Appendix U
PWCS Results Without Bulk Items

PWCS Results Without Bulk Items

The protocol for the PWCS included the collection of any bulk waste that was part of a randomly collected sample of refuse and recycling materials. Bulk waste was defined as any item too large to fit into a 96-gallon toter. When a bulk item was part of a sample, it was weighed and the weight and a description of the item was recorded by the Sample Manager on the Sample Management Form (see Appendix N).

In compiling the results of the PWCS, the Data Manager assigned the weight of the bulk item(s) recorded on the Sample Management Form to one of the existing material categories. For example, the weight of a mattress recorded as a bulk item in a refuse sample would be included in "Other Textiles." The weight of an air conditioner recorded as a bulk item in an MGP sample would be included in "Small Appliances and Other Electronics."

Of the 403 samples sorted for the PWCS, 93 included bulk items with a total weight of 2,158.60 pounds. Table AU-1 lists the bulk items included in the PWCS results, their weight, and the material category to which they were assigned.

Table AU-1
Bulk Items

Bulk Item	Total Bulk Weight	Category
Mattress	76.00	Non-Clothing Textiles
Fiberglass Insulation	11.00	Fiberglass Insulation
C&D Wood	3.50	Untreated Dimension Lumber, Pallets, Crates
Plywood	43.00	Other C&D Debris
Tree Limb	25.70	Stumps/Limbs
Leather Suitcase	13.70	Other Leather Products
C&D Wood - Treated	18.00	Treated/Contaminated Wood
Film Plastic - Tarp	10.00	Other Film
Baby Stroller	19.00	Mixed Metals
Vacuum Cleaner	13.50	Small Appliances
Baby Stroller - Metal	11.10	Other Ferrous
Metal Chair - Ferrous	6.00	Other Ferrous
Mattress	19.45	Non-Clothing Textiles
Wood - C&D	17.50	Other C&D Debris
Plastic Fan	3.70	Other Plastics Materials
Plastic Broom Handle	9.10	Other Plastics Materials
Foam Pad (Egg Type)	2.80	Miscellaneous Inorganics
C&D - Wood	11.00	Untreated Dimension Lumber, Pallets, Crates
Prunings	23.00	Prunings
Contaminated Wood	20.00	Treated/Contaminated Wood
HDPE Colored Container	7.40	HDPE Colored Bottles

Table AU-1
Bulk Items

Bulk Item	Total Bulk Weight	Category
Child Car Seat	9.40	Other Plastics Materials
Computer	21.10	Other Computer Equip.
Plastic Broom/Mop Handles	7.00	Other Plastics Materials
C&D Wood	12.60	Untreated Dimension Lumber, Pallets, Crates
Mattress	42.40	Non-Clothing Textiles
Vacuum Cleaner Part - Plastic	3.60	Other Plastics Materials
Spring Mattress (Cloth Covered)	38.50	Non-Clothing Textiles
Cloth Covered Sofa Seat Pads (Foam Core)	8.90	Non-clothing Textiles
Wood Paneling (Non C&D)	4.30	Miscellaneous Organics
Wood C&D	4.00	Other C&D Debris
C&D Wood	9.80	Treated/Contaminated Wood
C&D Wood	16.80	Untreated Dimension Lumber, Pallets, Crates
Treated Wood - C&D	33.40	Treated/Contaminated Wood
Steel Hand-Cart	11.00	Other Ferrous
Lawn Mower	10.10	Mixed Metals
C&D Wood	5.40	Untreated Dimension Lumber, Pallets, Crates
HDPE Container	22.60	HDPE Colored Bottles
C&D Wood	19.20	Other C&D Debris
Tree Stumps	13.70	Stumps/Limbs
Tree Branches	30.30	Stumps/Limbs
Carpet	16.40	Carpet/Upholstery
Metal Bed Frame	4.00	Other Ferrous
Wood, Non C&D	30.00	Non-C&D, Untreated Wood
Carpet	34.30	Carpet/Upholstery
Tree Cuttings	11.40	Prunings
Carpet	12.20	Carpet/Upholstery
Radio Speaker	18.30	Mixed Metals
OCC	15.60	Plain OCC/Kraft paper
C&D Wood	8.80	Untreated Dimension Lumber, Pallets, Crates
Wood, Non C&D	11.10	Non-C&D, Untreated Wood
Radio	13.65	Audio/Visual Equipment
Foam Couch Cushion	5.60	Non-Clothing Textiles
Wood, Non C&D	11.60	Non-C&D, Untreated Wood
Wood, Non C&D	12.60	Non-C&D, Untreated Wood
Wood, Non C&D	38.40	Non-C&D, Untreated Wood
VCR	8.50	Audio/Visual Equipment
Tubular Metal Chair	12.00	Mixed Metals
Wood, Non C&D	10.20	Non-C&D, Untreated Wood
Refuse Subtotal	**963.20**	

Table AU-1
Bulk Items

Bulk Item	Total Bulk Weight	Category
Metal Range Hood	10.00	Other Ferrous
Metal Cart, Plastic Wheels	9.00	Other Ferrous
Microwave Oven	16.00	Small Appliances
Metal Folding Chair	10.00	Other Ferrous
Electric Fan (15")	8.00	Small Appliances
Metal Bed Frame	21.00	Other Ferrous
Bicycle Wheels	8.00	Rubber
Metal Cabinet	23.00	Other Ferrous
Metal + Plastic Chair	16.00	Other Ferrous
Microwave	26.00	Small Appliances
Metal Office Chair	20.00	Other Ferrous
Metal Bar	8.00	Mixed Metal
Metal Pipes	22.00	Other Ferrous
Metal Frame	12.00	Other Ferrous
Metal Frame	44.00	Other Ferrous
Heater	14.00	Small Appliances
Stove	96.10	Small Appliances
Metal Bars	15.00	Mixed Metal
Metal Frame	9.00	Mixed Metal
Air Conditioner	25.00	Small Appliances
Metal Chair Piece	9.00	Other Ferrous
Metal Bed Frame	18.20	Other Ferrous
Metal Chair	6.30	Other Ferrous
Metal Cabinet	22.30	Other Ferrous
Metal Baby Stroller	12.00	Other Ferrous
Metal Cabinet	5.50	Other Ferrous
Metal Baby Stroller	10.00	Other Ferrous
Metal Stove Top	12.00	Other Ferrous
Metal Bed Frame	10.00	Other Ferrous
Metal Pipe	6.00	Other Ferrous
Metal Bed Frame	19.00	Other Ferrous
Air Conditioner	35.00	Small Appliances
2 Metal Bed Frames	20.00	Other Ferrous
Plastic Vacuum Cleaner	10.00	Small Appliances
Metal Curtain Rod	8.00	Other Ferrous
Metal Bed Frame	10.00	Other Ferrous
Metal Stove Top	9.00	Other Ferrous
Metal Stove Top	7.00	Other Ferrous
Refrigerator Door	22.00	Other Ferrous

Table AU-1
Bulk Items

Bulk Item	Total Bulk Weight	Category
Metal Chair	12.00	Other Ferrous
Metal Shelf	12.00	Other Ferrous
Plastic Vacuum Cleaner Bottom	8.00	Small Appliances
Air Conditioner	66.00	Small Appliances
Washing Machine (Part)	80.00	Small Appliances
Metal Appliance Cover	5.00	Other Ferrous
Air Conditioner	48.00	Small Appliances
Metal Container	10.00	Other Ferrous
Metal Bed Frame	7.50	Other Ferrous
Metal Pan	5.50	Other Ferrous
Metal Chair	7.00	Other Ferrous
Metal Ceiling Fan - Parts	14.00	Other Ferrous
Metal Container	12.00	Other Ferrous
Dishwasher Or Similar Appliance	71.00	Small Appliances
Refrigerator Door	10.00	Other Ferrous
Metal Cabinet	13.00	Other Ferrous
Child's Bicycle	28.00	Other Ferrous
Canister Vacuum - Plastic + Metal	12.00	Small Appliances
Microwave Oven	31.50	Small Appliances
Metal Frame	4.50	Other Ferrous
Freezer Door (Part)	17.00	Other Ferrous
Freezer Door (Part)	21.00	Other Ferrous
Metal File Drawer	15.00	Other Ferrous
Steel Pipes	22.00	Other Ferrous
MGP Subtotal	**1,195.40**	
Grand Total	**2,158.60**	

Bulk items accounted for 2.06 percent of the Refuse Sort and 10.77 percent of the MGP Sort. There were no bulk items in the Paper Samples.

The detailed results of the PWCS Refuse Sort without bulk items are shown in Table AU-2. The 59 bulk items in the Refuse Sort weighed a total of 983.2 pounds. The detailed results of the PWCS Refuse Sort including bulk items are presented in Table 6-2 of the PWCS Report.

Table AU-2
Detailed Results of the PWCS Refuse Sort without Bulk

Material Group	Material Subgroup	Material Category	Material Subcategory	% of Refuse Stream	Weekly Tonnage in Refuse Stream [1]	Recycling Indicator	Recycling Subindicator
Paper	ONP	Newspaper		3.77%	2,200.83	R	R Paper
Paper	OCC	Plain OCC/Kraft paper		1.34%	782.81	R	R Paper
Paper	Mixed Paper	High Grade Paper		0.69%	405.55	R	R Paper
Paper	Mixed Paper	Mixed Low Grade Paper		7.48%	4,366.02	R	R Paper
Paper	Mixed Paper	Phone Books		0.23%	135.75	R	R Paper
Paper	Mixed Paper	Paperbacks		0.19%	110.56	R	R Paper
Paper	Mixed Paper	Paper Bags		0.61%	356.74	R	R Paper
Paper	Bev Cartons	Polycoated Containers		0.47%	277.37	R	R Bev Cartons
Paper	Compostable Paper	Compostable/Soiled/ Waxed OCC		7.63%	4,456.14	NR	NR_Paper
Paper	Compostable Paper	Single Use Plates, Cups		0.52%	304.71	NR	NR_Paper
Paper	Other Paper	Other Nonrecyclable Paper		0.66%	387.59	NR	NR_Paper
Plastic	PET Bottles	PET Bottles	Deposit	0.34%	198.50	R	R Plastics
Plastic	PET Bottles	PET Bottles	Non-Deposit	0.66%	384.72	R	R Plastics
Plastic	HDPE Bottles	HDPE Natural Bottles		0.31%	182.59	R	R Plastics
Plastic	HDPE Bottles	HDPE Colored Bottles		0.39%	226.54	R	R Plastics
Plastic	Other Rigid Containers/Packaging	#1-#2 Tubs/Trays	#1 Pet	0.03%	15.88	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#1-#2 Tubs/Trays	#2 HDPE	0.08%	47.94	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#3 PVC	0.01%	7.88	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#4 LDPE	0.01%	8.39	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#5 PP	0.23%	132.29	PR	PR_Plastics
Plastic	Containers/Packaging	#3-#7 Containers	#7 Other	0.07%	40.86	PR	PR_Plastics
Plastic	Other Plastic Products	Other PVC		0.07%	41.93	NR	NR_Plastics
Plastic	Other Rigid Containers/Packaging	Rigid Polystyrene		0.16%	95.01	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	Expanded Polystyrene		0.71%	413.31	PR	PR_Plastics
Plastic	Containers/Packaging	Other Rigid Containers/Packaging		0.62%	361.88	PR	PR_Plastics
Plastic	Film	Plastic Bags		2.85%	1,663.76	PR	PR_Plastics
Plastic	Film	Other Film		5.29%	3,087.73	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	Plastic Crates and Soda Bottle Carriers		0.06%	35.86	PR	PR_Plastics
Plastic	Other Plastic Products	Single-Use Food Svc		0.79%	462.44	NR	NR_Plastics
Plastic	Other Plastic Products	Single Use Cameras		0.00%	0.00	NR	NR_Plastics

Table AU-2
Detailed Results of the PWCS Refuse Sort without Bulk

Material Group	Material Subgroup	Material Category	Material Subcategory	% of Refuse Stream	Weekly Tonnage in Refuse Stream (1)	Recycling Indicator	Recycling Subindicator
Plastic	Other Plastic Products	Disposable Razors		0.01%	4.22	NR	NR_Plastics
Plastic	Other Plastic Products	Other Plastics Materials		1.62%	948.00	NR	NR_Plastics
Glass	Container Glass	Clear Glass	Deposit	0.29%	168.20	R	R Glass
Glass	Container Glass	Clear Glass	Non-Deposit	1.02%	595.05	R	R Glass
Glass	Container Glass	Green Glass	Deposit	0.15%	88.78	R	R Glass
Glass	Container Glass	Green Glass	Non-Deposit	0.17%	96.41	R	R Glass
Glass	Container Glass	Brown Glass	Deposit	0.27%	156.69	R	R Glass
Glass	Container Glass	Brown Glass	Non-Deposit	0.06%	34.25	R	R Glass
Glass	Mixed Cullet	Mixed Cullet		0.51%	298.50	R	R Glass
Glass	Other Glass	Other Glass		0.20%	119.31	PR	PR_Glass
Metal	Aluminum	Aluminum Cans	Deposit	0.17%	102.10	R	R Metal
Metal	Aluminum	Aluminum Cans	Non-Deposit	0.03%	15.99	R	R Metal
Metal	Aluminum	Aluminum Foil/Tins		0.61%	356.46	R	R Metal
Metal	Aluminum	Other Aluminum		0.05%	27.84	R	R Metal
Metal	Other Metal	Other Non-Ferrous		0.06%	37.94	R	R Metal
Metal	Ferrous	Tin Food Cans		0.93%	543.04	R	R Metal
Metal	Ferrous	Empty Aerosol Cans		0.13%	73.23	R	R Metal
Metal	Ferrous	Other Ferrous		0.98%	574.45	R	R Metal
Metal	Other Metal	Mixed Metals		0.42%	247.96	R	R Metal
Organic	Yard	Leaves and Grass		6.39%	3,730.62	NR	NR_Other
Organic	Yard	Prunings		3.03%	1,769.47	NR	NR_Other
Organic	Wood	Stumps/Limbs		0.55%	320.35	NR	NR_Other
Organic	Food	Food		16.28%	9,506.00	NR	NR_Other
Organic	Wood	Non-C&D, Untreated Wood		0.14%	83.05	NR	NR_Other
Organic	Textiles	Non-Clothing Textiles		1.73%	1,008.48	NR	NR_Other
Organic	Textiles	Clothing Textiles		3.76%	2,196.80	NR	NR_Other
Organic	Textiles	Carpet/Upholstery		1.14%	665.22	NR	NR_Other
Organic	Diapers/Hygiene	Disposable Diapers/Sanitary Products		3.89%	2,268.61	NR	NR_Other
Organic	Misc. Organic	Animal By-Products		1.27%	740.54	NR	NR_Other
Organic	Misc. Organic	Rubber Products		0.32%	187.18	NR	NR_Other
Organic	Textiles	Shoes	Leather	0.39%	228.50	NR	NR_Other
Organic	Textiles	Shoes	Other	0.10%	55.96	NR	NR_Other
Organic	Textiles	Shoes	Rubber	0.21%	119.74	NR	NR_Other
Organic	Textiles	Other Leather Products		0.02%	12.95	NR	NR_Other
Organic	Misc. Organic	Fines		4.29%	2,503.93	NR	NR_Other
Organic	Misc. Organic	Miscellaneous Organics		4.03%	2,353.11	NR	NR_Other
App. & Elec.	Household Appliance	Small Appliances		0.25%	147.06	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Audio/Visual Equipment	Other	0.20%	114.06	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Audio/Visual Equipment	Cell Phones	0.00%	2.63	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Computer Monitors		0.05%	28.44	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Televisions		0.10%	59.18	NR	NR_Other

Table AU-2
Detailed Results of the PWCS Refuse Sort without Bulk

Material Group	Material Subgroup	Material Category	Material Subcategory	% of Refuse Stream	Weekly Tonnage in Refuse Stream (1)	Recycling Indicator	Recycling Subindicator
App. & Elec.	Electronic.AV/Computer	Other Computer Equip.		0.15%	89.75	NR	NR_Other
Const. Debris	Wood	Untreated Dimension Lumber, Pallets, Crates		0.33%	193.60	NR	NR_Other
Const. Debris	Wood	Treated/Contaminated Wood		2.88%	1,684.39	NR	NR_Other
Const. Debris	Inorganic C&D	Gypsum Scrap		1.18%	688.69	NR	NR_Other
Const. Debris	Inorganic C&D	Fiberglass Insulation		0.04%	20.72	NR	NR_Other
Const. Debris	Inorganic C&D	Rock/Concrete/Bricks		0.60%	351.44	NR	NR_Other
Const. Debris	Inorganic C&D	Asphaltic Roofing		0.02%	11.89	NR	NR_Other
Const. Debris	Inorganic C&D	Other C&D Debris		1.60%	935.69	NR	NR_Other
Misc.	Misc. Inorganic	Misc. Inorganics		0.24%	138.82	NR	NR_Other
Misc.	Misc. Inorganic	Ceramics		0.39%	229.44	NR	NR_Other
HHW	HHW	Oil Filters		0.00%	0.00	NR	NR_Other
HHW	HHW	Antifreeze		0.00%	0.00	NR	NR_Other
HHW	HHW	Wet-Cell Batteries		0.07%	42.86	NR	NR_Other
HHW	HHW	Gasoline/Kerosene		0.00%	0.54	NR	NR_Other
HHW	HHW	Motor Oil/Diesel Oil		0.00%	0.00	NR	NR_Other
HHW	HHW	Latex Paints		0.05%	28.85	NR	NR_Other
HHW	HHW	Water and Solvent-Based Adhesives/glues		0.06%	37.17	NR	NR_Other
HHW	HHW	Oil-Based Paint/Solvent		0.07%	38.88	NR	NR_Other
HHW	HHW	Pesticides/Herbicides/Rodenticides		0.00%	0.81	NR	NR_Other
HHW	HHW	DRY-CELL Batteries		0.07%	40.31	NR	NR_Other
HHW	HHW	Fluorescent Tubes		0.00%	2.59	NR	NR_Other
HHW	HHW	Mercury-Laden waste		0.00%	0.07	NR	NR_Other
HHW	HHW	Compressed Gas Cylinders/Fire Extinguishers		0.00%	0.00	NR	NR_Other
HHW	HHW	Asbestos		0.00%	0.00	NR	NR_Other
HHW	HHW	Explosives		0.00%	0.00	NR	NR_Other
HHW	HHW	Smoke Detectors		0.00%	1.41	NR	NR_Other
HHW	HHW	Home Medical Products		0.04%	23.83	NR	NR_Other
HHW	HHW	Other Potentially Harmful Wastes		0.09%	49.73	NR	NR_Other
TOTAL				100.00%	58,393.32		

NR = Nonrecyclable under DSNY's current Curbside Recycling Program
PR = Potentially Designated for Recycling Under future DSNY programs
R = Recyclable under DSNY's current Curbside Recycling Program
(1) Tonnage values are based on 59,618.80 tons which is the average weekly tonnage of refuse that was collected during May and June 2004, as provided by DSNY, less 2.06% of the refuse stream that was bulk. This equates to 58,393.32 tons.

The detailed results of the PWCS Paper Sort without bulk items are shown in Table AU-3. Because there were no bulk items in the Paper Sort, these results are identical to the results in Table 7-3A of the PWCS Report and are included here only to provide a complete picture of the results without bulk waste.

Table AU-3
Detailed Results of the PWCS Recyclables Sort without Bulk- Paper

Material Group	Material Subgroup	Material Category	Material Subcategory	% of Paper Stream	Weekly Tonnage in Paper Stream [1]	Recycling Indicator	Recycling Subindicator
Paper	ONP	Newspaper		39.84%	2,908.87	R	R Paper
Paper	OCC	Plain OCC/Kraft paper		20.64%	1,506.76	R	R Paper
Paper	Mixed Paper	High Grade Paper		4.22%	307.98	R	R Paper
Paper	Mixed Paper	Mixed Low Grade Paper		25.04%	1,828.22	R	R Paper
Paper	Mixed Paper	Phone Books		3.19%	232.74	R	R Paper
Paper	Mixed Paper	Paperbacks		1.33%	97.00	R	R Paper
Paper	Mixed Paper	Paper Bags		0.53%	38.53	R	R Paper
Paper	Bev Cartons	Polycoated Containers		0.27%	19.92	R	R Bev Cartons
Paper	Compostable Paper	Compostable/Soiled/ Waxed OCC		0.13%	9.58	NR	NR_Paper
Paper	Compostable Paper	Single Use Plates, Cups		0.01%	0.57	NR	NR_Paper
Paper	Other Paper	Other Nonrecyclable Paper		1.36%	99.33	NR	NR_Paper
Plastic	PET Bottles	PET Bottles	Deposit	0.01%	1.00	R	R Plastics
Plastic	PET Bottles	PET Bottles	Non-Deposit	0.05%	3.42	R	R Plastics
Plastic	HDPE Bottles	HDPE Natural Bottles		0.02%	1.55	R	R Plastics
Plastic	HDPE Bottles	HDPE Colored Bottles		0.03%	1.86	R	R Plastics
Plastic	Other Rigid Containers/Packaging	#1-#2 Tubs/Trays	#1 Pet	0.00%	0.00	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#1-#2 Tubs/Trays	#2 HDPE	0.00%	0.03	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#3 PVC	0.00%	0.00	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#4 LDPE	0.00%	0.01	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#5 PP	0.00%	0.32	PR	PR_Plastics
Plastic	Containers/Packaging	#3-#7 Containers	#7 Other	0.01%	0.40	PR	PR_Plastics
Plastic	Other Plastic Products	Other PVC		0.00%	0.01	NR	NR_Plastics
Plastic	Other Rigid Containers/Packaging	Rigid Polystyrene		0.00%	0.16	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	Expanded Polystyrene		0.05%	3.38	PR	PR_Plastics
Plastic	Containers/Packaging	Other Rigid Containers/Packaging		0.01%	0.55	PR	PR_Plastics
Plastic	Film	Plastic Bags		0.22%	16.35	PR	PR_Plastics
Plastic	Film	Other Film		0.86%	62.93	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	Plastic Crates and Soda Bottle Carriers		0.00%	0.00	PR	PR_Plastics
Plastic	Other Plastic Products	Single-Use Food Svc		0.01%	0.79	NR	NR_Plastics
Plastic	Other Plastic Products	Single Use Cameras		0.00%	0.00	NR	NR_Plastics

Table AU-3
Detailed Results of the PWCS Recyclables Sort without Bulk- Paper

Material Group	Material Subgroup	Material Category	Material Subcategory	% of Paper Stream	Weekly Tonnage in Paper Stream [1]	Recycling Indicator	Recycling Subindicator
Plastic	Other Plastic Products	Disposable Razors		0.00%	0.04	NR	NR_Plastics
Plastic	Other Plastic Products	Other Plastics Materials		0.31%	22.49	NR	NR_Plastics
Glass	Container Glass	Clear Glass	Deposit	0.03%	1.95	R	R Glass
Glass	Container Glass	Clear Glass	Non-Deposit	0.06%	4.03	R	R Glass
Glass	Container Glass	Green Glass	Deposit	0.00%	0.00	R	R Glass
Glass	Container Glass	Green Glass	Non-Deposit	0.00%	0.00	R	R Glass
Glass	Container Glass	Brown Glass	Deposit	0.00%	0.00	R	R Glass
Glass	Container Glass	Brown Glass	Non-Deposit	0.00%	0.32	R	R Glass
Glass	Mixed Cullet	Mixed Cullet		0.04%	3.24	R	R Glass
Glass	Other Glass	Other Glass		0.00%	0.10	PR	PR_Glass
Metal	Aluminum	Aluminum Cans	Deposit	0.01%	0.47	R	R Metal
Metal	Aluminum	Aluminum Cans	Non-Deposit	0.00%	0.17	R	R Metal
Metal	Aluminum	Aluminum Foil/Tins		0.02%	1.56	R	R Metal
Metal	Aluminum	Other Aluminum		0.01%	1.01	R	R Metal
Metal	Other Metal	Other Non-Ferrous		0.00%	0.22	R	R Metal
Metal	Ferrous	Tin Food Cans		0.04%	3.06	R	R Metal
Metal	Ferrous	Empty Aerosol Cans		0.00%	0.06	R	R Metal
Metal	Ferrous	Other Ferrous		0.04%	3.05	R	R Metal
Metal	Other Metal	Mixed Metals		0.09%	6.79	R	R Metal
Organic	Yard	Leaves and Grass		0.00%	0.01	NR	NR_Other
Organic	Yard	Prunings		0.00%	0.01	NR	NR_Other
Organic	Wood	Stumps/Limbs		0.00%	0.00	NR	NR_Other
Organic	Food	Food		0.40%	29.45	NR	NR_Other
Organic	Wood	Non-C&D, Untreated Wood		0.00%	0.22	NR	NR_Other
Organic	Textiles	Non-Clothing Textiles		0.18%	13.19	NR	NR_Other
Organic	Textiles	Clothing Textiles		0.12%	8.53	NR	NR_Other
Organic	Textiles	Carpet/Upholstery		0.01%	0.82	NR	NR_Other
Organic	Diapers/Hygiene	Disposable Diapers/Sanitary Products		0.07%	5.29	NR	NR_Other
Organic	Misc. Organic	Animal By-Products		0.02%	1.79	NR	NR_Other
Organic	Misc. Organic	Rubber Products		0.01%	0.98	NR	NR_Other
Organic	Textiles	Shoes	Leather	0.00%	0.00	NR	NR_Other
Organic	Textiles	Shoes	Other	0.00%	0.00	NR	NR_Other
Organic	Textiles	Shoes	Rubber	0.02%	1.36	NR	NR_Other
Organic	Textiles	Other Leather Products		0.00%	0.23	NR	NR_Other
Organic	Misc. Organic	Fines		0.38%	27.47	NR	NR_Other
Organic	Misc. Organic	Miscellaneous Organics		0.01%	0.47	NR	NR_Other
App. & Elec.	Household Appliance	Small Appliances		0.06%	4.28	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Audio/Visual Equipment	Other	0.00%	0.00	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Audio/Visual Equipment	Cell Phones	0.00%	0.21	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Computer Monitors		0.00%	0.00	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Televisions		0.00%	0.00	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Other Computer Equip.		0.00%	0.00	NR	NR_Other

Table AU-3
Detailed Results of the PWCS Recyclables Sort without Bulk- Paper

Material Group	Material Subgroup	Material Category	Material Subcategory	% of Paper Stream	Weekly Tonnage in Paper Stream (1)	Recycling Indicator	Recycling Subindicator
Const. Debris	Wood	Untreated Dimension Lumber, Pallets, Crates		0.06%	4.02	NR	NR_Other
Const. Debris	Wood	Treated/Contaminated Wood		0.02%	1.23	NR	NR_Other
Const. Debris	Inorganic C&D	Gypsum Scrap		0.01%	0.82	NR	NR_Other
Const. Debris	Inorganic C&D	Fiberglass Insulation		0.00%	0.00	NR	NR_Other
Const. Debris	Inorganic C&D	Rock/Concrete/Bricks		0.00%	0.00	NR	NR_Other
Const. Debris	Inorganic C&D	Asphaltic Roofing		0.00%	0.00	NR	NR_Other
Const. Debris	Inorganic C&D	Other C&D Debris		0.11%	8.17	NR	NR_Other
Misc.	Misc. Inorganic	Misc. Inorganics		0.01%	0.78	NR	NR_Other
Misc.	Misc. Inorganic	Ceramics		0.01%	0.76	NR	NR_Other
HHW	HHW	Oil Filters		0.00%	0.07	NR	NR_Other
HHW	HHW	Antifreeze		0.00%	0.00	NR	NR_Other
HHW	HHW	Wet-Cell Batteries		0.00%	0.00	NR	NR_Other
HHW	HHW	Gasoline/Kerosene		0.00%	0.00	NR	NR_Other
HHW	HHW	Motor Oil/Diesel Oil		0.00%	0.00	NR	NR_Other
HHW	HHW	Latex Paints		0.00%	0.00	NR	NR_Other
HHW	HHW	Water and Solvent-Based Adhesives/glues		0.00%	0.00	NR	NR_Other
HHW	HHW	Oil-Based Paint/Solvent		0.00%	0.00	NR	NR_Other
HHW	HHW	Pesticides/Herbicides/Rodenticides		0.00%	0.00	NR	NR_Other
HHW	HHW	DRY-CELL Batteries		0.00%	0.14	NR	NR_Other
HHW	HHW	Fluorescent Tubes		0.00%	0.00	NR	NR_Other
HHW	HHW	Mercury-Laden waste		0.00%	0.00	NR	NR_Other
HHW	HHW	Compressed Gas Cylinders/Fire Extinguishers		0.00%	0.00	NR	NR_Other
HHW	HHW	Asbestos		0.00%	0.00	NR	NR_Other
HHW	HHW	Explosives		0.00%	0.00	NR	NR_Other
HHW	HHW	Smoke Detectors		0.00%	0.00	NR	NR_Other
HHW	HHW	Home Medical Products		0.00%	0.28	NR	NR_Other
HHW	HHW	Other Potentially Harmful Wastes		0.00%	0.00	NR	NR_Other
TOTAL				**100.00%**	**7,301.40**		

NR = Nonrecyclable under DSNY's current Curbside Recycling Program
PR = Potentially Designated for Recycling Under future DSNY programs
R = Recyclable under DSNY's current Curbside Recycling Program
(1) Tonnage values are based on 7,301.40 tons which is the average weekly tonnage of paper recycling that was collected during May and June 2004, as provided by DSNY.

The detailed results of the PWCS MGP Sort without bulk items are shown in Table AU-4. The 63 bulk items in the MGP Sort weighed a total of 1,195.40 pounds. The detailed results are of the PWCS MGP Sort including bulk items are presented in Table 7-3B of the PWCS Report. In addition, a more detailed discussion of bulk items in the MGP Sort is presented in Appendix W.

Table AU-4
Detailed Results of the PWCS Recyclables Sort without Bulk - MGP

Material Group	Material Subgroup	Material Category	Material Subcategory	% of MGP Stream	Weekly Tonnage in MGP Stream (1)	Recycling Indicator	Recycling Subindicator
Paper	ONP	Newspaper		0.69%	30.00	R	R Paper
Paper	OCC	Plain OCC/Kraft paper		0.28%	12.21	R	R Paper
Paper	Mixed Paper	High Grade Paper		0.09%	4.06	R	R Paper
Paper	Mixed Paper	Mixed Low Grade Paper		1.15%	50.10	R	R Paper
Paper	Mixed Paper	Phone Books		0.04%	1.64	R	R Paper
Paper	Mixed Paper	Paperbacks		0.01%	0.54	R	R Paper
Paper	Mixed Paper	Paper Bags		0.06%	2.43	R	R Paper
Paper	Bev Cartons	Polycoated Containers		1.81%	79.06	R	R Bev Cartons
Paper	Compostable Paper	Compostable/Soiled/ Waxed OCC		0.36%	15.82	NR	NR_Paper
Paper	Compostable Paper	Single Use Plates, Cups		0.02%	0.97	NR	NR_Paper
Paper	Other Paper	Other Nonrecyclable Paper		0.73%	31.69	NR	NR_Paper
Plastic	PET Bottles	PET Bottles	Deposit	1.33%	57.98	R	R Plastics
Plastic	PET Bottles	PET Bottles	Non-Deposit	5.20%	226.62	R	R Plastics
Plastic	HDPE Bottles	HDPE Natural Bottles		2.92%	127.11	R	R Plastics
Plastic	HDPE Bottles	HDPE Colored Bottles		2.94%	128.17	R	R Plastics
Plastic	Other Rigid Containers/Packaging	#1-#2 Tubs/Trays	#1 Pet	0.00%	0.09	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#1-#2 Tubs/Trays	#2 HDPE	0.13%	5.63	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#3 PVC	0.06%	2.77	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#4 LDPE	0.01%	0.65	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#5 PP	0.69%	30.15	PR	PR_Plastics
Plastic	Containers/Packaging	#3-#7 Containers	#7 Other	0.18%	7.73	PR	PR_Plastics
Plastic	Other Plastic Products	Other PVC		0.08%	3.64	NR	NR_Plastics
Plastic	Other Rigid Containers/Packaging	Rigid Polystyrene		0.45%	19.79	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	Expanded Polystyrene		0.11%	4.91	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	Other Rigid Containers/Packaging		1.72%	74.75	PR	PR_Plastics
Plastic	Film	Plastic Bags		0.81%	35.50	PR	PR_Plastics
Plastic	Film	Other Film		2.65%	115.44	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	Plastic Crates and Soda Bottle Carriers		0.17%	7.47	PR	PR_Plastics
Plastic	Other Plastic Products	Single-Use Food Svc		0.19%	8.11	NR	NR_Plastics
Plastic	Other Plastic Products	Single Use Cameras		0.00%	0.00	NR	NR_Plastics

Table AU-4
Detailed Results of the PWCS Recyclables Sort without Bulk - MGP

Material Group	Material Subgroup	Material Category	Material Subcategory	% of MGP Stream	Weekly Tonnage in MGP Stream [1]	Recycling Indicator	Recycling Subindicator
Plastic	Other Plastic Products	Disposable Razors		0.10%	4.50	NR	NR_Plastics
Plastic	Other Plastic Products	Other Plastics Materials		3.78%	164.82	NR	NR_Plastics
Glass	Container Glass	Clear Glass	Deposit	1.08%	46.97	R	R Glass
Glass	Container Glass	Clear Glass	Non-Deposit	6.80%	296.30	R	R Glass
Glass	Container Glass	Green Glass	Deposit	1.16%	50.52	R	R Glass
Glass	Container Glass	Green Glass	Non-Deposit	2.94%	128.01	R	R Glass
Glass	Container Glass	Brown Glass	Deposit	1.20%	52.38	R	R Glass
Glass	Container Glass	Brown Glass	Non-Deposit	0.32%	13.77	R	R Glass
Glass	Mixed Cullet	Mixed Cullet		23.33%	1,016.24	R	R Glass
Glass	Other Glass	Other Glass		0.68%	29.52	PR	PR_Glass
Metal	Aluminum	Aluminum Cans	Deposit	0.44%	19.36	R	R Metal
Metal	Aluminum	Aluminum Cans	Non-Deposit	0.42%	18.19	R	R Metal
Metal	Aluminum	Aluminum Foil/Tins		1.05%	45.74	R	R Metal
Metal	Aluminum	Other Aluminum		0.25%	11.00	R	R Metal
Metal	Other Metal	Other Non-Ferrous		0.30%	13.21	R	R Metal
Metal	Ferrous	Tin Food Cans		7.66%	333.86	R	R Metal
Metal	Ferrous	Empty Aerosol Cans		0.69%	30.01	R	R Metal
Metal	Ferrous	Other Ferrous		14.39%	626.95	R	R Metal
Metal	Other Metal	Mixed Metals		0.64%	27.69	R	R Metal
Organic	Yard	Leaves and Grass		0.03%	1.13	NR	NR_Other
Organic	Yard	Prunings		0.03%	1.19	NR	NR_Other
Organic	Wood	Stumps/Limbs		0.00%	0.01	NR	NR_Other
Organic	Food	Food		1.29%	56.01	NR	NR_Other
Organic	Wood	Non-C&D, Untreated Wood		0.08%	3.32	NR	NR_Other
Organic	Textiles	Non-Clothing Textiles		0.18%	7.93	NR	NR_Other
Organic	Textiles	Clothing Textiles		0.06%	2.65	NR	NR_Other
Organic	Textiles	Carpet/Upholstery		0.00%	0.00	NR	NR_Other
Organic	Diapers/Hygiene	Disposable Diapers/Sanitary Products		0.09%	3.95	NR	NR_Other
Organic	Misc. Organic	Animal By-Products		0.01%	0.61	NR	NR_Other
Organic	Misc. Organic	Rubber Products		0.10%	4.24	NR	NR_Other
Organic	Textiles	Shoes	Leather	0.00%	0.00	NR	NR_Other
Organic	Textiles	Shoes	Other	0.00%	0.19	NR	NR_Other
Organic	Textiles	Shoes	Rubber	0.06%	2.70	NR	NR_Other
Organic	Textiles	Other Leather Products		0.02%	0.77	NR	NR_Other
Organic	Misc. Organic	Fines		1.31%	56.91	NR	NR_Other
Organic	Misc. Organic	Miscellaneous Organics		0.22%	9.49	NR	NR_Other
App. & Elec.	Household Appliance	Small Appliances		1.39%	60.42	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Audio/Visual Equipment	Other	0.80%	34.84	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Audio/Visual Equipment	Cell Phones	0.00%	0.16	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Computer Monitors		0.00%	0.00	NR	NR_Other

Table AU-4
Detailed Results of the PWCS Recyclables Sort without Bulk - MGP

Material Group	Material Subgroup	Material Category	Material Subcategory	% of MGP Stream	Weekly Tonnage in MGP Stream (1)	Recycling Indicator	Recycling Subindicator
App. & Elec.	Electronic.AV/Computer	Televisions		0.00%	0.00	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Other Computer Equip.		0.87%	37.74	NR	NR_Other
Const. Debris	Wood	Untreated Dimension Lumber, Pallets, Crates		0.14%	6.12	NR	NR_Other
Const. Debris	Wood	Treated/Contaminated Wood		0.09%	3.73	NR	NR_Other
Const. Debris	Inorganic C&D	Gypsum Scrap		0.00%	0.00	NR	NR_Other
Const. Debris	Inorganic C&D	Fiberglass Insulation		0.00%	0.04	NR	NR_Other
Const. Debris	Inorganic C&D	Rock/Concrete/Bricks		0.06%	2.66	NR	NR_Other
Const. Debris	Inorganic C&D	Asphaltic Roofing		0.00%	0.00	NR	NR_Other
Const. Debris	Inorganic C&D	Other C&D Debris		0.01%	0.40	NR	NR_Other
Misc.	Misc. Inorganic	Misc. Inorganics		0.41%	18.00	NR	NR_Other
Misc.	Misc. Inorganic	Ceramics		0.48%	21.00	NR	NR_Other
HHW	HHW	Oil Filters		0.00%	0.00	NR	NR_Other
HHW	HHW	Antifreeze		0.00%	0.00	NR	NR_Other
HHW	HHW	Wet-Cell Batteries		0.00%	0.00	NR	NR_Other
HHW	HHW	Gasoline/Kerosene		0.00%	0.00	NR	NR_Other
HHW	HHW	Motor Oil/Diesel Oil		0.00%	0.00	NR	NR_Other
HHW	HHW	Latex Paints		0.00%	0.00	NR	NR_Other
HHW	HHW	Water and Solvent-Based Adhesives/glues		0.01%	0.44	NR	NR_Other
HHW	HHW	Oil-Based Paint/Solvent		0.07%	3.05	NR	NR_Other
HHW	HHW	Pesticides/Herbicides/Rodenticides		0.00%	0.00	NR	NR_Other
HHW	HHW	DRY-CELL Batteries		0.04%	1.87	NR	NR_Other
HHW	HHW	Fluorescent Tubes		0.00%	0.07	NR	NR_Other
HHW	HHW	Mercury-Laden waste		0.00%	0.00	NR	NR_Other
HHW	HHW	Compressed Gas Cylinders/Fire Extinguishers		0.01%	0.55	NR	NR_Other
HHW	HHW	Asbestos		0.00%	0.00	NR	NR_Other
HHW	HHW	Explosives		0.00%	0.00	NR	NR_Other
HHW	HHW	Smoke Detectors		0.00%	0.04	NR	NR_Other
HHW	HHW	Home Medical Products		0.00%	0.00	NR	NR_Other
HHW	HHW	Other Potentially Harmful Wastes		0.00%	0.00	NR	NR_Other
TOTAL				100.00%	4,356.31		

NR = Nonrecyclable under DSNY's current Curbside Recycling Program
PR = Potentially Designated for Recycling Under future DSNY programs
R = Recyclable under DSNY's current Curbside Recycling Program
(1) Tonnage values are based on 4,882.00 tons which is the average weekly tonnage of MGP recycling that was collected during May and June 2004, as provided by DSNY, less 10.77% of the MGP stream that was bulk. This equates to 4,356.31 tons.

The detailed results of the PWCS Waste Sort, which combines the results of the Refuse Sort and the Recycling Sort without bulk items are shown in Table AU-5. A total of 121 bulk items weighing 2,158.6 pounds were part of the combined sorts. The results of the combined sorts including bulk items are shown in Table 8-2 of the PWCS Report.

Table AU-5
Detailed Results of the PWCS Waste Sort without Bulk [1]

Material Group	Material Subgroup	Material Category	Material Subcategory	% of Waste Stream	Weekly Tonnage in Waste Stream [2]	Recycling Indicator	Recycling Subindicator
Paper	ONP	Newspaper		7.34%	5,139.71	R	R Paper
Paper	OCC	Plain OCC/Kraft paper		3.29%	2,301.78	R	R Paper
Paper	Mixed Paper	High Grade Paper		1.02%	717.58	R	R Paper
Paper	Mixed Paper	Mixed Low Grade Paper		8.91%	6,244.33	R	R Paper
Paper	Mixed Paper	Phone Books		0.53%	370.13	R	R Paper
Paper	Mixed Paper	Paperbacks		0.30%	208.11	R	R Paper
Paper	Mixed Paper	Paper Bags		0.57%	397.70	R	R Paper
Paper	Bev Cartons	Polycoated Containers		0.54%	376.35	R	R Bev Cartons
Paper	Compostable Paper	Compostable/Soiled/ Waxed OCC		6.40%	4,481.54	NR	NR_Paper
Paper	Compostable Paper	Single Use Plates, Cups		0.44%	306.25	NR	NR_Paper
Paper	Other Paper	Other Nonrecyclable Paper		0.74%	518.60	NR	NR_Paper
Plastic	PET Bottles	PET Bottles	Deposit	0.37%	257.48	R	R Plastics
Plastic	PET Bottles	PET Bottles	Non-Deposit	0.88%	614.76	R	R Plastics
Plastic	HDPE Bottles	HDPE Natural Bottles		0.44%	311.24	R	R Plastics
Plastic	HDPE Bottles	HDPE Colored Bottles		0.51%	356.58	R	R Plastics
Plastic	Other Rigid Containers/Packaging	#1-#2 Tubs/Trays	#1 Pet	0.02%	15.97	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#1-#2 Tubs/Trays	#2 HDPE	0.08%	53.60	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#3 PVC	0.02%	10.64	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#4 LDPE	0.01%	9.05	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#5 PP	0.23%	162.76	PR	PR_Plastics
Plastic	Containers/Packaging	#3-#7 Containers	#7 Other	0.07%	48.98	PR	PR_Plastics
Plastic	Other Plastic Products	Other PVC		0.07%	45.57	NR	NR_Plastics
Plastic	Other Rigid Containers/Packaging	Rigid Polystyrene		0.16%	114.96	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	Expanded Polystyrene		0.60%	421.59	PR	PR_Plastics
Plastic	Containers/Packaging	Other Rigid Containers/Packaging		0.62%	437.19	PR	PR_Plastics
Plastic	Film	Plastic Bags		2.45%	1,715.60	PR	PR_Plastics
Plastic	Film	Other Film		4.66%	3,266.10	PR	PR_Plastics
Plastic	Other Rigid Containers/Packaging	Plastic Crates and Soda Bottle Carriers		0.06%	43.33	PR	PR_Plastics

Table AU-5
Detailed Results of the PWCS Waste Sort without Bulk [1]

Material Group	Material Subgroup	Material Category	Material Subcategory	% of Waste Stream	Weekly Tonnage in Waste Stream [2]	Recycling Indicator	Recycling Subindicator
Plastic	Other Plastic Products	Single-Use Food Svc		0.67%	471.34	NR	NR_Plastics
Plastic	Other Plastic Products	Single Use Cameras		0.00%	0.00	NR	NR_Plastics
Plastic	Other Plastic Products	Disposable Razors		0.01%	8.77	NR	NR_Plastics
Plastic	Other Plastic Products	Other Plastics Materials		1.62%	1,135.31	NR	NR_Plastics
Glass	Container Glass	Clear Glass	Deposit	0.31%	217.13	R	R Glass
Glass	Container Glass	Clear Glass	Non-Deposit	1.28%	895.37	R	R Glass
Glass	Container Glass	Green Glass	Deposit	0.20%	139.30	R	R Glass
Glass	Container Glass	Green Glass	Non-Deposit	0.32%	224.42	R	R Glass
Glass	Container Glass	Brown Glass	Deposit	0.30%	209.07	R	R Glass
Glass	Container Glass	Brown Glass	Non-Deposit	0.07%	48.34	R	R Glass
Glass	Mixed Cullet	Mixed Cullet		1.88%	1,317.98	R	R Glass
Glass	Other Glass	Other Glass		0.21%	148.94	PR	PR_Glass
Metal	Aluminum	Aluminum Cans	Deposit	0.17%	121.93	R	R Metal
Metal	Aluminum	Aluminum Cans	Non-Deposit	0.05%	34.35	R	R Metal
Metal	Aluminum	Aluminum Foil/Tins		0.58%	403.76	R	R Metal
Metal	Aluminum	Other Aluminum		0.06%	39.84	R	R Metal
Metal	Other Metal	Other Non-Ferrous		0.07%	51.36	R	R Metal
Metal	Ferrous	Tin Food Cans		1.26%	879.96	R	R Metal
Metal	Ferrous	Empty Aerosol Cans		0.15%	103.30	R	R Metal
Metal	Ferrous	Other Ferrous		1.72%	1,204.45	R	R Metal
Metal	Other Metal	Mixed Metals		0.40%	282.43	R	R Metal
Organic	Yard	Leaves and Grass		5.33%	3,731.76	NR	NR_Other
Organic	Yard	Prunings		2.53%	1,770.67	NR	NR_Other
Organic	Wood	Stumps/Limbs		0.46%	320.36	NR	NR_Other
Organic	Food	Food		13.69%	9,591.47	NR	NR_Other
Organic	Wood	Non-C&D, Untreated Wood		0.12%	86.60	NR	NR_Other
Organic	Textiles	Non-Clothing Textiles		1.47%	1,029.59	NR	NR_Other
Organic	Textiles	Clothing Textiles		3.15%	2,207.98	NR	NR_Other
Organic	Textiles	Carpet/Upholstery		0.95%	666.04	NR	NR_Other
Organic	Diapers/Hygiene	Disposable Diapers/Sanitary Products		3.25%	2,277.86	NR	NR_Other
Organic	Misc. Organic	Animal By-Products		1.06%	742.94	NR	NR_Other
Organic	Misc. Organic	Rubber Products		0.27%	192.40	NR	NR_Other
Organic	Textiles	Shoes	Leather	0.33%	228.50	NR	NR_Other
Organic	Textiles	Shoes	Other	0.08%	56.15	NR	NR_Other
Organic	Textiles	Shoes	Rubber	0.18%	123.79	NR	NR_Other
Organic	Textiles	Other Leather Products		0.02%	13.96	NR	NR_Other
Organic	Misc. Organic	Fines		3.69%	2,588.31	NR	NR_Other
Organic	Misc. Organic	Miscellaneous Organics		3.37%	2,363.08	NR	NR_Other
App. & Elec.	Household Appliance	Small Appliances		0.30%	211.76	NR	NR_Other

Table AU-5
Detailed Results of the PWCS Waste Sort without Bulk [1]

Material Group	Material Subgroup	Material Category	Material Subcategory	% of Waste Stream	Weekly Tonnage in Waste Stream [2]	Recycling Indicator	Recycling Subindicator
App. & Elec.	Electronic.AV/Computer	Audio/Visual Equipment	Other	0.21%	148.90	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Audio/Visual Equipment	Cell Phones	0.00%	2.99	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Computer Monitors		0.04%	28.44	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Televisions		0.08%	59.18	NR	NR_Other
App. & Elec.	Electronic.AV/Computer	Other Computer Equip.		0.18%	127.49	NR	NR_Other
Const. Debris	Wood	Untreated Dimension Lumber, Pallets, Crates		0.29%	203.75	NR	NR_Other
Const. Debris	Wood	Treated/Contaminated Wood		2.41%	1,689.35	NR	NR_Other
Const. Debris	Inorganic C&D	Gypsum Scrap		0.98%	689.51	NR	NR_Other
Const. Debris	Inorganic C&D	Fiberglass Insulation		0.03%	20.75	NR	NR_Other
Const. Debris	Inorganic C&D	Rock/Concrete/Bricks		0.51%	354.09	NR	NR_Other
Const. Debris	Inorganic C&D	Asphaltic Roofing		0.02%	11.89	NR	NR_Other
Const. Debris	Inorganic C&D	Other C&D Debris		1.35%	944.27	NR	NR_Other
Misc.	Misc. Inorganic	Misc. Inorganics		0.22%	157.60	NR	NR_Other
Misc.	Misc. Inorganic	Ceramics		0.36%	251.20	NR	NR_Other
HHW	HHW	Oil Filters		0.00%	0.07	NR	NR_Other
HHW	HHW	Antifreeze		0.00%	0.00	NR	NR_Other
HHW	HHW	Wet-Cell Batteries		0.06%	42.86	NR	NR_Other
HHW	HHW	Gasoline/Kerosene		0.00%	0.54	NR	NR_Other
HHW	HHW	Motor Oil/Diesel Oil		0.00%	0.00	NR	NR_Other
HHW	HHW	Latex Paints		0.04%	28.85	NR	NR_Other
HHW	HHW	Water and Solvent-Based Adhesives/glues		0.05%	37.61	NR	NR_Other
HHW	HHW	Oil-Based Paint/Solvent		0.06%	41.93	NR	NR_Other
HHW	HHW	Pesticides/Herbicides/Rodenticides		0.00%	0.81	NR	NR_Other
HHW	HHW	DRY-CELL Batteries		0.06%	42.32	NR	NR_Other
HHW	HHW	Fluorescent Tubes		0.00%	2.66	NR	NR_Other
HHW	HHW	Mercury-Laden waste		0.00%	0.07	NR	NR_Other
HHW	HHW	Compressed Gas Cylinders/Fire Extinguishers		0.00%	0.55	NR	NR_Other
HHW	HHW	Asbestos		0.00%	0.00	NR	NR_Other
HHW	HHW	Explosives		0.00%	0.00	NR	NR_Other
HHW	HHW	Smoke Detectors		0.00%	1.45	NR	NR_Other
HHW	HHW	Home Medical Products		0.03%	24.11	NR	NR_Other
HHW	HHW	Other Potentially Harmful Wastes		0.07%	49.73	NR	NR_Other
TOTAL				100.00%	70,051.03		

Table AU-5
Detailed Results of the PWCS Waste Sort without Bulk (1)

Material Group	Material Subgroup	Material Category	Material Subcategory	% of Waste Stream	Weekly Tonnage in Waste Stream (2)	Recycling Indicator	Recycling Subindicator

NR = Nonrecyclable under DSNY's current Curbside Recycling Program
PR = Potentially Designated for Recycling Under future DSNY programs
R = Recyclable under DSNY's current Curbside Recycling Program

(1) Results are the aggregate of the refuse stream and recycling stream results. "Small Appliances" were defined in the refuse stream as any small appliance. This definition was later revised for the recycling sort to include only those small appliances with less than 50% metal. All other small appliances in the recycling stream were included in the "Other Ferrous" category.

(2) Tonnage values are based on 71,802.25 tons which is the average weekly tonnage of waste that was collected during May and June 2004, as provided by DSNY, less 2.44 % of the waste stream that was bulk. This equates to 70,051.03 tons.

As the results in Table AU-5 shows, bulk items made up 2.44 percent of the waste sampled during the PWCS.

Appendix V
PWCS Results Adjusted for Moisture and Particulates

PWCS Results Adjusted for Moisture and Particulates

A primary objective of assessing the composition of New York City's curbside waste stream is to provide defensible, accurate data to assist planners in formulating future program changes. The PWCS Report describes the detailed composition of the refuse, recycling, and aggregated waste streams. These data represent an excellent starting point. However, as discussed in the body of the PWCS Report, individual materials in the refuse and recycling streams absorb moisture and embedded particulate matter during the collection and compaction process. Unless the transfer of moisture and foreign particulate matter is adjusted for, the results of a composition study can be misleading.

For example, the results of the PWCS showed that 3.71 percent of the refuse stream was newspaper, a material designated for recycling by the DSNY. When this percentage is applied to the average weekly tonnage in May and June of 2004, this suggests that 2,210.19 tons of newspaper could theoretically been recycled. However, the results of the moisture and particulate testing indicate that a significant fraction of the newspaper in the refuse was actually moisture and particulate matter. To evaluate more precisely the amount of newspaper being disposed, an adjustment should be made for moisture and particulate matter. For this reason, Appendix V presents the adjusted results of the Refuse Sort and the Aggregated Waste Stream.

Moisture and particulate testing were conducted on 25 materials in the Refuse Stream and 27 materials in the Recycling Stream. These materials were selected because it was felt that these materials were most susceptible to the migration of moisture and foreign particulates. A total of 41 random samples from the Refuse and Recycling Sort were selected for moisture and particulate testing. Each of the materials occurring in the selected samples were tested. Some samples contained only some of the materials to be tested. In all 641 tests were conducted on the 41 samples. Table AV-1, AV-2, and AV-3 summarize the moisture and particulate tests that were conducted for the PWCS.

Table AV-1
Summary of Moisture and Particulate Testing for the Refuse Sort

Sample ID	Borough	Category																										Total Categories Tested From Each Composition Sample
		Aluminum Cans	Aluminum foil/tins	Clothing Textiles	Compostable/Soiled/ Waxed OCC	Expanded Polystyrene	HDPE Colored Bottles	HDPE Natural Bottles	High Grade Paper	Mixed Low Grade Paper	Newspaper	Non-Clothing Textiles	Other Film	Other nonrecyclable paper	Other rigid containers/packaging	Paper Bags	Paperbacks	PET bottles	Phone books	Plain OCC/Kraft Paper	Plastic Bags	Polycoated Containers	Rigid polystyrene	Single Use Plates	Single-Use Food Svc	Tin Food Cans	
20040515-M62-1-25CN-566	Manhattan	●		●	●	●	●	●	●	●	●	●	●	●		●				●	●	●		●	●	●	19
20040517-BK31-4-25CW-017	Brooklyn			●	●	●		●			●	●	●	●	●			●		●		●		●	●		14
20040517-BK72-2-25CN-686	Brooklyn	●	●	●	●	●		●	●	●	●	●		●	●	●		●		●	●	●		●	●	●	20
20040518-BX123-2-25CN-746	Bronx	●		●	●	●	●		●	●	●	●		●		●		●	●	●	●	●	●	●	●	●	20
20040518-BX21-1-25CN-636	Bronx	●	●	●	●	●	●	●	●	●		●		●	●	●		●	●	●	●	●	●	●		●	21
20040518-BX92-2-25CU-186	Bronx	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●		●	●		●	21
20040519-BK102-1-25CU-010	Brooklyn		●	●	●	●	●	●		●	●	●		●	●	●		s			●	●		●	●	●	17
20040519-BK175-2-25CU-127	Brooklyn	●	●	●	●	●	●	●	●	●				●	●	●		●		●	●	●	●	●	●	●	20
20040519-M101-1-25CW-098	Manhattan	●	●	●	●	●		●	●	●	●	●	×	●	●	●		●				●	●	●	●	●	19
20040519-M34-1-25CW-160	Manhattan	●	●	●	●	●				●	●	●		●		●		●		●	●	●	●	●	●	●	18
20040520-BK185-1-25CW-096	Brooklyn	●			●	●	●	●			●		●	●	●			●					●	●	●	●	14
20040520-BX61-6-25CW-006	Bronx	●	●	●	●	●	●	●	●	●	●	●		●	●	●		●		●	●	●	●	●	●	●	22
20040521-BK113-1-25CN-763	Brooklyn	●		●	●	●	●	●	●	●	●	●	●	●		●		●		●		●	●	●	●	●	20
20040521-BX11-3-25CN-725	Bronx	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●		●		●	●	●	●	●	22
20040522-Q136-2-25CW-517	Queens	●	●	●	●	●	●	●	●	●	●	●		●	●	●		●		●	●	●	●	●	●	●	22
20040522-Q72-1-25CW-527	Queens		●	×	●	●	●		●	●	●	●	×	●	●	●		●		●		●		●	●	●	17
20040522-SI38-2-25CW-142	Staten Island	●	●	●	●		●	●	●	●	●			●	●	●	●	●		●	●		●	●	●	●	21
20040525-Q13-25CW-547	Queens		●	●		●	●	●	●	●	●		●	●	●	●		●		●		●	●	●		●	18
20040525-Q13-25CW-552	Queens	●	●	●	●	●	●	●		●		●		●	●	●		●			●		●	●	●	●	18
20040525-Q84-4-25CN-104	Queens	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●		●		●	●	●	●	●	22
Total Tested from Each Category		16	14	18	19	19	16	17	15	18	17	16	8	20	16	18	2	18	2	16	12	17	15	20	17	19	**385**

● Composition sample categories tested by the lab.
× Composition sample categories not tested by the lab due to human waste contamination. Not counted in "Total" values.
s Composition samples categories not tested by the lab due to spillage of sample. Not counted in "Total" values.

Table AV-2
Summary of Moisture and Particulate Testing for the Paper Sort

Sample ID	Borough	Category																												Total Categories Tested From Each Composition Sample
		Aluminum Cans	Aluminum Foil/Tins	HDPE Natural Bottles	HDPE Pigment Bottles	High Grade paper	Inject'n Molded Containers: #5 Tub	Mixed Low Grade Paper	Newspaper	Nonrecyclable Paper: Compostable/Soiled	Nonrecyclable Paper: Other Non-Recyc	Nonrecyclable Paper: Plates/Cups	Other Film	Other Plastic: Exp PS	Other Plastic: Food Svc	Other Plastic: Other Plastic	Other Plastic: Other Rigid Containers	Other Plastic: Rigid PS	Paper Bags	Paperbacks	PET Bottles	Phone Books	Plain OCC/Kraft paper	Plastic Bags	Polycoated Containers	Textile/Rubber/Leather: Clothing Textiles	Textile/Rubber/Leather: Non-Clothing Textile	Tin Food Cans	
20040515-BK-11-3-1-25CM-167-P	Brooklyn	•				•		•	•				•	•					•	•		•	•	•					11
20040515-BK-15-2-2-25CM-269-P	Brooklyn			•		•		•	•	•	•		•	•					•	•		•	•	•		•	•		15
20040515-BK-16-1-2-25CW-059-P	Brooklyn					•		•	•	•	•		•						•	•			•	•	•		•		12
20040515-BK-18-5-2-25CM-012-P	Brooklyn					•		•	•		•		•						•				•	•	•				9
20040515-BK-6-5-2-25CN-616-P	Brooklyn					•		•	•	•	•		•						•	•			•	•	•				11
20040515-BK-7-3-1-25CN-487-P	Brooklyn					•		•	•		•		•						•	•		•	•	•	•		•		12
20040515-BK-8-1-2-25CN-557-P	Brooklyn					•		•	•	•	•		•							•			•	•	•	•			11
20040515-M-6-1-4-25CN-808-P	Manhattan					•		•	•		•		•										•	•					7
20040515-M-6-2-4-25CU-145-P	Manhattan					•		•	•				•						•				•	•	•		•		9
20040515-Q-10-1-1-25CM-071-P	Queens					•		•	•				•	•					•	•		•	•	•	•				11
20040515-Q-9-4-1-25CM-059-P	Queens					•		•	•				•						•	•			•	•					8
Total Tested from Each Category		1	0	1	0	11	0	11	11	4	7	0	11	3	0	0	0	0	9	8	0	4	11	11	7	2	4	0	**116**

Table AV-3
Summary of Moisture and Particulate Testing for the MGP Sort

SampleID	Borough	Category																													Total Categories Tested From Each Composition Sample
		Aluminum Cans	Aluminum Foil/Tins	HDPE Natural Bottles	HDPE Pigment Bottles	High Grade paper	Inject'n Molded Containers: #5 Tub	Mixed Low Grade Paper	Newspaper	Nonrecyclable Paper: Compostable/Soiled	Nonrecyclable Paper: Other Non-Recycl	Nonrecyclable Paper: Plates/Cups	Other Film	Other Plastic: Exp PS	Other Plastic: Food Svc	Other Plastic: Other Plastic	Other Plastic: Other Rigid Containers	Other Plastic: Rigid PS	Paper Bags	Paperbacks	PET Bottles	Phone Books	Plain OCC/Kraft paper	Plastic Bags	Polycoated Containers	Textile/Rubber/Leather: Clothing Textiles	Textile/Rubber/Leather: Non-Clothing Textile	Tin Food Cans	
20040515-BK-12-2-1-25CM-055-M	Brooklyn	•	•	•	•				•	•	•		•								•		•	•	•			•	13
20040515-BK-18-5-2-25CM-012-M	Brooklyn	•	•	•	•		•		•	•	•		•	•	•			•			•		•	•	•			•	17
20040515-BK-18-7-1-25CM-184-M	Brooklyn	•	•	•	•			•	•		•	•	•					•			•			•	•			•	14
20040515-BK-9-3-2-25CU-268-M	Brooklyn			•	•			•			•		•	•							•			•	•		•	•	11
20040515-BX-11-1-2-25CN-454-M	Bronx	•	•	•	•			•		•	•	•	•	•				•			•			•	•			•	15
20040515-BX-4-3-1-25CU-018-M	Bronx	•		•	•			•	•								•				•		•			•		•	10
20040515-BX-7-3-2-25CF-203-M	Bronx	•	•	•	•			•			•		•		•			•			•			•	•			•	13
20040515-BX-8-1-1-25CU-017-M	Bronx	•	•	•	•					•	•	•	•			•	•				•			•	•			•	14
20040515-Q-12-1-1-25CM-157-M	Queens	•	•	•	•			•	•	•	•		•	•	•			•			•		•	•	•		•	•	18
20040515-Q-5-5-2-25CM-008-M	Queens	•	•	•	•			•			•		•	•	•			•		•	•			•	•			•	15
Total Tested from Each Category		9	8	10	10	0	1	7	5	5	9	3	9	5	4	1	2	6	0	1	10	0	4	9	9	1	2	10	140

Table AV-4 presents the results of the moisture and particulate tests that were performed on the refuse samples showing, and Table AV-5 presents the results of the tests performed on the recycling samples.

Table AV-4
Refuse Moisture and Particulate Analysis Results

Material	Component	Average	Standard Deviation
Aluminum Cans: Deposit	Material	77.67%	18.09%
Aluminum Cans: Deposit	Moisture	17.02%	14.61%
Aluminum Cans: Deposit	Particulates	5.32%	13.77%
Aluminum Cans: Non-deposit	Material	77.67%	18.09%
Aluminum Cans: Non-deposit	Moisture	17.02%	14.61%
Aluminum Cans: Non-deposit	Particulates	5.32%	13.77%
Aluminum Foil/Tins	Material	60.87%	18.09%
Aluminum Foil/Tins	Moisture	26.93%	12.01%
Aluminum Foil/Tins	Particulates	12.21%	12.28%
Clothing Textiles	Material	84.45%	12.86%
Clothing Textiles	Moisture	14.02%	11.27%
Clothing Textiles	Particulates	1.53%	2.82%
Compostable/Soiled/ Waxed OCC	Material	48.88%	8.24%
Compostable/Soiled/ Waxed OCC	Moisture	42.72%	12.55%
Compostable/Soiled/ Waxed OCC	Particulates	8.40%	8.19%
Expanded Polystyrene	Material	57.32%	22.34%
Expanded Polystyrene	Moisture	27.00%	12.13%
Expanded Polystyrene	Particulates	15.69%	14.82%
HDPE Colored Bottles	Material	92.56%	7.84%
HDPE Colored Bottles	Moisture	6.85%	7.36%
HDPE Colored Bottles	Particulates	0.59%	1.60%
HDPE Natural Bottles	Material	91.07%	9.78%
HDPE Natural Bottles	Moisture	7.26%	9.33%
HDPE Natural Bottles	Particulates	1.67%	3.25%
High Grade Paper	Material	84.94%	11.49%
High Grade Paper	Moisture	13.41%	11.27%
High Grade Paper	Particulates	1.64%	4.66%
Mixed Low Grade Paper	Material	69.08%	12.13%
Mixed Low Grade Paper	Moisture	25.61%	10.44%
Mixed Low Grade Paper	Particulates	5.31%	6.05%

Table AV-4
Refuse Moisture and Particulate Analysis Results

Material	Component	Average	Standard Deviation
Newspaper	Material	66.04%	17.87%
Newspaper	Moisture	28.59%	13.14%
Newspaper	Particulates	5.36%	14.71%
Non-Clothing Textiles	Material	67.23%	20.87%
Non-Clothing Textiles	Moisture	19.69%	13.09%
Non-Clothing Textiles	Particulates	13.08%	24.48%
Other Nonrecyclable Paper	Material	70.15%	13.80%
Other Nonrecyclable Paper	Moisture	24.43%	9.47%
Other Nonrecyclable Paper	Particulates	5.43%	9.13%
Other Film	Material	55.20%	16.91%
Other Film	Moisture	35.29%	17.82%
Other Film	Particulates	9.50%	6.14%
Other Rigid Containers/Packaging	Material	79.85%	11.74%
Other Rigid Containers/Packaging	Moisture	12.23%	8.30%
Other Rigid Containers/Packaging	Particulates	7.93%	6.37%
Paper Bags	Material	61.14%	19.11%
Paper Bags	Moisture	29.38%	14.82%
Paper Bags	Particulates	9.48%	13.02%
Paperbacks	Material	90.83%	1.95%
Paperbacks	Moisture	7.97%	3.65%
Paperbacks	Particulates	1.20%	1.69%
PET bottles: Deposit	Material	86.82%	11.42%
PET bottles: Deposit	Moisture	11.83%	11.03%
PET bottles: Deposit	Particulates	1.36%	2.53%
PET bottles: Non-deposit	Material	86.82%	11.42%
PET bottles: Non-deposit	Moisture	11.83%	11.03%
PET bottles: Non-deposit	Particulates	1.36%	2.53%
Phone books	Material	90.73%	1.93%
Phone books	Moisture	7.14%	1.08%
Phone books	Particulates	2.13%	3.01%
Plain OCC/Kraft Paper	Material	66.28%	20.02%
Plain OCC/Kraft Paper	Moisture	31.32%	20.38%
Plain OCC/Kraft Paper	Particulates	2.39%	4.95%

Table AV-4
Refuse Moisture and Particulate Analysis Results

Material	Component	Average	Standard Deviation
Plastic Bags	Material	49.62%	10.15%
Plastic Bags	Moisture	34.91%	9.73%
Plastic Bags	Particulates	15.47%	9.32%
Polycoated Containers	Material	75.05%	10.44%
Polycoated Containers	Moisture	22.24%	9.31%
Polycoated Containers	Particulates	2.70%	4.15%
Rigid polystyrene	Material	79.38%	14.46%
Rigid polystyrene	Moisture	14.00%	11.58%
Rigid polystyrene	Particulates	6.63%	10.52%
Single Use Plates	Material	60.95%	18.22%
Single Use Plates	Moisture	34.16%	15.69%
Single Use Plates	Particulates	4.89%	8.41%
Single-Use Food Svc	Material	70.26%	13.95%
Single-Use Food Svc	Moisture	17.89%	9.16%
Single-Use Food Svc	Particulates	11.85%	9.96%
Tin Food Cans	Material	86.62%	9.99%
Tin Food Cans	Moisture	10.12%	7.28%
Tin Food Cans	Particulates	3.27%	4.36%

Table AV-5
Recycling Moisture and Particulate Analysis Results

Material	Component	Average	Standard Deviation
Aluminum Cans: Deposit	Material	96.28%	5.85%
Aluminum Cans: Deposit	Moisture	3.28%	5.00%
Aluminum Cans: Deposit	Particulates	0.44%	0.97%
Aluminum Cans: Non-Deposit	Material	96.28%	5.85%
Aluminum Cans: Non-Deposit	Moisture	3.28%	5.00%
Aluminum Cans: Non-Deposit	Particulates	0.44%	0.97%
Aluminum Foil/Tins	Material	85.91%	8.24%
Aluminum Foil/Tins	Moisture	9.84%	5.01%
Aluminum Foil/Tins	Particulates	4.25%	4.66%
HDPE Natural Bottles	Material	92.07%	15.61%
HDPE Natural Bottles	Moisture	7.35%	15.35%
HDPE Natural Bottles	Particulates	0.58%	1.09%
HDPE Colored Bottles	Material	96.55%	3.31%
HDPE Colored Bottles	Moisture	2.64%	2.48%
HDPE Colored Bottles	Particulates	0.80%	1.48%
High Grade Paper	Material	93.78%	2.30%
High Grade Paper	Moisture	5.94%	1.99%
High Grade Paper	Particulates	0.27%	0.91%
#3-#7 Containers: #5 PP	Material	100.00%	NA
#3-#7 Containers: #5 PP	Moisture	0.00%	NA
#3-#7 Containers: #5 PP	Particulates	0.00%	NA
Mixed Low Grade Paper	Material	83.04%	14.44%
Mixed Low Grade Paper	Moisture	15.04%	14.60%
Mixed Low Grade Paper	Particulates	1.93%	4.08%
Newspaper	Material	79.91%	18.71%
Newspaper	Moisture	17.69%	18.29%
Newspaper	Particulates	2.40%	4.66%
Compostable/Soiled/ Waxed OCC	Material	65.57%	24.71%
Compostable/Soiled/ Waxed OCC	Moisture	30.35%	25.81%
Compostable/Soiled/ Waxed OCC	Particulates	4.08%	4.16%

Table AV-5
Recycling Moisture and Particulate Analysis Results

Material	Component	Average	Standard Deviation
Other Nonrecyclable Paper	Material	79.97%	15.56%
Other Nonrecyclable Paper	Moisture	15.79%	12.86%
Other Nonrecyclable Paper	Particulates	4.23%	6.71%
Single Use Plates, Cups	Material	94.07%	5.76%
Single Use Plates, Cups	Moisture	5.93%	5.76%
Single Use Plates, Cups	Particulates	0.00%	0.00%
Other Film	Material	79.24%	19.33%
Other Film	Moisture	9.58%	10.27%
Other Film	Particulates	11.17%	12.36%
Expanded Polystyrene	Material	91.05%	21.67%
Expanded Polystyrene	Moisture	6.12%	13.75%
Expanded Polystyrene	Particulates	2.83%	8.00%
Single-Use Food Svc	Material	92.91%	12.21%
Single-Use Food Svc	Moisture	4.39%	6.23%
Single-Use Food Svc	Particulates	2.69%	6.02%
Other Plastics Materials	Material	100.00%	NA
Other Plastics Materials	Moisture	0.00%	NA
Other Plastics Materials	Particulates	0.00%	NA
Other Rigid Containers/Packaging	Material	97.50%	1.85%
Other Rigid Containers/Packaging	Moisture	2.50%	1.85%
Other Rigid Containers/Packaging	Particulates	0.00%	0.00%
Rigid Polystyrene	Material	94.94%	5.38%
Rigid Polystyrene	Moisture	2.90%	2.52%
Rigid Polystyrene	Particulates	2.16%	5.29%
Paper Bags	Material	73.91%	26.38%
Paper Bags	Moisture	6.70%	3.67%
Paper Bags	Particulates	19.39%	23.88%
Paperbacks	Material	92.03%	7.63%
Paperbacks	Moisture	7.97%	7.63%
Paperbacks	Particulates	0.00%	0.00%

Table AV-5
Recycling Moisture and Particulate Analysis Results

Material	Component	Average	Standard Deviation
PET Bottles	Material	94.45%	5.20%
PET Bottles	Moisture	5.34%	5.30%
PET Bottles	Particulates	0.21%	0.65%
Phone Books	Material	92.42%	3.31%
Phone Books	Moisture	7.58%	3.31%
Phone Books	Particulates	0.00%	0.00%
Plain OCC/Kraft paper	Material	81.86%	16.66%
Plain OCC/Kraft paper	Moisture	14.25%	13.42%
Plain OCC/Kraft paper	Particulates	3.89%	12.01%
Plastic Bags	Material	74.25%	27.44%
Plastic Bags	Moisture	13.53%	16.38%
Plastic Bags	Particulates	12.21%	15.56%
Polycoated Containers	Material	86.26%	6.39%
Polycoated Containers	Moisture	13.55%	6.48%
Polycoated Containers	Particulates	0.20%	0.78%
Clothing Textiles	Material	69.89%	19.11%
Clothing Textiles	Moisture	29.57%	19.45%
Clothing Textiles	Particulates	0.54%	0.93%
Non-Clothing Textiles	Material	90.24%	10.41%
Non-Clothing Textiles	Moisture	9.76%	10.41%
Non-Clothing Textiles	Particulates	0.00%	0.00%
Tin Food Cans	Material	91.54%	8.83%
Tin Food Cans	Moisture	4.88%	3.58%
Tin Food Cans	Particulates	3.58%	8.26%

To make the moisture and particulate adjustments to the results of the PWCS, we must first take into account that not all moisture in newspaper, or any other material, is due to the migration of moisture from other sources during collection. Even newly manufactured newspaper has a certain level of moisture. To account for this, the moisture and particulate adjustment has been made by assuming that, had the newspaper (or other material) in the refuse actually been recycled, it would have had proportionately the same level of moisture and particulate matter as the recycled newspaper (or other material). In other words, the moisture and particulate levels in the recycled material has been used as the baseline moisture and particulate levels.

Therefore, the moisture and particulate adjustment to each material consisted of applying the difference between the moisture and particulate levels found in the refuse samples and the moisture and particulate levels found in the recycling samples.

Table AV-6 compares the results of the Refuse Sort and the results of the Refuse Sort adjusted for moisture and particulate testing.

Table AV-6
Comparison of the Results of the Refuse Sort Before and After Moisture and Particulate Adjustments

Material Group	Material Subgroup	Material Category	Material Subcategory	Unadjusted % of Waste Stream	Adjusted % of Waste Stream(1)	Weekly Unadjusted Tonnage in Waste Stream(2)	Weekly Adjusted Tonnage in Waste Stream(1)(2)
Paper	ONP	Newspaper		3.71%	3.19%	2,210.19	1,903.62
Paper	OCC	Plain OCC/Kraft paper		1.35%	1.14%	804.52	679.19
Paper	Mixed Paper	High Grade Paper		0.67%	0.61%	399.96	364.61
Paper	Mixed Paper	Mixed Low Grade Paper		7.34%	6.31%	4,373.54	3,763.01
Paper	Mixed Paper	Phone Books		0.23%	0.22%	135.54	133.24
Paper	Mixed Paper	Paperbacks		0.18%	0.18%	109.68	108.36
Paper	Mixed Paper	Paper Bags		0.60%	0.52%	357.61	311.96
Paper	Bev Cartons	Polycoated Containers		0.47%	0.41%	278.40	247.21
Paper	Compostable Paper	Compostable/Soiled/ Waxed OCC		7.49%	6.24%	4,463.58	3,718.73
Paper	Compostable Paper	Single Use Plates, Cups		0.51%	0.34%	305.84	204.52
Paper	Other Paper	Other Nonrecyclable Paper		0.65%	0.59%	388.28	350.11
Plastic	PET Bottles	PET Bottles	Deposit	0.33%	0.31%	197.92	182.81
Plastic	PET Bottles	PET Bottles	Non-Deposit	0.64%	0.59%	383.61	354.31
Plastic	HDPE Bottles	HDPE Natural Bottles		0.31%	0.30%	182.74	180.90
Plastic	HDPE Bottles	HDPE Colored Bottles		0.45%	0.43%	268.56	257.85
Plastic	Other Rigid Containers/Packaging	#1-#2 Tubs/Trays	#1 Pet	0.03%	0.03%	15.66	15.66
Plastic	Other Rigid Containers/Packaging	#1-#2 Tubs/Trays	#2 HDPE	0.08%	0.08%	45.02	45.02
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#3 PVC	0.01%	0.01%	7.83	7.83
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#4 LDPE	0.01%	0.01%	8.48	8.48
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#5 PP	0.22%	0.22%	132.60	132.60
Plastic	Containers/Packaging	#3-#7 Containers	#7 Other	0.07%	0.07%	41.18	41.18
Plastic	Other Plastic Products	Other PVC		0.07%	0.07%	42.72	42.72
Plastic	Other Rigid Containers/Packaging	Rigid Polystyrene		0.16%	0.14%	95.34	80.50
Plastic	Other Rigid Containers/Packaging	Expanded Polystyrene		0.69%	0.46%	411.62	272.77

Table AV-6
Comparison of the Results of the Refuse Sort Before and After Moisture and Particulate Adjustments

Material Group	Material Subgroup	Material Category	Material Subcategory	Unadjusted % of Waste Stream	Adjusted % of Waste Stream(1)	Weekly Unadjusted Tonnage in Waste Stream(2)	Weekly Adjusted Tonnage in Waste Stream(1)(2)
Plastic	Other Rigid Containers/Packaging	Other Rigid Containers/Packaging		0.61%	0.50%	362.88	298.82
Plastic	Film	Plastic Bags		2.79%	2.10%	1,664.19	1,254.23
Plastic	Film	Other Film		5.21%	3.95%	3,103.20	2,357.17
Plastic	Other Rigid Containers/Packaging	Plastic Crates and Soda Bottle Carriers		0.06%	0.06%	35.80	35.80
Plastic	Other Plastic Products	Single-Use Food Svc		0.78%	0.60%	465.09	359.73
Plastic	Other Plastic Products	Single Use Cameras		0.00%	0.00%	0.00	0.00
Plastic	Other Plastic Products	Disposable Razors		0.01%	0.01%	4.26	4.26
Plastic	Other Plastic Products	Other Plastics Materials		1.67%	1.67%	994.00	994.00
Glass	Container Glass	Clear Glass	Deposit	0.28%	0.28%	167.38	167.38
Glass	Container Glass	Clear Glass	Non-Deposit	1.00%	1.00%	594.78	594.78
Glass	Container Glass	Green Glass	Deposit	0.15%	0.15%	88.59	88.59
Glass	Container Glass	Green Glass	Non-Deposit	0.16%	0.16%	96.59	96.59
Glass	Container Glass	Brown Glass	Deposit	0.25%	0.25%	151.43	151.43
Glass	Container Glass	Brown Glass	Non-Deposit	0.06%	0.06%	34.43	34.43
Glass	Mixed Cullet	Mixed Cullet		0.50%	0.50%	300.38	300.38
Glass	Other Glass	Other Glass		0.20%	0.20%	119.28	119.28
Metal	Aluminum	Aluminum Cans	Deposit	0.17%	0.14%	101.86	82.90
Metal	Aluminum	Aluminum Cans	Non-Deposit	0.03%	0.02%	16.11	13.11
Metal	Aluminum	Aluminum Foil/Tins		0.60%	0.45%	356.92	267.53
Metal	Aluminum	Other Aluminum		0.05%	0.05%	28.21	28.21
Metal	Other Metal	Other Non-Ferrous		0.06%	0.06%	37.49	37.49
Metal	Ferrous	Tin Food Cans		0.91%	0.87%	544.72	517.90
Metal	Ferrous	Empty Aerosol Cans		0.12%	0.12%	73.65	73.65
Metal	Ferrous	Other Ferrous		1.03%	1.03%	614.61	614.61
Metal	Other Metal	Mixed Metals		0.56%	0.56%	335.45	335.45
Organic	Yard	Leaves and Grass		6.23%	6.23%	3,712.61	3,712.61
Organic	Yard	Prunings		3.04%	3.04%	1,815.19	1,815.19
Organic	Wood	Stumps/Limbs		0.67%	0.67%	402.35	402.35
Organic	Food	Food		15.93%	15.93%	9,498.60	9,498.60
Organic	Wood	Non-C&D, Untreated Wood		0.38%	0.38%	224.39	224.39
Organic	Textiles	Non-Clothing Textiles		2.07%	1.59%	1,234.32	950.29
Organic	Textiles	Clothing Textiles		3.70%	3.70%	2,205.01	2,205.01
Organic	Textiles	Carpet/Upholstery		1.27%	1.27%	754.66	754.66

Table AV-6
Comparison of the Results of the Refuse Sort Before and After Moisture and Particulate Adjustments

Material Group	Material Subgroup	Material Category	Material Subcategory	Unadjusted % of Waste Stream	Adjusted % of Waste Stream(1)	Weekly Unadjusted Tonnage in Waste Stream(2)	Weekly Adjusted Tonnage in Waste Stream(1)(2)
Organic	Diapers/Hygiene	Disposable Diapers/Sanitary Products		3.81%	3.81%	2,269.39	2,269.39
Organic	Misc. Organic	Animal By-Products		1.25%	1.25%	743.58	743.58
Organic	Misc. Organic	Rubber Products		0.32%	0.32%	189.07	189.07
Organic	Textiles	Shoes	Leather	0.37%	0.37%	222.30	222.30
Organic	Textiles	Shoes	Other	0.09%	0.09%	55.81	55.81
Organic	Textiles	Shoes	Rubber	0.20%	0.20%	119.97	119.97
Organic	Textiles	Other Leather Products		0.05%	0.05%	32.47	32.47
Organic	Misc. Organic	Fines		4.20%	4.20%	2,504.07	2,504.07
Organic	Misc. Organic	Miscellaneous Organics		3.98%	3.98%	2,370.43	2,370.43
App. & Elec.	Household Appliance	Small Appliances		0.27%	0.27%	162.46	162.46
App. & Elec.	Electronic.AV/Computer	Audio/Visual Equipment	Other	0.24%	0.24%	142.13	142.13
App. & Elec.	Electronic.AV/Computer	Audio/Visual Equipment	Cell Phones	0.00%	0.00%	2.67	2.67
App. & Elec.	Electronic.AV/Computer	Computer Monitors		0.05%	0.05%	28.92	28.92
App. & Elec.	Electronic.AV/Computer	Televisions		0.10%	0.10%	60.42	60.42
App. & Elec.	Electronic.AV/Computer	Other Computer Equip.		0.19%	0.19%	115.01	115.01
Const. Debris	Wood	Untreated Dimension Lumber, Pallets, Crates		0.45%	0.45%	267.55	267.55
Const. Debris	Wood	Treated/Contaminated Wood		2.99%	2.99%	1,784.14	1,784.14
Const. Debris	Inorganic C&D	Gypsum Scrap		1.16%	1.16%	693.64	693.64
Const. Debris	Inorganic C&D	Fiberglass Insulation		0.06%	0.06%	34.48	34.48
Const. Debris	Inorganic C&D	Rock/Concrete/Bricks		0.58%	0.58%	348.15	348.15
Const. Debris	Inorganic C&D	Asphaltic Roofing		0.02%	0.02%	12.14	12.14
Const. Debris	Inorganic C&D	Other C&D Debris		1.74%	1.74%	1,036.63	1,036.63
Misc.	Misc. Inorganic	Misc. Inorganics		0.23%	0.23%	139.58	139.58
Misc.	Misc. Inorganic	Ceramics		0.36%	0.36%	214.93	214.93
HHW	HHW	Oil Filters		0.00%	0.00%	0.00	0.00
HHW	HHW	Antifreeze		0.00%	0.00%	0.00	0.00
HHW	HHW	Wet-Cell Batteries		0.07%	0.07%	43.76	43.76
HHW	HHW	Gasoline/Kerosene		0.00%	0.00%	0.55	0.55
HHW	HHW	Motor Oil/Diesel Oil		0.00%	0.00%	0.00	0.00
HHW	HHW	Latex Paints		0.05%	0.05%	29.45	29.45
HHW	HHW	Water and Solvent-Based Adhesives/glues		0.06%	0.06%	37.57	37.57
HHW	HHW	Oil-Based Paint/Solvent		0.07%	0.07%	39.56	39.56

Table AV-6
Comparison of the Results of the Refuse Sort Before and After Moisture and Particulate Adjustments

Material Group	Material Subgroup	Material Category	Material Subcategory	Unadjusted % of Waste Stream	Adjusted % of Waste Stream(1)	Weekly Unadjusted Tonnage in Waste Stream(2)	Weekly Adjusted Tonnage in Waste Stream(1)(2)
HHW	HHW	Pesticides/Herbicides/Rodenticides		0.00%	0.00%	0.81	0.81
HHW	HHW	DRY-CELL Batteries		0.07%	0.07%	40.02	40.02
HHW	HHW	Fluorescent Tubes		0.00%	0.00%	2.65	2.65
HHW	HHW	Mercury-Laden waste		0.00%	0.00%	0.07	0.07
HHW	HHW	Compressed Gas Cylinders/Fire Extinguishers		0.00%	0.00%	0.00	0.00
HHW	HHW	Asbestos		0.00%	0.00%	0.00	0.00
HHW	HHW	Explosives		0.00%	0.00%	0.00	0.00
HHW	HHW	Smoke Detectors		0.00%	0.00%	1.40	1.40
HHW	HHW	Home Medical Products		0.04%	0.04%	23.43	23.43
HHW	HHW	Other Potentially Harmful Wastes		0.09%	0.09%	50.74	50.74
Moisture	Moisture	Moisture		NA	4.43%	NA	2,643.51
Particulates	Particulates	Particulates		NA	2.28%	NA	1,357.32
TOTAL				100.00%	100.00%	59,618.80	59,618.80

(1) The adjusted results were developed after moisture and particulate adjustment results were applied to the unadjusted composition study results. Moisture and particulate testing was performed on only a subset of categories. The other categories were assumed to have insufficient moisture and particulates to warrant testing.

(2) Tonnage values are based on 59,618.80 tons which is the average weekly tonnage of refuse that was collected during May and June 2004, as provided by DSNY.

It is not possible to determine the source of the moisture and particulates in each material. Moisture may have come from food waste, grass clippings, or ambient precipitation. Particulate matter might be glass, food waste, or some other material.

Because the moisture and particulate levels in the recycled materials are used as the baseline, no adjustment has been made to these results, so they have not been repeated here (see the PWCS Report, Section 7 for the results of the Recycling Sort).

Table AV-7 presents the comparison of the Aggregated Waste stream before and after for moisture and particulate adjustments.

Table AV-7
Comparison of Results of the Aggregated Waste Before and After Moisture and Particulate Adjustments[1]

Material Group	Material Subgroup	Material Category	Material Subcategory	Unadjusted % of Waste Stream	Adjusted % of Waste Stream[2]	Weekly Adjusted Tonnage in Waste Stream[3]	Weekly Adjusted Tonnage in Waste Stream[2][3]
Paper	ONP	Newspaper		7.17%	5.73%	5,150.99	4,116.31
Paper	OCC	Plain OCC/Kraft paper		3.24%	2.65%	2,323.31	1,901.88
Paper	Mixed Paper	High Grade Paper		0.99%	0.93%	711.69	667.44
Paper	Mixed Paper	Mixed Low Grade Paper		8.71%	7.23%	6,253.87	5,192.92
Paper	Mixed Paper	Phone Books		0.52%	0.48%	370.04	342.01
Paper	Mixed Paper	Paperbacks		0.29%	0.27%	207.29	190.78
Paper	Mixed Paper	Paper Bags		0.56%	0.41%	398.87	294.80
Paper	Bev Cartons	Polycoated Containers		0.53%	0.46%	379.81	327.60
Paper	Compostable Paper	Compostable/Soiled/ Waxed OCC		6.25%	4.10%	4,489.32	2,943.70
Paper	Compostable Paper	Single Use Plates, Cups		0.43%	0.40%	307.45	289.24
Paper	Other Paper	Other Nonrecyclable Paper		0.72%	0.58%	518.51	414.68
Plastic	PET Bottles	PET Bottles	Deposit	0.36%	0.34%	257.94	243.63
Plastic	PET Bottles	PET Bottles	Non-Deposit	0.86%	0.81%	617.90	583.62
Plastic	HDPE Bottles	HDPE Natural Bottles		0.44%	0.40%	315.75	290.72
Plastic	HDPE Bottles	HDPE Colored Bottles		0.56%	0.54%	401.31	387.49
Plastic	Other Rigid Containers/Packaging	#1-#2 Tubs/Trays	#1 Pet	0.02%	0.02%	15.76	15.76
Plastic	Other Rigid Containers/Packaging	#1-#2 Tubs/Trays	#2 HDPE	0.07%	0.07%	50.58	50.58
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#3 PVC	0.02%	0.02%	10.81	10.81
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#4 LDPE	0.01%	0.01%	9.21	9.21
Plastic	Other Rigid Containers/Packaging	#3-#7 Containers	#5 PP	0.23%	0.23%	164.97	164.97
Plastic	Containers/Packaging	#3-#7 Containers	#7 Other	0.07%	0.07%	49.79	49.79
Plastic	Other Plastic Products	Other PVC		0.06%	0.06%	46.59	46.59
Plastic	Other Rigid Containers/Packaging	Rigid Polystyrene		0.16%	0.15%	115.17	109.35
Plastic	Other Rigid Containers/Packaging	Expanded Polystyrene		0.59%	0.53%	420.25	382.64
Plastic	Other Rigid Containers/Packaging	Other Rigid Containers/Packaging		0.61%	0.60%	438.18	427.23
Plastic	Film	Plastic Bags		2.39%	1.78%	1,717.49	1,275.31

Table AV-7
Comparison of Results of the Aggregated Waste Before and After Moisture and Particulate Adjustments[1]

Material Group	Material Subgroup	Material Category	Material Subcategory	Unadjusted % of Waste Stream	Adjusted % of Waste Stream[2]	Weekly Adjusted Tonnage in Waste Stream[3]	Weekly Adjusted Tonnage in Waste Stream[2][3]
Plastic	Film	Other Film		4.58%	3.63%	3,286.42	2,604.30
Plastic	Other Rigid Containers/Packaging	Plastic Crates and Soda Bottle Carriers		0.06%	0.06%	42.37	42.37
Plastic	Other Plastic Products	Single-Use Food Svc		0.66%	0.61%	473.81	440.23
Plastic	Other Plastic Products	Single Use Cameras		0.00%	0.00%	0.00	0.00
Plastic	Other Plastic Products	Disposable Razors		0.01%	0.01%	7.87	7.87
Plastic	Other Plastic Products	Other Plastics Materials		1.65%	1.65%	1,186.74	1,186.74
Glass	Container Glass	Clear Glass	Deposit	0.30%	0.30%	218.77	218.77
Glass	Container Glass	Clear Glass	Non-Deposit	1.25%	1.25%	897.66	897.66
Glass	Container Glass	Green Glass	Deposit	0.20%	0.20%	141.84	141.84
Glass	Container Glass	Green Glass	Non-Deposit	0.31%	0.31%	224.65	224.65
Glass	Container Glass	Brown Glass	Deposit	0.29%	0.29%	204.67	204.67
Glass	Container Glass	Brown Glass	Non-Deposit	0.07%	0.07%	49.74	49.74
Glass	Mixed Cullet	Mixed Cullet		1.94%	1.94%	1,389.51	1,389.51
Glass	Other Glass	Other Glass		0.21%	0.21%	149.65	149.65
Metal	Aluminum	Aluminum Cans	Deposit	0.17%	0.16%	121.89	117.36
Metal	Aluminum	Aluminum Cans	Non-Deposit	0.05%	0.05%	35.16	33.85
Metal	Aluminum	Aluminum Foil/Tins		0.57%	0.49%	405.77	348.60
Metal	Aluminum	Other Aluminum		0.05%	0.05%	38.74	38.74
Metal	Other Metal	Other Non-Ferrous		0.07%	0.07%	50.94	50.94
Metal	Ferrous	Tin Food Cans		1.25%	1.14%	895.46	819.69
Metal	Ferrous	Empty Aerosol Cans		0.15%	0.15%	104.90	104.90
Metal	Ferrous	Other Ferrous		2.23%	2.23%	1,603.63	1,603.63
Metal	Other Metal	Mixed Metals		0.54%	0.54%	386.11	386.11
Organic	Yard	Leaves and Grass		5.17%	5.17%	3,713.88	3,713.88
Organic	Yard	Prunings		2.53%	2.53%	1,816.54	1,816.54
Organic	Wood	Stumps/Limbs		0.56%	0.56%	402.35	402.35
Organic	Food	Food		13.35%	13.35%	9,586.48	9,586.48
Organic	Wood	Non-C&D, Untreated Wood		0.32%	0.32%	228.16	228.16
Organic	Textiles	Non-Clothing Textiles		1.75%	1.58%	1,255.18	1,132.70
Organic	Textiles	Clothing Textiles		3.09%	2.16%	2,216.17	1,548.94
Organic	Textiles	Carpet/Upholstery		1.05%	1.05%	755.47	755.47
Organic	Diapers/Hygiene	Disposable Diapers/Sanitary Products		3.17%	3.17%	2,278.81	2,278.81
Organic	Misc. Organic	Animal By-Products		1.04%	1.04%	746.05	746.05
Organic	Misc. Organic	Rubber Products		0.28%	0.28%	198.34	198.34
Organic	Textiles	Shoes	Leather	0.31%	0.31%	222.30	222.30
Organic	Textiles	Shoes	Other	0.08%	0.08%	56.00	56.00

Table AV-7
Comparison of Results of the Aggregated Waste Before and After Moisture and Particulate Adjustments[1]

Material Group	Material Subgroup	Material Category	Material Subcategory	Unadjusted % of Waste Stream	Adjusted % of Waste Stream[2]	Weekly Adjusted Tonnage in Waste Stream[3]	Weekly Adjusted Tonnage in Waste Stream[2][3]
Organic	Textiles	Shoes	Rubber	0.17%	0.17%	124.34	124.34
Organic	Textiles	Other Leather Products		0.05%	0.05%	33.52	33.52
Organic	Misc. Organic	Fines		3.61%	3.61%	2,592.14	2,592.14
Organic	Misc. Organic	Miscellaneous Organics		3.31%	3.31%	2,380.15	2,380.15
App. & Elec.	Household Appliance	Small Appliances		0.37%	0.37%	268.99	268.99
App. & Elec.	Electronic.AV/Computer	Audio/Visual Equipment	Other	0.20%	0.20%	142.13	142.13
App. & Elec.	Electronic.AV/Computer	Audio/Visual Equipment	Cell Phones	0.00%	0.00%	3.05	3.05
App. & Elec.	Electronic.AV/Computer	Computer Monitors		0.04%	0.04%	28.92	28.92
App. & Elec.	Electronic.AV/Computer	Televisions		0.08%	0.08%	60.42	60.42
App. & Elec.	Electronic.AV/Computer	Other Computer Equip.		0.22%	0.22%	154.78	154.78
Const. Debris	Wood	Untreated Dimension Lumber, Pallets, Crates		0.39%	0.39%	278.15	278.15
Const. Debris	Wood	Treated/Contaminated Wood		2.49%	2.49%	1,789.10	1,789.10
Const. Debris	Inorganic C&D	Gypsum Scrap		0.97%	0.97%	694.46	694.46
Const. Debris	Inorganic C&D	Fiberglass Insulation		0.05%	0.05%	34.52	34.52
Const. Debris	Inorganic C&D	Rock/Concrete/Bricks		0.49%	0.49%	350.92	350.92
Const. Debris	Inorganic C&D	Asphaltic Roofing		0.02%	0.02%	12.14	12.14
Const. Debris	Inorganic C&D	Other C&D Debris		1.46%	1.46%	1,045.26	1,045.26
Misc.	Misc. Inorganic	Misc. Inorganics		0.22%	0.22%	160.42	160.42
Misc.	Misc. Inorganic	Ceramics		0.33%	0.33%	237.49	237.49
HHW	HHW	Oil Filters		0.00%	0.00%	0.07	0.07
HHW	HHW	Antifreeze		0.00%	0.00%	0.00	0.00
HHW	HHW	Wet-Cell Batteries		0.06%	0.06%	43.76	43.76
HHW	HHW	Gasoline/Kerosene		0.00%	0.00%	0.55	0.55
HHW	HHW	Motor Oil/Diesel Oil		0.00%	0.00%	0.00	0.00
HHW	HHW	Latex Paints		0.04%	0.04%	29.45	29.45
HHW	HHW	Water and Solvent-Based Adhesives/glues		0.05%	0.05%	38.00	38.00
HHW	HHW	Oil-Based Paint/Solvent		0.06%	0.06%	42.33	42.33
HHW	HHW	Pesticides/Herbicides/Rodenticides		0.00%	0.00%	0.81	0.81
HHW	HHW	DRY-CELL Batteries		0.06%	0.06%	42.20	42.20
HHW	HHW	Fluorescent Tubes		0.00%	0.00%	2.71	2.71
HHW	HHW	Mercury-Laden waste		0.00%	0.00%	0.07	0.07
HHW	HHW	Compressed Gas Cylinders/Fire Extinguishers		0.00%	0.00%	0.58	0.58
HHW	HHW	Asbestos		0.00%	0.00%	0.00	0.00
HHW	HHW	Explosives		0.00%	0.00%	0.00	0.00

Table AV-7
Comparison of Results of the Aggregated Waste Before and After Moisture and Particulate Adjustments[1]

Material Group	Material Subgroup	Material Category	Material Subcategory	Unadjusted % of Waste Stream	Adjusted % of Waste Stream[2]	Weekly Adjusted Tonnage in Waste Stream[3]	Weekly Adjusted Tonnage in Waste Stream[2][3]
HHW	HHW	Smoke Detectors		0.00%	0.00%	1.45	1.45
HHW	HHW	Home Medical Products		0.03%	0.03%	23.71	23.71
HHW	HHW	Other Potentially Harmful Wastes		0.07%	0.07%	50.74	50.74
Moisture	Moisture	Moisture		NA	7.13%	NA	5,118.86
Particulates	Particulates	Particulates		NA	2.14%	NA	1,539.15
TOTAL				**100.00%**	**100.00%**	**71,802.25**	**71,802.25**

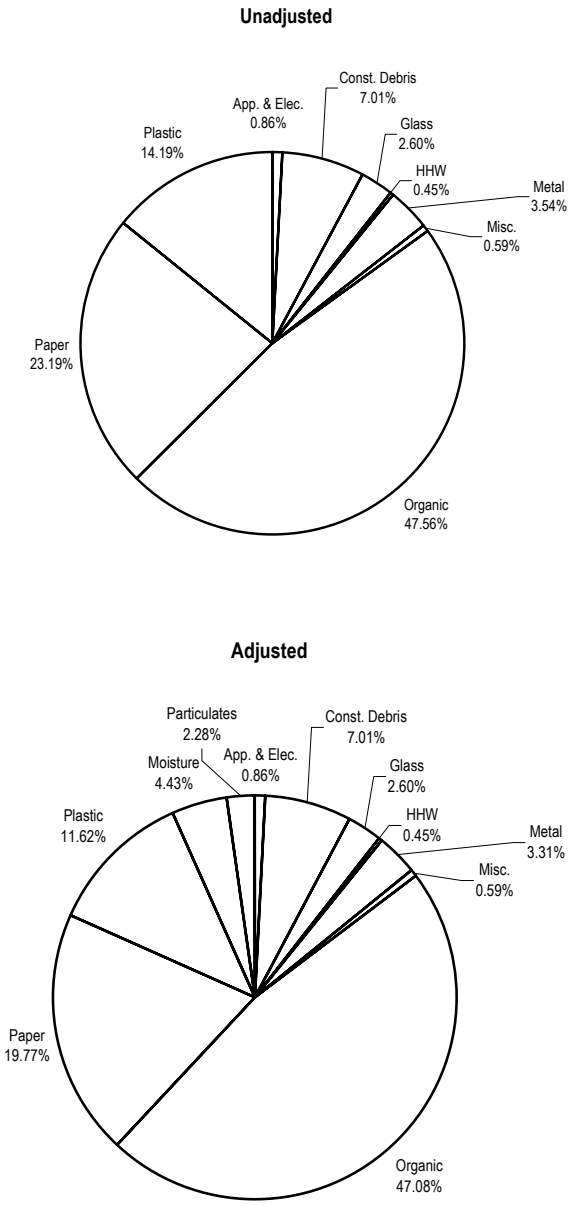
(1) Results are the aggregate of the refuse stream and recycling stream results. "Small Appliances" were defined in the refuse stream as any small appliance. This definition was later revised for the recycling sort to include only those small appliances with less than 50% metal. All other small appliances in the recycling stream were included in the "Other Ferrous" category.

(2) The adjusted results were developed after moisture and particulate analysis results were applied to the unadjusted composition study results. Moisture and particulate testing was performed on only a subset of categories. The other categories were assumed to have insufficient moisture and particulates to warrant analysis.

(3) Tonnage values are based on 71,802.25 tons which is the average weekly tonnage of waste that was collected during May and June 2004, as provided by DSNY.

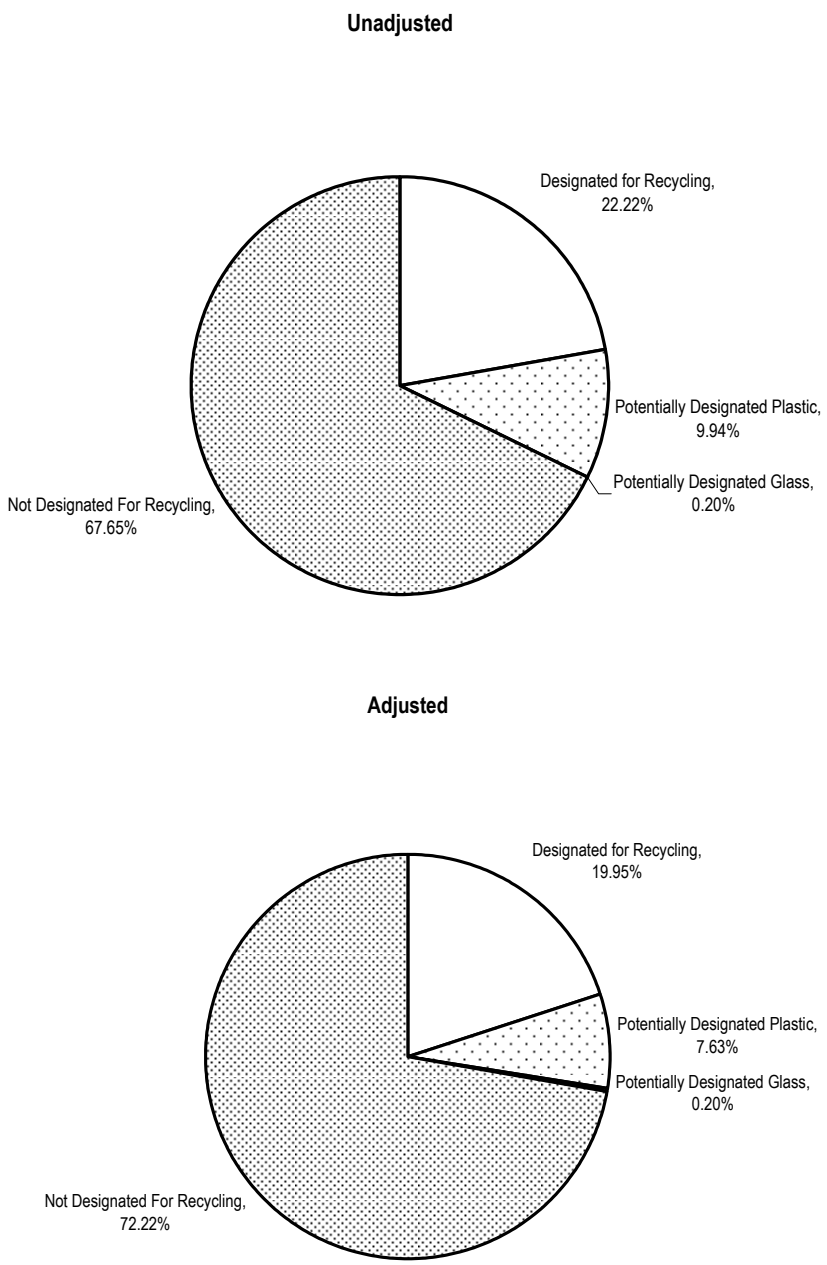
The results of the Refuse Sort showing the percentages of the nine major material groups and the percentages adjusted for moisture and particulate testing are presented graphically in Figure AV-1

Figure 1 PWCS Refuse Composition by Material Group



As noted in the PWCS Report, the materials designated for recycling by DSNY in the Refuse Sort represented 22 percent of all materials. As Figure AV-2 shows, when the results are adjusted for moisture and particulates, the percentage drops to 20 percent.

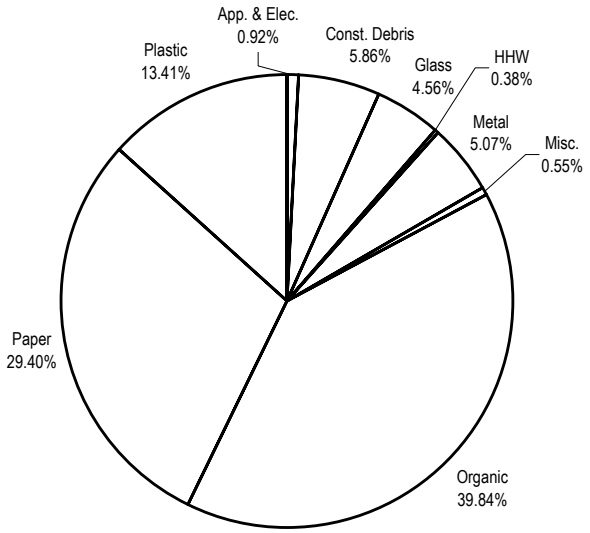
Figure 2 Summary of Materials Designated for Recycling in the PWSC Refuse Sort



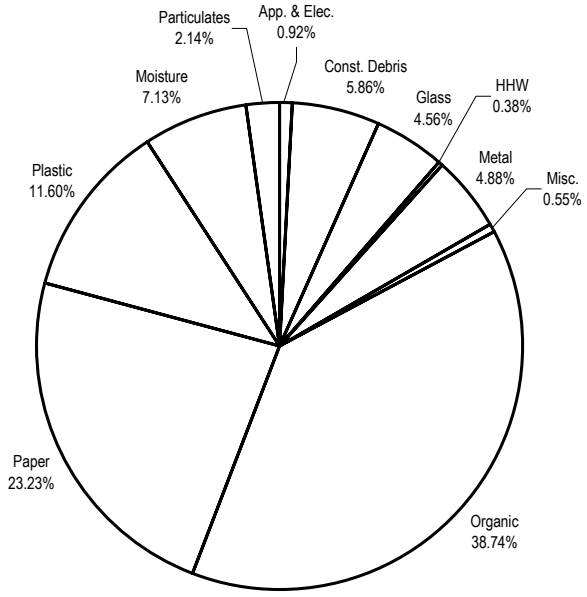
The results of the Aggregated Waste Stream showing the percentages of the nine major material groups and the percentages adjusted for moisture and particulate testing are presented graphically in Figure AV-3

Figure 3 PWCS Waste Composition by Material Group

Unadjusted



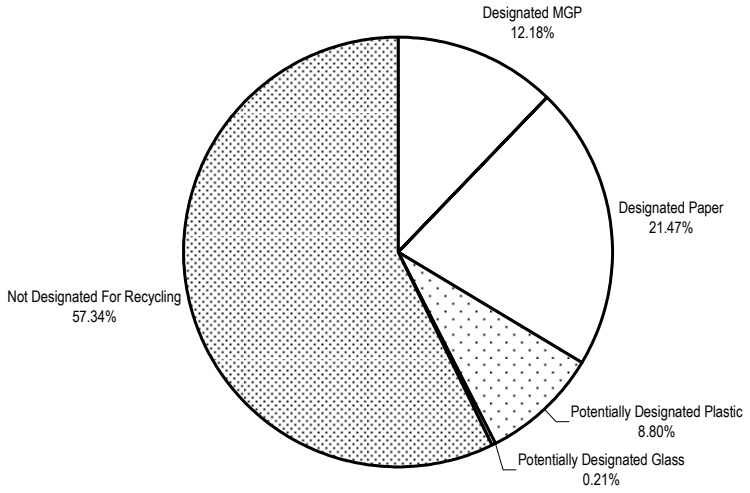
Adjusted



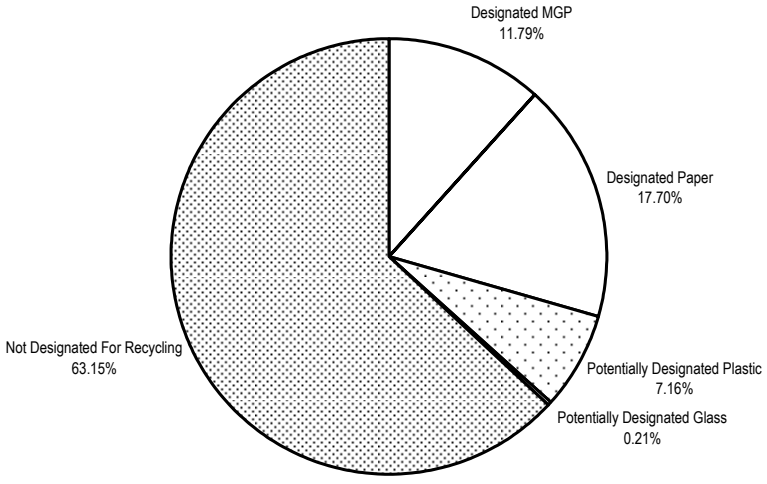
The materials designated for recycling by DSNY in the Aggregated Waste Stream represented 33 percent of all materials. As Figure AV-4 shows, when the results are adjusted for moisture and particulates, the percentage drops to 32 percent.

Figure 4 Summary of Materials Designated for Recycling in the PWSC Waste Sort

Unadjusted



Adjusted



Appendix W
Bulk Metal in the MGP Stream

Bulk Metal in the MGP Stream

MGP Sample Acquisition

As noted in Section 3.4.2 of the PWCS Report, the protocol for Metal, Glass, and Plastic ("MGP") sample acquisition was modified during the course of the PWCS MGP sort in order to more accurately reflect the amount of bulk metal items present in the MGP stream. Appendix W discusses the sampling methodology initially used during the MGP sort, the modified sample acquisition approach, and the reasoning behind the change in sampling methodology.

Development of Initial MGP Sampling Protocol

On May 7, 2004, a field visit was made to the Hugo Neu Schnitzer processing facility located in Brooklyn. The purpose of the site visit was to observe the MGP collected by DSNY collection vehicles and determine the best approach to removing the 100 to 125 pound samples from the collected MGP loads.

Based on the on-site review, we determined that a bobcat front-end loader equipped with a ½ cubic yard bucket with a grab-arm would be suitable for taking a sample from the tipped MGP loads. The random selection of a portion of the tipped load in which to "grab" the sample would be made by the Sample Manager prior to the dumping of the load. The bobcat operator would then grab a bucket-load from that section of the load. The bucket would be lowered so that the Sample Manager could pull material from the bucket into a 96-gallon toter.

After each toter had been weighed, it was marked with the date, sample number, a sample code, and the truck number. Once the MGP sample's weight had been confirmed, the remainder of the tipped load was managed as it normally would be. In addition, the Sample Manager completed a Sample Management Form for each sample. An example of completed Sample Management Form is shown in Appendix E.

After all the MGP samples were weighed and labeled, they were loaded on an R. W. Beck truck and transported to the Greenpoint Marine Transfer Station ("MTS") where they were unloaded and positioned for sorting.

This methodology has been successfully used by R. W. Beck Project Team staff in prior studies for other local and state government and private sector clients for the purposes of sampling commingled recycling containers. Based on the review of the MGP loads on the day of the site visit, we believed that this methodology would also prove suitable for MGP sampling at the Hugo Neu Schnitzer processing facility.

Modification of MGP Sampling Protocol

Sampling of the MGP at the Hugo Neu Schnitzer facility began on Monday, June 7th and was completed on Saturday, June 12th. Sampling was initiated using the protocol developed in conjunction with the May site visit.

MGP sampling proceeded as planned over the initial three days of the MGP sort. During these three days, a number of over-sized metal bulky items were observed in the MGP loads delivered to the Hugo Neu Schnitzer facility by the DSNY collection vehicles. However, relatively few of

the items were located in the random section of the loads selected for sampling. In cases where an item was too large to fit inside the 96-gallon toter, (e.g., a bed frame or metal cabinet), the item was weighed separately on-site, the weight recorded on the MGP Sampling Form, and the item returned to the tipped load for normal processing.

As the MGP sort progressed, the number and size of metal bulk items present in the incoming loads of MGP called into question the sampling protocol. Many of these items were too large to handle using the bobcat loader. Due to the physical dimensions of many of these bulk metal items (including durable products such as ranges, water heaters, air conditioner units, bed frames, refrigerators, bicycles, etc.), we were concerned that such items were not being appropriately sampled from the MGP stream. In many instances, bulk items in the area from which the MGP sample was taken did not get captured by the bobcat loader due to their large dimension. On one occasion, for example, the area from which the MGP sample was to be taken in the load consisted of a twisted pile of metal bed frames and bikes, which the loader was unable to grab. The sampling protocol used during the early part of the week required that a bulk item be included in a sample if the bulk item was scooped up by the bobcat loader. If the bulk item either remained in the bucket of the loader or fell out of the bucket as it pulled away from the load from which the MGP sample was being taken, it was included in the sample.

To ensure that over-size bulk materials were appropriately included in the sampling process, it was decided to make two modifications to the MGP sampling protocol. First, due to the significant size of many of these large bulky metal items, the bobcat front end loader was replaced with a much larger front end loader, with a 5 cubic yard bucket. Second, a procedural change was made in the MGP sampling protocol to allow the Sample Manager to include any bulk items in the sample, if the Sample Manager believed the items would have been selected for sampling except for the fact that the item's dimensions precluded it from being grabbed by the front end loader for sampling.

As before, bulk items included in the sample were weighed by the Sample Manager and the weight recorded directly on the Sample Management Form. The bulk items were then discarded at the facility for processing, and were not transported to the MTS for further sorting. After pre-weighing the bulky item(s) and subtracting the weight of the bulk item(s) from the 100 to 125 pound target sample size, the Sample Manager sampled from the remainder of the grab sample until the total weight fell within the targeted range. By pre-weighing the bulk items during the sample acquisition process, the remaining quantity of material requiring physical sorting at the MTS was reduced for some samples. The R. W. Beck Project Team believes this methodology most accurately captures representative samples that include both bulk and non-bulk items in the MGP stream.

These methodological changes were implemented beginning on the morning of Thursday, June 10th. As a consequence, the results of the MGP sampling reflected in the PWCS Report probably under-estimated the amount of bulk metal items in the MGP samples taken during the week-long study period, primarily as a result of potentially under-reporting bulk metal items early in the week. However, for purposes of remaining conservative (i.e. under-reporting metal content), the full-week results have been reported. The revised methodology will be used during the Phase I Study for MGP sampling.

A listing of the bulky metal items separated from the MGP loads, along with the weight of each item, the date the item was sampled, the borough of origin, a description of each item, and the material category into which the items was recorded is provided in Table AW-1.

Table AW-1
Bulk Items in MGP Sort

Date Sampled	Borough	Bulk Item	Category	Total Bulk Weight
6/7/2004	Manhattan	Metal Range Hood	Other Ferrous	10
6/7/2004	Queens	Metal cart, plastic wheels	Other Ferrous	9
6/8/2004	Queens	Microwave Oven	Small Appliances	16
6/9/2004	Brooklyn	Metal Folding Chair	Other Ferrous	10
6/9/2004	Brooklyn	Electric Fan (15")	Small Appliances	8
6/10/2004	Brooklyn	Metal Bed Frame	Other Ferrous	21
6/10/2004	Brooklyn	Bicycle Wheels	Rubber	8
6/10/2004	Brooklyn	Metal Cabinet	Other Ferrous	23
6/10/2004	Brooklyn	Metal + Plastic Chair	Other Ferrous	16
6/10/2004	Brooklyn	Microwave	Small Appliances	26
6/10/2004	Brooklyn	Metal Office Chair	Other Ferrous	20
6/10/2004	Brooklyn	Metal Bar	Mixed Metal	8
6/10/2004	Brooklyn	Metal Pipes	Other Ferrous	22
6/10/2004	Brooklyn	Metal Frame	Other Ferrous	12
6/10/2004	Brooklyn	Metal Frame	Other Ferrous	44
6/10/2004	Queens	Heater	Small Appliances	14
6/10/2004	Queens	Stove	Small Appliances	96.1
6/10/2004	Queens	Metal Bars	Mixed Metal	15
6/10/2004	Queens	Metal Frame	Mixed Metal	9
6/10/2004	Queens	Air Conditioner	Small Appliances	25
6/11/2004	Bronx	Metal Chair Piece	Other Ferrous	9
6/11/2004	Bronx	Metal Bed Frame	Other Ferrous	18.2
6/11/2004	Bronx	Metal Chair	Other Ferrous	6.3
6/11/2004	Bronx	Metal Cabinet	Other Ferrous	22.3
6/11/2004	Bronx	Metal Baby Stroller	Other Ferrous	12
6/11/2004	Bronx	Metal Cabinet	Other Ferrous	5.5
6/11/2004	Bronx	Metal Baby Stroller	Other Ferrous	10
6/11/2004	Bronx	Metal Stove Top	Other Ferrous	12
6/11/2004	Bronx	Metal Bed Frame	Other Ferrous	10
6/11/2004	Bronx	Metal Pipe	Other Ferrous	6
6/11/2004	Manhattan	Metal Bed Frame	Other Ferrous	19
6/11/2004	Manhattan	Air Conditioner	Small Appliances	35
6/11/2004	Manhattan	Plastic Vacuum Cleaner	Small Appliances	10
6/11/2004	Manhattan	2 Metal Bed Frames	Other Ferrous	20

Table AW-1
Bulk Items in MGP Sort

Date Sampled	Borough	Bulk Item	Category	Total Bulk Weight
6/11/2004	Manhattan	Metal Curtain Rod	Other Ferrous	8
6/11/2004	Manhattan	Metal Bed Frame	Other Ferrous	10
6/11/2004	Manhattan	Metal Stove Top	Other Ferrous	9
6/11/2004	Manhattan	Metal Stove Top	Other Ferrous	7
6/11/2004	Manhattan	Refrigerator Door	Other Ferrous	22
6/11/2004	Manhattan	Metal Chair	Other Ferrous	12
6/11/2004	Manhattan	Metal Shelf	Other Ferrous	12
6/12/2004	Brooklyn	Plastic Vacuum Cleaner Bottom	Small Appliances	8
6/12/2004	Brooklyn	Air Conditioner	Small Appliances	66
6/12/2004	Brooklyn	Washing Machine (part)	Small Appliances	80
6/12/2004	Brooklyn	Air Conditioner	Small Appliances	48
6/12/2004	Brooklyn	Metal Appliance Cover	Other Ferrous	5
6/12/2004	Brooklyn	Metal Container	Other Ferrous	10
6/12/2004	Brooklyn	Metal Bed Frame	Other Ferrous	7.5
6/12/2004	Brooklyn	Metal Pan	Other Ferrous	5.5
6/12/2004	Brooklyn	Metal Chair	Other Ferrous	7
6/12/2004	Brooklyn	Metal Ceiling Fan - Parts	Other Ferrous	14
6/12/2004	Brooklyn	Metal Container	Other Ferrous	12
6/12/2004	Brooklyn	Dishwasher or similar appliance	Small Appliances	71
6/12/2004	Brooklyn	Refrigerator Door	Other Ferrous	10
6/12/2004	Brooklyn	Metal Cabinet	Other Ferrous	13
6/12/2004	Staten Island	Canister Vacuum - Plastic + Metal	Small Appliances	12
6/12/2004	Staten Island	Child's Bicycle	Other Ferrous	28
6/12/2004	Staten Island	Microwave Oven	Small Appliances	31.5
6/12/2004	Staten Island	Metal Frame	Other Ferrous	4.5
6/12/2004	Staten Island	Freezer Door (Part)	Other Ferrous	17
6/12/2004	Staten Island	Freezer Door (Part)	Other Ferrous	21
6/12/2004	Staten Island	Metal File Drawer	Other Ferrous	15
6/12/2004	Staten Island	Steel Pipes	Other Ferrous	22
			Total	**1195.4**

Results of Methodological Changes

As a result of the methodological change in MGP Sampling, we expected to obtain greater percentages of metals, from both appliances and other bulk items that had been inappropriately excluded by the original sampling protocol. The results, as shown in Table AW-2, confirm this.

Table AW-2
Comparison of Material Group Results for First Half and Second Half of MGP Sort

	First Half			Second Half		
Material	**Average**	**Lower Boundary**	**Upper Boundary**	**Average**	**Lower Boundary**	**Upper Boundary**
Paper	5.10%	4.35%	5.91%	4.30%	3.50%	5.19%
Plastic	21.90%	20.04%	23.81%	19.79%	18.02%	21.61%
Glass	39.93%	35.46%	44.48%	27.86%	24.24%	31.63%
Metal	25.47%	22.67%	28.27%	38.63%	34.21%	43.05%
Organic	3.91%	2.79%	5.20%	2.26%	1.70%	2.89%
App. & Elec.	2.13%	1.35%	2.91%	6.30%	4.14%	8.46%
Const. Debris	0.27%	0.15%	0.41%	0.28%	0.15%	0.45%
Misc.	1.22%	0.75%	1.80%	0.43%	0.27%	0.64%
HHW	0.08%	0.04%	0.12%	0.16%	0.09%	0.26%
Total	**100.00%**			**100.00%**		

The results shown in Table AW-2 show that Appliances & Electrical Material rose from two percent to six percent, and Metal Material rose from 25 percent to 39 percent. Glass Material was the primary group that was significantly reduced as a consequence of changing the bulk metal sampling protocol, falling from 40 percent to 28 percent.

The results for individual materials show that within the Appliance & Electrical Group, Small Appliances changed from 0.88 percent to 4.56 percent. Within the Metal Group, Other Ferrous increased from 14.08 percent to 29.01 percent. In the Glass Group, Mixed Cullet decreased from 27 percent to 16 percent.

Given the nature of the protocol modifications, these are precisely the material categories and groups in which we would expect to see significant changes. Table AW-3 contains results for material sub-categories of the three groups highlighted in Table AW-2.

Table AW-3
Comparison of Material Category Results for First Half and Second Half of MGP Sort

	First Half			Second Half		
Material	**Average**	**Lower Boundary**	**Upper Boundary**	**Average**	**Lower Boundary**	**Upper Boundary**
Aluminum Cans: Deposit	0.36%	0.29%	0.44%	0.42%	0.31%	0.54%
Aluminum Cans: Non-Deposit	0.41%	0.29%	0.55%	0.33%	0.25%	0.41%
Aluminum Foil/Tins	1.17%	0.87%	1.51%	0.71%	0.56%	0.87%
Empty Aerosol Cans	0.69%	0.53%	0.86%	0.55%	0.42%	0.69%
Mixed Metals	0.81%	0.44%	1.27%	0.93%	0.50%	1.49%
Other Aluminum	0.14%	0.08%	0.22%	0.24%	0.13%	0.39%
Other Ferrous	14.08%	11.98%	16.18%	29.01%	25.13%	32.89%
Other Non-Ferrous	0.23%	0.12%	0.36%	0.31%	0.17%	0.50%
Tin Food Cans	7.59%	6.78%	8.43%	6.13%	5.36%	6.94%
Total Metal	**25.47%**	**22.67%**	**28.27%**	**38.63%**	**34.21%**	**43.05%**
Brown Glass: Deposit	1.16%	0.80%	1.59%	0.97%	0.66%	1.35%
Brown Glass: Non-Deposit	0.44%	0.28%	0.64%	0.14%	0.08%	0.23%
Clear Glass: Deposit	1.07%	0.73%	1.48%	0.87%	0.59%	1.20%
Clear Glass: Non-Deposit	6.11%	5.02%	7.30%	5.78%	4.74%	6.91%
Green Glass: Deposit	1.05%	0.72%	1.45%	0.99%	0.66%	1.38%
Green Glass: Non-Deposit	2.65%	1.82%	3.63%	2.34%	1.47%	3.40%
Mixed Cullet	26.74%	22.77%	30.91%	16.29%	13.11%	19.73%
Other Glass	0.70%	0.43%	1.04%	0.49%	0.31%	0.71%
Total Glass	**39.93%**	**35.46%**	**44.48%**	**27.86%**	**24.24%**	**31.63%**
Audio/Visual Equipment: Cell Phones	0.01%	0.00%	0.01%	0.00%	0.00%	0.00%
Audio/Visual Equipment: Other	0.25%	0.13%	0.40%	1.12%	0.58%	1.84%
Computer Monitors	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Computer Equip.	1.00%	0.58%	1.52%	0.61%	0.32%	1.00%
Small Appliances	0.88%	0.51%	1.25%	4.56%	2.85%	6.28%
Televisions	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total App. & Elec.	**2.13%**	**1.35%**	**2.91%**	**6.30%**	**4.14%**	**8.46%**

Conclusions

Based on the results of the PWCS, we believe that the original protocol for acquiring MGP samples was inappropriate in terms of accounting for bulk items. The bobcat front end loader was too small to handle the over-sized items found in the NYC recyclables stream. However, overall protocol and QA/QC procedures highlighted this issue relatively early in the sampling period. Our managers took quick and appropriate actions to modify the sampling protocol to accurately reflect the character of the MGP stream.

Our statistical analysis of the samples obtained both before and after the change in MGP sampling protocol supports our conclusions regarding the potential under-reporting of bulk metal items. The use of larger front-end loaders in conjunction with an improved protocol with respect to over-size items will help to ensure that such items are appropriately included in the sampling results.

The statistical analysis contained in this report may reflect an under-reporting of the metals contained in the MGP stream, since we have based our results on the entire week's sampling. But given the nature of a preliminary study and the *a priori* skepticism that would meet relatively high metal percentages in the MGP stream, we believe it is better to err on the side of under-reporting metals.

Appendix X
Capture Rates

Capture Rates

1.1 Introduction

One metric used to assess New York City's recycling program is the "Capture Rate." This term refers to the amount of a specific material, such as paper designated for recycling, that is collected divided by the total amount of that material in both the refuse and recycling streams. For example, if 50 tons of designated paper is collected for recycling and the total amount of designated paper in the refuse and recycling streams is 100 tons, the capture rate for designated paper is 50 percent. Essentially, the capture rate measures how much of a material is being recycled out of all of that same material that is "out there".

Appendix X presents calculations for capture rates for the PWCS. Three capture rates have been calculated:

1. A capture rate for Paper, MGP, and combined recycling materials before any adjustment for moisture and particulate testing.
2. A capture rate for Paper, MGP, and combined recycling materials after adjustments for moisture and particulate testing.
3. A capture rate for Paper, MGP, and combined recycling materials, adjusted for moisture and particulate testing and accounting for the 64 percent of appliances in MGP with 50 percent or more metal.

In addition, a survey of thirty of the largest municipal recycling programs in the United States was conducted to gauge the use of capture rates in these cities. Twenty of the 30 programs contacted responded to the survey. The purpose of the survey was to determine how many municipalities use capture rates for measuring the effectiveness of their recycling programs.

1.1.1 PWCS Capture Rates

Tables AX-1, AX-2, and AX-3 present the three capture rates for the PWCS.

Table AX-1 presents the PWCS capture rates before any adjustments for moisture and particulate testing. It shows the amount of paper and metal, glass and plastic ("MGP") collected for recycling as a percentage of the total amount of designated paper and MGP collected in the combined refuse and recycling materials.

Table AX-1
PWCS Capture Rates Before Moisture and Particulate Adjustments

	Tonnage	
Recycling Stream		
Designated Paper	7,301.44 (1)	
Designated MGP	4,882.01 (1)	
Total Designated Paper and MGP	10,577.90 (1)	
Total Recycling Stream	**12,183.45**	
Waste Stream	**Tonnage**	**% of Waste Stream**
Designated Paper	15,415.94	21.47%
Designated MGP	8,566.01	11.93%
Total Designated Paper and MGP	23,981.95	33.40%
Total Waste Stream	**71,802.26** (1)	
Capture Rate for Paper Recycling (2)	7,301.44 / 15,415.94 = 47.36%	
Capture Rate for MGP Recycling (2)	4,882.01 / 8,566.01 = 56.99%	
Total Capture Rate (2)	12,183.45 / 23,981.95 = 50.80%	

(1) Tonnage values are based on the average weekly tonnage that was collected during May and June 2004, as provided by DSNY.
(2) Capture rate assessed by weight of collected material over weight of designated material in the waste stream.

In the PWCS Refuse Sort, a series of moisture and particulate tests were conducted for selected materials to determine how much moisture and foreign matter migrated from the collected waste to the selected materials. The results of these tests are described in more detail in Appendix V. Table AX-2 presents the capture rates after the adjustments for moisture and particulate testing.

Table AX-2
PWCS Capture Rates After Moisture and Particulate Adjustments

	Tonnage	
Recycling Stream		
Designated Paper	7,301.44 (1)	
Designated MGP	4,882.01 (1)	
Total Recycling Stream	**12,183.45** (1)	
Waste Stream	**Tonnage**	**% of Waste Stream**
Designated Paper	14,289.03	19.90%
Designated MGP	8,337.30	11.61%
Total Designated Paper and MGP	22,626.33	31.51%
Total Waste Stream	**71,802.26** (1)	
Capture Rates for Paper Recycling (2)	7,3014.44 / 14,289.03 = 51.10%	
Capture Rates for MGP Recycling (2)	4,882.01 / 8,337.30 = 58.56%	
Total Capture Rate (2)	12,183.45 / 22,626.33 = 53.85%	

(1) Tonnage values are based on the average weekly tonnage that was collected during May and June 2004, as provided by DSNY.
(2) Capture rate assessed by weight of collected material over weight of designated material in the waste stream.

During the PWCS Refuse Sort, all small appliances in the refuse stream were designated as non-recyclable. However, during the Recycling Sort, a subsort was conducted which separated small appliances into those made of 50 percent or more of metal and those made of less than 50 percent metal. The small appliances made of 50 percent or more of metal were designated as recyclable. The values in Table AX-3 represents the capture rates in the event that all possible metal was extracted and deemed recyclable from all small appliances as they entered the waste stream. In addition, Table AX-3 shows results after adjustments for moisture and particulate testing.

Table AX-3
PWCS Capture Rates After Accounting for Small Appliances and Moisture and Particulate Adjustments

	Tonnage	
Recycling Stream		
Designated Paper	7,301.44 (1)	
Designated MGP	4,882.01 (1)	
Total Recycling Stream	**12,183.45** (1)	
Waste Stream	**Tonnage**	**% of Waste Stream**
Designated Paper	12,706.12	17.70%
Designated MGP	8,463.74	11.79%
Total Designated Paper and MGP	21,169.86	29.48%
Total Waste Stream	**71,802.26** (1)	
Capture Rates for Paper Recycling (2)	7,301.44 / 12,706.12 = 57.46%	
Capture Rates for MGP Recycling (3)	4,882.01 / 8,463.74 = 57.68%	
Total Capture Rate (2)	12,183.45 / 21,169.86 = 57.55%	

(1) Tonnage values are based on the average weekly tonnage that was collected during May and June 2004, as provided by DSNY.
(2) Capture rate assessed by weight of collected material over weight of designated material in the waste stream.

1.1.2 Municipal Survey

To determine how widely capture rates are used to measure the success of municipal recycling programs, a telephone survey of 30 of the largest municipal recycling programs in the United States was conducted. Of the 30 municipal programs contacted, 20 responded.

The contact person in each city's recycling program was asked if the term "capture rate" was used and, if so, how was it calculated. If the answer to both questions was affirmative, then the person was asked to provide the most current estimate of the capture rate. Table AX-4 presents the results of the telephone survey.

Table AX-4
NYC Waste Composition Study
Results of Capture Rate Telephone Research

	Houston	San Antonio	Detroit	Washington D.C.	Memphis	Portland	Tucson
Contact	Ed Kim	Steven Davies	Angela (would not give last name)	William B. Easley, Jr.	Andy Ashford	Bruce Walker	Don Gibson
Title	Recycling Supervisor	Manager	Program Supervisor	Recycling Program Officer	Administrator, Recycling & Composting	Solid Waste Director	Recycling Coordinator
Summary of Capture Rate Discussion	Houston does not make a distinction between what they "capture" and what they recycle. Their capture rate is identical to their recycling rate. When posed with NYC's method, they responded that they do not use such a metric at all. According to Mr. Kim, everybody (and hence every program) has their own interpretations with respect to terminology.	San Antonio does not use this term at all. San Antonio conjectured that the majority of Texas does not use this term. In fact, the contact had never heard of this term, and does not perform a calculation similar to NYC.	Detroit does not report a recycling or capture rate (this is in accord with WasteNews.com). They specialize in Waste to Energy and Glass and plastic recycling, and produce a quarterly report for Wayne County. The contact offered to investigate the term further, but as far as she knows no one uses the term capture rate (it was new to the contact). Detroit does not perform a calculation similar to NYC.	Washington defines a capture rate in the identical fashion to NYC, but currently does not calculate one. The program is seriously considering implementing this calculation in the near future. The reason they have not done so is that they have yet to "get a handle on recycling/diversion rates" and "who is doing what". The contact is of the opinion that the level of specificity provided by capture rates is extremely useful and is hopeful that D.C. will implement calculations sooner rather than later.	Mr. Ashford has been in the recycling industry for 25+ years, and had never heard of a capture rate. The city of Memphis focuses on an aggregate recycling rate (as we have defined). Organic waste recycling is a big focus in Memphis from a revenue standpoint, and in the opinion of Mr. Ashford any computation that attempts to estimate the amount of designated recyclables in the total waste stream is too conjectural and too specific.	Portland defines capture rate in the same fashion as NYC. However, they do not report a capture rate, nor do they compute one for tracking purposes. Specifically, a capture rate for Portland would be "the amount of commodity x recycled/ estimated total amount of x available in the overall waste stream".	Tucson does not use a capture rate, nor do they perform any calculations based on estimates whatsoever. When the program was initiated, the University of Arizona Garbology Project Statistical estimate of 32% was the number for recycling rates estimated, given that 100% of people recycled 100% of what they could (this was deemed unrealistic). An adjusted initial estimate was used for program approval, at roughly 19%. Since February of 2003, the city has implemented a new tracking system whereby they track total tonnage of waste collected in each of the city's 12 zones, as well as the total tonnage of recyclables collected, to produce a "true zonal diversion rate" (this is the same as a recycling rate by definition in Tucson).

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(continued)

	Denver	Chicago	Philadelphia	Fort Worth	Oklahoma City	Baltimore	Dallas
Contact	Charlotte Pitt	Chris Sauve	David Robinson	Ed Shumpert	Charles Lombardy	Valentina Yukoma	John A. Barlow IV
Title	Recycling Coordinator	Recycling Coordinator	Recycling Coordinator	Recycling Coordinator	Recycling Coordinator	Recycling Analyst	Waste Diversion Manager
Summary of Capture Rate Discussion	Denver is quote "not that sophisticated". They do not use, nor calculate a capture rate, although the contact was aware of the term (not the specific definition used by NYC, however.) Denver is only concerned with an aggregate recycling rate. The state of Colorado has no goals/standards for municipal recycling data, so any calculations made for the program are for internal purposes only.	Chicago does not know what a capture rate means. The contact intimated that there may be a similar calculation done to NYC's but that that would require more investigation on his part. However, he was certain that the term "capture rate" is not used (this is validated by a thorough review of their detailed recycling report.)	Philadelphia does not use the term "capture rate". The contact was not aware of the term at all in any defined form. Philadelphia is primarily concerned with a recycling rate.	Fort Worth does not use a capture rate, and does not compute a capture rate as defined by NYC. Fort Worth is primarily concerned with an aggregate recycling/diversion rate.	Oklahoma City does not use, nor have they heard of, the term capture rate. They also do not perform a calculation similar to NYC's calculation. The city is primarily concerned with an aggregate recycling/diversion rate.	Baltimore had not heard of the term capture rate. When posed with the capture rate calculation as defined by NYC, the contact was certain that such a calculation was not performed. Baltimore is primarily concerned with an aggregate diversion rate.	The city of Dallas does not use the term capture rate. The only calculation other than a recycling rate that is done is performed by Dallas' contractor. The contractor that provides Dallas with an Annual Report provides values for each particular recyclable as a percent of the total recycling stream for the year, in addition to an aggregate recycling rate.

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(continued)

	Seattle	Milwaukee	Nashville	Jacksonville	Austin	San Francisco
Contact	Hans Van Dusen	Mary Bengsch	Shelly Sloan	John Sherhorn	Bob Fernandez	Kevin Drew
Title	Solid Waste Contracts Manager	Recycling Specialist	Operations Manager	Manager	Manager	SFEnvironment Representative
Summary of Capture Rate Discussion	The city of Seattle is aware of the term capture rate as defined by NYC. They do not track these rates regularly, but only on a "case-by-case", or "as needed" basis. Only aggregate recycling/diversion rates are tracked regularly.	Milwaukee, when posed the question regarding capture rates, immediately assumed the term was synonymous with recycling rate. When told of the calculation as performed by NYC, the contact was certain that such a calculation is not performed, and that the term capture rate is not used. Milwaukee is concerned only with an aggregate recycling rate.	According to the contact, the city of Nashville does not use the term capture rate (it was new to the contact). However, the contact made a referral to the operation manager who is in charge of all statistical analysis related to the program so as to be certain that she was giving a valid response. It appears that Nashville does compute a capture rate as defined by NYC, but may not call this calculation by that name. A message has been sent out to the referral contact to make certain that Nashville has provided accurate information.	The city of Jacksonville is currently at a "crossroads", as the responsibilities of program outreach have been combined with recycling oversight in the recent past. Jacksonville has recycling contracts for residential recycling, yard waste, and tires. They track volume that goes into landfills (the Jacksonville landfill). As far as "capture rate" is concerned, they define it as how much of each recyclable is "captured" out of the total waste stream. The contact intimated that the Florida Department of Environmental Protection has a model that is used to estimate capture percentages for smaller counties, and referred R. W. Beck to another contact at FDEP for further inquiry if necessary. Karen Moore from the FDEP stated that capture rates are not tracked as defined by NYC for Florida, and that FDEP currently uses the waste composition model produced by R. W. Beck, that provides percent of total values which are extrapolated from field data collection.	The city of Austin does not use the term capture rate, nor do they compute a capture rate as defined by NYC under another name. The contact was very interested in knowing whether other recycling programs in Beck's research were found to be using a "capture rate". Austin's main calculation is its recycling rate, which compares the amount of recyclables recovered vs. amount of material collected. However, the contact warned that since the city does not collect all of the waste in Austin (for example, multi-family homes are excluded), the recycling rate is somewhat skewed. Another calculation offered by the contact compares recovered recyclable material that is outbound (sold) vs. unsold (defined to be residue).	San Francisco does not use the term capture rate. Every year, after the completion of their diversion study, waste characterization/allocation study values from studies performed in 1990 and 1996 are used to "extrapolate or interpolate" exactly how much waste is being extracted. These results are presented graphically, and there is no general terminology used to describe them. The contact acknowledged the fact that the numbers from 1990 and/or 1996 are fairly old, which may make the results less representative than desired to some extent.

As Table AX-4 shows, most cities were unfamiliar with the term “Capture Rate,” as defined by New York City, and none of the respondents use capture rates to measure the success of their recycling program.