is unchanged at \$56.00 per ton.
- Solid waste system service charges are adjusted to ensure the fiscal health of the fund (i.e., positive cash and retained earnings). In FY17, the County Executive recommends no change in the solid waste system service charges across all sectors:

Single-Family: \$205.11

Multi-Family: \$16.06

Non-Residential: \$596.13  
(medium category)

- Expenditures for certain programs, such as the Resource Recovery Facility, Out-of-County Haul, and Mixed Paper Recycling, are calculated based on waste generation, disposal, and recycling estimates, as well as inflation. Other expenditures are increased by inflation, except where contract or scheduled costs apply.

FY17-22 PUBLIC SERVICES PROGRAM: FISCAL PLAN				Solid Waste Collection			
FISCAL PROJECTIONS	FY16 ESTIMATE	FY17 REC	FY18 PROJECTION	FY19 PROJECTION	FY20 PROJECTION	FY21 PROJECTION	FY22 PROJECTION
<b>ASSUMPTIONS</b>							
Indirect Cost Rate	15.98%	16.45%	16.45%	16.45%	16.45%	16.45%	16.45%
CPI (Fiscal Year)	0.8%	1.8%	2.3%	2.5%	2.7%	2.7%	2.7%
Investment Income Yield	0.35%	0.50%	1.00%	1.50%	2.50%	2.50%	3.00%
Number of Households	91,434	91,818	92,202	92,586	92,971	93,246	93,522
Charge per Household (once-weekly refuse collection)	\$70.00	\$70.00	\$77.00	\$80.00	\$84.00	\$84.00	\$85.00
<b>BEGINNING FUND BALANCE</b>	<b>1,910,947</b>	<b>1,344,920</b>	<b>837,443</b>	<b>823,546</b>	<b>928,455</b>	<b>1,227,281</b>	<b>1,323,231</b>
<b>REVENUES</b>							
Charges For Services	6,393,430	6,427,259	7,099,554	7,406,880	7,809,564	7,825,000	7,949,370
Miscellaneous	10,450	14,930	29,860	44,790	59,720	74,650	89,580
<b>Subtotal Revenues</b>	<b>6,403,880</b>	<b>6,442,189</b>	<b>7,129,414</b>	<b>7,451,670</b>	<b>7,869,284</b>	<b>7,899,650</b>	<b>8,038,950</b>
<b>INTERFUND TRANSFERS (Net Non-CIP)</b>	<b>(217,850)</b>	<b>(245,187)</b>	<b>(245,187)</b>	<b>(245,187)</b>	<b>(245,187)</b>	<b>(245,187)</b>	<b>(245,187)</b>
Transfers To The General Fund	(217,850)	(245,187)	(245,187)	(245,187)	(245,187)	(245,187)	(245,187)
Indirect Costs	(212,850)	(240,187)	(240,187)	(240,187)	(240,187)	(240,187)	(240,187)
Desktop Modernization	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)
<b>TOTAL RESOURCES</b>	<b>6,096,977</b>	<b>7,541,922</b>	<b>7,721,670</b>	<b>8,030,029</b>	<b>8,552,552</b>	<b>8,881,744</b>	<b>9,118,994</b>
<b>PSP OPER. BUDGET APPROP/ EXP'S.</b>							
Operating Budget	(6,331,057)	(6,704,479)	(6,887,883)	(7,090,533)	(7,313,810)	(7,544,612)	(7,783,205)
Labor Agreement	0	0	(9,531)	(9,531)	(9,531)	(9,531)	(9,531)
Retiree Health Insurance Pre-Funding	0	0	(710)	(1,510)	(1,930)	(2,370)	(2,370)
<b>Subtotal PSP Oper Budget Approp / Exp's</b>	<b>(6,331,057)</b>	<b>(6,704,479)</b>	<b>(6,898,124)</b>	<b>(7,101,574)</b>	<b>(7,325,271)</b>	<b>(7,556,513)</b>	<b>(7,795,106)</b>
<b>OTHER CLAIMS ON FUND BALANCE</b>	<b>(421,000)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL USE OF RESOURCES</b>	<b>(6,752,057)</b>	<b>(6,704,479)</b>	<b>(6,898,124)</b>	<b>(7,101,574)</b>	<b>(7,325,271)</b>	<b>(7,556,513)</b>	<b>(7,795,106)</b>
<b>YEAR END FUND BALANCE</b>	<b>1,344,920</b>	<b>837,443</b>	<b>823,546</b>	<b>928,455</b>	<b>1,227,281</b>	<b>1,323,231</b>	<b>1,323,888</b>
<b>END-OF-YEAR RESERVES AS A PERCENT OF RESOURCES</b>	<b>16.6%</b>	<b>11.1%</b>	<b>10.7%</b>	<b>11.6%</b>	<b>14.3%</b>	<b>14.9%</b>	<b>14.5%</b>

**Assumptions:**

1. Refuse collection charges are adjusted to achieve cost recovery.

**Notes:**

1. The refuse collection charge is adjusted annually to fund the approved service program and to maintain an ending net asset balance between 10% and 15% of resources at the end of the six-year planning period.
2. These projections are based on the County Executive's Recommended budget and include the revenue and resource assumptions of that budget. The projected future expenditures, revenues, and fund balances may vary based on changes not assumed here.

**FY17-22 DIVISION OF SOLID WASTE SERVICES**

FISCAL PROJECTIONS	ESTIMATED FY16	PROJECTED FY17	PROJECTED FY18	PROJECTED FY19	PROJECTED FY20	PROJECTED FY21	PROJECTED FY22
Single-Family Charges (\$/Household)	205.11	205.11	205.11	205.11	202.00	194.51	191.33
% change in rate from previous year	-4.0%	0.0%	0.0%	0.0%	-2.5%	-2.7%	-1.7%
Multi-Family Charges (\$/Dwelling Unit)	16.06	16.06	16.06	16.06	12.75	9.55	7.44
% change in rate from previous year	-4.0%	0.0%	0.0%	0.0%	-23.6%	-25.1%	-22.1%
Nonresidential Charges (medium "category" charge)	596.13	596.13	596.13	596.13	477.15	364.63	299.37
% change in rate from previous year	-4.0%	0.0%	0.0%	0.0%	-23.0%	-23.6%	-22.6%
Nonresidential Charges (average \$/2000 sq. ft.)	226.61	226.61	226.61	226.61	183.16	137.71	79.06

**OPERATIONS CALCULATION**

<b>REVENUES</b>							
Disposal Fees	28,218,925	28,658,109	29,267,534	29,289,281	30,524,238	31,172,168	31,634,068
Charges for Services/SBC	56,866,942	56,178,598	56,866,033	57,222,068	52,469,468	47,310,783	40,836,448
Miscellaneous	10,874,867	14,700,420	14,728,582	14,757,918	14,785,322	14,807,519	14,834,589
Investment Income	128,350	180,500	361,000	541,000	722,000	902,500	1,083,000
<b>Subtotal Revenues</b>	<b>94,890,084</b>	<b>99,715,626</b>	<b>101,020,148</b>	<b>102,410,267</b>	<b>98,501,025</b>	<b>94,192,979</b>	<b>88,588,135</b>
<b>INTERFUND TRANSFERS</b>	<b>683,394</b>	<b>323,259</b>	<b>1,035,872</b>	<b>981,382</b>	<b>580,347</b>	<b>730,332</b>	<b>764,990</b>
<b>EXPENDITURES</b>							
Personnel Costs	(9,912,464)	(10,342,894)	(10,787,838)	(11,273,082)	(11,802,917)	(12,357,654)	(12,938,484)
Operating Expenses	(90,879,682)	(72,086,778)	(75,297,234)	(76,861,138)	(90,869,894)	(84,266,689)	(88,567,970)
Capital Outlay	(3,946,457)	(3,085,826)	(2,953,813)	(7,549,138)	(2,201,344)	(1,725,450)	(2,116,814)
Other Expenditure Restrictions	-	-	-	-	-	-	-
<b>Subtotal Expenditures</b>	<b>(104,438,483)</b>	<b>(85,515,498)</b>	<b>(95,338,385)</b>	<b>(95,713,359)</b>	<b>(94,993,955)</b>	<b>(98,372,773)</b>	<b>(103,623,048)</b>
<b>OTHER CLAIMS ON FUND BALANCE</b>	<b>(718,000)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>PAYOUT OF GUDE REMEDIATION</b>	<b>-</b>	<b>746,000</b>	<b>756,000</b>	<b>1,090,000</b>	<b>732,000</b>	<b>484,000</b>	<b>941,000</b>
<b>PAYOUT OF CLOSURE COSTS (Non-CIP)</b>	<b>1,669,495</b>	<b>1,657,566</b>	<b>1,699,084</b>	<b>1,745,161</b>	<b>1,795,918</b>	<b>1,848,280</b>	<b>1,902,239</b>
<b>CY ACCRUED CLOSURE COSTS</b>	<b>(32,019)</b>	<b>(33,479)</b>	<b>(41,518)</b>	<b>(46,017)</b>	<b>(50,817)</b>	<b>(52,363)</b>	<b>(53,959)</b>
<b>NET CHANGE</b>	<b>(7,944,929)</b>	<b>16,893,475</b>	<b>8,530,400</b>	<b>10,467,374</b>	<b>6,564,519</b>	<b>(1,169,545)</b>	<b>(11,460,644)</b>

**CASH POSITION**

<b>ENDING CASH &amp; INVESTMENTS</b>							
Unrestricted Cash	28,073,943	37,212,446	44,811,230	51,809,680	54,717,109	50,817,104	38,233,982
Restricted Cash	28,977,107	31,411,111	30,183,955	30,837,845	31,948,195	32,672,268	33,462,485
<b>Subtotal Cash &amp; Investments</b>	<b>55,051,050</b>	<b>68,623,557</b>	<b>74,995,185</b>	<b>82,647,505</b>	<b>86,665,304</b>	<b>83,489,373</b>	<b>69,696,467</b>
<b>RESERVE &amp; LIABILITY REQUIREMENTS</b>							
Management Reserve	(21,378,874)	(23,924,563)	(23,928,339)	(23,748,489)	(24,583,193)	(25,905,762)	(26,770,402)
Future System Contingency Reserve	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)
Research & Development Reserve	(298,080)	(298,080)	(298,080)	(298,080)	(298,080)	(298,080)	(298,080)
Renewal & Replacement Reserve	(3,900,167)	(3,888,580)	(3,957,538)	(4,068,476)	(4,168,000)	(4,278,483)	(4,364,002)
Stability Reserve	(500,000)	(2,250,874)	(1,000,000)	(1,734,801)	(1,980,821)	(1,189,244)	(1,000,000)
<b>Subtotal Reserve Requirements</b>	<b>(26,977,111)</b>	<b>(31,411,111)</b>	<b>(30,183,955)</b>	<b>(30,837,845)</b>	<b>(31,948,195)</b>	<b>(32,672,268)</b>	<b>(33,462,485)</b>
Closure/Postclosure Liability	(13,768,443)	(12,144,356)	(10,486,791)	(8,787,737)	(7,043,808)	(5,248,689)	(3,368,408)
Guide Remediation Liability	(28,500,000)	(27,754,000)	(26,698,000)	(25,908,000)	(25,176,000)	(24,692,000)	(23,751,000)
<b>Subtotal Reserve &amp; Liability Requirements</b>	<b>(69,245,554)</b>	<b>(71,309,466)</b>	<b>(67,668,747)</b>	<b>(65,533,553)</b>	<b>(64,166,801)</b>	<b>(62,610,357)</b>	<b>(60,611,893)</b>
<b>CASH &amp; INVESTMENTS OVER/(UNDER) RESERVE &amp; LIABILITY REQUIREMENTS</b>	<b>(14,194,504)</b>	<b>(2,685,909)</b>	<b>7,326,439</b>	<b>17,113,953</b>	<b>22,498,503</b>	<b>20,878,415</b>	<b>9,084,574</b>

**Net Assets**

<b>ENDING NET ASSETS</b>	<b>48,506,527</b>	<b>67,369,026</b>	<b>85,380,638</b>	<b>102,917,708</b>	<b>111,507,300</b>	<b>112,261,211</b>	<b>103,272,897</b>
Less: Reserve Requirements	(26,977,111)	(31,411,111)	(30,183,956)	(30,837,845)	(31,948,195)	(32,672,268)	(33,462,485)
<b>NET ASSETS OVER/(UNDER)</b>							
<b>RESERVE REQUIREMENTS</b>	<b>21,529,416</b>	<b>35,957,915</b>	<b>55,206,682</b>	<b>72,079,863</b>	<b>79,558,805</b>	<b>79,588,943</b>	<b>69,810,412</b>

## FY17 Solid Waste Service Charges

1. **Purpose** - To fund solid waste management services provided to residents and businesses in Montgomery County through service charges to all entities that benefit from such services.
2. **Classification of Service Charges** - There are five basic categories of service charges:

**Base Systems Benefit Charge** - Paid by all entities to cover costs of system administration, historical debt service, waste reduction, and "stand-by" disposal capacity.

**Incremental Systems Benefit Charge** - Paid by entities based on sector-specific services they receive (single-family homeowners pay for curbside recycling collection and processing, businesses pay for the commercial recycling program, etc.)

**Disposal Charges** - Paid as a service charge via the tax bill or at the Transfer Station by all entities who deliver solid waste to Montgomery County for disposal. At the Solid Waste Transfer Station, this charge is referred to as the "Tipping Fee" for accepting municipal solid waste for disposal.

**Leaf Vacuuming Charge** - Covers the cost of leaf vacuuming service provided in the Leaf Vacuuming District.

**Refuse Collection Charge** - Paid by homeowners who receive once weekly refuse collection service by County contractors.

3. **Implementation of Service Charges** - Service charges are collected from the various sectors in the following manner:

	Base Systems Benefit Charge	Incremental Systems Benefit Charge	Disposal Charge	Leaf Vacuuming Charge	Refuse Collection Charge
Unincorporated Single-Family	Via tax bill	Via tax bill	Via tax bill	Via tax bill to those serviced	Via tax bill to those serviced
Incorporated Single-Family	Via tax bill	Not applicable	Charged at Transfer Station	Not applicable	Not applicable
Unincorporated Multi-family	Via tax bill	Via tax bill	Charged at Transfer Station	Via tax bill to those serviced	Not applicable
Incorporated Multi-family	Via tax bill	Via tax bill	Charged at Transfer Station	Not applicable	Not applicable
Unincorporated Non-Residential	Via tax bill	Via tax bill	Charged at Transfer Station	Not applicable	Not applicable
Incorporated Non-Residential	Via tax bill	Via tax bill	Charged at Transfer Station	Not applicable	Not applicable

**FY17 RECOMMENDED SOLID WASTE SERVICE CHARGES TO BE COLLECTED VIA REAL PROPERTY ACCOUNT BILLING**

	Base Charge (\$/ton)	x	Billing Rate (tons/HH)	=	Disposal Charge	+	Base Systems Benefit Charge	+	Incremental Systems Benefit Charge	+	Refuse Collection Charge	+	Leaf Vacuuming Charge	=	Total Bill
Code Reference	48-32(a)(1)				48-32(c)(2)		48-8A(b)(2)(A)		48-8A(b)(2)(B)		48-29		48-47		
<b>SUBDISTRICT A (Refuse Collection District)*</b>															
Inside Leaf Vacuuming District	\$ 56.00		0.88429		\$ 49.52		\$ 29.71		\$ 125.88		\$ 70.00		\$ 97.99		\$ 373.10
Outside Leaf Vacuuming District	\$ 56.00		0.88429		\$ 49.52		\$ 29.71		\$ 125.88		\$ 70.00				\$ 275.11
Incorporated							\$ 29.71								\$ 29.71
<b>SUBDISTRICT B SINGLE-FAMILY**</b>															
Incorporated							\$ 29.71								\$ 29.71
Inside Leaf Vacuuming District															
Unincorporated	\$ 56.00		0.88429		\$ 49.52		\$ 29.71		\$ 125.88				\$ 97.99		\$ 303.10
Outside Leaf Vacuuming District															
Unincorporated	\$ 56.00		0.88429		\$ 49.52		\$ 29.71		\$ 125.88						\$ 205.11
<b>MULTI-FAMILY RESIDENTIAL**</b>															
Incorporated							\$ 4.46		\$ 11.60						\$ 16.06
Unincorporated															
Outside Leaf Vacuuming District							\$ 4.46		\$ 11.60						\$ 16.06
Inside Leaf Vacuuming District							\$ 4.46		\$ 11.60				\$ 3.86		\$ 19.92
<b>NONRESIDENTIAL - \$/2,000 SQ. FT. ***</b>															
<b>Code Reference</b>															
Waste Generation Categories															
Low							\$ 82.45		\$ 36.78						\$ 119.23
Medium Low							\$ 247.33		\$ 110.34						\$ 357.67
Medium							\$ 412.22		\$ 183.91						\$ 596.13
Medium High							\$ 577.11		\$ 257.46						\$ 834.57
High							\$ 741.99		\$ 331.03						\$ 1,073.02
<b>OTHER RECOMMENDED FY17 SOLID WASTE FEES</b>															
Base Solid Waste Charge under Section 48-32(a)(1):															
(This is known as the "Tipping Fee") \$56.00 /disposal ton															
Waste delivered for disposal <500 lb loads in privately owned and operated vehicles or trailers <1,000 capacity per Section 48-32(c)(2): \$0.00/disposal ton															
Solid Waste Service Charges (Section 48-32(a)(2)):															
Paper and Commingled Containers \$0.00 /ton															
Solid Waste Service Charges (Section 48-32(b)(2)):															
All Yard Trim received at the Transfer Station (weighing > 500 pounds/load) \$46.00 /ton															
Waste delivered in open-top roll-off box \$66.00 /disposal ton															
Miscellaneous (48-31(f)): Compost Bins \$0.00 each															

\* Note: Base Systems Benefit Charges are set to cover County Base Systems Costs net of Disposal Charges.

\*\* With respect to Base and Incremental Systems Benefit Charges, this category includes dwellings in buildings of six or fewer households.

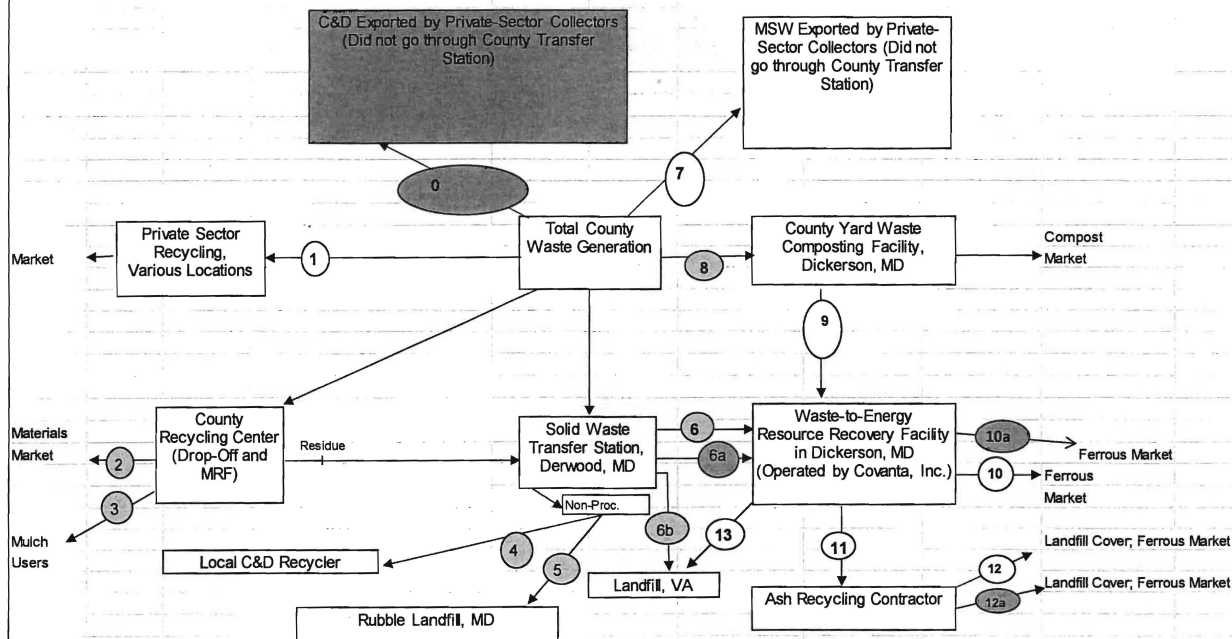
\*\*\* The Nonresidential rate multiplied by the total number of 2,000 square foot units of enclosed area equals the nonresidential charge.

FY17-22 PUBLIC SERVICES PROGRAM: FISCAL PLAN				Vacuum Leaf Collection			
FISCAL PROJECTIONS	FY16 ESTIMATE	FY17 REC	FY18 PROJECTION	FY19 PROJECTION	FY20 PROJECTION	FY21 PROJECTION	FY22 PROJECTION
<b>ASSUMPTIONS</b>							
Indirect Cost Rate	15.98%	16.45%	16.45%	16.45%	16.45%	16.45%	16.45%
CPI (Fiscal Year)	0.8%	1.8%	2.3%	2.5%	2.7%	2.7%	2.7%
Investment Income Yield	0.4%	0.5%	1.0%	1.5%	2.5%	2.5%	3.0%
Charge per single-family household	\$ 93.00	\$ 97.99	\$ 109.18	\$ 114.11	\$ 115.75	\$ 120.36	\$ 125.91
% of leaves attributed to single-family households	97.2%	97.2%	97.2%	97.2%	97.2%	97.2%	97.2%
% of leaves attributed to multi-family units and townhome	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
<b>BEGINNING FUND BALANCE</b>	<b>21,740</b>	<b>(37,407)</b>	<b>292,467</b>	<b>309,867</b>	<b>385,967</b>	<b>570,768</b>	<b>614,269</b>
<b>REVENUES</b>							
Charges For Services	6,898,902	7,202,921	8,024,901	8,387,427	8,508,284	8,846,930	9,255,118
Miscellaneous	6,090	8,700	17,400	26,100	34,800	43,500	52,200
<b>Subtotal Revenues</b>	<b>6,904,992</b>	<b>7,211,621</b>	<b>8,042,301</b>	<b>8,413,527</b>	<b>8,543,084</b>	<b>8,890,430</b>	<b>9,307,318</b>
<b>INTERFUND TRANSFERS (Net Non-CIP)</b>							
Transfers To The General Fund	(1,546,544)	(1,220,263)	(1,093,615)	(1,952,160)	(1,636,793)	(1,877,248)	(2,027,412)
Indirect Costs	(494,320)	(532,337)	(553,630)	(577,436)	(603,998)	(631,782)	(660,844)
Transfers To Special Fds: Non-Tax + ISF	(1,052,224)	(687,926)	(1,441,988)	(1,374,724)	(1,032,797)	(1,245,466)	(1,366,568)
To Solid Waste Disposal Fund	(1,052,224)	(687,926)	(1,441,988)	(1,374,724)	(1,032,797)	(1,245,466)	(1,366,568)
<b>TOTAL RESOURCES</b>	<b>5,380,188</b>	<b>5,953,951</b>	<b>6,339,150</b>	<b>6,771,234</b>	<b>7,292,256</b>	<b>7,583,950</b>	<b>7,894,175</b>
<b>PSP OPER. BUDGET APPROP/ EXPS.</b>							
Operating Budget	(5,417,595)	(5,661,484)	(5,986,495)	(6,342,479)	(6,578,700)	(6,926,893)	(7,184,918)
Labor Agreement	n/a	0	(42,788)	(42,788)	(42,788)	(42,788)	(42,788)
<b>Subtotal PSP Oper Budget Approp / Exp's</b>	<b>(5,417,595)</b>	<b>(5,661,484)</b>	<b>(6,029,283)</b>	<b>(6,385,267)</b>	<b>(6,721,488)</b>	<b>(6,969,681)</b>	<b>(7,227,706)</b>
<b>TOTAL USE OF RESOURCES</b>	<b>(5,417,595)</b>	<b>(5,661,484)</b>	<b>(6,029,283)</b>	<b>(6,385,267)</b>	<b>(6,721,488)</b>	<b>(6,969,681)</b>	<b>(7,227,706)</b>
<b>YEAR END FUND BALANCE</b>	<b>(37,407)</b>	<b>292,467</b>	<b>309,867</b>	<b>385,967</b>	<b>570,768</b>	<b>614,269</b>	<b>666,469</b>
<b>END-OF-YEAR RESERVES AS A</b>							
<b>PERCENT OF RESOURCES</b>	<b>-0.7%</b>	<b>4.9%</b>	<b>4.9%</b>	<b>5.7%</b>	<b>7.8%</b>	<b>8.1%</b>	<b>8.4%</b>

**Assumptions:**

1. Leaf vacuuming rates are adjusted to achieve cost recovery.
2. The Vacuum Leaf Collection fund balance policy target is \$500,000. In future years, rates will be adjusted annually to fund the approved service program and maintain the appropriate ending balance.

## MATERIAL FLOW DIAGRAM Calendar Year 2014



KEY:

1, 7	Audited or otherwise documented. Often based on truck scales of others.
	Data is from State-certified County truck scales Owned by County.
	Data is from State-certified truck scales, privately operated under contract to County.
	This color indicates C&D waste, which is not MSW, not eligible for recycling and is not to be included in recycling rate calculation.*

Total Waste Generation, Including C&D Exported by Private Sector	1,368,423
County-Managed Waste (CMW) = 1 + 2 + 3 + 4 + 5 + 6a + 6b + 7 + 8	1,210,152
MSW Generated (above less streams 4, 5 and 6a)	1,099,015

Stream No.	Material Description	Sources of Data	Total (tons/yr)	Comments
0	Construction & Demo Debris Private Export* (Recycled & Landfilled)	Licensed Collector Reports under ER 92-59	158,271	Not County-managed, includes both disposed and recycled C & D
1	Recycled via non-County Facilities	Collector, Processor, Business & Self-Hauler Rpts.	269,685	Filtered to avoid double-counting
2	County Recycling Facility Material Sales	County TS & MRF Scales, Outbound	80,489	Outgoing to market from County Recycling Center
3	Mulch Loaded Out From TS	County Transfer Station (TS) Scale Records	36,222	Scaled out as taken to County Mulch Contractor & Preserve Locations
4	Non-Processibles Recycled**	County TS Scale Out Records	31,565	Not included in MRA recycling calculation
5	Non-Processibles Landfilled**	County Trans. Stat'n. & Covanta Scale Records	2,761	Not included in MRA recycling calculation
6	Loaded on Rail to RRF (MSW burned)	Covanta Scales as Loaded	517,460	Total tons loaded on rail to RRF Net of 6a
6a	Loaded on Rail to RRF (C&D Burned)	County Transfer Station (TS) Scale Records	76,811	In-Bound C&D less Outbound Non-Processibles Landfilled
6b	By-pass (Accepted Processible Landfilled)	County TS Scale Out Records	-	-
7	Refuse Disposed Out of County	Audited 6-Mo. Hauler Reports	127,653	Private Sector MSW Collection not delivered to County TS
8	All Incoming Leaves and Grass	Compost Facility & TS Scale Records	67,506	Includes 0 to Backup Composters
9	Composting Residue to RRF	MES Scale Records	-	Reported by Compost Facility Manager
10	Ferrous recovered at RRF	Covanta Scale Records	9,516	Recovered from ash at County Facility
10a	Ferrous recovered at RRF (C&D Residue)	Internal Calculation	1,413	Not included in MRA recycling calculation
11	Ash Loaded to Ash Recycling Contractor	Allied Monthly Report	170,887	Total ash (includes 12, 12a, 13, and 13a)
12	Ash outgoing from Ash Recycler	Allied Monthly Report	148,799	Included in MRA recycling calculation
12a	Ash outgoing from Ash Recycler (C&D Residue)	Internal Calculation	22,088	Not included in MRA recycling calculation
13	All Ash not recycled	Covanta Scale Records	-	-

### Montgomery County Recycling Rate and Waste Diversion Rate Calculations (MRA Method)

Montgomery County Recycling Rate and Waste Diversion Rate Calculations (MRA Method)		Numerator	Denominator	Rate
Recycling Rate	$(1 + 2 + 3 + 8 - 9 + 10 + 12 + 13) / (CMW - 4 - 5 - 6a)$	612,217	1,099,015	55.71%
Waste Diversion Rate	$((1 + 2 + 3 + 8 - 9 + 10 + 12 + 13) / (CMW - 4 - 5 - 6a)) + 5.0\%$	612,217	1,099,015	60.71% ***

Notes:

\* Construction and Demolition waste (C&D) is waste identified by place of origin - construction or land clearing sites. C&D is reported on licensed hauler reports, but there may be additional C&D tons not reported and therefore not included in stream 0.

\*\* Nonprocessibles are Construction & Demolition-type materials: not eligible for recycling credit, but are County-managed solid waste.

\*\*\* Diversion Rate = Recycle Rate + 5.0% Source Reduction Credit

Nomenclature:

"C&D" means "Construction and Demolition" waste, exclusive of MSW, traditionally managed by the private sector, but much now comes to County TS.

"CMW" means "County Management Waste". It includes all MSW, whether or not exported by private sector collectors, but only C&D delivered to TS.

"MSW" stands for "Municipal Solid Waste", and represents the waste eligible for recycling under the State recycling law, regulations and guidelines.

"TS" stands for the County's "Transfer Station", located in Derwood, Maryland, just south of Gaithersburg.

"MRF" stands for Material Recovery Facility

"RRF" stands for Resource Recovery Facility



## Waste Recycling by Material Type: Achievement and Opportunity

Basis for composition of disposed waste is the 2012 waste sorts reconciled to system-wide CY12 disposed and recycled tonnages*.		CY12 Actuals									Opportunity			
		Single-Family			Multi-Family			Non-Residential			Disposed by Sector (tons)			Currently Disposed (Tons)
		Generated (tons)	Captured (tons)	Capture Rate %	Generated (tons)	Captured (tons)	Capture Rate %	Generated (tons)	Captured (tons)	Capture Rate %	Single-Family	Multi-Family	Non-Residential	
Banned ER15-04	Subtotal Banned Components	239,426	165,587	77.5%	35,324	8,474	24.0%	316,229	227,729	72.0%	60,844	29,868	101,068	
	Paper	92,355	59,467	64.4%	18,180	3,343	18.4%	134,171	80,559	60.0%	32,888	14,837	53,612	101,338
	Glass	19,252	16,017	83.2%	4,542	590	13.0%	14,485	6,168	42.6%	3,234	3,952	8,318	15,504
	Other Ferrous	12,294	9,211	74.9%	2,154	1,378	64.0%	71,988	68,220	94.8%	3,083	776	3,768	7,627
	Yardwaste	99,701	94,635	94.9%	4,585	3,003	65.5%	76,154	71,104	93.4%	5,066	1,582	5,050	11,697
	Narrow-Neck Plastics	8,226	3,453	42.0%	3,200	39	1.2%	9,985	256	2.6%	4,772	3,161	9,730	17,663
	Ferrous/Bimetal Containers	4,279	2,191	51.2%	1,396	104	7.4%	6,344	1,245	19.6%	2,089	1,293	5,099	8,480
	Aluminum Beverage Cans	1,587	594	37.4%	613	17	2.8%	1,754	176	10.0%	993	595	1,579	3,167
	Other Aluminum (Foil)	1,286	19	1.5%	506	0	0.0%	1,263	1	0.1%	1,267	506	1,262	3,034
	Other Non-Ferrous Metal	446	-	0.0%	148	-	0.0%	84	-	0.0%	446	148	84	678
Potential and Encouraged	Food Waste	45,605	-	0.0%	15,996	-	0.0%	87,449	7,337	8.4%	45,605	15,996	80,112	141,713
	Shopping Bags	1,021	-	0.0%	504	-	0.0%	1,229	20	1.6%	1,021	504	1,209	2,735
	Other Film Plastic	18,478	-	0.0%	5,652	-	0.0%	27,099	437	1.6%	18,478	5,652	26,662	50,792
	Plastic Flower Pots	584	58	10.0%	28	1	2.4%	475	4	0.9%	525	27	471	1,023
	Plastic Tubs and Lids	2,776	218	7.9%	1,137	2	0.2%	4,794	16	0.3%	2,558	1,135	4,777	8,470
	Other Rigid Plastic	5,232	1,309	25.0%	2,025	170	8.4%	10,252	2,932	28.6%	3,923	1,855	7,320	13,098
	Textiles & Leather (no Rugs)	13,579	100	0.7%	4,684	1	0.0%	9,804	7	0.1%	13,479	4,683	9,796	27,958
	Carpets / Rugs	1,344	-	0.0%	1,144	-	0.0%	12,181	8,894	73.0%	1,344	1,144	3,288	5,776
	Wood Waste (including Pallets)	651	-	0.0%	278	50	17.9%	5,973	3,881	65.0%	651	229	2,092	2,972
	Whole Tires (as Rubber)	2,220	2,220	100.0%	716	555	77.5%	4,030	2,776	68.9%	-	161	1,254	1,415
	Lubricants (e.g. Motor Oil)	107	6	5.6%	0	0	100.0%	344	256	74.6%	101	-	88	189
	Electronics	5,107	1,771	34.7%	1,954	20	1.0%	6,889	1,349	19.6%	3,336	1,934	5,539	10,809
	Batteries	93	93	100.0%	1	1	83.0%	2,464	2,464	100.0%	-	0	-	0
	Latex Paint	633	269	42.4%	43	3	7.1%	147	20	13.6%	365	40	127	531
	Tire Steel	278	-	0.0%	89	-	0.0%	504	-	0.0%	278	89	504	871
No Markets	Other Wood	4,316	-	0.0%	1,468	-	0.0%	8,283	-	0.0%	-	-	-	-
	Other Glass	637	-	0.0%	396	-	0.0%	508	-	0.0%	-	-	-	-
	Disposable Diapers	10,778	-	0.0%	5,189	-	0.0%	4,794	-	0.0%	-	-	-	-
	Other Waste	57,048	-	0.0%	17,667	-	0.0%	72,686	983	1.4%	-	-	-	-
RRF Ash			62,487			15,652			53,996					
<b>TOTAL</b>		<b>409,914</b>	<b>254,119</b>	<b>62.0%</b>	<b>94,298</b>	<b>24,928</b>	<b>26.4%</b>	<b>576,131</b>	<b>313,101</b>	<b>54.3%</b>	<b>145,502</b>	<b>60,300</b>	<b>231,738</b>	<b>437,541</b>

### 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.

**Solid Waste System Disposal Fund, Rate Setting Methodology FY17**

Item	Amount	Notes
Total Budgetary Operating Costs for the Year	\$ 85,124,878	a
CIP Expen. (Current Receipts, Non-Closure)	-	b
Contingency Funds	-	c
Closed landfill Expenses (inflation only)	33,479	d
Material Sales Revenue	(8,854,351)	e
Miscellaneous Revenues	(5,846,069)	f
Investment Income	(180,500)	g
Sector-Specific Stability Fund Contributions (Draw)	6,446,060	h
Fund Balance Adjusting All Sectors Contribution (Draw)	7,750,400	i
Transfer to Disposal Fund From Leaf Vacuuming Fund	(687,926)	j
Fund Contribution for Small Loads (e.g. <500 lbs)	3,004,986	k
Net Revenues Required from Service Charges	\$ 86,790,956	
Incremental Systems Benefit Charges	\$ (34,777,494)	l
<b>BASE SYSTEM COSTS</b>	<b>52,013,463</b>	
<b>BASE SYSTEM BENEFIT CHARGES</b>		
Service Sector	Single-Family	m
Proportion of Total Waste Generation	38.8%	n
Sector Share of Base Costs	\$ 20,173,456	o
Offsets from Refuse Disposal Fees Tipping Fees	(12,609,050)	p
Base Costs to Collect on Property Levy	\$ 7,564,406	
Households (HH) or Commercial Gross Floor Area Units (GFAU)	254,609	q
Base System Benefit Charge on Property Levy (\$/HH. \$/GFAU)	\$ 29.71 /HH	
<b>INCREMENTAL SYSTEM BENEFIT CHARGES (ISBC)</b>		
Recycling	\$ 21,628,628	s
Satellite Sites	246,353	
Studies Specifics to the Nonresidential Sector		
Stabilization	3,119,500	v
Composting	2,238,529	w
Total	\$ 27,233,010	
Households (HH) or Commercial Gross Floor Area Units (GFAU)	216,345	x
ISCB to be Charged on Property Levy	\$ 125.88 /HH	
<b>DISPOSAL FEES (Charged on Property Levy (In-Lieu of Tipping Fee)</b>		
Tons of Refuse Disposed by Subdistrict A & B Households	191,324 tons	
Single-Family Households in Sub-Districts A & B (Non-Municipal)	216,345 HH	
Disposal Tons Per Household	0.8843 ton/HH	
County Tipping Fee for Accepting Refuse at its Transfer Station	\$ 56.00 /ton	
Disposal Fee Levied on Subdistrict A & B Households on Tax Bill	\$ 49.52 /HH	
<b>Total System Benefit Charges Levied on Tax Bill</b>		
Non-Municipal Single-Family Homes	\$ 205.11 /HH	
Municipal Single-Family Homes	\$ 29.71 /HH	
Multi-Family Dwellings	\$ 16.06 /HH	
	\$ 226.61 /GFAU	

- a Does not include cost of maintaining closed landfill, which costs are paid from Landfill Post Closure Reserves (GASB18)
- b Current Receipts to fund solid waste projects financed by County's Long Term Capital Improvements Program (CIP)
- c Toward unplanned research and capital needs contingencies
- d Amount that GASB 18 does not permit to be reserved for landfill post closure costs (inflation).
- e Revenue from recyclables materials sold into secondary markets
- f From fees charged to accept yard trim, waste delivered in open top roll-off boxes, licence fees & rent, and misc. revenue
- g Pooled and non-pooled investment income as determined by the County Department of Finance
- h Sum of sector-specific rate stabilization contributions (see also note v)
- i Non-sector-specific contribution to (draw) to adjust overall fund balance
- j To pay for composting leaves collected by leaf vacuuming services (separate sub-fund)
- k Charge to fund balance to account for non-chargeable refuse deliveries (e.g. <500 lb loads per SS 48-32(c)(2) & MRF residue)
- l Revenue from Incremental System Benefit Charges
- m Single-family detached, townhouse, and multifamily dwellings in buildings comprised of 6 or fewer dwellings
- n Based on County's annual materials flow analysis.
- o (n) x (BASE SYSTEM COSTS)
- p Off-Sets Against Sector's Share of System Base Costs

	Single-Family	Multi-Family	Non-Residential
Disposed into County System (open-top roll off tons not included)	245,974	81,321	269,040
Non-Charged Loads (<500 lbs, PUF, Beauty-Spots, MRF Residue)	(20,812)	(4,982)	(27,866)
Off-Setting Tonnage	225,162	76,338	241,174
Tipping Fee	\$ 56.00 / ton	\$ 56.00 / ton	\$ 56.00 / ton
Sector Off-Sets for Refuse Disposal Fees and Tipping Fees	\$ 12,609,050	\$ 4,274,938	\$ 13,505,747
Credit Card Fees	\$ -	\$ (19,317)	\$ (61,029)
Net Sector Off-Sets for Refuse Disposal Fees and Tipping Fees	\$ 12,609,050	\$ 4,255,621	\$ 13,444,718

- q County tax account database, growth trends reconciled to Md. National Capital Park & Planning Commission (MNCPPC) projections.
- r 1 GAFU = 2000 sq. ft. improved property. NA for < \$5,000 improvement. State tax account data, inflated by MNCPPC employment.
- s Curbside recycling collection & processing costs net of material sales, outreach, household haz. waste, and recycling volunteers.
- t Recyclable Materials processing costs net of material sales revenue, outreach and education.
- u Recyclable Materials processing costs net of material sales revenue, outreach and education, commercial hazardous waste disposal.
- v Sector-specific contribution to (draw from) the rate Stabilization Reserve.
- w Sector share (tonnage proportional) of the yard waste composting facility operation, net of revenue.
- x Same as g, but without municipal households

Resolution No.: \_\_\_\_\_  
Introduced: \_\_\_\_\_  
Adopted: \_\_\_\_\_

**COUNTY COUNCIL  
FOR MONTGOMERY COUNTY, MARYLAND**

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By: Council President at the request of the County Executive

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**SUBJECT:**    Solid Waste Service Charges

**Background**

1.     Under County Code Section 48-31, each fiscal year the County Council must, by resolution, set the base solid waste charges, the residential systems benefit charge, and the nonresidential systems benefit charge and all other solid waste service, collection, and disposal charges and fees.
2.     Under County Code Section 48-8A(b)(1), the County Council must set each fiscal year, by resolution, the rates for the residential and nonresidential systems benefit charges.
3.     Under County Code Section 48-47(c)(1) and (2), the County has established a Leaf Recycling Service Area in which special fees are charged for leaf recycling services.
4.     On March 15, 2016, the County Executive recommended, effective July 1, 2016, solid waste charges including the residential Base Systems Benefit Charge which, when multiplied by the generation rates (set by Executive Regulation 2-16), yield household charges for FY 2017:

**Refuse Collection Charge:**

For single-family households and dwellings in buildings with six or fewer dwelling units located within Sub-district A, the Solid Waste Refuse Collection District:

Once weekly refuse collection charge \$70.00 /  
Household

**Disposal Fee (Applies to All Single-Family Households and Dwellings in Buildings Comprised of Six or Fewer Dwelling Units Outside of Municipalities)**

Disposal fee (Tip Fee x Tons Disposed per Household)  $\$56.00 \times 0.8843 =$   
 $\$49.52 / \text{Household}$

**Systems Benefit Charge for Single-Family Households and Dwellings in Buildings Comprised of Six or Fewer Dwelling Units:**

Base Systems Benefit Charge =

Base Cost / Ton x Generation / Household - Offset from Disposal Fees:  
 $\$41.4241 / \text{Ton} \times 1.9127 \text{ Ton} / \text{Household (ER 2-16)} - \$49.52 / \text{Household} =$   
 $\$29.71 / \text{Household}$

Incremental Systems Benefit Charge =

Charge Rate (\$ / Ton Waste Generated) x Generation / Household:  
 $\$65.8127 \times 1.9127 = \$125.88 / \text{Household}$

**Systems Benefit Charges for Multi-Family Properties in Buildings Comprised of Seven or Greater Dwelling Units (Charge per Dwelling Unit):**

Base Systems Benefit Charge =

Base Cost / Ton x Tons Generated / Dwelling - Tip Fee Offsets  
 $\$41.4241 / \text{Ton} \times 0.9055 \text{ Ton} / \text{Dwelling (ER 2-16)} - \$33.05 / \text{Dwelling} =$   
 $\$4.46 / \text{Dwelling}$

Incremental Systems Benefit Charge =

Charge Rate (\$/Ton Waste Generated) x Generation / Dwelling:  
 $12.8106 \times 0.9055 = \$11.60 / \text{Dwelling}$

Total multi-family Systems Benefit Charge on property bill \$ 16.06 / Dwelling

**Nonresidential Properties:**

Base and Incremental Systems Benefit Charges by waste generation category per billable unit of 2,000 square feet of gross floor area of property improvement on real property as reported by the State Department of Assessments and Taxation:

<u>Generator Category</u>	<u>Base (\$/GFA Unit)</u>	<u>Incremental (\$/GFA Unit)</u>	<u>Total (\$/GFA Unit)</u>
Low	\$ 82.45	\$ 36.78	\$ 119.23
Medium Low	\$ 247.33	\$ 110.34	\$ 357.67
Medium	\$ 412.22	\$ 183.91	\$ 596.13
Medium High	\$ 577.11	\$ 257.46	\$ 834.57
High	\$ 741.99	\$ 331.03	\$1,073.02

**Base Solid Waste Charges per ton for solid waste:**

Refuse received at the Transfer Station (weighing > = 500 lb/load)	\$ 56.00
Refuse received at the Transfer Station (weighing < 500 lb/load)	\$ 0.00
Materials delivered for disposal in open-top roll-off boxes	\$ 66.00
All Yard Trim received at the Transfer Station (weighing > 500 pounds/load)	\$ 46.00
Scrap metal delivered to the Transfer Station	\$ 0.00
Recyclable paper received at the County's Recycling Center	\$ 0.00
Commingled containers received at the County's Recycling Center	\$ 0.00
Source separated recyclable materials dropped off at the recycling drop-off area of the Transfer Station	\$ 0.00

**Leaf Vacuuming charge in the Leaf Recycling Service Area:**

Single-family Household	\$ 97.99
Multi-family Residential Unit	\$ 3.86

**Action**

The County Council approves the above solid waste charges, effective July 1, 2016.

This is a correct copy of Council action.

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Linda M. Lauer, Clerk of the Council

# **Gude Landfill Remediation Update Community Meeting**

Date: April 18, 2016





# Outline

- Introductions
- Landfill Background
- Community Engagement
- Remediation Studies and Assessment
- Proposed Corrective Measure
- Land Reuse Process
- Next Steps
- County Contacts and Additional Information
- Questions and Discussions



# Introductions

- Gude Landfill Concerned Citizens (GLCC)
  - HOA Presidents and Other Interested Residents
- Montgomery County DEP
  - Dan Locke, Chief, DEP, Division of Solid Waste Services
  - Peter Karasik, DSWS Section Chief
  - Rao Malladi, DSWS Senior Engineer





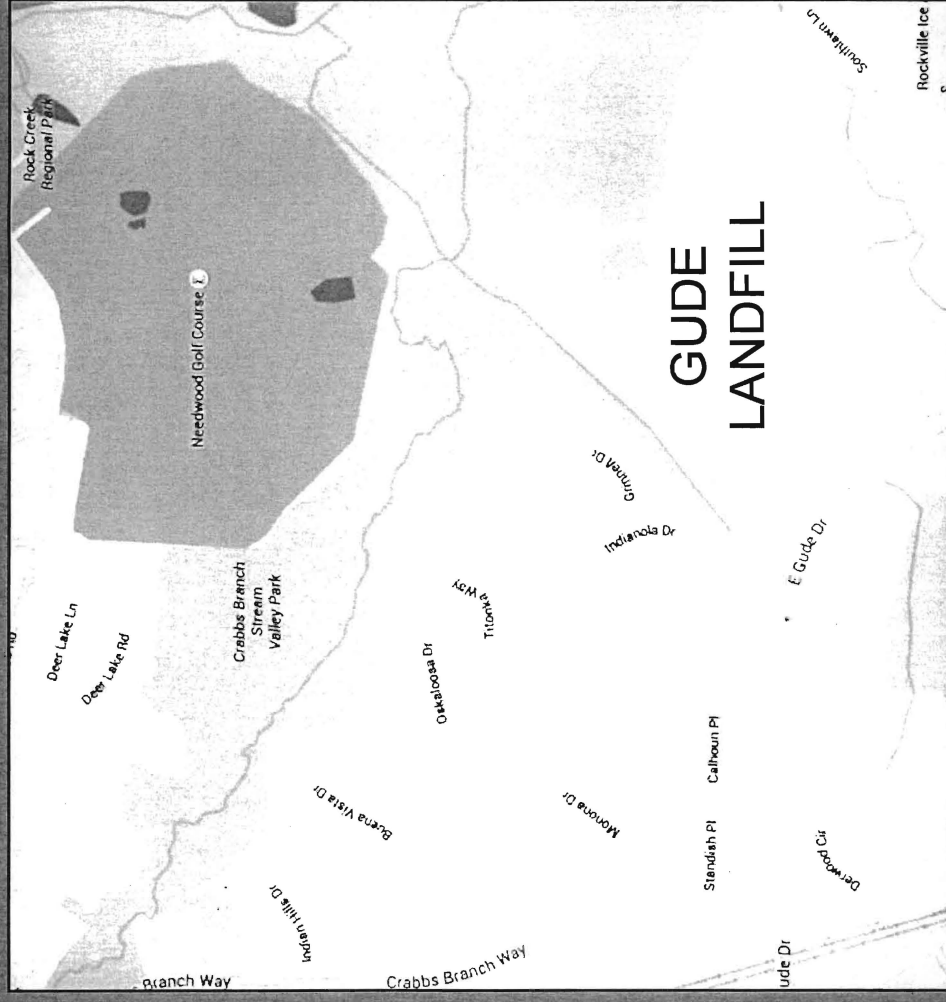
# Introductions

- DEP engaged EA Engineering, Science, and Technology, Inc., PBC (EA) as a technical resource
- EA – founded 1973 in Maryland
- Experienced in assessing groundwater contamination, performing risk evaluations, and evaluating remediation alternatives at landfills
- Mark Gutberlet, P.E. – Project Manager



# Landfill Background

- Landfill Operated: 1964 to 1982
- DEP performs Post-Closure Care Maintenance Activities:
  - DEP monitors water quality via 39 groundwater monitoring wells and 5 stream locations
  - DEP manages landfill gas via 100+ gas extraction wells, 2 stack flares and a gas-to-energy facility
  - DEP monitors landfill gas via 17 gas monitoring wells
  - Along with other site inspections





## Landfill Background

- Groundwater and surface water quality analysis performed since 1984
- The groundwater in the vicinity of the Landfill is not used as a potable water supply
- Potable water for Derwood Station is supplied by the Washington Suburban Sanitary Commission (WSSC)



# Landfill Background

- Maryland Department of the Environment (MDE) reviewed historical groundwater data in 2008 and directed DEP to initiate comprehensive site investigations to characterize groundwater contamination
- The County and MDE entered into a consent order in May 2013 to formalize requirements for the landfill assessment and remediation





## **Community Engagement**

- GLCC/DEP Monthly Meetings – 38 meetings (since June 2009)
- DEP Remediation Webpage (June 2009)
- Community Meeting (September 2009 & September 2012)
- DEP Letters and Fact Sheets
- Derwood Station HOA Newsletters (2009-2016)
- Revised Sections of the ACM Report and this Presentation will be Posted on the Webpage



## **Landfill Studies**

- **Waste Delineation Study – Complete (2009-2010)**
  - Define the horizontal extent of waste at the Landfill
- **Nature and Extent Study – Complete (2010-2012)**
  - Characterize and define the horizontal and vertical extent of groundwater contamination at and beyond the Landfill property boundary
- **Assessment of Corrective Measures – Ongoing (Aug. 2012–ongoing)**
  - Assess the most feasible and effective technologies and/or processes to mitigate environmental contamination at and beyond the Landfill property boundary





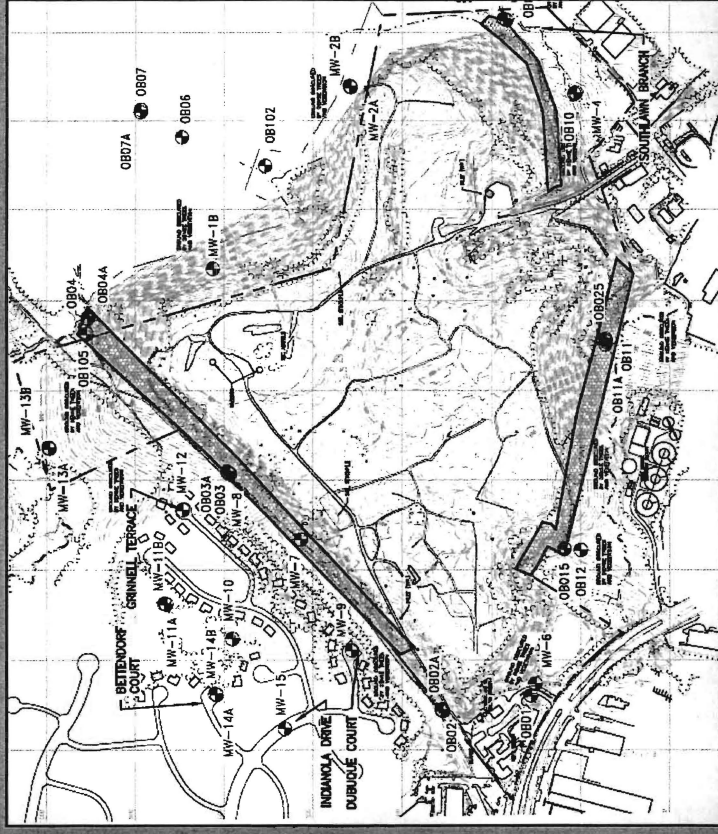
## Nature and Extent Study

- Volatile Organic Compounds (i.e. constituents) were detected in the groundwater monitoring wells in the vicinity of the Gude Landfill
- Constituent concentrations are compared to U.S. EPA's Drinking Water standards (Maximum Contaminant Levels, or MCLs)
- A limited number of constituent concentrations exceed MCLs
- MDE requires comparison to MCLs even though the groundwater is not used as a source of drinking water
- Detected constituents do not pose human health or ecological concerns for activities including walking, hiking, wading in streams, etc. in the vicinity of the Landfill. This includes adults, children and pets.



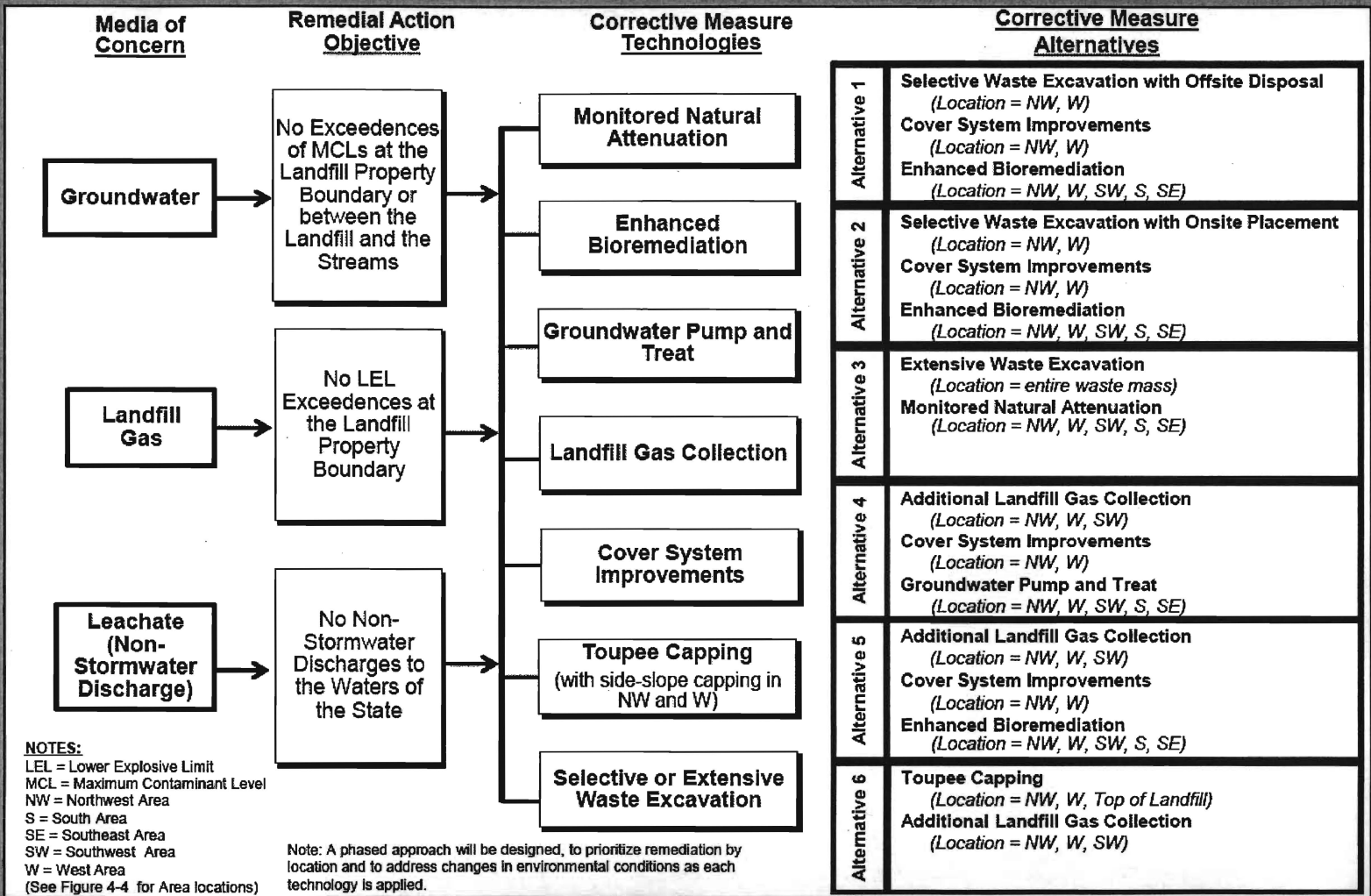
# Assessment of Corrective Measures Remedial Action Objectives

- **Groundwater:** U.S. EPA's drinking water maximum contaminant levels (MCLs) will not be exceeded in the groundwater at the Gude Landfill property boundary
- **Landfill Gas (LFG):** Methane will not exceed lower explosive limit (LEL) at the Gude Landfill property boundary
- **Leachate:** No non-storm water discharges (leachate) will occur to waters of the State





# Corrective Measures Developed



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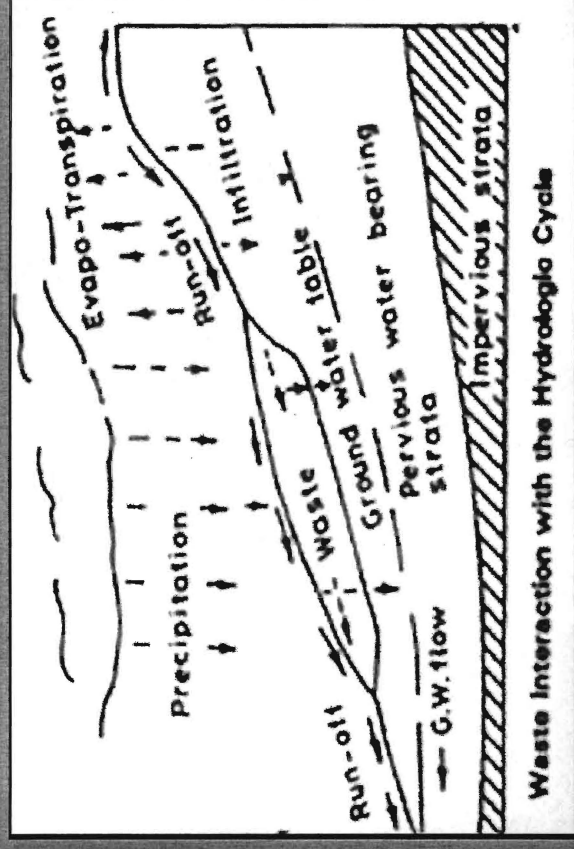
# Corrective Measures Evaluated

Criterion	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
ARARs and RAOs – Groundwater <sup>a</sup>	4	4	4	3	4	3
ARARs and RAOs – Landfill Gas <sup>a</sup>	4	4	5	3	3	5
ARARs and RAOs – Leachate <sup>a</sup>	4	4	5	4	4	5
ARARs and RAOs – Overall	4	4	5	3	4	4
Timeframe for Achieving RAOs (years) <sup>a</sup>	4	4	1	3	3	2
Groundwater	12 years	12 years	30+ years	16 years	11 years <sup>b</sup>	30+ years
Landfill Gas	9 years	9 years	10 years	4 years	4 years	3-5 years
Non-Stormwater Discharges	9 years	9 years	10 years	4 years	4 years	3-5 years
Short-Term Risks to Community <sup>a</sup>	2	2	1	4	4	3
Short-Term Effectiveness – Overall	3	3	1	4	4	3
Long-Term Effectiveness	4	4	4	2	4	4
Implementability	2	2	1	3	4	5
Protection of Human and Ecological Health	3	3	4	5	5	5
Source Treatment and Reduction of Toxicity, Mobility, and Volume	4	4	5	3	3	4
Cost <sup>f</sup>	2	4	1	4	4	5
Capital	\$105,000,000	\$52,000,000	\$455,000,000	\$8,000,000	\$9,000,000	\$26,300,000
Average Annual O&M	\$2,400,000	\$2,400,000	\$48,000	\$3,300,000	\$2,400,000	\$30,000
Total with 20 years O&M	\$152,000,000	\$100,000,000	\$456,000,000	\$74,000,000	\$57,000,000	\$27,000,000
Regulatory Acceptance	4	4	4	4	4	5
Community Acceptance	3	3	1	4	5	5
Total	29	31	26	32	37	40



# Landfill “Toupee” Capping and Additional Landfill Gas Collection

- Installation of a geomembrane cap over the flatter, grassed area of the landfill to reduce infiltration by rainwater and associated groundwater contamination and leachate seeps
- Installation of additional landfill gas extraction wells to reduce landfill gas migration

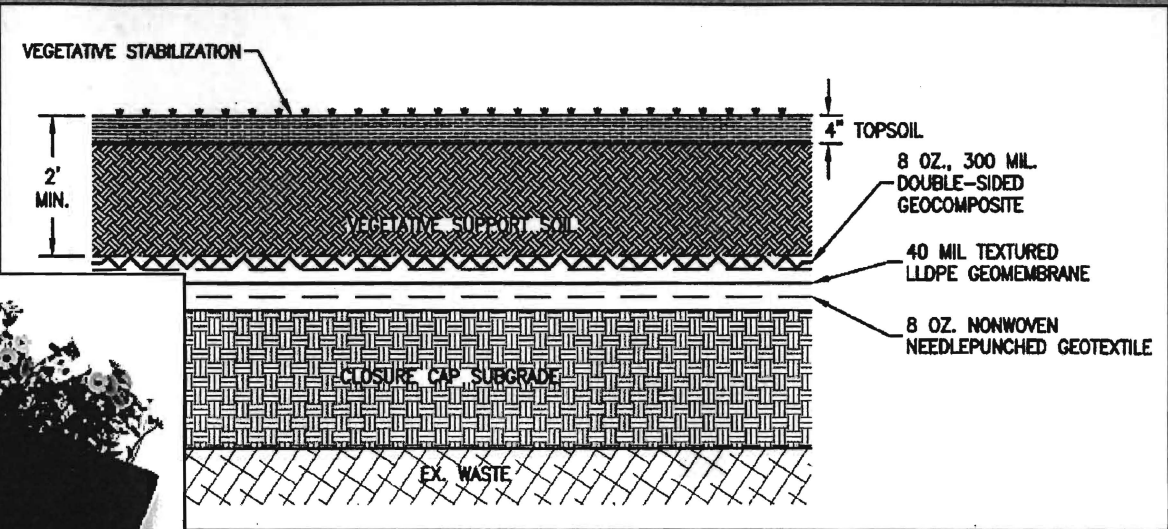




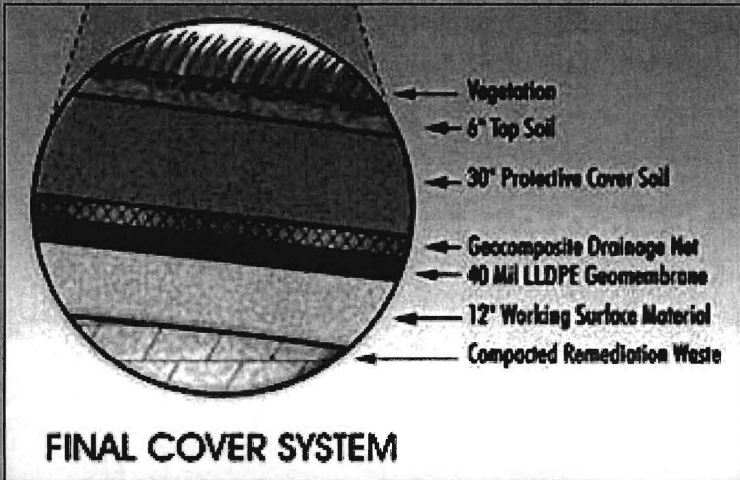
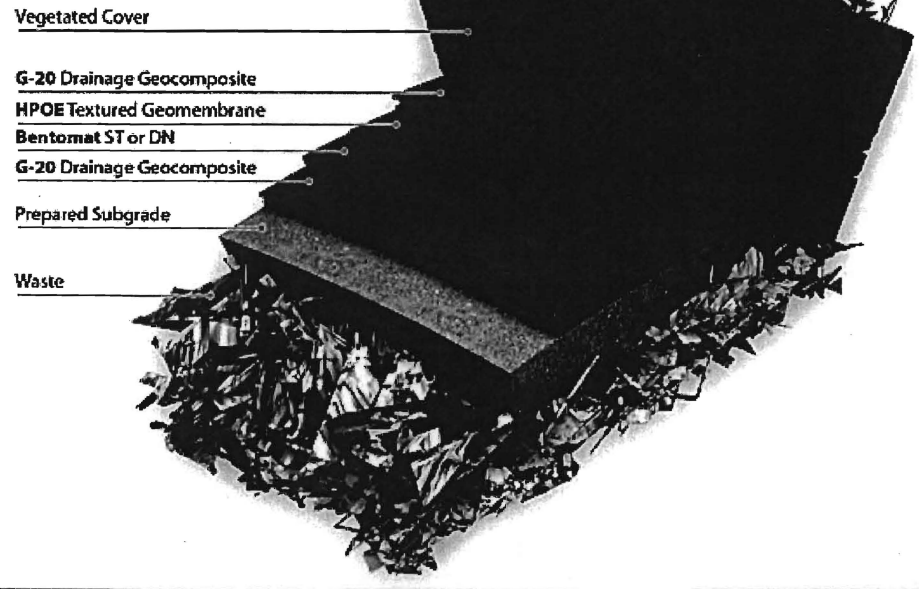
# Landfill "Toupee" Capping and Additional Landfill Gas Collection



# Example Landfill Capping Sections



**TYP-2**



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# Potential Community Impacts and Mitigation Strategies

Work will be phased to limit the size of disturbed area and limit overall impacts

Potential Impact	Mitigation Strategies
Noise	<ul style="list-style-type: none"><li>• Limit work to daylight hours</li></ul>
Dust	<ul style="list-style-type: none"><li>• Moisten exposed soil</li></ul>
Odor	<ul style="list-style-type: none"><li>• Minimize amount and duration of exposed waste</li><li>• Expose waste in winter</li><li>• Use foam or misters to reduce odor migration</li></ul>
Truck Traffic	<ul style="list-style-type: none"><li>• Minimize truck traffic on west side of landfill</li></ul>
Restricted Access to Site	<ul style="list-style-type: none"><li>• Provide re-use opportunities after construction is complete</li></ul>



# Final Landfill Condition





## Land Reuse Process

- County agrees to continue holding monthly status meetings with local community representatives at mutually agreeable dates and times. Discussion of land use and reuse will continue during the Assessment of Corrective Measures Report review process and during implementation of the corrective measures.
- Written recommendations from the community should be sent to Lisa Feldt, Director, Department of Environmental Protection, 255 Rockville Pike, Suite 120, Rockville, MD 20850.
- Community land use recommendations will be forwarded to the County Executive and County Council.





## **Land Reuse Process (cont.)**

- The County Executive will make a recommendation to the County Council concerning land reuse. This will likely occur sometime after MDE has approved the ACM report and associated remediation recommendation. Associated funding will be in the annual budget presented to the Council.
- The land re-use plan will go to the County M-NCPPC Planning Board for review under the Mandatory Referral Process.
- The County Council controls funding and will vote on whether to formally approve the final project.



# Land Reuse Community Preference

- Derwood Station HOAs performed a survey of residents that indicated a preference for passive land reuse activities for the Landfill site, which include:

- Running and walking trails
- Bike paths
- Model plane flying areas
- Children's play areas
- Dog park areas
- Community gardening plots





## Upcoming Activities

- EA will prepare the final technical report
- MDE review
- Revisions to ACM (if required by MDE)
- MDE ACM approval
- Potential future land reuse will be identified by the community, the County Executive and other interested parties
- Design and implement selected corrective measure, considering potential future land reuse options in design of corrective measure to the extent feasible
- Monitor success of corrective measure



CY	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		2018		2019		2020		2021		2022																											
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4																										
	FY																																																							
	FY09				FY10				FY11				FY12				FY13				FY14				FY15				FY16				FY17				FY18				FY19				FY20				FY21				FY22			
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Exchange of Land with M-NCPPC																																																								



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## Ongoing Community Engagement

- Regular GLCC/DEP Meetings
- DEP will continue to present documents to the community at principal milestones such as the approval of the ACM study
- DEP will continue to post documents to the remediation webpage



## County Contacts & Additional Info.

- Peter Karasik
  - Section Chief, DSWS Central Operations
  - 240-777-6569; Peter.Karasik@montgomerycountmd.gov
- Rao Malladi
  - Senior Engineer, DSWS Central Operations
  - 240-777-6574; Rao.Malladi@montgomerycountmd.gov
- Gude Landfill Remediation Webpage
  - <http://www.montgomerycountmd.gov/sws/facilities/gude/>
- GLCC/DEP Meetings
  - Open to public and typically held the second Thursday of each month
  - Contact Rao Malladi for schedule

