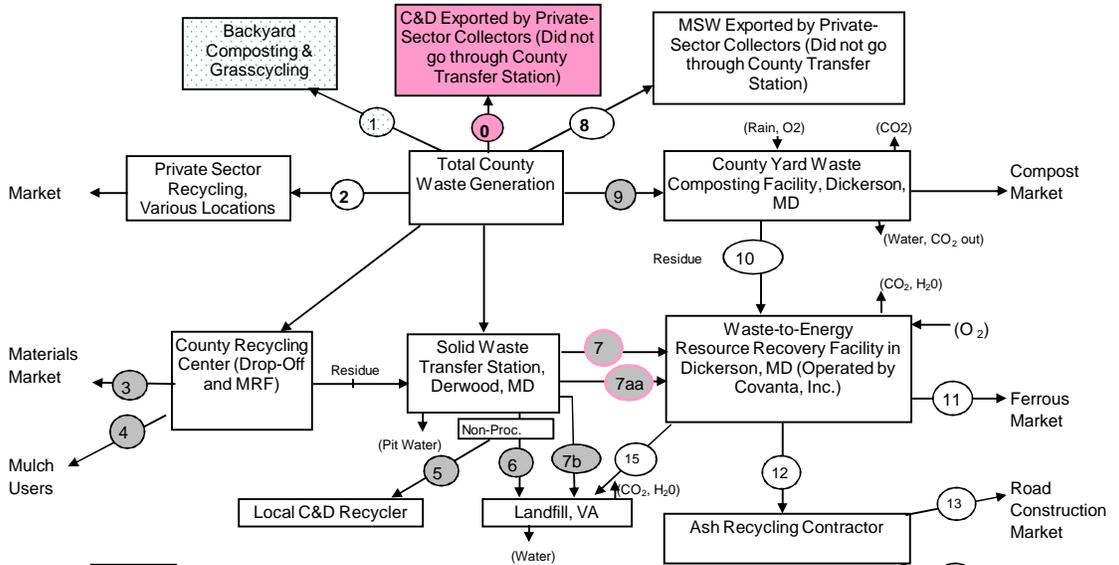# MATERIAL FLOW DIAGRAM
Fiscal Year 2010

KEY:

1	Calculated by netting measured collection from estimated yard waste generation.
2, 8	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	1,297,533
County-Managed Waste (CMW) = 1 + 2 + 3 + 4 + 5 + 6 + 7+7a+7b + 8 + 9 =	1,204,650
MSW Generated (above less streams 5, 6 and 7a)	**1,080,346**

Stream No.	Material Description	Sources of Data	Total (tons/yr)	Comments
0	Construction & Demo Debris Private Export	Licensed Collector Reports under ER 92-59	92,883	Not County-managed and not eligible for recycling
1	Yard Waste Source Reduction	Calculated w/ estimates & measurements	13,825	17.5% of MSW less leakage less yard waste facility tons
2	Recycled via non-County Facilities	Collector, Processor, Business & Self-Hauler Rpts.	224,973	Filtered to avoid double-counting
3	County Recycling Facility Material Sales	County TS & MRF Scales, Outbound	87,423	Outgoing to Market from County Recycling Center
4	Mulch Loaded Out From TS	County Transfer Station (TS) Scale Records	61,138	Scaled Out As Taken to Mulch Preserve Locations
5	Non-Processibles Recycled**	County TS Scale Out Records	36,298	
6	Non-Processibles Land filled**	County Trans. Stat'n. & Covanta Scale Records	21,514	
7	Loaded on Rail to RRF (MSW burned)	Covanta Scales as Loaded	469,489	Total Tons Loaded on Rail to RRF Net of 7a
7a	Loaded on Rail to RRF (C&D Burned)	County Transfer Station (TS) Scale Records	66,491	In-Bound C&D less Outbound Non-Processibles Landfilled
7b	By-pass (Accepted Processible Land filled)	County TS Scale Out Records	-	
8	Refuse Disposed Out of County	Audited 6-Mo. Hauler Reports	151,149	Private Sector MSW Collection not delivered to CountyTS
9	All Incoming Leaves and Grass	Compost Facility & TS Scale Records	72,349	Includes 0 to Backup Composters
10	Composting Residue to RRF	Covanta Scale Records	-	
11	Ferrous recovered at RRF	Covanta Scale Records	11,653	
12	Ash Loaded to Ash Recycling Contractor	No ash recycling at this time.	-	No ash recycling at this time.
13	Non-Metal Outgoing from ash Recycler	No ash recycling at this time.	-	No ash recycling at this time.
14	Metals (Fe, Cu, Brass, Coins)	No ash recycling at this time.	-	No ash recycling at this time.
15	All ash not recycled	Covanta Scale Records	153,516	

Recycling Rate Calculations

		Numerator	Denominator	Rate	
County Recycling Rate	(1 + 2 + 3 + 4 + 9 - 10 + 11 + 13 + 14) / (CMW - 5 - 6 -7a) =	471,361	1,080,346	43.6%	
County Recycling Rate "Without Ash"	(Same as above but without Stream 13)	471,361	1,080,346	43.6%	
State Recycling Rate	(2 + 3 + 4 + 9 - 10 + 11 + 13 + 14) / (CMW - 1 - 5 - 6 -7a) =	451,160	1,060,169	42.6%	***
State Recycling & Reduction Rate	(2 + 3 + 4 + 9 - 10 + 11 + 13 + 14) / (CMW - 1 - 5 - 6) + 5.0% =	451,160	1,060,169	47.6%	
EPA Recycling Rate	(2 + 3 + 4 + 9 - 10 + 11 + 14) / (CMW- 1 - 5 - 6 -7a) =	451,185	1,060,169	42.6%	***

Notes:

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

*** For State and EPA methods, numerator and denominator exclude motor oil

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.