Why Waste the Future?:

Alternatives to the Mayor's Proposed Waste Prevention, Composting and Recycling Cuts

A Report by the New York City Waste Prevention Coalition
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NYC Waste Prevention Coalition
As of September 25, 2000

Supporting Membership Organizations:

New York Lawyers for the Public Interest--76 law firms
Organization of Waterfront Neighborhoods--25 organizations
NYC Environmental Justice Alliance--14 organizations
Consumer Union--5,000,000 members (nationally)
Natural Resources Defense Council--550,000 members
Environmental Defense--300,000 members
New York Public Interest Group--90,000 members (statewide)
Sierra Club, NYC Chapter--12,000 members
Environmental Advocates--7,000 members (statewide)
Planners Network--1,000 members
NYC Greens--1,000 members
INFORM--400 members
Coalition for the Bight--300 members
Village Independent Democrats--250 members
NJ/NY Environmental Watch--120 members
Forest Hills Action League--70 members
South Bronx Clean Air Coalition
Staten Island Citizens for Clean Air
City Club of New York

Other Supporting Organizations and Businesses:

City-Wide Recycling Advisory Board
Manhattan Solid Waste Advisory Board
Queens Solid Waste Advisory Board
Staten Island Solid Waste Advisory Board
Manhattan Community Board 2
Manhattan Community Board 3
Manhattan Community Board 5, Environment Committee
Bronx Community Board 2, Environment Committee
Pratt Institute Center for Community and Environmental Development
Nos Quedamos
J Pinz Metals
Sustainable Enterprise
Cyntex Company
Infopeople Corporation
Venus Industries
Sterling International Corporation
Sequins International, Incorporated
Tudor Handle Corporation
Starlo Fashions
Marketing Industries Group
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Why Waste the Future?

Alternatives to the Mayor's Proposed Waste Prevention, Composting, and Recycling Cuts

Introduction

In December 1999, the New York City Waste Prevention Coalition[1] (WPC) was established to develop and advocate for policies designed to reduce the total amount of solid waste generated in New York City. By seeking to prevent waste, we hoped to provide counterpoint to the City's planning efforts, which primarily involved seeking alternative disposal sites once the massive Fresh Kills landfill was closed in 2001.

Our first victory came in November 2000, when the City Council endorsed and funded our plan to establish waste prevention coordinators in several neighborhoods around the City. These coordinators were to plan and implement waste prevention and recycling programs specifically tailored to the unique needs of each neighborhood. We were pleased the Council recognized the fact that grassroots action is vital when pursuing waste prevention and recycling in a city the size of New York. Even after Mayor Giuliani eliminated these positions in December 2001, the City Council wisely voted to retain them.

Originally, we expected to come before the Council this month to report on the success of these programs, providing evidence that they are managing the City's waste at a cost far lower than traditional disposal or recycling systems. We also hoped to bring news of the success of the new environmental purchasing unit at the Department of Citywide Administrative Services (DCAS), another WPC-endorsed initiative.

Given the circumstances of the past nine months, however, we now find ourselves in a dramatically different place. The Waste Prevention Coordinator's program has been delayed and full funding of the three-year program is precarious. DCAS' Environmental Purchasing Unit has been cut entirely. Half of the City's long-term waste export plan has collapsed. The Mayor has proposed eliminating a number of existing waste prevention and composting programs, along with the metal, glass, and plastic (MGP) portion of the curbside recycling program. Incineration has resurfaced as a potential strategy to handle the city's waste, despite its high cost, adverse impact on recycling, and known public health risks.

We must reject these old and irresponsible ideas, much as the Council rejected them in the early 1990's. Now is the time to embrace ideas that will both save us money and lead us to an environmentally responsible future.

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[1] The New York City Waste Prevention Coalition is a network of organizations and individuals dedicated to promoting waste prevention as the most responsible, environmentally sound and cost-effective means to solve New York City's mounting solid waste problems. "Waste Prevention" is defined as the reduction in the weight/volume and/or toxicity of the materials that are generated for disposal or recycling. The means for preventing waste include improved product and packaging design, consumer education, product reuse, repair & remanufacturing, financial incentives and legislation.

Our Bottom Line

The Coalition is fully cognizant of the dire budget circumstances in which NYC finds itself, and we would be among the first to agree that the Department of Sanitation (DOS) needs to improve the efficiency of its curbside recycling operation. Nonetheless, in the strongest possible terms, **we implore the Council to find alternative cuts that will keep the City's existing waste prevention, composting, and recycling programs intact. In other words, let's properly fund and fix these programs, rather than eliminate them altogether.** Cutting these programs cancels out years of good faith efforts by millions of New Yorkers, and undermines the development of a long-term strategy that will save New York City money.

We believe this evidence can't be clearer, particularly given these incontrovertible facts:

1. The price of waste export has and will continue to increase over time;
2. Waste prevention and recycling programs are engines for economic growth; and
3. Strong recycling and waste prevention programs serve as effective counterpoint to legislative efforts by other state governments and federal legislators who want to limit our ability to export our trash.

Even *Waste News*, the waste industry's leading trade publication (and a frequent critic of inefficient recycling programs), questions the Mayor's proposal:

> …While the mayor's office can be applauded for being fiscally responsible given the city's projected $4.8 billion budget shortfall, suspending the portion of the recycling program that does not generate a profit is just short of a death-knell for the entire program.[2]

The Coalition recognizes that in making this request to the Council, we have an obligation to help identify areas where alternative cuts can be made or revenues increased. The balance of this report therefore spells out $35+ million in short term savings and revenue enhancers that can be achieved through policy or programmatic changes. Collectively, these changes nearly offset the savings the City claims to achieve by eliminating MGP collection. Additional budget savings, achievable through long-term investment, are also described. In developing these calculations, we have used real data, drawn from Department of Sanitation reports wherever possible.

A summary of these recommendations is found below:

[2] *Waste News* editorial, April 15, 2002. p 8.

NYC Waste Prevention Coalition
Summary of Policy Recommendations

Page #	Short-Term Recommendations	Projected Budget Impact
4	Real savings from suspension of MGP program	Reduces OMB's projected budget savings by $11.8 million/yr
5	Ban collection of grass clippings	Saves $7 - $10 million/yr
5	Rules change on DOS collection routes	N/A (Could not quantify due to failure of DOS to provide relevant data)
5	Eliminate extra waste collection pickups	Saves up to $9.3 million/yr
8	Expand dual bin truck use	Saves $1.2 - $2.2 million/yr
11	Impose fee on CFC removal services	Increases revenue $2.9 million/yr
11	Improve recycling enforcement efforts	Increases revenue $1.6 - $11 million/yr

Page #	Long-Term Recommendations	Projected Budget Impact
13	Build publicly-owned MRF	Saves $16.8 - $20.3 million/yr
14	Promote recycling business development	N/A (will vary substantially depending on level of business development)

Total expense budget offset required to save waste prevention, composting and recycling programs	$39.6 million/year

Total alternative SHORT TERM budget savings identified by WPC	$22.0 - $35.4 million/year
Total alternative LONG TERM budget savings identified by WPC	$16.8 - $20.3 million/year
Total value of WPC recommendations	$38.8 - $55.7 million/year

Recommendation #1: Reassess how much money NYC will save by cutting MGP collection

In his Program to Eliminate the Gap (PEG) summary, the Mayor claims that an 18-month suspension of the metal, glass, and plastic recycling program will save $51.4 million in year 1, and $24.9 million in year 2.[3] We dispute these calculations, estimating that suspension of the MGP program will save far less than that.

The discrepancy arises because of the inflated numbers that the Office of Management and Budget used when estimating the cost of processing metal, glass and plastic recyclables at private facilities. It appears that OMB averaged the cost of all bids that were received, rather than just the three lowest bids, which are the ones most likely to be selected. The three lowest bids not only give the City the cheapest price (approximately $82/ton, when adjusted for income received from the sale of the recyclables[4]), but they also provide for surplus processing capacity given what the City collects on a daily basis.

Use of the revised figures is critically important, because they make clear the cost of processing metal, glass, and plastic is only slightly more expensive than the cost of simply throwing it away in a landfill: $64/ton (landfilling) vs. $82/ton (recycling processing). On an annual basis, this amounts to a difference of just over $5.8 million/year, versus OMB's claim that processing cost savings would total $17.6 million/year. In other words, **we believe that OMB has overstated the Year 1 savings by $11.8 million**. Year 2 savings would be similarly reduced.

Estimated Year 1 Savings due to Elimination of MGP Program

Mayor's Inflated Estimate	WPC Estimate
$51.4 million	$39.6 million

We also question DOS' claim that adding MGP back into the trash collection system will have no impact on collection costs.[5] 20 of the 59 Sanitation Districts around the City currently recycle more than 25% of their waste. If, as DOS frequently asserts, the trash trucks are operating at maximum efficiency, then increasing the amount of material they must pick up will mean each truck will fill up faster. More trucks will be needed to complete each route, further diminishing any potential savings. The WPC was unable to estimate exactly how much savings would decline in these districts because of DOS' refusal to share relevant data with us.

[3] According to the NYC Independent Budget Office, estimated Year 1 savings include $2.8 million in reduced outreach expenses, $31 million in personnel savings, and $17.6 million in reduced processing costs.
[4] The three lowest bids, which are detailed on page 10, all fall in the $124-$129/ton range. According to Hunts Point Recycling, one of the City's MGP processors, over the past six years, the average recyclables revenue "offset" has averaged $44/ton, reducing the estimated $126/ton cost down to $82/ton.
[5] Presentation by Steven Lawitts, DOS Deputy Commissioner for Administration, CRAB meeting, 2/28/02.

Recommendation #2: Cut Costs through DOS Collection Policy Changes

There are three DOS collection policy changes that deserve consideration:

- **Impose a collection ban on the collection of grass clippings (Projected Cost Savings = $7 - 10 million/year)** Despite New York's reputation as a city with more asphalt than green space, the Department of Sanitation estimates that city residents annually discard more than 78,000 tons of grass clippings.[6] In 1992, DOS proposed a grass collection ban in its new Solid Waste Management Plan, but received feedback from local elected officials that education must precede the adoption of such a rule.[7] Since that time, DOS has done just that, sponsoring backyard composting workshops, setting up composting demonstration sites, and funding outreach on "grass-cycling" by Botanical Garden Staff around the City. Given our budget circumstances, now is the time to formally implement a grass collection ban. At current waste collection and disposal rates, such a ban would result in an annual cost savings of $10.14 million/year.[8] The current Botanical Garden outreach budget ($1 million/year) could be tripled to enhance education accompanying such a ban, and it would still save more than $7 million/year.

- **Eliminate the work rule restricting DOS collection routes to Community Board/Sanitation District Boundaries (Projected Cost Savings = unknown)** Currently, DOS confines its waste and collection routes to the geographic boundaries of the Sanitation District to which the crews are assigned.[9] Despite DOS' best efforts, the agency admits "collection efficiencies can suffer" as a result.[10] This occurs when two marginally efficient routes are contiguous to one another, but are located in different Districts. (For instance, they may lie on opposite sides of a street forming the boundary between two Districts.) Ordinarily, DOS would extend other routes to eliminate the inefficient one. When such routes are located near District boundaries, however, work rules prevent them from taking corrective action. The Waste Prevention Coalition urges the Council to require DOS to identify any sub optimal routes where this is a problem, and then work with the unions to remedy it.

- **Elimination of extra waste collection pickups throughout the City (Projected Cost Savings = up to $9.3 million/year[11])** Since curbside recycling was established over ten years ago, we have seen a dramatic shift in the amount of material collected on DOS trash collection routes. Trucks now must travel further before they reach capacity, as roughly 20% of the "trash" that used to exist has now been diverted to the recycling system. In some districts, this figure rises as high as 33%.

  Using DOS disposal system data, we also can see that the amount of trash picked up by DOS declines the latter part of the week. (See Table 2) These trends hold true citywide. Taken together, we believe there is compelling evidence that thanks to recycling, DOS can eliminate extra collection

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[6] NYC Dept. of Sanitation, Composting in New York City – A Complete Program History, 8/2001. p 46.
[7] Testimony by Thomas Outerbridge, former Director of Composting, NYC Dept. of Sanitation, NY City Council, Solid Waste Committee hearing on the proposed recycling program cuts, 4/18/02
[8] 78,000 tons per year x $130/ton cost for collection and disposal = $10.14 million
[9] DOS Districts share the same boundaries as Community Districts around New York City.
[10] Telephone conversation between Resa Dimino and DOS Dep. Comm. for Administration Steve Lawitts, 4/12/02
[11] DOS has estimated that cutting collection frequency in all districts will save $9.3 million/year. This is a far more draconian plan than that advocated by the Coalition. (See Note on next page.)

pickups in certain portions of the City. Decisions on which routes to scale back should be made based on a District's recycling rate, housing density, etc.

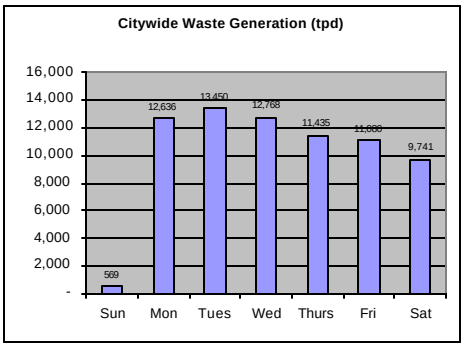
[Note: The Mayor's Executive Budget proposes eliminating all third collection pickups around the city, as well as second pickups in neighborhoods currently receiving only two pickups per week. We oppose the across-the-board nature of this proposal, advocating use of this concept only in neighborhoods where the success of recycling has truly limited the need for extra pickups.]

Table 1

	Frequency of trash collection/week	Community Board/DOS Districts
Bronx	2x	10, 11, 12
	3x	1, 2, 3, 4, 5, 6, 7
	Mix of 2x and 3x	8, 9
Brooklyn	2x	5, 6, 7, 10, 11, 12, 15, 18
	3x	1, 3, 4, 8, 9, 16
	Mix of 2x and 3x	2, 13, 14, 17
Manhattan	2x	None
	3x	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Queens	2x	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
	3x	None
Staten Island	2x	1,2,3
	3x	None

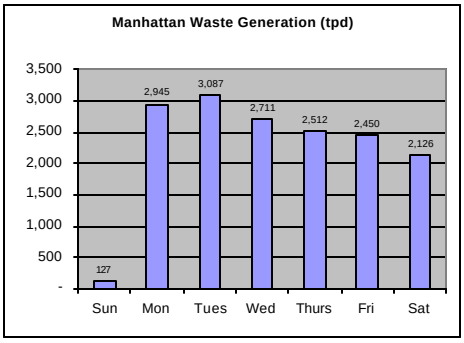
Source: NYC DOS

Table 2
Daily Waste Generation Levels in Selected Boroughs



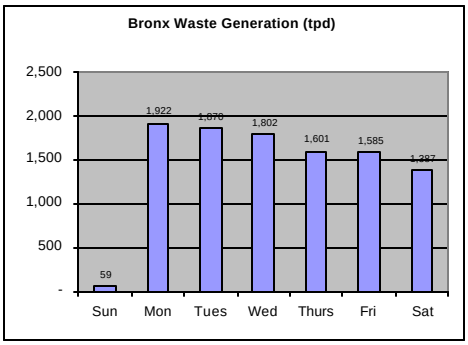
Citywide
Daily average (M-Sat) = 11,852 tpd

	Avg Tons/Day	% change
Mon/Tue/Wed	12,951	
Thu/Fri/Sat	10,752	-17%



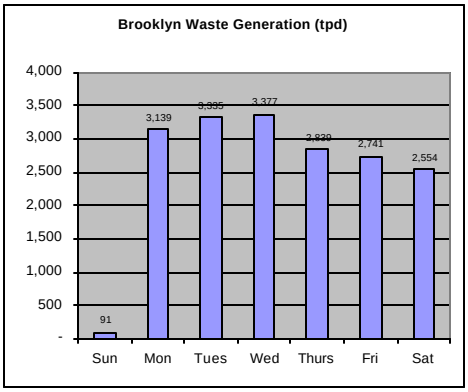
Manhattan
Daily average (M-Sat) = 2,639 tpd

	Avg Tons/Day	% change
Mon/Tue/Wed	2,914	
Thu/Fri/Sat	2,363	-19%



Bronx
Daily average (M-Sat) = 1,694 tpd

	Avg Tons/Day	% change
Mon/Tue/Wed	1,865	
Thu/Fri/Sat	1,524	-18%



Brooklyn
Daily average (M-Sat) = 2,998 tpd**

	Avg Tons/Day	% change
Mon/Tue/Wed	3,284	
Thu/Fri/Sat	2,711	-17%

**Note: Reflects tonnage from districts previously tipping at SW Brooklyn and Hamilton Ave. MTS' only. Greenpoint MTS data was not included, because much of the material tipped there was from districts in Queens.

Source: NYC Dept. of Sanitation Long Term Export RFP (Appendix A)
16-Jun-97

- **Expand dual bin truck use (Projected savings = $1.2 - $2.2 million/year)** Dual bin trucks are collection vehicles with separate compartments for different materials. DOS began experimenting with dual bin trucks in selected districts in Queens in 1997, and today, has increased their fleet to 300+ vehicles servicing recycling collection routes in 21 Sanitation Districts.[12] Although various designs are available, DOS relies on a rear-loading, compacting design that allocates 15 cubic yards to one compartment and 10 cubic yards to the other. DOS has expanded their use over time because of the efficiencies these vehicles offer – rather than requiring separate trucks for paper and MGP collection, both materials are collected in the same vehicle. In DOS' 1998 Annual Report, DOS claimed that "dual bin trucks…save 12% of the truckshifts and increase [recycling collection] productivity by 14%."[13]

  Given this fact, it is reasonable to question why DOS has not expanded their use beyond the planned 22 districts. According to DOS, dual bin trucks are of greatest use in neighborhoods where housing density and the amount of time required to service each stop is low. DOS' application of this rule is uneven, however, as the table below demonstrates. Although the vast majority of the Districts using dual bin trucks can be considered low density (i.e. with large numbers of 1-2 family dwellings), at least some districts can be considered medium or high-density neighborhoods. Simply by following DOS' own criteria, we believe that at least seven, and possibly as many as thirteen additional districts qualify for dual bin truck use. These are identified in Table 4 on the next page.

Table 3

% of housing stock in District = 1-2 family dwellings	# of Districts with Dual bin trucks	# of Districts with No dual bin trucks
0-10%	--	17
11-20%	1	10
21-30%	2	4
31-40%	4	4
41-50%	7	3
51-60%	5	--
61-70%	2	--
Total	21	38

By switching to dual bin trucks in seven extra districts, we project the department would save $1.2 million/year. By switching in thirteen extra districts, we project the department would save $2.2 million/year. A spreadsheet explaining these calculations is attached as Appendix A.

Of even greater significance, however, is the Department's inability to "think out of the box" in pursuing collection cost savings. By this we refer to the Department's technique of collecting both paper and MGP on the same day. If DOS targeted different recyclable materials on different collection days, we believe the department could dramatically decrease the total number of truck shifts[14] required to manage all three waste streams. The scenarios on page 10 show how this could occur:

[12] Dual bin trucks are scheduled to be added to a 22nd District this spring.
[13] DOS 1998 Annual Report
[14] A truck shift is a collection vehicle operated for 8 hours by two sanitation workers.

Table 4
Characteristics of Districts with Dual-Bin Truck Use

Sanitation District # (Community Board #)	DOS use Dual bin Trucks?	Current Recycling Rate (%)	% of housing stock = 1-2 family dwellings	Districts where 1-2 family dwellings = >18% of housing stock but Dual Bin trucks not used	Districts where 1-2 family dwellings = >30% of housing stock but Dual Bin trucks not used
M1		31%	0		
M2		31%	3		
M3		18%	0		
M4		29%	0		
M5		26%	0		
M6		31%	1		
\M7		29%	1		
M8		31%	5		
M9		17%	2		
M10		11%	2		
M11		14%	0		
M12		16%	1		
BX1		12%	6		
BX2		13%	5		
BX3		9%	13		
BX4		10%	5		
BX5		14%	13		
BX6		11%	11		
BX7		18%	11		
BX8		25%	24	###	
BX9		13%	20	###	
BX10	Yes	27%	34		
BX11		22%	43	###	###
BX12		23%	39	###	###
BKN1		17%	6		
BKN2		26%	7		
BKN3		13%	24	###	
BKN4	Yes	14%	18		
BKN5		15%	25	###	
BKN8		16%	20	###	
BKS6		31%	11		
BKS7		24%	17		
BKS9		16%	35	###	###
BKS10	Yes	28%	39		
BKS11	Yes	25%	45		
BKS12	Yes	21%	43		
BKS13		19%	16		
BKS14		18%	49	###	###
BKS15	Yes	25%	51		
BKS16		11%	21	###	
BKS17	Yes	17%	45		
BKS18		23%	37	###	###
QW1	Yes	23%	21		
QW2		25%	13		
QW3		20%	46	###	###
QW4		19%	32	###	###
QW5	Yes	28%	32		
QW6	Yes	26%	50		
QW9	Yes	24%	60		
QE7	Yes	25%	46		
QE8	Yes	24%	51		
QE10	Yes	23%	56		
QE11	Yes	28%	60		
QE12	Yes	18%	61		
QE13	Yes	23%	67		
QE14	Yes	19%	39		
SI1	Yes	23%	42		
SI2	Yes	24%	30		
SI3	Yes	26%	43		

Lowest density of districts with dual bin trucks

Scenario #1: *Current collection system in a neighborhood receiving 2x/week trash collection (no dual bin trucks)*

Tuesday:	*One trash collection truck*
Friday:	*One trash collection truck*
	One paper collection truck
	One MGP collection truck

Total # of vehicles required on peak collection day = 3

Scenario #2 *Current collection system in a neighborhood receiving 2x/week trash collection (w/ dual bin trucks used for recyclables)*

Tuesday:	*One trash collection truck*
Friday:	*One trash collection truck*
	One dual-bin truck (both recyclables)

Total # of vehicles required on peak collection day = 2

Scenario #3: *Proposed collection system in a neighborhood receiving 2x/week trash collection (w/ dual bin trucks used for trash and recyclables)*

Tuesday:	*One dual-bin truck collecting both trash and paper in separate compartments*
Friday:	*One dual-bin truck collecting both trash and MGP in separate compartments*

Total # of vehicles required on peak collection day = 1

Because recyclables displace trash that would have been collected in the regular trash truck, DOS would not achieve a full 50% reduction in total truck usage moving from Scenario #2 to Scenario #3. Nonetheless, we believe that DOS should achieve a sizable decrease in the total number of truckshifts required citywide.

As to concerns that these vehicles would spend extra (un-productive) time on the road traveling from one tip location (for trash) to another (for paper or MGP) before returning to their collection route, it is important to understand this already occurs. For example, dual bin trucks in the Bronx currently tip their MGP at Hunts Point Recycling before traveling to Paper Fibers or Triboro Recycling to dump their paper. Under Scenario #3, a truck would similarly dump its trash at a transfer station in Port Morris before traveling to Hunts Point to tip the recyclable materials. Total travel time increases only modestly.

Recommendation #3: Identify New Sources of Revenue

We have identified two specific areas where we believe additional revenue can be obtained:

- **Imposition of Fee on CFC removal services (Projected revenue gain: $2.9 million/year)** In 1999, in response to federal Clean Air Act requirements, the Department of Sanitation began requiring residents who wish to dispose of CFC (chlorofluorocarbon)-containing appliances (refrigerators, air conditioners, dehumidifiers, water coolers) to contact the Department prior to the disposal of the appliance. Appointments are scheduled to properly evacuate the CFCs from the appliance. Improper release of CFCs into the environment is a known threat to the ozone layer.

  On the appointed day, specially trained DOS crews arrive at the location, evacuate the gas from the appliance, and then affix a label advising DOS recycling crews that the appliance can be safely recycled. The Department has 33 vans set up to perform CFC evacuation, and 128 employees certified to perform the removal. During 2000, Sanitation crews processed nearly 145,000 appliances under this program.[15]

  Because disposal of these appliances require two separate visits by DOS crews, we believe it appropriate to impose a special surcharge on the generators of these materials to help cover the cost of this extra service. This surcharge can be assessed at the time the appointment is scheduled. Setting the fee at $20 would raise approximately $2.9 million a year.

  Payment of the charge can be managed by the same billing system used to invoice waste generators under the ProFee program.[16] Fees for CFC removal have been imposed in many other parts of the country, including Madison, Wisconsin ($20 fee), Onondaga County, New York ($30, including removal), Oswego County, New York ($10), Lancaster County, Pennsylvania ($12), and Takoma Park, Maryland ($35, including removal).

- **Stepping up Recycling Enforcement Efforts (Projected revenue gain: $1.6 - $11 million/year**) Like many municipal recycling programs, the Department of Sanitation relies on enforcement efforts to ensure that businesses and households comply with local recycling laws. In other cities, however, the crews picking up the trash and recyclables often serve as the first line of monitors, refusing to pick up improperly prepared recyclables or trash commingled with recyclables. To explain their action, collection crews often leave behind educational literature describing proper recycling techniques to help a household understand why their recyclables were deemed unacceptable.

  The large number of collection stops (approximately 690,000 citywide!), the focus on productivity (as measured in tons collected per truck shift), and the use of opaque trash bags conspire to limit DOS' use of collection crews in this role. Instead, DOS looks to its in-house Enforcement Division for help in this area. According to DOS' 2000 Annual Report, DOS has 173 Sanitation Police Officers and Enforcement Agents.[17] Only a portion of these agents are actually assigned responsibility for the recycling program; the balance focus on illegal dumping issues, the "18-inch" street cleaning rule, "pooper scooper" rules enforcement, and other Environmental Control Board violations.

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[15] DOS 2000 Annual Report, p10.
[16] The ProFee program allows medical professionals who have their offices on the lower floors of residential buildings to receive waste removal and recycling services from DOS on a fee-for-service basis.
[17] Department of Sanitation Annual Report 2000. p 37.

The NYC Comptroller's 2001 audit of the curbside recycling program and the Mayor's Management Report provide historical data on Recycling Enforcement efforts since 1995. Although they show clear growth in the number of notice of violations (NOVs) issued citywide, it is also clear, that at least recently, DOS regularly diverts these agents to monitor violations of other policy areas.

Table 5

Fiscal Year	# of Residential Recycling NOVs issued by DOS Recycling Enforcement Agents	# of other NOVs issued by DOS Recycling Enforcement Agents	# of Recycling Enforcement Agents (projected based on MMR agent productivity data)
1995	24,185	not available	not available
1996	60,447	not available	not available
1997	52,315	not available	not available
1998	65,496	not available	not available
1999	86,404	not available	not available
2000	95,639	38,938	33
2001	75,663	74,031	41
2002 (projected based on 4 mos. data)	63,915	80,916	39

Source: 1995-1999 NYC Comptroller, "Audit of the NYC Department of Sanitation's Recycling Program. MJ00-080A p. 14.
2000-2002 NYC Mayor's Management Report FY 2001 (p. 73) and FY 2002 (p. 71)

The NYC Waste Prevention Coalition encourages the Council to increase the recycling fine to $50 from its current $25 level. This is the same level proposed by the Mayor in his Executive Budget, and we believe more reflective of the true cost improper recycling practices impose on the City. Based on the total number of recycling fines issued in FY2002, we project that increasing the fine to $50 would raise an additional $1.6 million in revenue.[18]

Our preference, however, is to take the enforcement program to a new level, both increasing the size of the fine and tripling the size of the recycling enforcement force. Under this expanded program, we see agents taking on both an education and enforcement role, helping to distribute literature and answering questions from local residents. We project that a larger education/enforcement unit would generate an additional $11 million in revenue for the City. Our calculations are more fully explained in Appendix B.

[18] The Mayor's Executive Budget projects that increasing the fine to $50 will generate $1.7 million/year.

Recommendation #4: Invest in Recycling and Waste Prevention Infrastructure

In the late 1980's, the City abandoned plans to develop a series of five municipally owned recycling facilities (aka Materials Recovery Facilities, or MRFs) around the City. This decision was made because of the large amount of private processing facilities that existed in the City at that time. As a result, for the last nine years the City has contracted with several different vendors to accept, sort, and market recyclables from the curbside collection program.

Until recently, there was little second-guessing this decision, because the rates paid for this service were relatively low, averaging $56/ton on a revenue-adjusted basis. Unfortunately, however, the new bids submitted to the City to perform this service have jumped dramatically to approximately $82/ton, on a revenue-adjusted basis.

Table 6

Vendor	Proposed processing fee[19] (unadjusted)	Amount of tonnage can accept weekly
Waste Management	$124.43/ton	3,000 tons
BFI/Allied	$125/ton	3,900 tons
Hunts Pt. Recycling	$129/ton	1,500 tons
A&R Lobosco	$140/ton	390 tons
IESI	$149.50/ton	900 tons
Waste Services	$160/ton	3,000 tons
North Atlantic	$165/ton	1,200 tons

Source: NYC DOS

Given this increase, we believe it is imperative that the City move rapidly towards the siting and construction of one or more municipally owned MRFs. This will not lower the City's costs in the near term, but can have significant long-term benefits.

Over the years, there have been a number of studies that have explored the benefits of public vs. private ownership of these facilities. In general, public ownership can finance construction with cheaper debt, and charge less because they don't have to pay taxes on their earnings.[20] Public ownership also gives the City more flexibility to add materials to the recycling collection system than if it relies on private facilities. The importance of this fact was documented by a recent EPA study which found the number of materials accepted in a recycling program correlates to the cost of the program. The more materials accepted, the higher the diversion rate, and the lower the overall cost per ton.[21]

A recent study by researchers at Columbia University buttresses the claim that public facilities are cheaper, projecting that a single 2,400 tpd MRF would process all of the City's paper and MGP at a cost of just $18.70/ton. This represents a savings of tens of millions of dollars per year over what DOS will be paying to have private facilities process the material. Factoring in the revenue from the sale of the

[19] These rates are "unadjusted," which is to say they do not reflect the "offset" clause included in the new contracts. The offset is the equivalent of revenue credited to DOS due to the sale of the recyclable materials delivered by DOS. The offset amount is based upon a published commodities index that averaged $44/ton between 1996 and 2001.

[20] Peter Anderson and John Strasma, "Owning and Operating a MRF: Inherent Public and Private Economic Issues," MSW Management, May/June 1993. p. 48-49.

[21] U.S. EPA, *Multifamily Recycling – A National Study*. EPA 530-R-01-018, Nov. 2001.

materials, the authors project that NYC could possibly generate sufficient revenue to pay for the facility in just a few years.[22]

Although its facility can accommodate just a fraction of the materials generated daily in New York City, the publicly owned Westchester County MRF proves that a public facility can be operated relatively inexpensively in this area. The Westchester MRF, which is located just a few miles from the northern border of the Bronx, is operated by a private company under a five-year agreement. Last year, this facility processed a total of 73,000 tons of recyclables, at an average cost of $29.40/ton.[23]

Assuming DOS would ultimately operate a facility at a cost somewhere in the $18.70 - $29.40/ton range, a public MRF would allow New York City to cut its MGP processing costs by $16.8 to $20.3 million/year.[24]

Equally important to note is the Westchester facility's low 7% residue rate, which compares quite favorably to the 40% residue rate claimed by DOS in its MGP program.[25] We believe this fact alone puts to rest DOS' insistence that there is a lack of local markets for recycled glass.

Private Sector Infrastructure

Once recyclable materials are collected and processed, the question is what to do with them. Until the early 1990's, DOS had a Market Development Unit that actively sought new outlets for DOS-collected recyclable materials. Once DOS settled on a strategy of privatizing all recyclables processing, however, this unit was dismantled. Responsibility for market development activities was ceded to the NYC Economic Development Corporation, where it largely languished, pushed aside by Mayor Giuliani's agenda emphasizing financial and information technology sector growth rather than manufacturing.

This is surprising given that the Visy Paper Mill on Staten Island, an EDC project that occurred on Mayor Giuliani's watch, stands as the greatest industrial development achievement in New York City in the last 50 years. Employing more than 200 people, and paying more than $2.6 million in City taxes each year, Visy is the reason why DOS' paper recycling program is considered such a success. The $200 million facility was built in 1997, and today it handles over 1,000 tons of paper each day, paying New York City for the privilege of processing roughly half its recycled paper. The company received tax-exempt bonds to fund $150 million in loans, $42 million in incentives, $28 million in tax breaks, and $30 million in other loans.[26,27]

By both environmental and economic standards, Visy is a tremendous success. The City's failure to pursue Visy-like projects that target other recyclable commodities is therefore puzzling. If recycling and

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[22] Columbia University Earth Institute, Earth Engineering Center, and the Center for Urban Research and Policy, Life After Fresh Kills: Moving Beyond New York City's Current Waste Management Plan. December 1, 2001. p. B-12.

[23] Telephone conversation between Barbara Warren and Sean O'Rourke, Westchester County Environmental Facilities Director, March 13, 2002.

[24] Under the new contracts, DOS would spend roughly $26.2 million per year to process 320,000 tons of MGP. At $18.70/ton, DOS would cut this to approximately $6.0 million/yr, a $20.3 million/yr savings. At $29.40/ton, DOS would spend roughly $9.4 million/year on MGP processing, a $16.8 million/yr savings.

[25] Testimony by DOS First Deputy Commissioner Peter Montalbano at the NY City Council's Solid Waste Committee Hearing on the proposed recycling program changes, April 17, 2002.

[26] US EPA, Jobs Through Recycling 200 National Recycling Market Development Roundtable (transcripts), New York City, March 30-31, 2000. p. 2.

[27] Press Release, New York State Governor's office, June 20, 1997.

waste prevention are to serve as serious and cost-effective alternatives to disposal, the City must aggressively court entrepreneurs who want to mine the local waste stream.

We know private sector interest in the New York market is strong.

For instance, the Bronx Borough President, New York State's economic development agency and Con Edison collaborated to support a study analyzing the feasibility of a recycling-industrial park in the Bronx. They identified eight different businesses interested in locating there, targeting more than fifteen different types of recyclable and reusable materials. The industrial park would create 200-300 jobs, and consume 200,000 tons of recyclables per year. To make this vision a reality, they need help finding a 10-acre parcel of land and a financing deal similar to what Visy received.

Another entrepreneur who can use up to 15,000 tons of glass waste per year (which is nearly 10% of the glass collected curbside each year) has approached the City seeking assistance, but has thus far been rebuffed. Their composite lumber product can be used by local utilities, the City's Parks Department and local businesses, and their operation would create 20-25 new jobs and generate annual revenues of $24 million/year. It speaks volumes about the New York's commitment to recycling that for the last two years, the exact period DOS has complained that glass markets have been non-existent, DOS/EDC have done little to help a company offering a partial solution to this problem.

Glass markets can also be strengthened by improving the City's own purchasing practices. As we noted earlier, in 1999 the City Council authorized the creation of an Environmental Purchasing Unit at the Department of Citywide Administrative Services. This unit was eliminated by Mayor Giuliani in 2001, and has yet to be restored. Passage of Intro 482 (the City Agency Environmental Procurement and Waste Prevention Practices Law) and the restoration of funding for the Environmental Purchasing Unit would have a significant impact in jumpstarting local business development. In the area of glass, for instance, markets could be created by requiring contractors to use crushed glass as the subbase under roads and sidewalks. Glass can be even more finely ground and used to create reflective paint on highways. Recycled glass can also be written into the specifications for fiberglass insulation in City office buildings and schools. Most agency procurement officers are not aware of such opportunities, however, making the need for centralized coordination even more critical.

Conclusion

As we noted in the Introduction, this report has been compiled using data published by the Department of Sanitation and shared in meetings and telephone conversations with DOS officials. Some of the issues discussed here break new ground, representing the creativity of NYC Waste Prevention Coalition members who understand waste prevention and recycling principles and how DOS operates. Other concepts are borrowed, representing common practice in other parts of the country. Some of the ideas can be implemented immediately, while others will take more time. All represent fiscally sound strategies that any responsible manager should want to put into place. All are readily achievable.

So too is the development of an environmentally sound, equitable, and economically responsible solid waste management system. **The fact that recent DOS managers have saddled the City with a costly and seriously flawed export plan should not mean that we simply walk away from recycling because it's not working as well or as cheaply as we would like**. Because school performance is low, we don't tell 40% of the kids to stay home. We realize there would be a tremendous cost to such a decision, just as there would be with a decision to eliminate important waste prevention and composting programs and suspend 40% of the curbside recycling program.

These programs represent the foundation on which New York's future solid waste management system will be built. These programs represent ideas that have proven cost effective in other parts of the metropolitan region. These programs represent a commitment to our children that we recognize the need to reduce our resource use and dispose of our wastes in a responsible manner. These programs go far beyond the traditional purview of DOS, involving transportation impacts, public health impacts, and job creation issues.

For the past 2½ years, the New York City Waste Prevention Coalition has conducted research on and advocated for solid waste management and purchasing policies that lead us to a better (and cheaper) tomorrow. Many of these ideas are contained in our 5-year action plan, which we have attached as Appendix C. Once we get beyond the current budget crisis, we invite policymakers to draw on our expertise in implementing many of these strategies.

For now, however, we urge the Council to reject the Mayor's proposal to gut the current waste prevention, composting, and recycling program. We also hope the Council listens to other community and environmental groups who have put forth proposals on related subjects. A bigger, better, bottle bill is one idea that definitely deserves support. Not only would it dramatically increase total waste diversion citywide, it also would support the development of businesses that want to use the clean, color separated glass. (See Appendix D for more information about this bill.)

It is also important for the Council to recognize that gutting waste prevention, recycling and composting will only exacerbate an already untenable problem -- the burden of waste transfer stations on low-income communities of color. Simply put, the less waste we prevent, recycle, and compost, the more waste must travel through our neighborhoods. The Organization of Waterfront Neighborhoods (OWN) recognized this connection in their noteworthy plan for the long-term management of solid waste in the City. More information about their plan can be found at www.consumersunion.org/other/trash/trash1.htm.

Appendix A

Calculations of Savings due to Expanded Use of Dual-Bin Trucks for Recyclables Collection

Total residential tons/day (MGP)	1,025	Source: IBO
x Total # of collection days (312/year)	312	
Total residential tons/year (MGP)	319,800	
x cost of collecting MGP (per ton)	$ 119.00	Source: DOS
Total MGP recycling collection cost/year	$ 38,056,200	
Total residential tons/day (Paper)	1,400	Source: IBO
x Total # of collection days (312/year)	312	
Total residential tons/year (Paper)	436,800	
x cost of collecting Paper (per ton)	$ 94.00	Source: DOS
Total Paper recycling collection cost/year	$ 41,059,200	
Total cost of residential recycling collection in NYC (per year)	$ 79,115,400	

According to DOS, Districts using dual bin trucks require 12% fewer truck shifts. Therefore, if the average cost of recyclables collection in a District without dual bin trucks is represented by some amount "C", then the cost of collection in a District with dual bin trucks = (1 - 0.12) x C, or .88C

Since 21 districts currently have dual bin trucks, and 38 districts do not, the current cost of collection can be represented by the mathematical formula:

(21 districts x .88C) + (38 districts x C) =	$	79,115,400	per year
or			
18.48C + 38C = 56.48C =	$	79,115,400	per year
and therefore			
C =	$	1,400,768	per year

So if C = the cost of recyclables collection in Districts that do not use dual bin trucks, then the annual cost of recyclables collection in Districts that do use dual bin trucks = $ 1,232,676

Therefore, on average, it costs DOS $ 168,092 less (per year) to use dual bin trucks for recyclables collection in a District than to use conventional packer trucks.

Therefore, if DOS were to increase use of dual bin trucks in:

7 districts	13 districts
the savings would total:	
$ 1,176,645 per year	$ 2,185,199 per year

Appendix B

Recycling Enforcement Program/Policy Changes
Detailed Calculations

Option 1: Increase minimum fine from $25 to $50

1. Total # residential recycling violations issued in FY02 (projected based on first 4 mos. of FY02) — 63,915

2. Additional revenue due to fine increase = ($25 x 63,915)= — $ 1,597,875

Option 2: Add 80 additional recycling enforcement agents

1. Salary = approx. $44,000/year + benefits (= approx 40% of salary) = $62,000/year
   (Assumes all enforcement agents are Sanitation Police Officers, who earn a higher salary than civilian enforcement agents

2. Avg. productivity of a DOS enforcement agent = approx. 14.9 violations/day = 3725/year
   (Source: Mayors Management Report, Feb 2002, p. 71)

3. Avg. value of a recycling fine = $50
   (Assumes minimum fine has been increased from current $25 level)

4. OTPS costs/agent = vehicle use + misc. supplies
   Vehicle use = assumes 100 miles/day x 250 days/year x $0.345/mi (IRS vehicle allowance cost used as proxy for annualized vehicle cost + maintenance + fuel)
   Misc OTPS (cost of forms, etc.) = assumes $5/day = $1250/year

5. NET Budget Impact:

Costs:				
Salary	80 agents x $62,000/year	$	(4,960,000)	
Vehicle use	80 agents x 100 mi/day x 250 days x $.345	$	(690,000)	
Misc OTPS	80 agents x $1,250/year	$	(100,000)	
		$	(5,550,000)	
Revenue:				
Additional fines	80 agents x 3,725 fines x $50/fine	$	14,900,000	
	Net benefit of additional agents:	**$**	**9,350,000**	**per year**
+ additional revenue from increase in value of fines issued by existing agents:		$	1,597,875	**per year**
	Total Budget Impact	$	10,947,875	**per year**

Appendix C

NYC WASTE PREVENTION COALITION'S 5-YEAR ACTION PLAN

The New York City Waste Prevention Coalition (NYCWPC) is a network of organizations and individuals dedicated to promoting waste prevention as the most responsible, environmentally sound and cost-effective means to solve New York City's mounting solid waste problems.

DOS is planning on spending over $130 million more in FY 2001 than it did last year. According to the *Message of the Mayor*, "This increase is primarily attributed to the cost of exporting waste." The NYCWPC points out that a large proportion of the "waste" that is now being shipped out of the City consists of recyclables and materials resulting from excess packaging and disposable products, as well as durable products that could be repaired. All of this so-called waste could be prevented if the City instituted more programs, legislation and incentives to prevent waste and recycle more. Therefore, the NYCWPC proposes that the Department of Sanitation increase its waste prevention budget in order to decrease the amount of trash the City exports, saving taxpayers millions of dollars.

The Coalition proposes the following programs to be included in the City's Comprehensive Solid Waste Management Plan Modification (2000). Overall, making these investments will provide significant cost-savings to the city in terms of reduced disposal costs. The estimates of cost-savings are very conservative and include only the savings related to transfer, transport and disposal costs, estimated at $75 per ton. The cost-savings estimates do not account for potential savings in collection, maintenance, etc.

Community Based Waste Prevention
Community Based Waste Prevention Coordinators…….$9.1 million
Community Based Waste Prevention Projects……..…….$7 million
Total: **$16.1 million**

Waste Prevention in City Agencies and Institutions
Waste Prevention in DCAS……..…….$1.7 million
Waste Prevention Technical Assistance……..$1.35 million
Revolving Capital Funds for Waste Prevention…….$10 million
Waste Prevention in the Health and Hospitals Corporation…….$725,000
Waste Prevention in Schools……$2.6 million first year, $100,000 thereafter
Total: **$13.875 million**

Composting and Organic Waste Prevention
Backyard Composting and Organic Waste Prevention……..$4.1 million
Institutional In-Vessel Composting Pilot Programs……...$6 million
Total: **$10.1 million**

Waste Prevention in the Private Sector
Technical Assistance to Help Businesses Prevent Waste……..$7 million
Technical and Financial Assistance to Recycling, Reuse
And Remanufacturing Businesses……..……..$5.2 million
Total: **$12.2 million**

Waste Prevention Measurement, Evaluation and Research
Residential Quantity Based User Fee Pilot Project……..…….$825,000
Measurement, Evaluation and Proposal of Programs…….$150,000
Total: **$975,000**

Waste Prevention Coalition Proposal Total…….…….$53.25 million

Phase in of Waste Prevention Programs

	2001	*2002*	*2003*	*2004*	*2005*
Community Based Waste Prevention	**5,300,000**	**10,600,000**	**15,700,000**	**16,100,000**	**16,100,000**
a. Community-Based Coordinators	3,100,000	6,200,000	9,100,000	9,100,000	9,100,000
b. Community-Based Projects	2,200,000	4,400,000	6,600,000	7,000,000	7,000,000
Waste Prevention in City Agencies and Institutions	**2,425,000**	**4,775,000**	**9,075,000**	**12,075,000**	**13,875,000**
a. Waste Prevention in DCAS	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000
b. Technical Assistance to Agencies and Inst.		1,350,000	1,350,000	1,350,000	1,350,000
c. Revolving Capital Funds		1,000,000	4,000,000	7,000,000	10,000,000
d. Waste Prevention in HHC	725,000	725,000	725,000	725,000	725,000
e. Waste Prevention in Schools			1,300,000	1,300,000	100,000
Composting and Organic Waste Prevention	**2,200,000**	**3,900,000**	**5,600,000**	**8,100,000**	**10,100,000**
a. Backyard Composting and Organic Waste Prevention	1,700,000	2,900,000	4,100,000	4,100,000	4,100,000
b. Institutional In-Vessel Composting	500,000	1,000,000	1,500,000	4,000,000	6,000,000
Waste Prevention in the Private Sector	**1,200,000**	**2,700,000**	**6,200,000**	**10,200,000**	**12,200,000**
a. Technical Assistance to Businesses	1,000,000	1,500,000	3,000,000	5,000,000	7,000,000
b. Assistance to Reuse/Remanufacturing Businesses	200,000	1,200,000	3,200,000	5,200,000	5,200,000
Waste Prevention Measurement, Evaluation & Research	**975,000**	**975,000**	**975,000**	**975,000**	**975,000**
a. Residential Quantity Based User Fee (QBUF) Pilot	825,000	825,000	825,000	825,000	825,000
b. Measurement, Evaluation and Proposal of Programs	150,000	150,000	150,000	150,000	150,000
Total	**$12,100,000**	**$ 22,950,000**	**$37,550,000**	**$ 47,450,000**	**$ 53,250,000**

May 2000

Appendix D

A Bigger, Better, Bottle Bill

History

New York's Returnable Beverage Container Law,[28] a.k.a. the "Bottle Bill," was enacted in 1982 and went into effect September 12, 1983. G. Oliver Koppell, now a New York City Council member, was the lead sponsor in the State Assembly.

New York was the ninth state to require mandatory deposits for beverage containers of at least 5-cents per container. The law first covered carbonated soda, beer, and ale; it was later expanded to include wine coolers. The purpose of the Bottle Bill is not to create a new tax, but rather to create economic incentives for the collection and return of these containers. This in turn was expected to reduce litter, ease the burden on New York's solid waste facilities, and encourage recycling activities.

By all accounts, the Bottle Bill has been tremendously successful in each of these goals, and has created new jobs in the process. The Bottle Bill has resulted in at least a 70% reduction in litter.[29] Reductions in litter have provided safer, more attractive streets and public areas, while reducing sanitation costs for street cleaning, park maintenance, etc. The returned containers are relatively uncontaminated, and therefore the majority returned are recycled rather than disposed of. It has achieved this goal without added burdens to New York's municipalities.

Benefits to New York City of the Bottle Bill

Mayor Michael R. Bloomberg has said he will seek to replace the Bottle Bill deposit system with a five-cent tax on containers. This proposal, which would require action by the State Legislature, ignores the success of the Bottle Bill redemption program and how it continues to benefit New York City:

- According to estimates by consultants for the NYC DOS, over 4.8 billion beverage containers were projected for redemption in New York City in the year 2000. This has spurred recycling and significantly reduced the litter and broken glass in city parks and streets, *at no cost to the City*;

- Bottlers in NYC alone account for 78,000 tons of containers per year never being handled by the Department of Sanitation, saving the City a minimum of $4,212,000 in export costs (based upon $54/ton export costs of least expensive interim export contract). In addition to the cost savings, there are also environmental justice benefits. These 78,000 tons never pass through the low-income communities of color where waste transfer stations currently exist in NYC. This results in roughly 3,900 fewer long-haul truck trips (based upon avg. long-haul trucks carrying 20 tons) through these neighborhoods, and fewer diesel trucks means cleaner air and better health for those otherwise most disparately impacted by existing siting and waste handling practices in the City;

- As an unanticipated side benefit, the Bottle Bill has provided income and employment to scores of bottle redeemers in New York City, many of whom are homeless or low-income.

[28] ECL 27-1003

[29] Final Report of the Temporary State Commission on Returnable Beverage Containers (March 27, 1985)

Appendix D (cont'd)

A Potential New Revenue Stream for New York's Recycling

If the Mayor is looking for money from the Bottle Bill, he need only look as far as the unclaimed nickel deposits. Currently, unredeemed deposits remain in the possession of the bottlers or distributors who originated the deposit. These interests have vigorously opposed previous efforts by the state to tap into this potential source of funding for recycling and other environmental programs. As can be seen in the chart below, the stakes are high. According to a report prepared for the DOS in the spring of 2000, there were more than $107 million in unclaimed deposits in New York City alone in the year 2000.

Bottle Bill Redemption Rates, (according to SAIC report for DOS, spring 2000)[30]

	Deposits Initiated	Redeemed Amount	Redemption Rate	Unclaimed Deposits	Returned Containers	Unredeemed Containers
NYC 1995	$ 289,500,000	$ 200,120,388	69.1%	$89,379,612	4,002,407,764	1,787,592,240
NYC 2000 (projected)	$347,500,000	$239,776,122	69.0%	$107,723,878	4,795,522,444	2,154,477,560

This money should be recaptured to fund government programs for recycling and waste prevention, since any unredeemed containers must be collected and redeemed through municipal waste management programs. Two of the states with bottle bills - Massachusetts and Michigan - have mechanisms for recapturing these unclaimed deposits.

Recommendations

The State Legislature should expand the Bottle Bill to include noncarbonated beverage containers, such as water, sports drinks, juice, and iced tea, which were not envisioned when the law was passed twenty years ago. These now comprise a significant portion of our beverage consumption. In New York City alone, the increased captured volume under an expanded Bottle Bill would account for 154,300 tons per year of containers[31], a net of 7,715 diesel trucks not going through overburdened communities (based upon avg. long-haul trucks carrying 20 tons). This translates to savings in export costs to the City of more than $8,332,200 compared to ending the Bottle Bill as proposed by Mayor Bloomberg (based upon $54/ton export costs of least expensive interim export contract).

In addition, the Legislature should require that unclaimed nickel deposits be returned to the government to fund recycling and other needed environmental programs. According to the most recent DOS figures, in 2000 there were over $107 million in unclaimed deposits originating in New York City alone. This figure would have been even larger under an expanded Bottle Bill. This money would go a long way toward funding and improving New York's waste prevention, composting and recycling programs. Both Mayor Bloomberg and the City Council should jump on the opportunity to support these measures.

[30] Packaging Restrictions Research: Targeting Packaging for Reduction, Reuse, Recycling and Recycled Content, prepared by Science Applications International Corp., in Spring 2000 for NYC DOS
[31] Ibid.