

APPENDIX A

METHODOLOGY AND DATA USED TO ESTIMATE WASTE DIVERSION SCENARIOS, GREENHOUSE GAS REDUCTIONS AND JOB CREATION POTENTIAL OF THE *BEYOND WASTE* PLAN

1. Materials Composition and Diversion Scenarios

Tables A-1 and A-2 provide data to support the estimated waste diversion scenarios that underpin the goals of the *Beyond Waste* Plan (See Table 2.1). Table A-1 is a summary of the total solid waste generation and management in 2008. This information includes generation and management of MSW, C&D debris, industrial waste and biosolids and was used to establish the baseline for the Plan. The estimated composition of the materials stream presented in Table A-2 was developed by DEC staff using data inputs from field-based waste composition analyses performed both within New York State and in other US cities and states that have similar demographic characteristics to some of New York's regions. (For more detail, see section 7.1.1. and Appendix H)

The diversion and disposal reduction scenarios in Table A-2 assume that the most immediate gains would be in improving the capture rate of materials currently designated in most New York State recycling programs, such as cardboard, newspaper, other recyclable paper, plastic containers, metals and yard trimmings. Improvements in the capture of materials that will require new infrastructure, such as food scraps, glass, textiles, and other plastics, are expected to occur later in the planning period and the greatest gains from product and packaging stewardship initiatives would come later in the planning horizon.

2. Greenhouse Gas Reduction and Energy Conservation Estimates

The overall GHG calculation results and energy savings estimates presented in this Plan are based on the August 2010 EPA WARM model, Excel version. This included the GHG reduction and energy savings for each of the projected diversion scenarios from 2012 to 2030.

As outlined on the EPA web site, WARM calculates and totals GHG emissions of baseline and alternative waste management practices—source reduction, recycling, combustion, composting, and landfilling. The model calculates emissions in metric tons of carbon equivalent (MTCE), metric tons of carbon dioxide equivalent (MTCO₂E), and energy units (million BTU) across a wide range of material types commonly found in municipal solid waste (MSW). Information on the data and methodologies behind the calculations can be found

at: http://www.epa.gov/climatechange/wycd/waste/calculators/Warm_home.html .

In the draft Plan, the GHG calculation results were obtained using the Environmental Benefits Calculator developed by the Northeast Recycling Council, Inc. (NERC). NERC's calculator generates estimates of the environmental benefits of a study area, in this case New York State. Estimates are based on the tonnages of materials that are source reduced, reused, recycled, landfilled, or combusted (including waste to energy). The calculator is based on per-ton figures of the estimated energy use and emissions from several lifecycle analysis studies. The estimates are average figures based on "typical" facilities and operating characteristics existing in the United States. The NERC model does use EPA's WARM data, but unfortunately has not yet been updated to include the August 2010 WARM data. Therefore the final Plan analysis substituted the new WARM model for overall GHG and energy benefits. The NERC model was still used in the final Plan for some specific scenarios (product and packaging stewardship implementation, for example) because the model is more amenable to these discrete evaluations. More detail on the NERC calculator can be found at: http://www.nerc.org/documents/environmental_benefits_calculator.html.

3. Potential Green Jobs Estimates

The potential green jobs calculation includes the current documented number of jobs related to recycling and reuse industries and an estimate of potential green job creation based on a national survey of the recycling industry. The Northeast Recycling Council's *Recycling Economic Information Study Update: Delaware, Maine, Massachusetts, New York and Pennsylvania* (February 2009) documented 32,240 jobs related to the recycling and reuse industries in New York State. The study, prepared for the National Recycling Coalition by R.W. Beck, Inc. (July 2001), estimates that 6 jobs are created for every 1,000 tons recycled. Using this estimate, and assuming that implementation of the Plan will yield nearly 8 million (7,992,927) additional tons recycled annually by 2020 and more than 11 million (11,233,046) additional tons recycled annually by 2030 (see Table A-2), implementing the Plan would result in an additional 67,398 jobs or a total of nearly 100,000 jobs (99,638) created or sustained through implementation of the Plan.

**Table A-1
New York State Waste Generation
Total Solid Waste
Year 2008**

Material Managed	Generated	% of Total Generated	Generated Per Capita	Disposed	% of Total Disposed	Comments
	Tons		lbs	Tons		
Population Served (Statewide)	19,490,297					
Municipal Solid Waste (MSW)						Data From Annual Facility Reports & BUD Reports
Landfill						
In-State MSW	5,069,311					
MWC Ash	896,623					(total ash) X (in-state %) X (MSW %)
BUD -Tire Fill	38,107					ESD Report
Sub-Total Landfill	6,004,041	32.79%	616.11	6,004,041	41.15%	
Combustion (with Energy Recovery)						
In-State MSW	3,408,142					
Ash	(896,623)					(total ash) X (in-state %) X (MSW %)
Metal Recovered	(84,833)					(total metal recovered) X (in-state %) X (MSW %)
Tire Fuel	78,074					ESD Report
BUD - Fuel	42					
Sub-Total Combustion	2,504,802	13.68%	257.03	2,504,802	17.17%	
Export for Disposal						
Facility Reports	4,748,383					
Out-of-State Survey Data	1,328,230					
HHW Report Data	6,192					Total HHW disposed
Sub-Total Export for Disposal	6,082,805	33.22%	624.19	6,082,805	41.69%	
Recycled/Composted						
RHRF/Transfer Station Data	2,339,927					
Municipal Collected Directly Exported	69,249					
Municipal Collected Directly to Mfg.	213,342					
Yard Trimmings Facility Data	594,726					
Food Scraps Facility Data	13,276					
Other Food Scraps	3,715					
Department of Corrections	6,037					
MSW Compost Facility Data	10,195					
BUD Tire Use	71,132					ESD Report
BUD - Other Use	264					
Buisness Directly Exported	79,869					Provided directly to DEC from buisness
Bottle Bill	231,814					
MWC Metal	84,833					From Combustion Above
HHW Report Data	2,011					Electronics, auto batteries, fluorescent bulbs, mercury
Sub-Total Recycled/Composted	3,720,390	20.32%	381.77			
Total MSW	18,312,038	100.00%		14,591,648	100.00%	
Construction & Demolition (C&D)						Data From Annual Facility Reports & BUD Reports
Landfill						
In-State C&D	2,526,479					
MWC Ash	456					(total ash) X (in-state %) X (C&D %) X (% landfilled)
Facility Report - ADC	1,570,476					Includes ash used as ADC
BUD - Landfill	31,046					
Sub-Total Landfill	4,128,457	31.74%	423.64	4,128,457	71.20%	
Combustion						
At MWCs	2,287					
Ash	(595)					(total ash) X (in-state %) X (C&D %)
Metal Recovered	(57)					(total metal recovered) X (in-state %) X (C&D %)
BUD - Fuel	3,555					
Sub-Total Combustion	5,190	0.04%	0.53	5,190	0.09%	
Export for Disposal (Facility Report)	1,664,581	12.80%	170.81	1,664,581	28.71%	
Recycled/Aggregate						
In-State C&D	6,111,742					
Export C&D	351,304					
MWC Metal	57					From Combustion Above
BUD - Recycled	448					
BUD - Aggregate	746,587					
Sub-Total Recycled/Aggregate	7,210,138	55.43%	739.87			
Total C&D	13,008,366	100.00%		5,798,228	100.00%	

Table A-1 (cont.) New York State Waste Generation
Total Solid Waste
Year 2008

Material Managed	Generated	% of Total Generated	Generated Per Capita	Disposed	% of Total Disposed	Comments
	Tons		lbs	Tons		
Industrial Waste						Data From Landfill Annual Reports & BUD Reports
Landfill						
In-State at MSW LF	404,273					
In-State at Industrial LF	1,090,818					
MWC Ash	7,166					(total ash) X (in-state %) X (IW %) X (% landfilled)
Facility Report - ADC	518,562					Includes ash used as ADC
BUD - Landfill	64,299					
Sub-Total Landfill	2,085,118	59.30%	213.96	2,085,118	97.61%	
Combustion						
In-State at MWCs	35,883					
Ash	9,342					(total ash) X (in-state %) X (IW %)
BUD - Fuel	5,092					
Sub-Total Combustion	50,317	1.43%	5.16	50,317	2.36%	
Export for Disposal (Facility Report)	764	0.02%	0.08	764	0.04%	
Recycled/Composted						
Food Processing Waste-Report Data	130,093					
Animal Feed	166,648					
BUD - Use	744,578					
Sub-Total Recycled/Composted	1,041,319	29.61%	106.86			
Aggregate						
BUD - Aggregate	338,691					
Sub-Total Aggregate	338,691	9.63%	34.75			
Total Industrial	3,516,209	100.00%		2,136,199	100.00%	
Biosolids (All tonnages converted to as received at landfill weights - 20% total solids)						Data From Biosolids Annual Reports and Survey
Landfill						
In-State - Facility Report	299,152					
BUD - WWTP Sludge Ash	11,673					
Sub-Total Landfill	310,825	17.24%	31.90	310,825	32.49%	
Combustion (w/o Energy Recovery)						
In-State Facility Report	442,600					
BUD - Ash	(11,673)					
Sub-Total Combustion	430,927	23.90%	44.22	430,927	45.04%	
Export for Disposal (Facility Report)	215,016	11.93%	22.06	215,016	22.47%	
Recycled/Composted	845,990	46.93%				
Total Biosolids (20% Total Solids)	1,802,758	100.00%		956,768	100.00%	
Total Landfill	12,528,441	34.19%	1285.61			
Total Combustion	2,991,236	8.16%	306.95			
Total Export	7,963,166	21.73%	817.14			
Total Recycled	13,156,528	35.91%	1350.06			
Total Waste	36,639,371	100.00%	3759.76			

**Table A-2
New York State
Municipal Solid Waste (MSW) Combined Composition Analysis and Projections**

Material	Tons Generated	% of Total	2010		2012		2014		2016		2018		2020		2025		2030	
			Tons Diverted	% Diverted														
Newspaper	744,095	4.06%	492,401	66.17%	543,189	73.00%	595,276	80.00%	632,481	85.00%	669,686	90.00%	669,686	90.00%	669,686	90.00%	669,686	90.00%
Corrugated Cardboard	1,831,317	10.00%	961,611	52.51%	1,153,730	63.00%	1,281,922	70.00%	1,373,488	75.00%	1,501,680	82.00%	1,648,186	90.00%	1,648,186	90.00%	1,648,186	90.00%
Other Recyclable Paper																		
Paperboard	420,177	2.29%	74,319	17.69%	92,439	22.00%	126,053	30.00%	168,071	40.00%	252,106	60.00%	294,124	70.00%	336,142	80.00%	378,159	90.00%
Office Paper	523,237	2.86%	214,527	41.00%	245,921	47.00%	313,942	60.00%	392,428	75.00%	418,590	80.00%	444,752	85.00%	470,913	90.00%	470,913	90.00%
Junk Mail	386,783	2.11%	73,889	19.10%	88,960	23.00%	116,035	30.00%	154,713	40.00%	232,070	60.00%	270,748	70.00%	309,427	80.00%	348,105	90.00%
Other Commercial Printing	409,563	2.24%	145,295	35.48%	159,730	39.00%	204,782	50.00%	245,738	60.00%	286,694	70.00%	327,651	80.00%	348,129	85.00%	368,607	90.00%
Magazines	183,787	1.00%	34,611	18.83%	40,433	22.00%	55,136	30.00%	73,515	40.00%	110,272	60.00%	128,651	70.00%	147,030	80.00%	165,408	90.00%
Books	84,550	0.46%	445	0.53%	507	0.60%	12,683	15.00%	21,138	25.00%	33,820	40.00%	50,730	60.00%	67,640	80.00%	76,095	90.00%
Bags	71,355	0.39%	290	0.41%	357	0.50%	10,703	15.00%	28,542	40.00%	42,813	60.00%	49,948	70.00%	57,084	80.00%	64,219	90.00%
Phone Books	50,190	0.27%	10,539	21.00%	12,547	25.00%	15,057	30.00%	37,642	75.00%	45,171	90.00%	45,171	90.00%	45,171	90.00%	47,680	95.00%
Poly-Coated	42,997	0.23%	280	0.65%	322	0.75%	2,150	5.00%	8,599	20.00%	17,199	40.00%	25,798	60.00%	30,098	70.00%	34,397	80.00%
Other Recyclable Paper (Total)	2,172,639	11.86%	554,195	25.51%	641,217	29.51%	856,541	39.42%	1,130,386	52.03%	1,438,735	66.22%	1,637,572	75.37%	1,811,632	83.38%	1,953,585	89.92%
Other Compostable Paper	1,223,244	6.68%	3,914	0.32%	4,281	0.35%	61,162	5.00%	183,487	15.00%	305,811	25.00%	489,298	40.00%	733,946	60.00%	917,433	75.00%
Total Paper	5,971,296	32.61%	2,012,121	33.70%	2,342,418	39.23%	2,794,901	46.81%	3,319,841	55.60%	3,915,911	65.58%	4,444,741	74.44%	4,863,450	81.45%	5,188,889	86.90%
Ferrous/Aluminum Containers																		
Ferrous Containers	203,370	1.11%	57,540	28.29%	63,045	31.00%	81,348	40.00%	101,685	50.00%	122,022	60.00%	142,359	70.00%	172,864	85.00%	183,033	90.00%
Aluminum Containers	87,059	0.48%	58,405	67.09%	64,424	74.00%	69,647	80.00%	74,000	85.00%	74,000	85.00%	78,353	90.00%	78,353	90.00%	82,706	95.00%
Ferrous/Aluminum Containers (Total)	290,429	1.59%	115,945	39.92%	127,468	43.89%	150,995	51.99%	175,685	60.49%	196,022	67.49%	220,712	76.00%	251,218	86.50%	265,739	91.50%
Other Ferrous Metals	794,581	4.34%	243,974	30.70%	270,158	34.00%	317,833	40.00%	397,291	50.00%	476,749	60.00%	556,207	70.00%	635,665	80.00%	715,123	90.00%
Other Non-Ferrous Metals																		
Other aluminum	45,073	0.25%	3,304	7.33%	3,606	8.00%	11,268	25.00%	18,029	40.00%	33,805	75.00%	36,059	80.00%	38,312	85.00%	40,566	90.00%
Automotive batteries	70,564	0.39%	70,564	100.00%	70,564	100.00%	70,564	100.00%	70,564	100.00%	70,564	100.00%	70,564	100.00%	70,564	100.00%	70,564	100.00%
Other non-aluminum	61,202	0.33%	4,539	7.42%	4,896	8.00%	15,301	25.00%	24,481	40.00%	39,782	65.00%	48,962	80.00%	52,022	85.00%	55,082	90.00%
Other Non-Ferrous Metals (Total)	176,839	0.97%	78,407	44.34%	79,066	44.71%	97,133	54.93%	113,074	63.94%	144,150	81.51%	155,584	87.98%	160,898	90.99%	166,212	93.99%
Total Metals	1,261,850	6.89%	438,326	34.74%	476,692	37.78%	565,960	44.85%	686,050	54.37%	816,921	64.74%	932,503	73.90%	1,047,781	83.04%	1,147,074	90.90%
PET Containers	184,677	1.01%	86,318	46.74%	94,185	51.00%	110,806	60.00%	120,040	65.00%	138,508	75.00%	156,975	85.00%	166,209	90.00%	166,209	90.00%
HDPE Containers	155,220	0.85%	30,567	19.69%	37,253	24.00%	62,088	40.00%	77,610	50.00%	93,132	60.00%	116,415	75.00%	131,937	85.00%	139,698	90.00%
Other Plastic (3-7) Containers	35,394	0.19%	1,468	4.15%	1,770	5.00%	5,309	15.00%	8,848	25.00%	10,618	30.00%	14,157	40.00%	23,006	65.00%	30,084	85.00%
Film Plastic	1,052,565	5.75%	17,924	1.70%	19,999	1.90%	157,885	15.00%	263,141	25.00%	368,398	35.00%	526,282	50.00%	631,539	60.00%	736,795	70.00%
Other Plastic																		
Durables	582,989	3.18%	10,265	1.76%	10,494	1.80%	11,660	2.00%	29,149	5.00%	87,448	15.00%	204,046	35.00%	291,495	50.00%	378,943	65.00%
Non-Durables	324,921	1.77%	3,338	1.03%	4,062	1.25%	4,874	1.50%	16,246	5.00%	48,738	15.00%	146,215	45.00%	194,953	60.00%	243,691	75.00%
Packaging	236,163	1.29%	1,719	0.73%	1,771	0.75%	2,362	1.00%	11,808	5.00%	94,465	40.00%	177,122	75.00%	200,739	85.00%	212,547	90.00%
Other Plastic (Total)	1,144,074	6.25%	15,322	1.34%	16,327	1.43%	18,895	1.65%	57,204	5.00%	230,652	20.16%	527,383	46.10%	687,186	60.06%	835,181	73.00%
Total Plastics	2,571,929	14.05%	151,599	5.89%	169,533	6.59%	354,983	13.80%	526,843	20.48%	841,307	32.71%	1,341,214	52.15%	1,639,877	63.76%	1,907,968	74.18%
Glass Containers	729,687	3.98%	325,198	44.57%	357,547	49.00%	437,812	60.00%	510,781	70.00%	583,750	80.00%	620,234	85.00%	656,718	90.00%	656,718	90.00%
Other Glass	71,926	0.39%	1,375	1.91%	1,439	2.00%	3,596	5.00%	10,789	15.00%	21,578	30.00%	32,367	45.00%	46,752	65.00%	57,541	80.00%
Total Glass	801,613	4.38%	326,573	40.74%	358,985	44.78%	441,409	55.07%	521,570	65.07%	605,327	75.51%	652,601	81.41%	703,470	87.76%	714,259	89.10%
Food Scraps	3,232,976	17.65%	33,742	1.04%	96,989	3.00%	323,298	10.00%	646,595	20.00%	1,131,541	35.00%	1,616,488	50.00%	2,101,434	65.00%	2,586,381	80.00%
Yard Trimmings	919,770	5.02%	616,882	67.07%	680,630	74.00%	827,793	90.00%	827,793	90.00%	827,793	90.00%	873,781	95.00%	873,781	95.00%	919,770	100.00%
Total Organics	4,152,745	22.68%	650,624	15.67%	777,619	18.73%	1,151,090	27.72%	1,474,388	35.50%	1,959,334	47.18%	2,490,269	59.97%	2,975,215	71.64%	3,506,150	84.43%
Clothing Footwear, Towels, Sheets	692,620	3.78%	38,237	5.52%	48,483	7.00%	103,893	15.00%	173,155	25.00%	277,048	40.00%	415,572	60.00%	484,834	70.00%	554,096	80.00%
Carpet	255,896	1.40%	2,013	0.79%	2,559	1.00%	25,590	10.00%	115,153	45.00%	140,743	55.00%	179,127	70.00%	204,717	80.00%	217,512	85.00%
Total Textiles	948,516	5.18%	40,250	4.24%	51,042	5.38%	129,483	13.65%	288,308	30.40%	417,791	44.05%	594,699	62.70%	689,551	72.70%	771,608	81.35%
Total Wood	638,372	3.49%	27,770	4.35%	31,919	5.00%	63,837	10.00%	127,674	20.00%	191,512	30.00%	255,349	40.00%	319,186	50.00%	383,023	60.00%
C&D Materials	817,651	4.47%	0	0.00%	0	0.00%	81,765	10.00%	163,530	20.00%	245,295	30.00%	327,060	40.00%	408,825	50.00%	490,590	60.00%
Other Durables	307,529	1.68%	0	0.00%	0	0.00%	0	0.00%	15,376	5.00%	76,882	25.00%	153,764	50.00%	184,517	60.00%	215,270	70.00%
Diapers	309,419	1.69%	0	0.00%	0	0.00%	15,471	5.00%	30,942	10.00%	61,884	20.00%	92,826	30.00%	123,767	40.00%	154,709	50.00%
Electronics	258,240	1.41%	2,011	0.78%	193,680	75.00%	232,416	90.00%	232,416	90.00%	232,416	90.00%	245,328	95.00%	245,328	95.00%	258,240	100.00%
Tires	183,410	1.00%	71,116	38.77%	84,368	46.00%	100,875	55.00%	137,557	75.00%	165,069	90.00%	165,069	90.00%	174,239	95.00%	183,410	100.00%
HHW	54,035	0.30%	0	0.00%	0	0.00%	2,702	5.00%	5,404	10.00%	8,105	15.00%	10,807	20.00%	13,509	25.00%	21,614	40.00%
Fines	35,434	0.19%	0	0.00%	0	0.00%	0	0.00%	1,772	5.00								

APPENDIX B

EXECUTIVE ORDER 4 ANNUAL REPORT 2007-2008

See attached report on next page.



***NEW YORK STATE
OFFICE OF GENERAL SERVICES***

***Material Recovery and Waste
Reduction Program***

ANNUAL REPORT

Fiscal Year 2007-08

Submitted in accordance with Subsection 3 of Section 165 of the State Finance Law

***David A. Paterson
Governor***

***John C. Egan
Commissioner***

TABLE OF CONTENTS

I.	Overview of the OGS Solid Waste Management Program.....	3
	A. The 3R's Program-Reduce It! Reuse It! Recycle It!	3
	B. Solid Waste Management through Commodity Purchasing.....	4-5
II.	Quantities of Recycled Paper Purchased by the Office of General Services and Other Agencies.....	5-8
III.	Amount of Waste Recycled from State Offices and State Programs and Full Avoided Costs.....	9
	A. State Offices.....	9
IV.	Extent of Waste Stream Reduction and Kinds of Materials.....	10-11
	A. Bureau of Surplus Personal Property.....	11
	B. Department of Education, Bureau of Records Management.....	12
V.	Cost of Operating the Program.....	12
VI.	Specific Actions Undertaken.....	13
	A. Initiatives Summary.....	13
	B. Technical Assistance.....	13
VII.	Executive Order 142 Recycling Initiatives by New York State Agencies...	14
VIII.	Goals For Fiscal Year 2008-09	14
IX.	Exhibits.....	15
	A. Procurement Services Group Contracts with Recycled and/or Energy Efficient Products & Technology	16-19
	B. Graph of Total Tons of Recycled Materials – 1988-89 to 2007-08	20
	C. Graph of Tons of Recycled Materials Versus Trash – 1988-89 to 2007-08	21

I. OVERVIEW OF THE OGS SOLID WASTE MANAGEMENT PROGRAM

A. The 3R's Program - Reduce It! Reuse It! Recycle It!

Fiscal Year 2007-08 marks the 19th full year of the Office of General Services' (OGS) Solid Waste Management Program. The program is aimed at reducing the demand for valuable landfill space by efficiently collecting and marketing recyclable waste produced in OGS-managed facilities. Since its inception, 90,568 tons of paper and other materials, including batteries and scrap metal, have been recycled, generating \$2,092,072 of revenue, avoiding or averting approximately \$7.1 million in tipping fees, and saving 247,684 cubic yards of landfill space. In addition, since inception, an estimated 1.6 million trees were saved through this recycling initiative.

During the Fiscal Year 2007-08 reporting period, 2,096 tons of paper and 2,559 tons of other materials including batteries and scrap metal were recycled, which generated \$174,713 in revenue and avoided \$279,300 in tipping fees. Through these efforts, an estimated 35,632 trees were saved. In addition 13,965 fewer cubic yards of landfill space were used. Through participation of state agencies, employees, and tenants, 55.3% percent of the OGS properties' waste stream was recycled.

The 3R's Program is OGS Real Property Management's response to the requirements of Section 165 of the State Finance Law and is consistent with Executive Order 142, which calls for the implementation of a comprehensive and environmentally sound Solid Waste Management Program by all state agencies.

In addition to recycling various paper products, other OGS recycling efforts include collection and recovery systems for plastic, glass and metal containers; concrete, asphalt; yard waste; fluorescent lamps; electronic equipment including computers; motor oil; scrap metals such as brass, copper, iron, and aluminum; and wet cell batteries. Additionally, OGS encourages all its tenants and employees through training, posters, and brochures to reduce the waste stream by the use of e-mail in place of written memoranda; computerized scheduling of meetings to eliminate written notification; two-sided photocopying; reusing three-ring binders, hanging folders, note binders, paper clips, rubber bands, and mailing envelopes; and various other practices.

Utilizing the Inmate Labor Program established by the Executive Chamber and working in conjunction with the Department of Correctional Services, OGS continues to augment its 3R's Program staff through the placement of Inmate Labor at the Empire State Plaza.

B. Solid Waste Management through Commodity Purchasing

The OGS Procurement Services Group (PSG) is the central commodity contracting office for New York State. PSG has contracted for recycled paper since 1981, when OGS became authorized to apply a 10 percent price preference for the purchase of recycled paper products. Since that time, PSG has expanded its purchase of recycled commodities significantly, which is illustrated by the attached list, Procurement Services Group Contracts with Recycled and/or Energy Efficient Products & Technology (Exhibit A). The list includes recycled and remanufactured items that assist state agencies and localities in meeting their recycling collection mandates, such as gondola collection trucks. Also, a number of OGS contracts, such as those for toner cartridges, paint, and items shipped in 55-gallon drum containers include provisions for the return of spent items, which removes them from the state and municipal waste stream.

A 1993 contract for recycled plastic traffic cones was PSG's first multi-state award for a recycled commodity. State agencies and local governments in the states of New York, New Jersey, and Maine participated. The latest renewal of this contract in 2000 incorporated the requirements of New York and a total of seven other states, resulting in significant price savings for all participants.

Other contracts established by PSG that address solid waste management concerns include re-refined lubricating oil, high performance hydraulic oil, and remanufactured automotive replacement parts.

In 2007, 76 percent (\$17,413,225) of the \$22.9 million value in estimated consumption of paper through all OGS paper contracts was for recycled paper. Since the program's inception in 1981, 63 percent (\$362,235,498) of the total \$574,433,024 value in estimated consumption from OGS paper contracts has been for paper with recycled content.

Most of the contracts established by OGS PSG are available for use by political subdivisions and other groups authorized to use state contracts. Currently, over 6,200 authorized users are included on PSG mailing lists. To encourage municipalities to purchase recycled commodities available through state contracts, OGS provides information and assistance through the Purchase Council for State and Local Government Procurement Officials. The Council meets bi-annually and consists of representatives from local government associations, including the New York State Conference of Mayors (NYCOM) and the New York State Association of School Business Officials (NYSABO). Through the Purchase Council, OGS provides articles on recycled and other commodities available through OGS contracts for publication in various professional association newsletters.

Through the efforts of PSG, the State of New York is a recognized national leader in the field of recycled product procurement. This is evidenced by requested participation in national and regional conferences sponsored by the United States Environmental Protection Agency; the New York State Association for Reduction, Reuse and Recycling; the New York State Department of Environmental Conservation; and the Empire State Development Corporation.

PSG developed and maintains an innovative procurement initiative, fulfilling an objective outlined in previous annual reports, designed to encourage the state's purchase of more recycled commodities. The program allows state agencies to utilize OGS' increased discretionary purchasing authority of \$100,000 to enhance procurement of recycled and remanufactured commodities.

II. QUANTITIES OF RECYCLED PAPER PURCHASED BY THE OFFICE OF GENERAL SERVICES AND OTHER AGENCIES

When New York began its recycled paper procurement program in 1981, OGS PSG was one of the few major government contracting offices willing and authorized to pay a premium (no greater than 10 percent) for recycled paper. Thus, we enjoyed several years of significant growth in recycled paper purchases as the suppliers of such products sought to participate in New York State contract opportunities. By the end of the 1980's, procurement of this product grew in popularity to the extent that we found ourselves competing with a larger number of governmental and private sector contracting offices. Consequently, in 1989, since the supply had not grown with the demand, PSG implemented an aggressive, innovative program designed to facilitate the establishment of recycled paper contracts.

Section 165(3) of the State Finance Law allows for a 10% preference for recycled paper which complies with the recycled content and recycled certification requirements specified. An additional preference, not exceeding a total preference of 15%, is allowed if at least fifty percent of the post consumer material utilized in the manufacture of the paper is generated from the waste stream in New York State.

On April 26, 2008, Governor David A. Paterson signed Executive Order No 4 - Establishing a State Green Procurement and Agency Sustainability Program Pursuant to Executive Order No. 4, effective July 1, 2008, all copy paper, janitorial paper and other paper supplies purchased by each State agency or authority shall be composed of 100% post-consumer recycled content to the maximum extent practicable, and all copy and janitorial paper shall be process chlorine-free to the extent practicable, unless such products do not meet required form, function or utility, or the cost of the product is not competitive.

Additionally, effective July 1, 2008, all State agency and authority publications shall be printed on 100% post-consumer recycled content paper. Where paper with 100% post-consumer recycled content is not available, or does not meet required form, function and utility, paper procurements shall use post-consumer recycled content to the extent practicable. Non-recycled content shall be derived from a sustainably-managed renewable resource to the extent practicable, unless the cost of the product is not competitive.

The recycled paper procurement program specifically targets the various grades of paper found in the typical office environment, with the goal of replacing virgin paper with recycled paper. Among the accomplishments of the program to date are:

- Letterhead quality paper (25 percent cotton fiber bond) – The contract was originally issued in November 1989, and continues with the present contract having an annual value of approximately \$35,000. All state agencies can use this contract to obtain letterhead quality stationery for in-house printing.
- White copy paper – The annual value of the recycled paper contracts for white copy paper, including acid free and elemental chlorine free, in both less than truckload lots and truckload lots, had a combined estimated consumption value of approximately \$5.25 million.
- Xerographic paper (colors) – The first statewide contract for recycled xerographic paper in colors was established in 1994. Subsequent contracts have been established and in 2006 had an estimated annual contract value of \$350,000.
- Wove envelopes – This contract was originally issued in March 1990. The present contract includes both white and colored envelopes and is valued at approximately \$1million annually.
- New York State Printing and Public Documents Law mandates that all lithographic printing used in the production of New York State printing requirements contain a certain percentage of vegetable oil as follows: News Inks - 40%; Sheet Fed Inks - 20%; Forms Inks - 20%; Heat Set Inks - 10%.
- Acid Free and Chlorine Free Paper – During the reporting period (2007 being the most recent full calendar year of data available at this time), 16 contracts were utilized, resulting in an estimated consumption of \$14,819,525 of recycled paper with acid free and elemental chlorine free properties.
- Kraft envelopes – The contract was originally issued in May 1991, where two of the four items of Kraft envelopes awarded were recycled products. All items on the present contract, with estimated annual value of \$500,000, are recycled.
- Computer paper – Contracts utilized during the reporting period for computer paper, including acid free and elemental chlorine free products, totaled approximately \$900,000 in estimated consumption.

It is worthwhile to note that the legislated 10 percent/15 percent-recycled preference applied to only two contracts for paper products issued by the Procurement Services Group. The premium for recycled paper procurement in calendar year 2007 was \$516,960.

The estimated cumulative contract value of all paper contracts awarded or the total estimated consumption of paper containing recycled content, during the past 27 years is as follows:

Year	Recycled Paper Purchases	Virgin Paper Purchases	Total Paper Purchases	Percentage with Recycled Paper
1981	\$ 2,800,400	\$ 6,303,688	\$ 9,104,088	31%
1982	2,168,374	5,649,085	7,817,459	28%
1983	4,011,147	3,279,330	7,290,477	55%
1984	4,450,682	4,858,951	9,309,633	48%
1985	5,045,173	3,488,797	8,533,970	59%
1986	3,702,827	5,407,725	9,110,552	41%
1987	2,164,064	6,799,338	8,963,402	24%
1988	4,655,121	13,161,187	17,816,305	26%
1989	7,166,351	16,232,199	23,398,550	31%
1990	17,159,807	14,444,554	31,604,361	54%
1991	11,972,838	18,938,572	30,911,410	39% ¹
1992	11,655,370	13,851,664	25,507,034	46% ²
1993	13,932,010	10,472,372	24,404,382	57%
1994	13,001,473	15,940,901	28,942,374	45%
1995	20,366,074	21,099,048	41,465,122	49%
1996	29,830,873	1,281,341	31,112,214	96%
1997	26,932,536	1,826,767	28,759,306	94%
1998	28,923,335	1,024,025	29,947,360	97%
1999	25,582,595	1,910,274	27,492,869	93%
2000	26,792,233	1,648,832	28,441,065	94%
2001	21,085,168	1,506,705	22,591,873	93% ³
2002	20,167,624	6,111,552	26,279,176	77% ⁴
2003	12,260,545	5,870,638	18,131,183	68%
2004	8,946,963	9,276,892	18,223,855	49% ⁵
2005	7,752,088	10,649,830	18,401,918	42%
2006	12,296,602	5,642,146	17,938,748	69%
2007	17,413,225	5,521,113	22,934,338	76%
Totals	\$362,235,498	\$212,197,526	\$574,433,024	63%

NOTES

¹In July 1991, the recycled paper preference provisions of Section 177 of the State Finance Law were revised. In accordance with Chapter 644 of the Laws of 1991, a "recycled product" was one which met the requirements of provisions of the Environmental Conservation Law and regulations (i.e., products certified under Department of Environmental Conservation's (DEC) Emblems Program). As of December 1991, only one paper manufacturer had been so certified.

²In July 1992, the recycled paper preference provisions of Section 177 of the State Finance Law were again revised. Effective September 1, 1992, Chapter 412 of the Laws of 1992 decoupled OGS Central Purchasing's recycled preference authority from DEC's Recycling Emblems Program.

³Prior to 2002, paper contracts were bid out semi-annually or annually and the chart figures on page 7 for the years preceding 2002 are based on the number of contracts established during that calendar year and the estimated dollar value of those contracts issued in the respective calendar year.

⁴In calendar years 2002 and 2003, PSG began establishing multiyear contract terms for paper contracts with indices for price adjustments, in lieu of bidding paper contracts semi-annually or annually. This led to a substantial decrease in the overall number of contracts awarded during the calendar year. It also necessitated the need to make a change in the method of overall reporting from "recycled paper contracts established" in any given calendar year to "recycled paper purchases" in any given calendar year, with values of multiyear contracts prorated to estimate annual consumption.

⁵Beginning in calendar year 2004, figures in the chart above are based on actual consumption values derived from sales data collected from contractors, sometimes extrapolated if a full year's data was not available.

Regarding the drop-off in the "Percentage with Recycled Paper" over the past several years, the award of our largest paper contract, Xerographic Copy Paper - Less Than Truckload Lots, was made on virgin paper when PSG began establishing multiyear contract terms for paper in 2002. When the contract was re-bid in 2006, a significant portion of the contract was again awarded on virgin paper at a much lesser cost. This is the primary reason for the significant drop-off in recycled paper consumption in recent years.

OGS anticipates that recycled paper consumption will increase significantly in the coming years as a result of the enactment of Executive Order No 4 – Establishing A State Green Procurement And Agency Sustainability Program, which requires that effective July 1, 2008, all copy paper, janitorial paper, and other paper supplies purchased by each state agency or authority be composed of 100% post-consumer recycled content to the maximum extent practicable. OGS will also continue to actively pursue more environmentally preferable paper products for addition to state contract.

III. AMOUNT OF WASTE RECYCLED FROM STATE OFFICES AND STATE PROGRAMS AND FULL AVOIDED COSTS

A. State Offices

When OGS initiated its paper recovery efforts on July 8, 1987, the “3R’s” Recover It, Recycle It, Reuse It name was used to promote the program. In May 1988, the office paper collection portion of the materials recovery effort was called the “Paper Chase Program” although it is still considered part of the larger 3R’s Program paper recycling efforts. In 1989, recycling efforts were expanded to include all categories of scrap metals, wet cell batteries, motor oil, plastics, and polystyrene products from cafeterias located at the Empire State Plaza.

It should be noted that the amount of revenue generated and tipping fees avoided vary widely by location depending on two factors: the waste landfill space in the area and the type of solid waste material generated. For end reporting system purposes, the Office of General Services has categorized its buildings into three groups: The Empire State Plaza and the Harriman State Office Building Campus; the New York Metro Area; and the Western Region. The following chart summarizes the tonnage recycled, revenues generated, tipping fees avoided, and landfill space saved for the period April 1, 2007 to March 31, 2008:

Group	Number of Buildings	Tons of Material Recycled	Tipping Fees Avoided	Cubic Yards of Landfill Space Avoided	Revenue Generated
Empire State Plaza and Harriman State Office Building Campus	25	4094	\$245,640	12,282	\$174,140
<u>Downstate Region State Office Buildings</u> Eleanor Roosevelt Perry Br. Duryea 55 Hanson Place Adam Clayton Powell, Jr. Hawthorne Nassau County Courts	6	352	\$21,120	1,056	\$551
<u>Upstate Region State Office Buildings</u> Senator Hughes Utica Homer Folks Facility Dulles Henderson -Smith Mahoney Binghamton	7	209	\$12,540	627	\$22
Totals	38	4655	\$279,300	13,965	\$174,713

IV. EXTENT OF WASTE STREAM REDUCTION AND KINDS OF MATERIALS

During the FY 2007-08 reporting period, a 55.3% percent waste stream reduction was achieved for all OGS owned and operated facilities.

Section 165, Subsection 3 of the State Finance Law requires the Office of General Services to devise and institute a program to source separate and recover all waste (other than paper) from state office facilities. OGS has been involved in this activity since the inception of its own program in 1987. OGS is always looking for new ways to reduce, recycle and reuse items. OGS waste recovery efforts include the following initiatives:

Cardboard

Cardboard is a large commodity that is recycled through the 3R's program. Cardboard boxes are reused as much as possible, and when they are no longer reusable they are recycled. During this reporting period, more than 391 tons of cardboard were recycled.

Plastic/Glass/Metal cans

In March 1996, the 3R's Program was restructured to include the comingled collection and marketing of plastic, glass, and metal cans or containers. During this reporting period, more than 4 tons of plastic, glass and metal cans were recycled.

Waste Oil

The waste oil recycling program is an important part of the OGS Recycling program. Waste oil is typically stored in 275-gallon capacity holding tanks until quantities warrant collection by vendors. During this reporting period, more than 748 gallons of used oil were recycled, which is equivalent to about three tons.

Mixed Paper

Mixed paper is the biggest part of the OGS recycling program. Different kinds of paper are recycled, such as confidential paper (which is shredded), white ledger, colored paper, and computer paper. For every ton of paper that is recycled, 17 trees are saved. Since inception of the recycling program approximately 1.6 million trees have been saved. During this reporting period, 2,096 tons of paper has been recycled.

Waste Metals

A variety of bulk waste metals are recovered from OGS managed facilities. Recycling efforts are based on the markets available within a locality. Recovered metals include iron, steel, copper, and aluminum. During this reporting period, over 450 tons of metal were recycled.

Yard Waste

In 1998, OGS began sending its yard waste (i.e. leaves and grass clippings) to a compost vendor. During this reporting period, 241 tons of yard waste was composted.

Concrete, Stone and Asphalt

In 1998, concrete, stone, and asphalt were added to the recycling program. During this reporting period, 1,235 tons of these materials were recycled. To date, over 20,474 tons of materials have been recycled.

Fluorescent Lamps and Ballasts

In 1998, fluorescent lamps and lighting ballasts were added to the program. During this reporting period 2 tons of fluorescent lamps and ballasts were recycled. To date, more than 51 tons of material has been recycled.

Electronic Equipment

During Fiscal Year 1999-2000, electronic equipment such as old computers, monitors, fax machines, and copiers were added to the recycling program. During this reporting period, more than 5 tons of electronic equipment was recycled.

Other

228 tons of other materials such as antifreeze, books, newspaper, used tires, batteries, and wood were recycled during this reporting period.

A. OGS Bureau of Surplus Personal Property

The transfer of state personal property continues to be the first priority of the Surplus Personal Property Program. The recycling efforts have been greatly enhanced by the circulation of available surplus through an Internet site available to all agencies, which lists assets available for transfer statewide, and ongoing improvements in the operation of the OGS Surplus Property Warehouse.

In Fiscal Year 2007-08, 3,778 items were transferred between and among state agencies, resulting in an estimated savings/cost avoidance of \$1.6 million. Also, 7,116 items were sold to the public, generating a revenue return of \$6.5 million. These sales included vehicles and highway maintenance equipment sold via the public auction program, and all other commodities such as office, computer and institutional furniture and equipment, and scrap materials, which were sold on eBay.

B. State Education Department, State Archives, State Records Center

Prior to the implementation of the 3R's Program, OGS was operating one of the largest paper recycling programs in the country. In 1978, OGS negotiated a contract for the shredding and recycling of confidential surplus records. The former OGS Bureau of Records Management, now a branch of the State Education Department, assists State offices in establishing efficient records management programs. A key component of their assistance program is the disposal of confidential material and source separated waste paper, primarily in the form of unsorted files. Any agency can have large quantities of confidential material picked up and shredded. During this reporting period, approximately 1,245 tons of materials were sold for recycling through this program, generating \$112,662 in revenue, thus avoiding \$74,691 in landfill tipping fees.

V. COST OF OPERATING THE PROGRAM

For Fiscal Year 2007-08, \$347,700 was expended for the operation of the statewide 3R's Program. These funds were utilized to support the program as indicated below:

Personal Service	\$217,700
Fringe/Indirect Cost	109,600
Miscellaneous Supplies	600
Travel	3,500
Equipment	800
Misc. Contractual	<u>15,500</u>
Total:	<u>\$347,700</u>

VI. SPECIFIC ACTIONS UNDERTAKEN

A. Initiatives Summary

In OGS' continued commitment to conserve natural resources and significantly reduce the volume of solid waste entering the waste stream, the agency has:

- Continued to work with Department of Environmental Conservation (DEC) to assist each agency in fulfilling its requirement under Executive Order 142 and to help coordinate Executive Branch compliance with the mandate.
- Continued to increase the number of contracts for products that contain recycled components and/or positively affect the environment.
- Maintained innovative procurement initiatives, which enable OGS to utilize its higher discretionary purchasing authority in promoting and approving agency requests for the purchase of recycled products.
- Offered a current statewide contract for hydraulic oil used in hydraulic systems and highway maintenance equipment is derived from 50 percent or greater re-refined stocks and contains as much as 99 percent post consumer content. A new contract under review has a 90 percent re-refined content.
- Required take-back and recycling options on contracts for computers, copiers and compact fluorescent lamps.
- Continues to provide road products made of recycled materials, primarily used by the Department of Transportation – glass beads, highway safety equipment and various road surfacing products.
- An office furniture contract was issued that includes items made from created wood harvested from sustainably managed forests and are certified by the Forest Stewardship Council and the Sustainable Forestry Initiative, among others.

B. Technical Assistance

Executive Order 142 directs all state agencies to undertake efforts necessary to maximize all opportunities to reduce the amount of solid waste generated, recycle material recoverable from solid waste originated at the facilities, and maximize the procurement of recycled products.

In support of Executive Order 142 and as resources permit, OGS and DEC provide technical assistance to state agencies in identifying and reviewing products that contain secondary materials, and in determining product prices, availability and adequacy for the purposes intended.

VII. EXECUTIVE ORDER 142 RECYCLING INITIATIVES BY NEW YORK STATE AGENCIES

Recognizing the integral part that the state itself must play to successfully implement its waste management policy, Executive Order 142 was issued in January 1991. The Executive Order directs all state agencies to increase their efforts to reduce waste, to source separate recyclable materials from the workplace waste stream, and to maximize the procurement of recycled products. The Order also directed selected agencies to undertake specific initiatives aimed at increasing the recycling of certain solid wastes.

To fulfill our technical assistance mission under the Executive Order, OGS and DEC work together to help coordinate Executive branch compliance with the mandate.

VIII. GOALS FOR FISCAL YEAR 2008-09

To ensure continuing compliance with the provisions of the Solid Waste Management Act of 1988 and Subsection 3 of Section 165 of the State Finance Law, OGS will:

- Establish additional recycled-content commodity contracts with other states and jurisdictions through active involvement with the National Association of State Purchasing Officials Eastern Regional Purchasing Cooperative and other established regional purchasing cooperatives throughout the nation.
- Continue to promote the purchase of commodities containing recycled content and educate client agencies in the use of the available procedures to increase such procurement (e.g., OGS' innovative procurement initiatives discussed in other sections of this report).
- Continue to work in cooperation with the Department of Environmental Conservation to provide technical assistance and help coordinate compliance with the Executive Order 4 which was issued in April of 2008.
- Increase the purchase and use of alternative fueled vehicles by state agencies and local governments.
- Continue to promote the purchase of recycled commodities such as carpets, picnic tables, and waste containers.
- Continue to promote the recycling of electronic scrap.
- Promote the statewide battery recycling program and expand the locations for collection.
- Establish a compost collection program in regions that have composting facilities.
- Continue to recycle all fluorescent lamps and ballasts.

EXHIBITS

EXHIBIT A

New York State Office of General Services Procurement Services Group Contracts with Recycled and/or Energy Efficient Products & Technology

(See Legend at the bottom of this report for explanation of the Codes.)

CODE	AWARD	GROUP	DESCRIPTION	END DATE
E*	00038	75318	MICROCOMPUTER SYSTEMS - GREAT LAKES ELECTRONICS DIST INC (STATEWIDE)	11/21/2009
E*	00263	75501	EPSON AMERICA INC FOR PRINTERS, PERIPHERALS, ACC	12/09/2011
E*	00265	75504	& REL SVCS (STWD) OKI DATA AMERICAS INC FOR PRINTERS, PERIPHERALS,	12/09/2011
E*	00266	75516	ACC & REL SVCS (STWD) OCE PRINTERS, PERIPHERALS, ACCESS & RELATED	12/09/2011
E*	00267	75511	SERVICES (STATEWIDE) XEROX CORP-PRINTERS, PERIPHERALS, ACCESSORIES &	12/09/2011
E*	00270	75512	RELATED SERVICES INTERNATIONAL BUSINESS MACHINES CORP INFO PRINT	12/09/2011
E*	00272	75500	PRINTERS (STWD) TALLY GENICOM LLC FOR PRINTERS PERIPHERAL ACC &	12/09/2011
E*	01374	75313	REL SVCS)(STWD) ALTERNATIVE INFORMATION SYSTEM MICROCOMPUTER	11/21/2009
E*	01649	22424	SYSTEMS (STATEWIDE) COPIERS (ANALOG & DIGITAL) DIGITAL DUPLIC, COLOR &	05/31/2012
E*	01762	75529	WIDE FORMAT (STWD) RICOH CORPORATION FOR PRINTERS, PERIPHERALS,	12/09/2011
E*	18012	75336	ACC & REL SVCS (STWD) MICROCOMPUTER SYSTEMS - FUJITSU PC CORPORATION	11/21/2009
E*	18311	75339	(STATEWIDE) MICROCOMPUTER SYSTEMS USITEK INC (STATEWIDE)	11/21/2009
E*	18454	75510	EASTMAN KODAK COMPANY-PERIPHERALS ACCESS & REL	12/09/2011
E*	18884	75340	SERVICES (STATEWIDE) MICROCOMPUTER SYSTEMS - DATA911 SYSTEMS (STATEWIDE)	12/03/2008
E*	19202	75702	ASSISTIVE TECH FOR PERSONS WITH DISABILITIES -	08/08/2009
E*	19408	75702	SIGHTED ELEC (STWD) ASSISTIVE TECH FOR PERSONS WITH DISABILITIES/CAPTEK DBA SCI PROD	08/08/2009
E*	19458	75341	MICROCOMPUTERS PC - STONE COMPUTER INC	10/18/2009
E*	19464	75702	ASSIST TECHNGY-PERSON W/DISABILITY PULSE DATA-	08/08/2009
E*	19465	75702	HUMANWARE ASSISTIVE TECHNOLOGY FOR PERSONS W/ DISABILITIES	08/08/2009
E*	19478	75523	- C-TECH INC (STWD) KONICA MINOLTA PRINTERS PERIPHERALS ACCESSORIES	06/27/2011
			& RELATED SERVICES	

CODE	AWARD	GROUP	DESCRIPTION	END DATE
E*	19514	75702	ASSISTIVE TECHNOLOGY FOR PERSONS W/ DISABILITIES- WASHINGTON COMP(STWD)	08/08/2009
E*	19515	75702	ASSISTIVE TECHNOLOGY FOR PERSONS W/ DISABILITIES	08/08/2009
E*	19516	75702	- VIS-ABILITY (STWD)	
E*	19517	75702	ASSISTIVE TECHNOLOGY FOR PERSONS W/ DISABILITIES - EVAS (STATEWIDE)	08/08/2009
E*	19517	75702	ASST TECHNOLOGY FOR PERSONS W/DISAB ENHANCED VISION (STATEWIDE)	08/08/2009
E*	19594	22812	MAILING MACHINES, SCALES, FOLDERS, INSERTERS, METER RENTAL (STWD)	04/30/2010
E*	19680	75343	MICROCOMPUTER SYSTEMS - SONY ELECTRONICS INC	11/21/2009
E*	19931	25204	DOMESTIC REFRIGERATORS & FREEZERS "ENERGY STAR" (STATEWIDE)	12/31/2008
E*	19967	75344	MICROCOMPUTERS PC - LENOVO	11/21/2009
E*	20064	75702	ASSISTIVE TECHNOLOGY FOR PERSONS W/ DISB- INDEPENDENT LIVING AIDS INC	08/08/2009
E*	20065	75702	ASSISTIVE TECHNOLOGY FOR PERSONS WITH DISABILITIES(G ROBERT OYER)	08/08/2009
E*	20304	39000	INDUSTRIAL AND COMMERCIAL SUPPLIES & EQUIPMENT (STATEWIDE)	09/30/2012
E*	20397	75514	PRINTER - KYOCERA MITA CORP	03/14/2011
E*	20564	34104	DIAGNOSTIC REAGENTS AND INSTRUMENTS (STATEWIDE)	02/28/2012
E*	20685	25203	RESIDENTIAL AND COMMERCIAL CLOTHING WASHERS AND DRYERS (STATEWIDE)	12/31/2009
E*	4054	75321	MICROCOMPUTER SYSTEMS - ACER	11/21/2009
E*	4055	75314	MICROCOMPUTER SYSTEMS - APPLE AMERICA	11/21/2009
E*	4056	75322	MICROCOMPUTER SYSTEMS - UPSTATE BRITE COMPUTERS (STATEWIDE)	11/21/2009
E*	4057	75312	MICROCOMPUTER SYSTEMS (CSS LABS) (STATEWIDE)	11/21/2009
E*	4060	75302	MICROCOMPUTER SYSTEMS - DELL (STATEWIDE)	11/21/2009
E*	4061	75304	MICROCOMPUTER SYSTEMS - GATEWAY	11/21/2009
E*	4063	75305	MICROCOMPUTER SYSTEMS - HEWLETT PACKARD (STATEWIDE)	11/21/2009
E*	4064	75306	MICROCOMPUTER SYSTEMS - IBM	11/21/2009
E*	4065	75328	MICROCOMPUTER SYSTEMS MPC-G LLC (STATEWIDE)	11/21/2009
E*	4066	75308	MICROCOMPUTER SYSTEMS - TOSHIBA (STATEWIDE)	11/21/2009
E*	4426	75329	MICROCOMPUTER SYSTEMS - SENECA DATA DISTRIBUTORS INC	11/21/2009
E*-EE-ES	20332	30000	AIR CONDITIONERS (WINDOW MOUNTED) (STATEWIDE) NAECA & ENERGY STAR	08/31/2008
E*-EE-RA-RM	21030	23000	MISCELLANEOUS OFFICE SUPPLIES (STATEWIDE)	03/31/2013
E*-RA	20304	39000	INDUSTRIAL AND COMMERCIAL SUPPLIES & EQUIPMENT (STATEWIDE)	09/30/2012
E*-RM-SW	00264	75505	LEXMARK FOR PRINTERS, PERIPHERALS, ACCESSORIES & REL SVCS (STWIDE)	12/09/2011
E*-SW	00262	75502	HEWLETT PACKARD COMPANY / PRINTERS,	12/09/2011

CODE	AWARD	GROUP	DESCRIPTION	END DATE
E*-SW	18935	75531	PERIPHERALS, ACC & REL SVCS (STWD) DELL MARKETING LP FOR PRINTERS, PERIPHERALS, ACC & REL SVCS (STWD)	06/23/2009
EE	20470	35814	SPEED DISPLAY TRAILERS (STATEWIDE)	11/30/2008
EE	20555	40401	ALTERNATIVE FUELED VEHICLES (STWD) (2007 MY)(ITEMS 11-16 ONLY 2008 MY	11/30/2008
ES	01510	71010	PEST MANAGEMENT THROUGH INTEGRATED PEST MANAGEMENT (IPM) (STATEWD)	03/31/2012
ES	20551	20915	FURNITURE ALL TYPES (STATEWIDE) (EXCEPT HOSP RM & PATIENT HANDLING	10/28/2012
RA	20056	38602	GLASS SPHERES FOR REFLECTORIZED PAVEMENT MARKING (VARIOUS) (STWD)	12/31/2008
RA	20187	38612	TRAFFIC SAFETY PRODUCTS(CONES POSTS DRUMS)(STWD W/MULTI-ST PARTICIPAT)	11/14/2008
RA	20304	39000	INDUSTRIAL AND COMMERCIAL SUPPLIES & EQUIPMENT (STATEWIDE)	09/30/2012
RA	20674	32000	GUIDE/BRIDGE RAILS END SECTIONS & ACCESSORIES (STATEWIDE)	11/30/2010
RA	20836	05701	HYDRAULIC OIL HIGH PERFORMANCE RETURNABLE DRUMS (STATEWIDE)	07/31/2008
RA	20873	50206	OFFSET ROLLS UNCOATED WHITE& COLORS (ALB/UTICA/PLATS/ROCH AREA AGYS)	09/30/2009
RA	20937	05700	OIL LUBRICATING HIGH DETERGENT(STWD (FOR INTERN COMBUST ENG) ZONE 1-11	09/30/2008
RA	21044	23830	COMPUTER PAPER (ALL STATE AGY & POL SUBS)	03/31/2013
RA-RM	20304	39000	INDUSTRIAL AND COMMERCIAL SUPPLIES & EQUIPMENT (STATEWIDE)	09/30/2012
RA-RP	20508	50211	XEROGRAPHIC COPY PAPER-WHITE (LESS THAN TRKLD LTS) (NYS AG & POL SUB)	08/31/2008
RM	18349	30306	AUTOMOTIVE REPLACEMENT PARTS (STATEWIDE)	07/31/2008
RS	20431	50020	LEGISLATIVE PRINTING-THE EXECUTIVE (BUDGET DOC & MISC PUBLICATIONS)	11/14/2010
RS	20432	50020	LEGISLATIVE PRINTING-THE EXECUTIVE (GOVERNOR & MISC PUBLICATIONS)	11/14/2010
RS	20435	50030	WOVE ENVELOPES - WHITE REG & WINDOW & COLORS REGULAR (ALL ST AGENCIES)	10/31/2008
RS	20436	50030	KRAFT ENVELOPES (ALL STATE AGENCIES)	10/31/2008
RS	20464	50061	LEGISLATIVE PRINTING/LEGISLATURE (LEGISLATIVE BILL DRAFTING COMM)	12/31/2008
RS	20623	50020	LETTERHEADS (ALL STATE AGENCIES)	02/28/2009
RS	20624	50020	OFFSET REPRODUCED BOUND BOOKS (OFFICE OF GENERAL SERVICES)	02/28/2009
RS	20715	50041	ENGRAVED LETTERHEADS ENVELOPES & BUSINESS CARDS(ALL STATE AGENCIES)	05/14/2009
RS	20934	50213	XEROGRAPHIC COPY PAPER - WHITE (TRKLD)	09/30/2009

CODE	AWARD	GROUP	DESCRIPTION	END DATE
RS	20994	23300	LOTS) (ALL AG & POL SUBS)_ FACIAL TISSUE (ALL STATE AGENCIES AND POLITICAL SUBDIVISIONS)	11/30/2012
RS	20995	23300	PAPER NAPKINS (ALL STATE AGENCIES AND POLITICAL SUBDIVISIONS)	11/30/2012
RS	21045	50022	QUICK COPY/DUPLICATING (ALL STATE AGY - ALBANY AREA)	01/14/2010
RS	21047	50207	OFFSET SHEETS COLORS (ALL ST AGYS & POL SUBS)	12/31/2012
RS	21048	50208	OPAQUE ROLLS UNCOATED (ALBANY AREA NYS AGENCIES)	12/31/2012
RS	21128	50048	THERMOGRAPHED BUSINESS CARDS LETTERHEADS & ENVELOPE(ALL ST AGY)	10/08/2009

Code Legend:

E* - EPA Energy Star Award; Use when awarded product (s) is approved under the US Environmental Protection Agency's Energy Star Program.

EE - Energy Efficient Award; Commodity contracts which fall into this category include, but are not limited to, those which use Life Cycle or Energy Efficient Costing in the bid evaluation or those which are Energy Efficient by their very nature, such as ballasts or rechargeable batteries.

ES - Environmentally Sensitive Award; indicates an award such as integrated pest management.

GR - "Green" Contract Award; containing environmentally friendly products or services.

RA - Recycled Award; Use when awarded product (s) is Recycled but the award does not fit into either of the above categories (i.e. recycled product (s) is Low Bid Meeting Specifications) or when a combination of circumstances exists.

RM - Remanufactured Award; Use when awarded product contains Remanufactured Components.

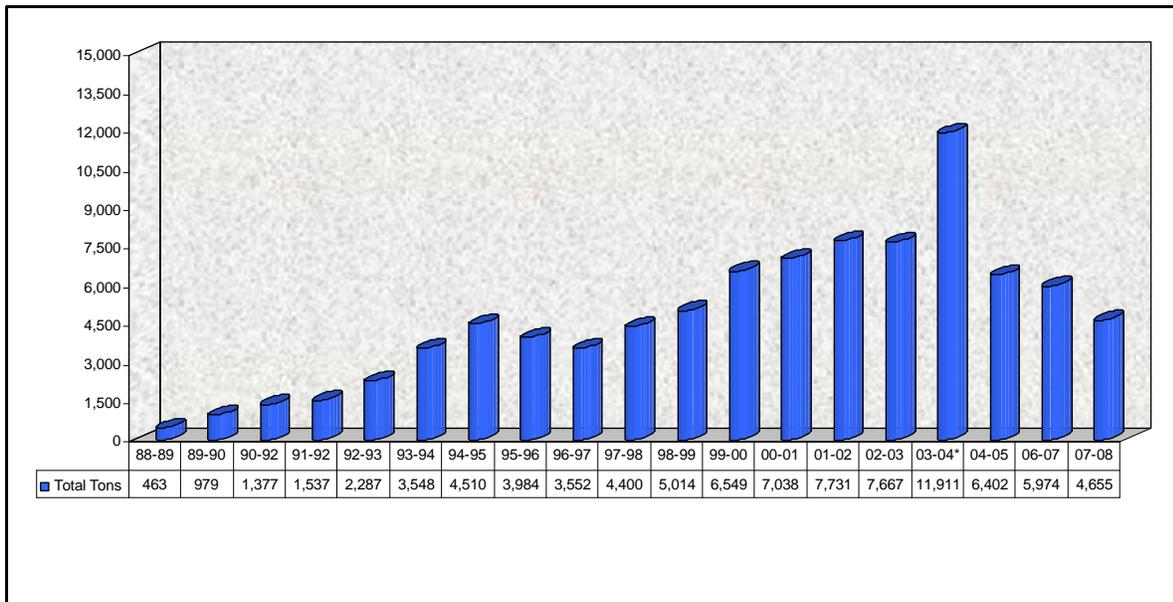
RP - Recycled Preference Applied; Use when Price Preference is applied in awarding the contract to a Recycled product.

RS - Recycled Specified; Use when the specification for a particular bid solicitation limits competition to Recycled products.

SW - Solid Waste Impact Award; Use when awarded product (s) is not recycled or remanufactured but has an impact on solid waste management or the environment. Examples are Returnable Drums or items that reduce the Landfill or Encourage Recycling.

EXHIBIT B

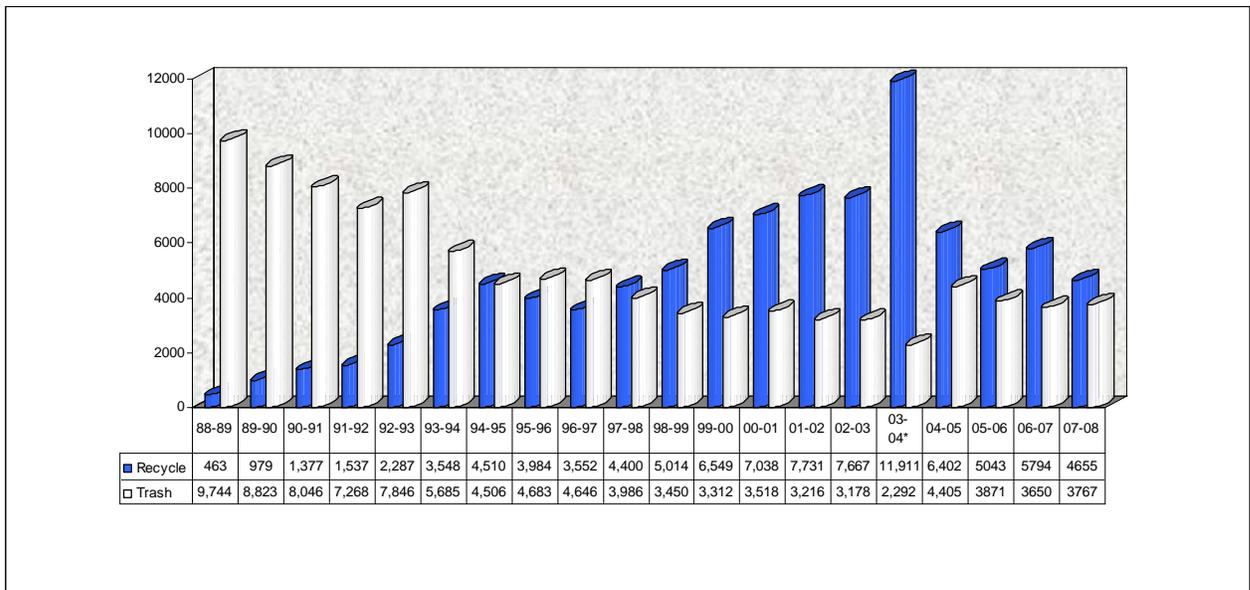
TOTAL TONS OF RECYCLED MATERIAL FROM ALL OGS OWNED AND OPERATED BUILDINGS



**Spike in 03-04 was due to the Alfred E. Smith rehabilitation*

EXHIBIT C

NEW YORK STATE OFFICE OF GENERAL SERVICES – 3R'S PROGRAM TONS OF RECYCLED MATERIALS VERSUS TRASH



**Spike in 03-04 was due to the Alfred E. Smith rehabilitation*